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# STRESS
# IN MILITARY PROFESSION

THEMATIC COLLECTION OF ARTICLES

Belgrade 2018

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## PREFACE

The thematic collection „Stress in the Military Profession" is one of the results of work on the Ministry of Defence project, which had as its goal to determine various psychological factors which contribute to adjustment of employees to specific conditions of work in the military profession.

The military profession is considered a very specific and an exceptionally stressful profession. The reasons for this lie primarily in characteristics of the working environment and tasks implemented daily by the members of the military, relating to the three missions of the military: defence of the Republic of Serbia from external armed threats, participation in building and preserving peace in the region and the world, support to civil authorities in combating security threats (Constitution of the Republic of Serbia, 98/2006).

At the time of development of the project concept, at the phase of analysis of theoretic and empirical data about stress in the military profession, the importance of connecting and collaborating with military psychologists of foreign armies became obvious. The result of that collaboration is this thematic collection.

Here, I would like to extend my gratitude to professor **Gideon A.J. Van Dyk, PhD (South Africa)** who helped me establish a connection with a psychologist from Canada **Jacques J. Gouws, PhD (Canada),** who, in turn, introduced me to a professor from India **Col Samir Rawat, PhD**. Thanking to them and our collaboration this thematic collection saw the light of day.

This publication contains Chapters by psychologists from South Africa, Canada, India, Slovenia, Croatia Serbia, Moldavia, Estonia and Great Britain.

**The Chapter by professor Marié de Beer and Adelai van Heerden, MA** presents the results of psychological testing for the purpose of selection through time, which represents a significant contribution to the military psychology. The authors point out the importance of adequate psychological selection as a predictor of adjustment, education/training and efficiency in the military profession. It also stresses the selection as a factor in prevention of stress and mental disorders in the military.

**Merle Parmak** indicates the importance of positive motivation for expressing unquestionable capabilities for military service and defines the factors of internal and external motivation for devoted performance of military duties.

The Chapter by **Col professor Samir Rawat, Abhijit P. Deshpande, Gunjan Singh** points to a large number of psychological factors which help adjustment to professional and operational stress, supported by the results of an empirical research.

**Gunjan Singh, Samir Rawat, Abhijit P. Deshpande** have cadets as their target group and they cover the locus of control as a regulator of the subjective experience of stress. Additionally, the Chapter points to the importance of adequate professional psychological selection and choice of important psychological indicators for potential prospects in the military profession. Locus of control is one of the good indicators of adjustment to professional and operational stress.

The Chapter by the **assistant professor Jelena Minić** promotes the Salutogenic Model of health and indicates the sources of human health in the modern society. The Salutogenic Model is a good theoretical model for a series of prevention and intervention programs. The author elaborates the importance of family as a factor in health resources. The Chapter examines empirically the hypothesis on the effects of the primary family coherence on the development of individual coherence and the development of resources for psycho-physical resistance of an individual. The findings from the Chapter should be considered and applied as an innovation in the selection process in the part of the primary family effects assessment, especially when entering the military profession during selection for military schools and academies.

The Chapter by the **assistant professor Anita Pešić** covers an interesting research topic which has not been investigated in the military environment until now. The quality of emotional partnership and adjustment to the specific characteristics of the military profession are psychological factors that can create a phenomenon of overlapping (of work and private life) or separation (work and privacy separation). During an extended period spent in a military organization, and it is assumed that professional military personnel are working at the military their whole careers, the overlap is inevitable. This circumstance makes this research topic continually relevant and interesting for research.

**Chanchal Agarwal, Abhijit P. Deshpande, Samir Rawat** provide a theoretical and empirical explanation of the value of altruism and how important it is for people whose professional choices include the military. The results indicate that the respondents with higher level of demonstrated altruism from war experiences obtain more life experience and a better chance for further growth and development.

In their Chapter the **assistant professor Patricie Blatnik and professor Matej Tušaka** give a detailed explanation of therapeutic techniques for controlling stress and fear which are characteristic for combat situations. The Chapter points out the necessity to better tie together the general knowledge in theory and practice in order to realize the importance of psychological preparation of soldiers for introduction into their first combat situation.

**Professors Boris Kordić and Lepa Babić** explain the mechanism of trauma in their Chapter. They stress the importance of organizational tasks such as: the quality of professional psychological selection, continuous training of employees about stress and creation of a working environment which helps to overcome stress. Also, the importance of psychological selection that looks at the existence of an attachment figure for candidates - "stability figure" and the assessment of the primary family as a factor in the formation of a stable psychological structure in countering stress. The importance of education as continuous learning how to recognize mental states, harmonizing knowledge about changeability of trauma, and the important organizational task of creating a stable working environment that enables understanding, support, and mental processing of stress.

The Chapter by **Dragana Alargić, PhD and Ksenija Đurić-Atanasievski, PhD** promotes communication skills as a means of overcoming conflict situations and psychological stressors. It is interesting to monitor empirically the application of communication skills and indicators of change in organizational culture within a military organization.

**In another joint Chapter Matej Tušak and Patricia Blatnik** indicate sports activities as an important factor in overcoming professional and operational stress and prevention of psycho-physical illnesses. It should be pointed out that sports activities represent the basis of physical military training and other military trainings (close order drill, tactical, shooting training...). High level of fitness of soldiers is a precondition for sucessful completion of military training, good health, mental stability, and in case of injuries and wounds, speedy return into active service.

**Assistant professor Boris Glavač, PhD and assistant professor Jasmina Nedeljković**, **PhD** promote psychological and physical preparation in their Chapter, as well as learning about mechanisms to overcome stress. They point to education processes which must have their continuity: from a student at the military high school to soldiers at professional tasks. An excellent context for connecting knowledge in psychology and physical education.

The psychologist from the Slovenian Armed Forces **Nika Kavšek, MA and professor Darja Kobal-Grum** list and explain the different types of stress (physical, biological, psychological, sociological...) as well as various factors which represent resources or risks for adjustment and overcoming of stress. An empirical research done on respondents from the Slovenian military and the results unequivocally show that there is a demarcation line between professional stress and stress in life in general.

The Chapter by **Lidija Prisac, PhD** is interesting for a number of reasons. The first one is that the topic of psychological experiences of conflict participants is dealt with by other areas of science and not only psychology, for example, military history. The second one is that the Chapter describes psychological experiences of people who are members of the official army, but are not soldiers, psychological experience of war by civilians employed in the military, in this case war reporters and photographers. Similar professional experiences also belong to military psychologists, doctors and other non-military staff in armies all over the world. The Chapter used methodology characteristic for historical sciences through dominant use of the content analysis method. The knowledge provided in this Chapter is important for understanding the psychological consequences on people who are professionally engaged in defence which predominantly has the character of a civil war.

**Professor Robert Masten** discusses in his Chapter on some of the experiences armed forces have during peacekeeping operations in terms of stress, as well as with regard to their motivation for participating in such operations. Experience suggests that the high levels of stress experienced leading up to and after the mission itself merit special attention. While experience during the actual mission may differ in terms of the level of intensity individual soldiers experience based on their assignment, there are some stressors which are experienced equally, such as separation from family, monotony, etc.

In his Chapter, **professor Jacques Gouws** demonstrates exceptional knowledge of the specific nature of the military profession and it is a Chapter which gives contribution to the development of theoretic and empirical topics for the subject matter and tasks of military psychology. Examining the factors inseparable from the military profession indicated that military psychology has great importance as the knowledge and experience necessary for all army employees, especially the officers.

**Profesor Gideon A. J. Van Dyk** gives us a very meaningful and innovative Chapter. He argues that the change in military operations leads to two questions. The question in the first place is, are psychologists in the military aware of challenges in the changing nature of operations? There is a practice in the military that psychologists operate, treat and manage stress and Post Traumatic Stress Disorder (PTSD) with a compartment approach like behaviour or cognitive, with the possibility that part of a patient's psychopathology has never been treated? The second question then is what will be the effect of such practice on the mental health and combat readiness levels of our soldiers? This research advocates for a more holistic approach in the management and treatment of stress and PTSD in the military.

The Chapter written by **Ion Xenofontov, PhD** is another text demonstrating the significance of psychological experiences of people who were participants in war conflicts and the need for other disciplines to join in on examining this phenomenon, such as military history. The Chapter describes psychological experiences of former fighters who were not employed in the army but were drafted. The Chapter used methodology characteristic for historical sciences through dominant use of the content analysis method. As the author points out the Chapter contributes to development of war studies, understanding the phenomenon of war and its consequences and motivation for finding peaceful solutions in crisis state situations. The author relates the experiences of combat participants and symptoms which characterize the Afghanistan Syndrome/PTSD but also various other kinds of psychosomatic disorders and affective changes as consequences of participation in war operations. The experiences in this Chapter are important for understanding the wider social and political environment of war operations and relations towards fighters during and after a conflict.

The Chapter written by **Andreja Bubanja, MA** vividly describes the specific character of the working alliance of psychotherapists and army members. It stresses the realistic obstructions of this alliance which are in part the

consequence of military upbringing, and in part due to relation towards their combat tasks.

In owe my gratitude for professional advice which contributed to the quality of this thematic collection to the reviewers: Gideon A.J. Van Dyk, PhD (South Africa), Jacques J. Gouws, PhD (Canada), Milanko Čabarkapa, PhD (Serbia).

My special gratitude goes to the authors who have, with their original scientific papers, contributed to understanding of stress in the military profession from multiple points of view and who have added to possibilities for creation of personal and organizational responses to stressors in the military environment.

Editor
Anita Pešić, Assistant Professor
Belgrade, 2018

# AN EXPLORATION OF COPING WITH STRESS IN AN OPERATIONAL FORCES MILITARY CONTEXT

**Marié de Beer[*], Adelai van Heerden[**]**

***Abstract*:** The dynamic nature of the environment, coupled with changing demands, requires ongoing review and refinement of both the profile and procedures for recruitment, screening and selection – and scientifically evaluating the predictive validity and practical utility of the constructs and measures used. The operational forces military context is generally acknowledged as one of the most stressful because those who are deployed face extreme physical, emotional and other hardships in addition to being far away from home, family and everyday life for lengthy periods of time (Bartone, Roland, Picano, & Williams, 2008; Gruber, Kilcullen, & Iso-Ahola, 2009; Skomorovsky, 2013).Three different year groups were involved in mixed-method research in which standardised quantitative questionnaires for the measurement of the positive psychology constructs of hardiness, sense of coherence, locus of control and self-efficacy were administered and combined with open-ended questions for qualitative data. The purpose of the open-ended questions requiring written responses was to collect data on the reasons for candidates wishing to join the operational forces and the characteristics they deemed important for success in this demanding context. Learning potential and career preference assessments were later added to the quantitative test battery for one sample group. Additional qualitative data were gathered by means of individual interviews with experienced operational force members – towards improved understanding of the context, the demands and the required profile of individuals who cope with and flourish in the operational forces domain.

The focus of the different parts of the overall research project was as follows: Positive psychology construct profiling, Comparison of selected and not-selected candidates, Qualitative data for profiling, Qualitative profiling data from experienced operational force members, Learning potential assessment, Career preference assessment, Development of a mental hardiness and resilience measure

***Key words*:** Military, operational forces, coping, positive psychology, hardiness, sense of coherence, self-efficacy, locus of control, learning potential, career preferences, profiling.

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## INTRODUCTION

Research in the military environment has highlighted various aspects of coping with the diverse and intense stressors faced by those who choose the military as their vocation (Bartone, 2006; Cornum, Matthews, & Seligman, 2011; Skomorovsky, 2013). Recruiting, selecting, training and retaining good quality staff for the military is important in order to attain the formulated goals and achieve success (Cilliers, 2014; Smith & Heinecken, 2014). Despite many referring to their military careers as a calling, the military as employer – no different from other organisations in this regard – needs to continuously endeavour to optimally balance unique requirements and available resources by recruiting, selecting and training individuals who are a suitable fit for the personal, interpersonal, situational and organisational demands in line with the knowledge, skills and ability requirements of the particular job.

The research was focused on the operational forces as a specialist group in the broader military domain. The operational forces military context is generally acknowledged as one of the most stressful because those who are deployed face extreme physical, emotional and other hardships in addition to being far away from home, family and everyday life for lengthy periods of time (Bartone, Roland, Picano, & Williams, 2008; Gruber, Kilcullen, & Iso-Ahola, 2009; Skomorovsky, 2013).

Following the merging of different entities in the armed forces in the larger democratisation process in South Africa, the dynamic and changing organisational context was extremely pronounced, and agility was also required with regard to the overall organisational processes. A complicating factor for recruitment and selection in South Africa is the fact that unemployment is currently at critical levels. Using the general definition that includes those who have given up and are no longer actively looking for employment, youth unemployment is above 50% (StatsSA, 2016). Hence those applying for positions or considering specific occupations may not really be interested in or best suited to the particular occupation or opportunity, but may be looking instead for any available employment opportunity. The South African military is thus able to attract large numbers of applicants, but these individuals may not necessarily be well informed about what a career in the military entails or, conversely, particularly well-suited to a career in the military, as they may lack interest and the specific skills and abilities required (Smith & Heinecken, 2014). With money as a key driver for career-related choices of many younger generation individuals, it means that for many, the military as a job option is not their first choice – primarily because of the low status, prestige and remuneration associated with a career in the military. Some

individuals may nevertheless choose the military on the strength of survival financial considerations when they struggle to obtain employment elsewhere (Smith & Heinecken, 2014). This could impact on their motivation and subsequent performance.

With regard to the research presented here, early exploratory discussions were held to clarify the presenting problems and questions to be investigated and to identify possible constructs, variables and instruments to be included in the research.

Both qualitative and quantitative data were gathered. According to Huysamen (1997), longitudinal research activities often entail cyclical phases of qualitative and quantitative research. When little is known about a particular topic or domain, a qualitative approach allows for deeper exploration towards a better understanding of the context, constructs and variables involved. Once specific elements have been identified, these can be quantitatively measured by means of specific standardised measures to provide quantitative results representing the specific constructs or variables measured. Such measures are generally based on theories that have been developed and empirically verified and validated through research. Subsequent to the interpretation of the quantitative results there may be a further need again for deeper exploration aimed at gaining a better understanding of specific aspects – again relying on a qualitative approach in this regard and with the cyclical process thus continuing.

Three different year groups were involved in mixed-method research in which standardised quantitative questionnaires for the measurement of the positive psychology constructs of hardiness, sense of coherence, locus of control and self-efficacy were administered and combined with open-ended questions for qualitative data. The purpose of the open-ended questions requiring written responses was to collect data on the reasons for candidates wishing to join the operational forces and the characteristics they deemed important for success in this demanding context. Learning potential and career preference assessments were later added to the quantitative test battery for one sample group. Additional qualitative data were gathered by means of individual interviews with experienced operational force members – towards improved understanding of the context, the demands and the required profile of individuals who cope with and flourish in the operational forces domain.

The focus of the different parts of the overall research project was as follows:

- *Positive psychology construct profiling:* Based on initial discussions as well as specific elements included in the organisational profile description for operational force members, the researchers decided to

explore the possible utility of positive psychology constructs (hardiness, sense of coherence, locus of control and self-efficacy) in the operational forces context. Higher scores on these constructs were expected to be indicative of individuals who are likely to cope better with the stressors and demands of a career in the operational forces.

- *Comparison of selected and not-selected candidates:* The same mixed-method research design was used for three different year groups. This allowed for the statistical comparison of the quantitative results of three sample groups and for the comparison of the selected and not-selected candidates across the three different year groups.
- *Qualitative data for profiling:* Along with the quantitative positive psychology measures that were administered, open-ended questions were included to elicit free written responses from the candidates about their reasons for wishing to join the operational forces and their views of what characteristics are important to achieve success in the operational forces context.
- *Qualitative profiling data from experienced operational force members:* As a further exploration towards understanding the demands of the context in which operational force members operate and to improve the understanding of the individual characteristics that are necessary for success in this context, individual interviews were conducted with experienced operational force members, providing qualitative data for further analysis.
- *Learning potential assessment:* A measure for learning potential was included in the test battery for the last of the three mixed-method studies. This information was deemed valuable to add to the understanding of the profile of applicants in the operational forces context and could be considered for inclusion in assessment if shown to provide adequate and significant predictive validity or profiling information. Learning potential has relevance for coping with training and learning tasks and demands as a component of overall coping.
- *Career preference assessment:* A measure of career preferences was also included in the test battery for the last of the three mixed-method studies. This information was deemed useful for a better understanding the profile of applicants in the operational forces context in line with the known profile and demands of working in this domain. When there is an overlap between an individual's interest and the demands of a particular

job, he or she is likely to cope better, experience more job satisfaction, show higher motivation and be more effective.

- *Development of a mental hardiness and resilience measure:* In the third mixed-method study, first steps were taken to develop a measure aimed at measuring mental hardiness and resilience (De Beer & Van Heerden, 2016). New items were compiled and administered for item analysis purposes. Further data gathering and analyses are planned to continue with the development, evaluation and validation of this measure. Owing to the small number of selected candidates and training data, cumulative data from different year groups would have to be used.

An overview of the above research phases within the larger approved research project is presented. At organisational level, ethical approval was obtained from the relevant responsible divisions and bodies, while at individual level the participants each signed a consent form after the aim and purpose of the research as well as the principle of voluntary participation, security of data and confidentiality of results had been explained to them.
The research aims were similar to those identified by Rumsey and Arabian (2014b), namely

- reconsidering the attributes of importance and which merit being measured,
- advancing towards new predictor measures to use to improve the prediction of success in training and performance in this context,
- identifying appropriate criterion measures that could be used, and
- implementing research findings that show significant support for practically implementable answers to specific context-related problems or questions.

## BACKGROUND

It has been more than two decades since South Africa's first democratic elections in the early 1990s. During the military amalgamation, as part of the democratisation process, a large number of military entities were merged into a single national defence force.

Wessels (2010) provided a historical review of the integration and amalgamation of eight different military organisations in order to establish the new South African National Defence Force (SANDF) on 27 April 1994. They were expected to serve together in the new dispensation, and this transformed military was to serve the new democratically elected government. This was an

astounding accomplishment, considering the fact that some of these entities had previously been sworn enemies (Van der Waag, 2015). In addition to the normal stressors associated with a military role, this integration process placed additional burdens on members of adjusting to and coping with transformation. The transition into one entity was further complicated by differences in the training and military culture of the various organisations (Wessels, 2010).

While general issues of race and ethnic diversity have been dealt with in the interim years as part of an ongoing transformation process, cross-cultural sensitivity remains vital for optimising the merged new SANDF organisation (Wessels, 2010). However, other changes such as a greater emphasis on peacekeeping have brought new demands – not least of all retaining the motivation of soldiers in this changed role and capacity.

This research evolved from practical needs with cost and logistical considerations on the one hand, and efficient and effective recruitment, screening and selection, on the other. The aim of the research was to review the profile and attributes required of operational force members to meet the demands of this challenging career calling. A solid base profile and established processes for the recruitment, screening and selection of new members had been compiled over time. However, the dynamic nature of the environment, coupled with changing demands, requires ongoing review and refinement of both the profile and procedures for recruitment, screening and selection – and scientifically evaluating the predictive validity and practical utility of the constructs and measures used.

Coping with the contextual, organisational, group, interpersonal, personal and job-specific demands in the operational force military context was a part of the research. The possible utility of various positive psychology constructs such as hardiness, sense of coherence, locus of control and self-efficacy was explored in this regard. Quantitative measurements of these specific coping constructs were used to determine the level of these constructs for different sample groups and the mean scores of the selected and not-selected candidates on these measures were compared.

Using qualitative data, the reasons were explored for wishing to become an operational forces soldier and descriptions obtained of the personal characteristics that candidates themselves deemed important for success in the operational force context. The qualitative data were gathered from the written responses to open-ended questions administered in the mixed-method studies with three different sample groups. For further profiling and understanding, interviews were conducted with experienced operational force members to obtain their input on the characteristics deemed important for success in this demanding context that they have first-hand experience of. The qualitative

data were analysed by means of content analysis to meaningfully extract and collate relevant themes.

Lastly, the development of a context-specific measure of mental hardiness and resilience was also deemed crucial, and the initial steps of item writing, item analysis administration and item analysis were taken.

## LITERATURE

The South African Operational Forces – as a unit of the SANDF – function in a similar way to other such units internationally (Bartone et al., 2008; Grüber et al., 2009; Svendsen, 2014). Members of the operational forces, as a specialist military group, are considered an elite group for whom the challenges associated with military service are even more pronounced and extreme – thus placing huge demands on individuals who need to succeed in this context (Bartone et al., 2008; Jensen & Wrisberg, 2014).

These complex demands require specialist procedures for effective recruitment, selection, training and retention (Kelly, Matthews, & Bartone, 2014). These processes along with ongoing maintenance of skills and operational readiness incur high costs. This necessitates the use of scientific processes to optimise efficiency in identifying, recruiting, selecting, training and equipping those individuals who will be able to successfully perform in this role and cope with the extreme demands associated with a career in the operational forces (Gruber et al., 2009; Rumsey & Arabian, 2014a, 2014b).

## POSITIVE PSYCHOLOGY CONSTRUCTS

In positive psychology the focus is placed on what helps to optimise individual functioning – in contrast to the historical focus of psychology on non-optimal or ineffective functioning (Lambert, Passmore, & Holder, 2015; Matthews, 2008; Skomorovsky, 2013). The cost associated with high attrition rates during selection for the operational forces is one of the reasons for the possible utility of positive psychology constructs being considered. This environment is physically, mentally and psychologically demanding (Gruber et al., 2009). Research evidence that hardiness accurately predicted first-year cadet performance of trainee soldiers in the United States Military Academy (Maddi, Matthews, Kelly, Villarreal, & White, 2012) provided the motivation for collecting empirical data on positive psychology constructs in the South African operational forces context. It was hypothesised that including individuals with higher levels of coping (measured by means of hardiness and other measures) could improve selection and retention over time.

Some positive psychology constructs and associated measures were included for investigation in the operational forces context. These included the constructs of hardiness (Bartone, Kelly, & Matthews, 2013; Sandvik et al., 2013), sense of coherence (Antonovsky, 1987), locus of control (Lambert et al., 2015; Rotter, 1989) and self-efficacy (Chen, Gully, & Eeden, 2001; Delahaij, Kamphuis, & Van den Berg, 2016; Lucke & Furtner, 2015). The research question posed was whether psychological constructs – specifically those within the ambit of positive psychology – could accurately predict outcomes and add to the understanding of what it takes to achieve success in this context (Bartone et al., 2008; Cornum et al., 2011; De Beer & Van Heerden, 2014; Gruber et al., 2009; Hystad, Olsen, Espevik, & Säfvenbom, 2015; Skomorovsky & Sudom, 2011).
The positive psychology constructs included in the research are described next.

## Positive psychology constructs

### *Hardiness*

Individuals cope in different ways when confronted with stressful events or circumstances (Bartone et al., 2013; Sandvik et al., 2013) and differences are noted in terms of how well people cope with difficulties (Maddi, 2013). Research conducted over a 12-year period in the Illinois Bell Telephone Company provided the groundwork for the construct of hardiness, which comprises three subdimensions, namely commitment, control and challenge (Maddi, 2007, 2013). Commitment refers to continued involvement despite stressful circumstances; control refers to continued efforts to influence outcomes; and challenge refers to seeing change as opportunity (Maddi, 2007, 2013). These three elements combined reflect higher levels of coping (Maddi, 2007).

Hardiness is considered of particular relevance for the assessment of individuals working in stressful contexts such as the military, fire brigade or other emergency services capacities (Maddi, 2007, 2013). This construct has also been shown to distinguish between successful and unsuccessful trainees in a military context (Bartone et al., 2008; Kelly et al., 2014; Maddi et al., 2012), to accurately predict training results and also to be a stable characteristic (Hystad et al., 2015) that is trainable (Maddi, 2007). Kelly et al. (2014) reported that hardiness was a significant predictor of the completion of training, graduation and performance scores in a military context.

### *Sense of coherence*

The sense of coherence construct is probably one of the best known and most well researched of the positive psychology coping constructs. Antonovsky (1987, 1993) defined sense of coherence as comprising three dimensions, namely comprehensibility, manageability and meaningfulness – all of which have shown satisfactory psychometric properties individually and jointly (Antonovsky, 1987; Eriksson & Lindström, 2005). Comprehensibility refers to the use of cognition to make cognitive sense of and cope with stress, manageability relates to the balance between perceived resources and demands while meaningfulness refers to the personal motivational or emotional sense making component of coping. From the military perspective of teamwork, a strong positive relationship has been reported between meaningfulness and a sense of belonging (Lambert, Stillman, Hicks, Kamble, Baumeister, & Fincham, 2013), which is related to team membership as a primary feature of a military and specifically operational forces career.

### *Locus of control*

The perception of situational control and outcomes as being dependent on chance, fate or the actions of others (external locus of control) versus under own control or contingent upon own actions (internal locus of control) was considered in the measurement of locus of control.

Internal and external locus of control is used to explain the personal motivational orientation of individuals (Rotter, 1989). A higher internal locus of control is associated with individuals who are likely to believe that they could achieve specific outcomes through own effort. Those who are more externally oriented are more likely to believe that the influence of powerful others or circumstances will determine outcomes. A balance between internal and external orientation is most likely appropriate in the operational forces context because sometimes orders must simply be followed, while at other times, individuals are required to make decisions – even some that could result in life and death outcomes.

### *Self-efficacy*

Self-efficacy refers to the self-belief that one has the skills and wherewithal to achieve specific aims (Bandura, 1982) and a confident belief that one can cope with various demands with the resources available (Grüber et al., 2009; Luck & Furtner, 2015). Self-efficacy has been shown to be a

significant predictor of training success in a military context (Grüber et al., 2009).

Describing the practical utility of self-efficacy, Bandura (1989, p. 1176) indicated that it impacted on behaviour of individuals in that "their level of motivation, as reflected in how much effort they will exert in an endeavour and how long they will persevere in the face of obstacles". Higher levels of self-efficacy have also been associated with higher levels of optimism, resilience and hope (Gucciardi, Hanton, Gorton, Mallett, & Temby, 2015).

## Mental hardiness and resilience

The construct of mental hardiness and resilience has received research attention generally as well as in the military context (Bartone, 2006). It was deemed prudent to develop a context-specific measure of mental hardiness and resilience for the operational forces domain. As per the typical steps in the development of a new measure, after defining and describing the construct, new items were compiled and administered for item analysis.

## Learning potential

The ability to adapt and keep on learning and mastering new things in order to cope with ongoing challenges is a vital characteristic for those who choose a career in the operational forces (Skomorovsky & Stevens, 2013). For operational force members the challenges during selection and training and continuing demands throughout their careers require ongoing learning. Hence an indication of learning potential could shed light on an individual's prospective capability to cope with such demands which in turn contribute to overall coping.

A learning potential measure was included for one sample to ascertain the current and potential levels of general fluid reasoning ability and learning potential of the applicants and to compare these levels with the levels at which operational forces theoretical training is offered. The Learning Potential Computerised Adaptive Test (LPCAT) (De Beer, 2010) is a South African measure that is used locally as well as in other countries. It can be used in the multicultural and multilingual South African context in a fair and unbiased manner as prescribed by the Employment Equity Act (EEA, 1998). The EEA requires that the measures used must be shown to be scientifically developed, reliable, valid, non-biased and fair (EEA, 1998).

Vygotsky (1978) first used the term zone of proximal development (ZPD) to distinguish between the actual and potential levels of individuals' performance – the first referring to the level of performance achieved without

help, and the latter to the level of performance achieved with assistance or after some form of learning or training. Item Response Theory (IRT) and Computerised Adaptive Testing (CAT) procedures naturally complement Vygotsky's ZPD from the measurement side, and address many of the measurement problems encountered from the Classical Test Theory (CTT) perspective with regard to the dynamic measurement of learning potential (De Beer, 2010).

LPCAT results can be used to compare the levels of performance with actual qualification as the entry requirement for specific opportunities as well as with the target level of the training being considered. In this way, the degree to which an individual is likely to be able to cope with and benefit from the planned training can be estimated and predicted.

Most South African military recruits are black African youths who are often educationally and socio-economically disadvantaged (Smith & Heinecken, 2014). The use of a learning potential measure that makes use of non-verbal figural content focused on measuring general fluid reasoning ability, is less likely to further disadvantage the majority group in the way that standardised aptitude measures focused on crystallised abilities – which are related to quality of education – might do (Claassen, 1997; Foxcroft, 1997). Coping with learning and training challenges is one element of overall coping of candidates in the operational forces context.

## Career-related preferences

Choosing a military career and a career in the operational forces, in particular, is often described as a calling because it entails withstanding many demands of a physical, psychological, and social, interpersonal and personal kind. The use of the term "passion" is often encountered in this domain to describe what is required to deal with the inordinate demands that this career places on those who pursue it (Johansen, Laberg, & Martinussen, 2013). It is well acknowledged that when there is an overlap between an individual's interests and the demands of a particular job, he or she is likely to be happier and more effective in that role (Rumsey & Arabian, 2014a). Provided that aptitude, personality, intelligence and qualification requirements are met, a match between an employee's interest and the requirements of a particular job or career domain is usually associated with higher levels of job satisfaction and achievement or success.

With the above in mind, a measure of career-related preferences was administered to one of the larger sample groups. The aim of including this measure was to obtain the career-related interest profile of the applicant group and to compare it with the known demands associated with a career in the

operational forces context. Having interests that are aligned with the demands of the job is likely to help individuals to cope and perform better in the particular context (Rumsey & Arabian, 2014a).

The quantitative measures discussed here included positive psychology construct questionnaires; a learning potential measure; a career preferences measure; and items administered for the development of a context-specific measure of mental hardiness and resilience.

## Method

A number of studies were conducted and different sample groups used with the broad aim to better understand the specific demands of the operational forces context and how specific characteristics, dimensions and subdimensions relating to positive psychology may feature in the profile and coping capability of applicants and members in this context.

Meetings with different stakeholders provided initial information on the practical problems that were to be scientifically investigated. Among the presenting problems was a need to substantiate and possibly refine and update the operational forces profile that had been established over time and to streamline the processes involving the applicant groups in order to reduce costs while retaining the quality of the applicants who would ultimately be selected. The multicultural and multilingual composition of the applicant groups is recognised by legislative requirements for assessment in the South African context which stipulates that the measures used should indicate the appropriate psychometric properties for all involved. The Employment Equity Act (EEA, 1998) specifically states the following:

Psychological testing and similar assessments are prohibited, unless the test is

- scientifically shown to be valid and reliable,
- can be applied fairly to all employees, and
- is not biased against any employee or group.

The overall approved research project comprised smaller subprojects which were conducted on the basis of logistical and practical considerations of access to research participants in the operational forces context.

A number of related studies were conducted using different sample groups and with the broad aim of gaining a better understanding of the context and profile of applicants and members in the operational forces context. These included interviews for qualitative data gathering and mixed-method studies (questionnaires and open-ended questions included as part of paper-and-pencil

questionnaire administration). Quantitative data were obtained for positive psychology constructs, learning potential and career-related preferences. Item analysis administration was conducted for a prospective mental hardiness and resilience measure. For the qualitative data, content analysis was used to extract themes from the interviews and written responses to open-ended questions respectively, while statistical analyses were conducted to provide descriptive and other quantitative results to answer the specific research questions posed.

Regarding ethical considerations, the research was approved by the responsible divisions in the military. Access to sample groups was arranged according to the organisational and logistical considerations such as training and other organisational priorities. Prospective participants were informed of the project goals and voluntary participation and the ethical principles of confidentiality, anonymity and informed consent in research were explained to them. Participants signed consent forms providing permission for their data to be used for research.

The broader project aims were as follows:

- Investigating and exploring the possible utility of positive psychology constructs (hardiness, sense of coherence, locus of control and self-efficacy) as predictors of success in the operational forces context (for selection as well as for training);
- Exploring the reasons for wishing to join the operational forces and identifying the specific characteristics associated with success in this domain;
- Considering learning potential as a cognitive measure for predicting selection and training results in this multicultural and multilingual context;
- Profiling of the career-related interest patterns of applicants in the operational forces selection context;
- Starting with the development of a context-specific measure of coping (mental hardiness and resilience).

The above project aims were in line with those formulated by other researchers in similar domains (Rumsey & Arabian, 2014b). The research entailed the use of available convenience sample groups as per the ethically approved project aims and in line with practical and logistical considerations. Despite large numbers of applicants, the number of selected individuals remains small. This necessitates combining the results of different year groups in order to achieve sample sizes that are sufficiently large in size to allow for

specific statistical analyses to be performed. For this reason, the same mixed-method research design and the same positive psychology measures are used for different sample groups to allow for data from different year groups to be combined and for comparison of the results obtained across different year groups.

### *Samples*

Various sample groups were included in different research phases over time. In some cases, only those who were successful in the selection process were included, while in others, those participating in selection or those who had initially presented themselves for the preparation phase preceding the selection were included in the research. Practical, logistical and organisational considerations determined access to these samples of convenience. The various sample groups and the assessments conducted are summarised in Table 1 below.

Table 1: An overview of the samples and assessments included over time

| Year | Sample description | Sample size | Research method | Measures |
|---|---|---|---|---|
| 2011 | Selection group | N = 73 | Mixed method | Positive psychology questionnaires and open-ended questions |
| 2013 | Selected group | N = 27 | Mixed method | Positive psychology questionnaires and open-ended questions |
| 2013 | Qualified members with varied years of experience | N = 9 | Qualitative | Individual interviews for profiling purposes |
| 2014 | Preparation for selection group | N = 251 | Mixed method | Positive psychology questionnaires; Open-ended questions; Learning Potential; Career Preferences; Mental hardiness & resilience questions for item analysis |

The assessments allowed for a general profiling of applicants and for determining characteristics associated with coping and success in the operational forces context.

### *Quantitative measuring instruments*

Standardised quantitative measures of hardiness, sense of coherence, locus of control and self-efficacy were included in the test battery for the early phases of the research. The same battery of positive psychology questionnaires was used to permit combining of and statistical comparison of the quantitative results. The measures that were included had previously been used in South African research and were shown previously to have acceptable psychometric properties. The quantitative data collected was used to provide profiling information. Furthermore, selected and not-selected candidates were also compared statistically in terms of their mean scores on these constructs to determine whether statistically significant differences were evident between the selected and not-selected candidates.

During a subsequent phase, additional measures of learning potential, career-related preferences and questions for a prospective new measure of mental hardiness and resilience were added to the initial battery to provide information on these constructs for one of the sample groups. These measures were deemed relevant in the operational forces' screening and selection context and were used to evaluate the measures for possible use for screening and selection and for predicting training results. The latter is a long-term research aim, which will require cumulative data from different sample groups to be gathered over time and combined because of the small number of individuals selected each year.

A focus on learning potential helps to take into consideration some of the challenges pertaining to the educational and socio-economic disadvantages encountered in cognitive assessment in the South African context (Claassen, 1997; Foxcroft, 1997; Moerdyk, 2015). The learning potential measure results could be interpreted in line with the demands for operational force theoretical training. The career-related preferences in terms of specific field, activity and environment subdimension preferences could indicate suitability for the particular role and context demands associated with active duty in the operational forces context. Rumsey and Arabian (2014a) posited that a better fit between an individual's interests and the work environment is likely to lead to higher job satisfaction, and improved retention and performance.

Lastly, items for a new measure of mental hardiness and resilience administered for item analysis purposes were also included in the test battery for this sample group.

## Quantitative measures and data

### *Hardiness*

The Personal Values Scale (Kobasa, 1979) is a questionnaire comprising 50 questions that provide scores on three subdimensions, namely commitment, control and challenge, as well as a total hardiness score. Previous research in the operational forces domain has shown acceptable coefficient alpha reliability of 0.806 for the total score (De Beer & Van Heerden, 2014).

### *Sense of coherence*

Antonovsky's Orientation to Life questionnaire comprises 29 questions and provides scores for the three subdimensions of comprehensibility, manageability and meaningfulness as well as a total sense of coherence score (Antonovsky, 1987). Coefficient alpha reliability of 0.916 has been reported for a sample group in the operational forces domain (De Beer & Van Heerden, 2014).

### *Locus of control*

Rotter's Locus of Control questionnaire (Rotter, 1989) comprises 29 questions that provide scores on internal and external locus of control, respectively. A coefficient alpha internal consistency reliability value of 0.505 obtained for a sample group in the operational forces domain is considered low (De Beer & Van Heerden, 2014). The use of this measure for similar samples is not advised.

### *Self-efficacy*

Two separate self-efficacy questionnaires were used, namely the New General Self-Efficacy questionnaire (NGSE) comprising eight questions, and the General Self-Efficacy (GSE) scale comprising ten questions. Self-efficacy is described as the self-belief of being able to utilise resources and own actions to attain specific goals (Rimm & Jerusalem, 1999). Self-efficacy is regarded as an important contributor to resilience. Coefficient alpha internal consistency reliability values of 0.823 for the NGSE and 0.838 for the GSE were respectively reported for a sample group in the operational forces context (De Beer & Van Heerden, 2014).

### *Mental hardiness and resilience*

New items were compiled for the measurement of mental hardiness and resilience. Theoretical considerations were taken into account (Maddi, 2007, 2013) and, in addition to different coping elements, items representing factors such as tolerance for boredom and use of humour were also included. A total of 40 items were administered for item analysis. Based on the initial factor analysis, two dimensions were identified and coefficient alpha values of 0.793 for 13 items (adaptability factor) and 0.751 for 16 items (general coping factor) were indicated (De Beer & Van Heerden, 2016). A shorter version with slightly lower internal consistency values could be considered. These results did not support some of the factors identified in the theory and research, such as tolerance for boredom (Maddi, 2013). Further work involving additional items to be compiled and further item analysis to be conducted will be required to improve the measurement properties, suitability and utility of the proposed new scale in the operational forces context.

### *Learning potential*

A South African measure of learning potential – the Learning Potential Computerised Adaptive Test (LPCAT) – was included for one of the sample groups. It measures learning potential by means of non-verbal figural (fluid ability) content and two linked adaptive tests that follow the typical test-train-retest approach of most dynamic or learning potential measures (De Beer, 2005, 2010). The LPCAT has shown coefficient alpha reliability values of between 0.925 and 0.987 (De Beer, 2005) and test-retest reliability values of between 0.730 and 0.898 (Nel, 2013). Predictive validity for academic results typically ranges between 0.3 and 0.6 (De Beer, 2005).

### *Career preferences*

The Career Preference Test (CPT) was administered to one of the sample groups to obtain their career-related preference profile. The CPT is also a South African measure based on a three-dimensional model that includes career-related field, activity and environment subdimensions (De Beer, 2011). It makes use of a dimension-adaptive process that combines the top six field subdimensions (out of a possible 16), the top six activity subdimensions (out of a possible 12) and the top four environment subdimensions (out of a possible six) in a summative top 16 profile graph.

This graph indicates the relative levels of preference or interest shown by the individual. Internal consistency reliability values are at acceptable levels – between 0.774 and 0.981 for the field subdimensions, between 0.736 and 0.984 for the activity subdimensions and between 0.676 and 0.993 for the environment subdimensions (De Beer, 2011; De Beer, Marais, Maree, Skrzypczak, & Nel, 2014).

### **Qualitative data**.

Qualitative data were obtained from written responses to open-ended questions that formed part of the paper-and-pencil questionnaire administration. The questions focused on the reasons for wishing to join the operational forces as well as the characteristics that were deemed important to achieve success in the selection, training and future career in the operational forces as a work domain. The same open-ended questions were retained as part of the paper-and-pencil questionnaire administration process for three sample groups (De Beer & Van Heerden, 2014, 2017b).

Other qualitative data were obtained from interviews that were conducted with experienced operational force members. The focus was on exploring and possibly refining the profile – identifying characteristics that experienced operational force members deemed important for success in this domain – both currently and in the future.

## **Research design**

A convergent, parallel, mixed-method, cross-sectional survey research design was deemed most appropriate for gathering both quantitative and qualitative data at the same time from sample groups from different year groups (Creswell & Plano Clark, 2011). Use of the same research design and the same procedure and methods for gathering data allowed for combining of data, comparison of different year groups as well as comparison of selected and not-selected individuals across the different year groups.

For the mixed-method sample groups quantitative data was obtained by means of paper-and-pencil questionnaires and computerised assessments, while the qualitative data was obtained in the form of written responses to open-ended questions as part of the paper-and-pencil questionnaire administration.

For the interviews to obtain additional qualitative data from experienced operational force members, a pragmatic qualitative approach was used (Savin-Baden & Howell Major, 2013).

## Procedure

The different phases of the research were dealt with as smaller research projects that were conducted separately but focused on achieving the larger research aims as per the approved research project.

For the positive psychology constructs, a mixed-method design was used and paper-and-pencil questionnaires were administered with open-ended questions included in the administration, which allowed for written responses from the respondents. The same mixed-method design was used for samples from three different year groups – the sizes of which varied on the basis of the time in the overall recruitment and selection process at which assessments were practically possible. Two computerised tests for the measurement of learning potential and career-related interest, respectively, were administered on laptops in smaller groups for one sample group. The quantitative results were analysed by means of statistical analysis for general profiling and comparison of the mean scores of selected and not-selected candidates. Items compiled for a new measure of mental hardiness and resilience were administered to one of the sample groups for item analysis purposes.

Appropriate qualitative and quantitative data analysis was performed and the results interpreted separately at first and later integrated to help gain a better understanding of the results in the particular context. Written responses to the open-ended questions were electronically captured and content analysis was used to extract relevant themes.

Interviews were conducted with experienced operational force members to obtain further qualitative data for understanding the demands of the context and for profiling purposes. Interviews were recorded (all but one) and transcribed for the qualitative content analysis. The researchers performed thematic content analysis in order to extract, collate and integrate relevant codes and themes from the qualitative data.

## Ethical considerations

With regard to ethical considerations, institutional ethical approval was granted for the larger research project. Practical and logistical arrangements were made with those who needed to arrange access to the participants. The

principles of informed consent and voluntary participation as well as anonymity and confidentiality were explained to the participants. All assessments were preceded by participants signing consent forms to obtain their agreement to taking part in the study and their permission for the data to be used for research. Where possible, participants were provided with feedback on the research, and in the case of the career preference measure, with their individual results. All data was securely stored and the files appropriately protected.

## Data analysis

### *Statistical analysis of the quantitative data*

The quantitative data was analysed by means of relevant statistical procedures using SPSS software. The coefficient alpha internal consistency reliability values were determined for the measures used. Descriptive data (means and minimum, maximum and standard deviation values) was used for profiling purposes. The mean scores of subgroups were statistically compared and the statistical significance of differences determined.

### *Thematic content analysis of the qualitative data*

The open-ended questions posed as part of the positive psychology questionnaire administration enabled the researchers to obtain written responses from the candidates. These responses were electronically captured and analysed by means of content analysis. Manual analysis and Atlas-Ti software was used to assign codes and to extract common themes and patterns of responses towards a richer understanding of the responses to the questions posed.

The individual interviews were recorded except for one where the participant denied permission for recording. The latter was captured in a text document via real-time typing during the interview. Taped interviews were later transcribed for electronic access. Content analysis was used to extract relevant themes to be integrated and interpreted.

## Results

The results are discussed as per the various focus areas of the research and presented in Tables 2 and 3.

Table 2: Descriptive results for the positive psychology constructs for three sample groups*

| Variable | 2011 | 2013 | 2014 | Total group |
|---|---|---|---|---|
| Selected (S)<br>Not selected (NS)<br>Total (T)<br>Age Mean (SD) | N=16<br>N=57<br>N=73<br>23.49 (2.35) | N=27<br>-<br>N=27<br>24.04 (1.99) | N=26<br>N=225<br>N=251<br>25.41 (2.27) | N=69<br>N=282<br>N=351<br>24.90 (2.40) |
| Languages | 3.88 | 4.19 | 3.82 | 3.86 |
| SOC Comprehensibility | 57.56 (12.75)<br>α =.841 | 55.59 (11.98)<br>α =.793 | 57.11 (12.73)<br>α =.824 | 57.08 (12.65)<br>α =.824 |
| SOC Managability | 59.51 (9.45)<br>α =.807 | 59.96 (7.12)<br>α =.718 | 59.87 (8.35)<br>α =.761 | 59.80 (8.49)<br>α =.769 |
| SOC Meaningfulness | 50.26 (7.56)<br>α =.798 | 51.19 (4.24)<br>α =.398 | 50.47 (5.69)<br>α =.627 | 50.48 (6.03)<br>α =.672 |
| SOC Total | 167.53 (26.04)<br>α =.916 | 166.80 (21.67)<br>α =.879 | 167.90 (22.93)<br>α =.887 | 167.74 (23.46)<br>α =.893 |
| Self-efficacy NGSE | 36.88 (2.76)<br>α =.823 | 36.37 (2.79)<br>α =.763 | 36.10 (3.39)<br>α =.836 | 36.28 (3.23)<br>α =.830 |
| Self-efficacy GSE | 35.33 (3.96)<br>α =.838 | 35.35 (3.75)<br>α =.780 | 35.45 (3.81)<br>α =.820 | 35.42 (3.82)<br>α =.820 |
| Internal locus of control | 14.61 (2.90)<br>α =.505 | 16.25 (2.80)<br>α =.518 | 15.44 (3.12)<br>α =.590 | 15.33 (3.07)<br>α =.568 |
| External locus of control | 8.39 (2.90)<br>α =.505 | 6.75 (2.80)<br>α =.518 | 7.56 (3.12)<br>α =.590 | 7.67 (3.07)<br>α =.568 |
| Hardiness Commitment | 36.17 (5.17)<br>α =.676 | 37.15 (4.59)<br>α =.681 | 36.37 (5.35)<br>α =.698 | 36.39 (5.24)<br>α =.689 |
| Hardiness Control | 38.17 (5.64)<br>α =.626 | 39.04 (5.03)<br>α =.510 | 40.36 (5.86)<br>α =.704 | 39.78 (5.80)<br>α =.682 |
| Hardiness Challenge | 28.53 (5.97)<br>α =.607 | 26.88 (5.32)<br>α =.482 | 28.59 (6.19)<br>α =.612 | 28.43 (6.07)<br>α =.600 |
| Hardiness Total | 102.31 (13.39)<br>α =.806 | 104.09 (12.32)<br>α =.788 | 106.36 (14.09)<br>α =.827 | 105.26 (13.84)<br>α =.821 |

*Adapted from De Beer & Van Heerden (2014) and Van Heerden & de Beer (2017)

Table 3: Career Preference Test (CPT) results#

| | Career Preference Test (CPT) | | Total group (N=251) | |
|---|---|---|---|---|
| | **Sub-dimension** | **Coeff. α** | **M** | **SD** |
| **Fields** | Agriculture | .87 | 49.14 | 26.44 |
| | Art | .88 | 47.67 | 27.35 |
| | Business | .84 | 43.63 | 26.09 |
| | Conservation | .86 | 57.83 | 26.02 |
| | Historical | .86 | 51.84 | 27.52 |
| | IT | .88 | 62.07 | 26.57 |
| | Language | .84 | 60.53 | 22.98 |
| | Law | .81 | 58.45 | 23.87 |
| | Medical | .81 | 58.13 | 22.89 |
| | Numerical | .90 | 57.50 | 27.15 |
| | Science | .86 | 53.97 | 26.76 |
| | Security | .82 | 82.57 | 18.96 |
| | Sport | .87 | 74.23 | 23.42 |
| | Teaching | .81 | 67.39 | 21.52 |
| | Technology | .84 | 61.91 | 23.83 |
| | Tourism | .84 | 64.13 | 23.83 |
| | Administration | .77 | 53.69 | 22.21 |
| **Activities** | Autonomy | .82 | 55.52 | 25.32 |
| | Big picture (holistic) | .76 | 54.59 | 23.33 |
| | Challenges | .80 | 76.38 | 19.04 |
| | Creativity | .83 | 66.72 | 23.43 |
| | Entrepreneurial | .89 | 49.59 | 28.00 |
| | Management | .83 | 67.06 | 20.63 |
| | Practical | .79 | 84.58 | 14.73 |
| | Precision | .79 | 80.86 | 15.40 |
| | Public Speaking | .82 | 64.11 | 23.64 |
| **Environments** | Service | .87 | 75.62 | 20.93 |
| | Task Variety | .79 | 75.79 | 17.31 |
| | Formal | .73 | 77.73 | 18.05 |
| | Indoors | .85 | 28.35 | 20.85 |
| | Informal | .81 | 36.35 | 24.59 |
| | Outdoors | .76 | 77.01 | 19.28 |
| | People | .75 | 77.56 | 18.18 |
| | Things | .78 | 42.78 | 22.58 |

*p < .05 #Adapted from De Beer & Van Heerden (2017a)

- *Positive psychology constructs:*

The descriptive results for the positive psychology constructs (hardiness, sense of coherence, locus of control and self-efficacy) show that, in general, the sample groups scored high on the various coping measures, compared to other civilian sample groups (De Beer & van Heerden, 2014). This indicates that they would generally be able to cope better with stressors than most – and would thus be able to function effectively in the demanding operational forces context (see Table 2).

- *Qualitative data for profiling:*

The themes extracted from the qualitative content analysis showed a large degree of overlap with the positive psychology construct framework covered by the quantitative measures (De Beer & Van Heerden, 2014). The theme that was most grounded in the available data was that of meaningfulness. This shows that meaningful goals are a core motivation for pursuing individual goals – in this case, the goal of becoming an operational forces soldier.

- *Comparison of selected and not-selected candidates:*

In the quantitative comparison of the selected and not-selected candidates, only one of the positive psychology constructs, namely the meaningfulness subdimension of the sense of coherence measure, showed a statistically significant difference between the two groups – with those selected having a statistically significant higher mean score on the meaningfulness subdimension compared to those who were not selected (De Beer & Van Heerden, 2014; Van Heerden & De Beer, 2017b). This corroborates the qualitative results and indicates that the mixed-method approach provided strong support from both a qualitative and a quantitative perspective for the importance of meaningfulness in coping and achieving success in the operational forces context.

- *Qualitative profiling data from experienced operational force members:*

From the interviews with experienced operational forces members, a number of themes were extracted by means of the qualitative content analysis (De Beer & Van Heerden, 2017b). Some of the themes were anticipated (physical and psychological strength and hardiness; agility and flexibility;

coping with stress; teamwork, etc.). Other themes that emerged were coping with opposites, the use of humour and having a background of military exposure in the family and being exposed to and spending time in and close to nature at a young age. Similar themes aligned with the positive psychology constructs already identified (hardiness, sense of coherence, locus of control and self-efficacy) were again evident in the data.

- *Learning potential assessment:*

The learning potential results showed that the average level of performance for the candidates in terms of their non-verbal figural reasoning and learning potential was at a tertiary diploma level – which is commensurate with the level at which the operational forces theoretical training is set. Indications are thus that they should be able to cope with and benefit from the training offered (De Beer & Van Heerden, 2017a). Lifelong learning and the ability to learn and master new skills is a crucial requirement in the operational forces context. The level of learning potential shown seems adequate for the demands of the context with average scores commensurate with the tertiary diploma level at which formal operational forces training is offered. A statistically significant difference was found on the post-test score when comparing the selected and not-selected individuals, indicating that those who were selected showed a higher capacity for benefiting from learning to improve their performance, compared with those not selected. The two groups did not differ significantly with regard to their initial pre-test levels of performance (De Beer & Van Heerden, 2017a).

- *Career preference assessment:*

The Career Preference Test (CPT) results of the operational forces candidates showed a general profile in line with what would be expected of those interested in a career in the military and in the operational forces in particular. Higher average scores on practical, security, precision, formal, people, outdoors, challenges, task variety, service and sport are clearly linked to the operational demands of being an operational forces soldier (De Beer & Van Heerden, 2017a). Furthermore, lower scores on indoors and informal were also commensurate with what is non-typical of a career in the operational forces (see Table 3).

- *Development of a mental hardiness and resilience measure:*

Based on theory and research, items for a new measure of mental hardiness and resilience were compiled and administered to a sample of operational forces applicants for item analysis purposes. A total of 40 questions using a five-point Likert scale format were developed for initial item analysis. Factor analysis showed two distinct factors, namely adaptability and general coping, based on the items that were grouped on the two factors. A short and a long version were considered with 13 items (coefficient alpha = 0.793) and 16 items (coefficient alpha = 0.751) in the long version for the two dimensions and nine items (coefficient alpha = 0.760) and 10 items (coefficient alpha = 0.698) for the short version. Based on the Rasch analysis, the items were not well aligned with the sample group and tended to measure lower on the scale compared to where the applicant group was shown to be in terms of the dimensions being measured (De Beer & Van Heerden, 2016). In terms of construct validity, correlations of the first factor (called adaptability) with the other positive psychology constructs were .491 (hardiness), .536 (sense of coherence), .428 (internal locus of control), .414 and .425 (self-efficacy). For the second factor (called general coping), the correlations were .309 (hardiness), .426 (sense of coherence), .292 (internal locus of control), .432 and .450 (self-efficacy). All correlations were statistically highly significant – providing evidence that the new items were measuring general coping. However, the mean scores of the selected and not-selected groups did not differ statistically significantly on the total score of these new items. Furthermore, some of the intended dimensions identified in Maddi's (2013) research, such as patience and tolerance for boredom, did not show clear loading on a particular factor or subdimension. Further research would need to expand the available items and obtain further validation information for construct and in time predictive validity before such a measure could be considered practically useful in the operational forces domain.

## Discussion

Regarding the various positive psychology coping constructs, the participants generally achieved high scores – specifically in relation to sense of coherence and self-efficacy (see Table 2). This could be interpreted as follows: in general, participants would be able to make sense of stressful stimuli (comprehensibility); they would be confident of having the resources available to meet the demands (manageability); and they would consider these worthy of engaging in (meaningfulness). Indications are that they would generally be

able to cope with different demands and various stressors (general sense of coherence).

High self-efficacy scores show that, in general, the applicants are likely to demonstrate coping behaviour for managing and regulating life events by using relevant cognitive, social and behavioural skills (Bandura, 1982). According to Bandura (2012), self-efficacy plays a vital role in personal development, adaptation and change. Higher levels of self-efficacy indicate confidence in one's own abilities and reflect the belief that one's own behaviour will determine outcomes. In practical terms, this would imply that those with higher self-efficacy believe in their capability to mobilise resources at a cognitive level, to take appropriate action and to have some control over task demands, which would contribute to their experience of having the ability to cope with stress (Rimm & Jerusalem, 1999; Wissing & Van Eeden, 2002).

With the exception of the results for the locus of control measure, which was set aside because of a low internal consistency reliability result, the other positive psychology construct measurement showed acceptable psychometric properties for these operational forces samples. The overall profile seems commensurate with being able to cope with the kind of demands that they are likely to face and could be expected to cope with in the operational forces context. Based on these results, they seem more capable than most to cope with the physical, mental and emotional demands they would face during selection, while undergoing training and ultimately when deployed.

The statistically significant difference between selected and not-selected candidates on the meaningfulness subdimensions of the sense of coherence construct points to the value of being able to interpret challenging tasks as meaningful help individuals to cope with tough demands. According to Albrecht (2015), when employees understand the purpose and importance of their work, they are more likely to be engaged, satisfied and productive. Military service is generally considered a calling or at the very least more than just a job. Hence being able to find meaning when challenges are encountered will allow individuals to cope better with the demands. A strong positive correlation has been found between meaningfulness and a sense of belonging – the latter is also a principal theme in the operational forces context, where being part of a team is paramount to success. A strong sense of belonging predicted and contributed to a sense of meaning – which may, in turn, promote a sense of well-being (Lambert et al., 2013). What is particularly noteworthy is that meaningfulness was also the core theme that was extracted from the qualitative data analysis in terms of the reasons for wishing to become an operational forces soldier.

The LPCAT learning potential results showed that, based on the candidates' levels of general non-verbal (fluid or $g_f$) ability and learning potential, they are likely to be able to cope with and benefit from the tertiary diploma level training offered during operational forces formal training. The mean LPCAT post-test score of the selected group was significantly higher than that of the not-selected group. The individuals who were selected were thus able to better utilise training and learning opportunities provided in the test administration to increase their post-test level of performance.

The 2014 South African National Defence Force Review states that one of the SANDF's key tasks (Task 12) is "to contribute to the development of South Africa and its people" (Cilliers, 2014, p. 3). One way in which such development could be promoted is to measure learning potential to determine the level of training from which individuals could benefit. According to Smith and Heinecken (2014, p. 103), "the SANDF draws most of its recruits from the black population groups that are often not privileged to attend good schools, and this affects their academic performance". This emphasises the importance of considering the measurement of learning potential along with standard cognitive assessment, which is currently used during military selection as coping with continuing learning demands is an important part of overall coping.

According to Rumsey and Arabian (2014a), vocational interest testing focuses on the fit between individual interests and the environment and the tasks associated with a particular job, as well as the congruence of interests between one job incumbent and other incumbents. The premise behind such testing is that the better the fit, the greater the likelihood is that the individual will be satisfied with the job, leading to greater retention and possibly even better performance. In terms of the CPT career preference results, the overall results in terms of higher scores on practical, security, precision, formal, people, outdoors, challenges, task variety, service and sport, on the one hand, and lower scores on indoors and informal, on the other, are in line with the demands of the military and operational forces context. According to Ingerick and Rumsey (2014), work interests openly demonstrate preferences for specific work activities in certain work environments. The measurement of work-related preferences or interests is vital because they influence individuals' choices and behaviour (Ingerick & Rumsey, 2014).

The qualitative results provided strong support for meaningfulness, both as a reason for wishing to join as well as important for coping with the challenges in the operational forces selection context. The value of meaningfulness was independently supported by the quantitative results where the mean scores for the meaningfulness subdimensions of the sense of coherence construct for the selected group was statistically significantly higher

than the mean score of the not-selected group. This was the only positive psychology construct score on which these two groups differed significantly.

The other principal characteristics and personal qualities that were evident from the qualitative thematic content analysis and which have been reported in other research studies are financial considerations (Smith & Heinecken, 2014), the adventurous image of the operational forces (Johansen et al., 2013), hardiness (Kelly et al., 2014), perseverance (Hystad et al., 2015), self-efficacy (Bandura, 2012), passion (Rumsey & Arabian, 2014b), teamwork (Lambert et al., 2013), values (Van der Waag, 2015) and discipline (Johansen et al., 2013; Svendsen, 2014).

The following additional themes also emerged among the experienced participants in the interviews: cognitive agility, physical ability, psychological and mental resilience, interpersonal skills, values, personal background, managing ambiguity and coping with paradoxical demands (De Beer & Van Heerden, 2017b).

In summary, the overall profile of the participants revealed that those who had applied to join the operational forces showed higher levels of coping-related constructs, in particular, sense of coherence and self-efficacy. They showed adequate levels of learning potential to cope with tertiary (diploma) level training – in line with the training course level for operational forces members. Lastly, they showed appropriate career-related preferences in line with the demands of the operational forces context. The significant differences between the selected and not-selected groups in terms of their mean scores on the meaningfulness subdimension of the sense of coherence construct and the learning potential post-test score could be used to inform future selection processes.

## Limitations

Although the samples were reasonably representative of the South African population, they remain samples of convenience based on voluntary participation. One should bear in mind that the majority of applicants in the sample did not have English as first language. All assessments and assessment instructions were in English and individual interviews were also conducted in English. Language proficiency may have had some effect on the ease of responding to questions in English.

The quantitative positive psychology measures used were all of a self-report nature, and there are known limitations associated with such questionnaires – especially with regard to social desirability or faking good in a selection context (Moerdyk, 2015). The coping measures used are of a

general nature. If measures reflecting the military context could be developed, they might offer additional useful results.

The training results for some participants have not yet been made available to the researchers. Because the selected groups in this context are small in number, ongoing validation research would have to be conducted over time to combine the results of different year groups to allow the samples to attain adequate statistical power. However, combining data from different year groups is not a simple process because the training and/or criteria for job performance often do not remain exactly the same. This complicates the comparability and collation of the scores and results obtained. Moreover, the current study was the first time that learning potential and career preference measures had been included in research in this context.

Ongoing validation research to evaluate the utility of the different measures for general coping as reflected in training results as well as job performance results is needed to provide empirical evidence in support of the measures if they are to be formally used in this context. It is vital to be able to select those individuals who are most likely to cope well and flourish in the military context because non-coping with the contextual demands and failure to successfully manage stress could have catastrophic results, including serious injury or death for the participant and/or others (Jensen & Wrisberg, 2014).

## CONCLUSION

The current results have shown some value for positive psychology constructs, learning potential and career-related interest information in the South African military and operational forces context. The predictive validity of these results needs to be determined for larger samples of selected candidates to gain a more comprehensive understanding of their possible value for predicting not only selection outcomes, but also training and performance results.

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# FUNCTIONAL FITNESS AND DECLINE IN MILITARY SERVICE: APPLICATIONS FOR MILITARY HEALTCARE

**Merle Parmak**[*]

***Abstract*:** Functional fitness refers to an integrated set of psychological and physiological resources the service-member is actively investing into his/her service function to succeed in a specific task environment. When functional decline is identified, the type of resource depletion should be investigated before deciding the most appropriate mode of intervention. The multidimensional approach is proposed to tackle both components of functional fitness in a comprehensive manner and address underlying complexity to differentiate medical cases from those where non-medical interventions should be applied.

***Key words*:** functional fitness, functional decline, military fitness, military healthcare, health intervention

## FIT FOR MILITARY

Military performance is a highly multifaceted and context-specific phenomenon. For valid predictions and reliable evaluations, professional attention is required where criteria and measures are decided for assessment. The scope of aims to define and evaluate military performance can be very broad ranging from legitimate employment criteria for Private Security Contractors for international military interventions (Krahmann, 2017; Spearin, 2014) to reliable outcome criteria for selection procedures for well-defined military training environments (Køber, Lang-Ree, Stubberud & Martinussen, 2017). To define and evaluate military performance at a functional level we need to go down to the grassroots and explore how well our soldiers are serving their functional purpose in various task-environments.

The military is all and only about performance which is its primary function. To serve their purpose well, military personnel must be fit for their service. Fitness for military duty is usually discussed in physical terms and evaluated by more or less standardised versions of physical fitness tests. Increasingly sophisticated training techniques have been implemented and developed with an intention to design physical training programs to be more combat-like (East, 2013). Outstanding performance is honourably rewarded (Hammermeister et al., 2010) and failures are often attributed to bodily

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weakness. However, whether or not physical fitness tests are able to capture all necessary performance components in real-life environments is debatable. It has been recognised by field practitioners that being physically fit and equipped with all necessary skills does not necessarily mean that those virtues are applied. Despite an apparently flawless physical functioning, performance decline may still occur, usually when least expected, posing a threat to the mission and to the unit.

A remarkable step forward to recognise the complexity of military fitness has been made within a comprehensive framework of the Total Force Fitness concept, in which a wide variety of elements related to military fitness are described. The concept covers 10 sub-categories of military fitness:

- Physical fitness (Roy et al., 2010)
- Psychological fitness (Bates et al., 2010)
- Behavioural and occupational fitness (Bray et al., 2010)
- Medical and environmental fitness (O'Connor et al., 2010)
- Nutritional fitness (Montain et al., 2010)
- Spiritual fitness (Hufford et al., 2010)
- Social fitness (Coulter et al., 2010)
- Family fitness (Westphal & Woodward, 2010)

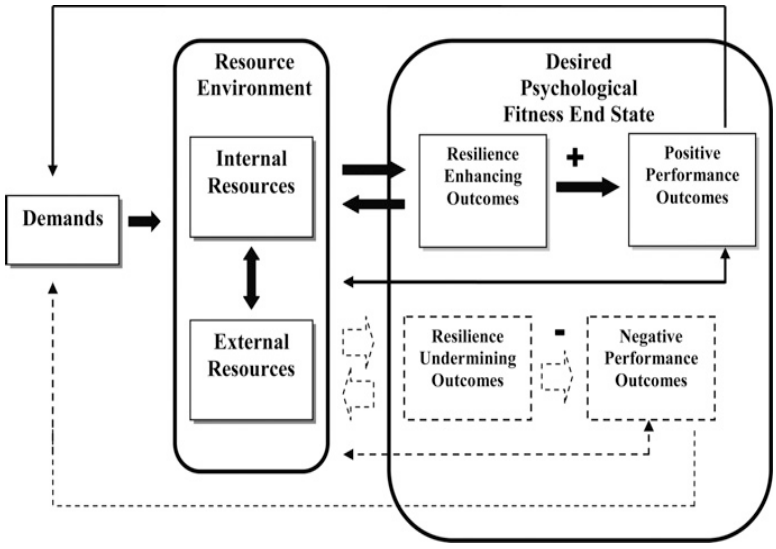


Figure 1. Military Demand-Resource Model (Bates et al., 2010)

In most cases, described sub-concepts are rather complex relating the discussed fitness category to an extensive scope of individual resources which are all linked to service functioning (and other fitness categories) in one way or another, resulting in blending sub-categories which effectively cross-reference to each other. For example, as a basis for psychological fitness the Military Demand-Resource model has been proposed and extensively discussed by Bates et al. (2010) (Figure 1).

Psychological fitness is seen as an outcome or end state which is placed outside of individual resource environment but looping back via positive performance. According to this model psychological fitness can be trained in consonance with the same training principles as physical fitness. In separate sections the model covers situational demands (relating to Environmental and Medical (O'Connor et al., 2010) and Nutritional Fitness (Montain et al., 2010)), the performer's internal and external resource environment (relating to Physical (Roy et al., 2010), Spiritual (Hufford et al., 2010), Social (Coulter et al., 2010) and Family Fitness (Westphal & Woodward, 2010)), and outputs (relating to Occupational and Behavioural Fitness (Bray et al., 2010)).

Problems with conceptual overlay are recognised also by authors themselves. For example, when defining Occupational Fitness, overlap is recognised between behavioural and psychological aspects of fitness (Bray et al., 2010) and the full scope of individual physiological and psychological capacities including elements from psychological, behavioural, family fitness is effectively covered in the category of Medical Fitness alone (O'Connor et al., 2010). Digging deeper we find that elements of fitness are repeating themselves in different sub-categories also. For example, *Beliefs and appraisals* or *Awareness* identified and described as components of Psychological Fitness (Bates et al., 2010) are conceptually the same as *Spiritual and Core Beliefs* or *Self-Awareness* described in Spiritual Fitness (Hufford et al., 2010). The latter being also referred as Psychospiritual Fitness.

Despite definitional confusions, the concept of Total Force Fitness identifies a comprehensive and well relevant list of military fitness sub-categories further proposing measures for assessment. Considering the scope of the framework (and extensive cross-authoring), conceptual overlaps are understandable but compromise its practical usability to prevent and intervene in cases of functional decline. For practical applications an operational value of the framework must be improved. To take a step closer, the Functional Fitness model is proposed. The model relates military fitness to the quality of functional outcome in service tasks and is arranged along dimensions of service members' psychological and physiological functioning.

## FIT FOR FUNCTION

The essence of service members fluent functioning is usually assumed to be good health and well-tuned physical abilities. The fault behind meagre performance must be a poor health, the person must be ill and should be treated accordingly. However, literature reveals that job performance can be impaired for reasons which cannot be treated medically even if physical symptoms are present (e.g. Kinman & Griffi, 2008; Shoss & Shoss, 2011; Wiech & Tracey, 2009). Or vice versa, existing symptoms can just be unreported or unnoticed and not necessarily indicate good health (Fernbach, Hagmayer & Sloman, 2014; Kim, Britt, Klocko, Riviere & Adler, 2011; Van Damme et al., 2010; Villemure & Bushnell, 2002). In addition, even if one is physically healthy and able to perform does not necessarily mean that s/he is doing that well or doing at all. Although ultimately necessary, capability for doing something, let's call it 'ableness-factor', does not tell us anything about person's actual performance. Assuming that ability is there, something else is still needed to make the person willing to apply this ability in certain environments to accomplish specific tasks. Without this drive, let's call it 'willingness-factor', any skills or capabilities are just an idle force in rest. The vice versa applies here as well. A mere willingness to do something is not enough to make anything functional happen. In order to serve the function and carry the willingness into effect, the person must be also physically and professionally able to do so. Applied to military performance, that co-functional relationship of 'willingness-factor' and 'ableness-factor' in terms of (failing to) serve the function, can be illustrated using the two-step cognitive appraisal model (Figure 2).

The model was originally introduced by Folkman et al. (1986) to suggest that people's outcome in a stressful situation is a result of two consecutive appraisal functions, primary appraisal and secondary appraisal. According to the model, primary appraisal relates to evaluating the event as stressful and secondary appraisal relates to evaluating available coping resources as sufficient.

External events as they happen, do not automatically elicit any responses. Stress is created in the mind of the stressed (Krueger, 2008) and stress-related performance decline can be triggered by being exposed to both ends of the stimulation continuum, hypostress (too little happens) and hyperstress (too much happens) (Hancock, 2009). Reaction will be formed on the basis of how the event is perceived as well as what resources are believed to be available to cope with it. What is perceived as a pleasant challenge by one person, can be perceived as a rather stressful occasion by the other (Parmak, Mylle & Euwema, 2013; Rademaker, 2009) and have an impact on

his/her enthusiasm to engage and cope. Lack of skills and/or abilities (perceived as inefficiency) adds the stress and performance in a service task is likely to fail (Delahaij, 2009).

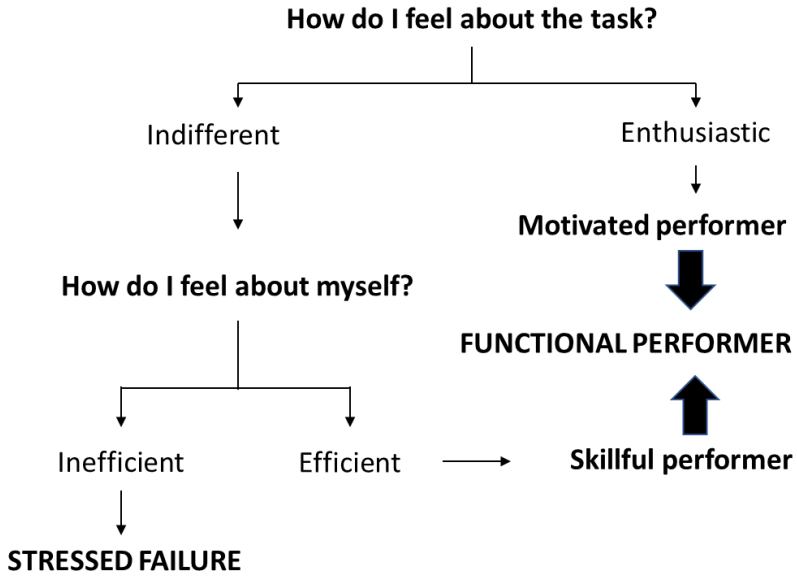


Figure 2. Two-step cognitive appraisal model adapted to military performance

Adapting the two-step cognitive appraisal model to military performance, primary appraisal of an event (*How do I feel about the task?*) indicates if the person is enthusiastic and willing to be involved or feels rather indifferent or stressed about it. Secondary appraisal refers to person's belief in his/her trained skills or physical preparation to cope with this situation (*How do I feel about myself?*). Research indicates that perceived self-efficacy has significant effect on the outcome when a challenge is faced (Gruber, Kilcullen & Iso-Ahola, 2009). As such, secondary appraisal resembles the 'ableness-factor' by indicating how much effective coping the person can anticipate.

Suggestion to apply the two-step appraisal process to explain individual differences in performance outcome is supported by studies conducted within the Person-Environment Fit framework. For example, it is found that job enrichment interventions which are intended to motivate employees may have even an opposite effect in those cases where work design and individual characteristics do not match (Chung-Yan & Butler, 2011). Also, applicants' pre-enlistment motivation scores and their service has been linked,

showing that motivated applicants have significantly lower risk of negative outcomes (mental disorders and attrition) in the first year of military service (Gubata et al., 2012).

Findings indicate that although troops are generally able to adapt to environmental demands (Parmak, Euwema & Mylle, 2012), there are soldiers for whom certain types of environments are psychologically more difficult to endure (Parmak, Mylle & Euwema, 2014). Related to combat exposure, it has also been suggested that the impact of potentially stressful event on person's well-being is related with how stressful the event was appraised (McCuaig Edge & Ivey, 2012). Personality-related differences are found to have an impact on individual risk-perception (Parmak, Mylle & Euwema, 2013) as well as their coping with deployment experience (Parmak, Mylle & Euwema, 2014). Recognising the event as a challenge triggers active problem-solving but perceiving the same event as potentially harmful triggers passive coping (Lepine, Podsakoff & Lepine, 2005).

## FUNCTIONAL FITNESS IN MILITARY SERVICE

Functional fitness refers to an integrated set of psychological and physiological resources the service-member is actively investing into his/her service function to succeed in a specific task environment. Merging dimensions of physiological functionality and psychological functionality into one model, enables us to differentiate between 'ability-factor' resources and 'willingness-factor' maintaining at the same time the conceptual integrity of military fitness (Figure 3).

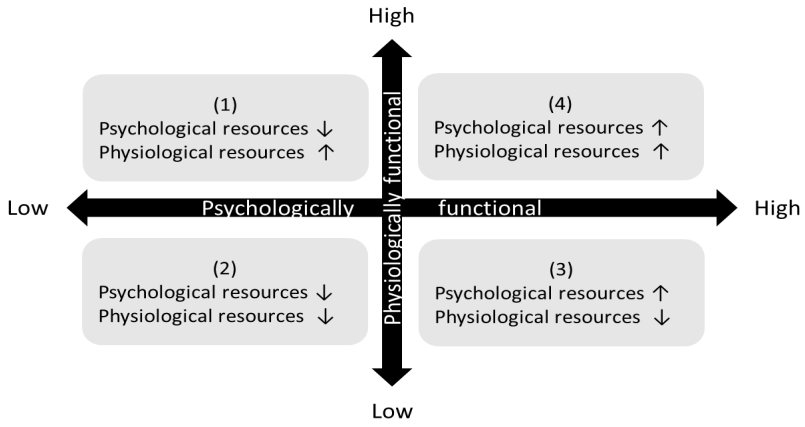


Figure 3. Proposed multidimensional model of functional fitness

The dimension of physiological functionality refers to physical well-being and capabilities and the dimension of psychological functionality refers to psychological well-being and motivation to contribute in a particular task-environment. The person can be considered functionally fit only if s/he exhibits both, psychological willingness and the physical abilities to succeed in particular real-life scenarios. The first dimension can be hampered by acute or chronic somatic symptoms with or without physiological origin and the latter by psychosocial, mental or moral issues without physiological root causes.

Formed clusters along psychological/ physiological dimensions permit us to describe functional fitness in four psycho-physiological combinations:

- (Cluster 1, Fig 3) Physically able to accomplish all aspects of assigned duties but the actual performance fails or reaches the bare minimum. Health complaints are expressed but not consistent with pathophysiology. Usually some sort of secondary gain can be suspected. For instance, malingering is prevalent in PTSD as the diagnostic process relies heavily on the patient's subjective report of his/her symptoms (Ahmadi et al., 2013) and, if diagnosed, generous benefits can be expected. Just being dismissed from duties can be a desirable gain as well. Etherton (2014) has found that the possibility of receiving compensated time away from work influence frequently the behaviour to claim pain-related injuries. Complaints can also be real but still being rooted in psychological discomfort. The term 'sick building syndrome' is coined (Kinman & Griffi, 2008) referring to increased amount of somatic issues when job-related mood is negative.
- (Cluster 2, Fig 3) Physically not able to accomplish all aspects of assigned duties, quality of performance is further impaired by poor psychological condition. Mixed complaints are expressed but not all of them consistent with pathophysiology. Kleinman and Kleinman (1985) have defined somatisation as the expression of personal and social distress in bodily complaints which are usually attributed to physical disorder. Effects of distress can be expressed in physical symptoms which are in turn related to withdrawal, intentions to quit and lower job satisfaction (Shoss & Shoss, 2011). Due to cognitive dissonance, originally malingered symptoms may become internalized as well. Such that the symptoms which were originally induced, are subjectively experienced as real (Merckelbach & Merten, 2012).
- (Cluster 3, Fig 3) Physically not able to accomplish all aspects of assigned duties but the actual performance may not be impacted due

to applied willpower. Symptoms are present and consistent with pathophysiology but withhold. Lurati (2013) has described the behaviour as reverse malingering, when people despite their injuries, will stay at work for various reasons regardless of the potential for further injury. It is also found that although people with chronic nonspecific musculoskeletal pain have decreased work ability, the majority of them stay still at work ignoring their pain (de Vries et al., 2011). Military aviators are found to practice reverse malingering to stay on full flight status when their vision no longer meet military standards and refuse to report depressive symptoms for fear of appearing weak to other aviators (Lollis et al., 2009).

- (Cluster 4, Fig 3) Physically unimpaired and the actual performance is further boosted by applied drive to perform well, often beyond expectations. Keeping individuals here or moving them over from other clusters is an ultimate organisational challenge for military organisation. Whilst medical conditions need to be detected and treated medically (Cluster 2), leadership responsibility is to consider how to enhance psychological well-being amongst physically fit but ill-motivated soldiers (Cluster 1), but to also keep their eye on currently well-functioning soldiers in this cluster to prevent them migrating down to Cluster 1 and eventually ending up in the Cluster 3, as subjects of medical treatment.

## FROM FUNCTIONAL FITNESS TO FUNCTIONAL DECLINE

Military leaders can expect some functional deficits in all but 4$^{th}$ group of service members described in Functional Fitness model (Figure 3). Although medical diseases require medical treatment, developing chronic pain, for instance, may well be preventable using non-medical approaches (Jonas et al., 2010). For effective intervention, cases without obvious underlying physiological pathology should be differentiated from cases where clinical attention is necessary for functional recovery. In some cases, non-medical interventions such as leadership actions or combined approach should be applied instead. Though, identifying physically troubled individuals as medical cases and psychologically distressed people as non-medical ones may not be very straightforward. On the one hand, militaries have mostly maintained a bureaucratic and centralised organisational structure which may have an impact on information sharing and flexibility in decision making (Bjørnstad,

2011). On the other hand, potential overlaps between physiological and psychological deficits give rise to further diagnostic complications even when cooperation between stakeholders is smooth. To decide what mode of intervention can be most effective, it is important to investigate more closely the type of resource depletion behind functional decline in every individual case. The task is complicated and success requires effective cooperation between health professional and leadership. Shared leadership is suggested to be beneficial in this type of complex and dynamic situations (Lindsey, Day & Halpin, 2011) and could be considered to apply. A tentative model of case-tailored approach to functional decline interventions is proposed in Figure 4 to illustrate the perspectives of medical, non-medical and integrated care.

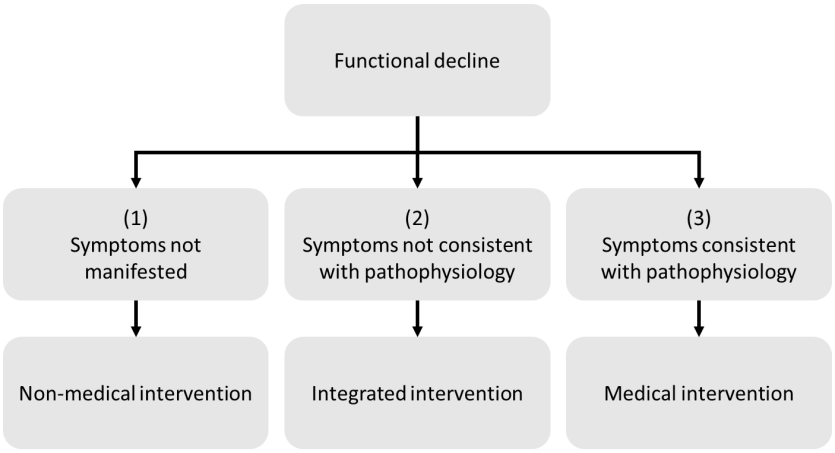


*Figure 4* Proposed case-tailored approach to functional decline interventions

Based on the presence and consistency of physical complaints three broad categories of symptom manifestation can be distinguished behind functional decline:

- (Cat 1, Fig 4) Non-medical interventions should be considered in cases where physical symptoms are not manifested but actual performance is still hindered (ref Cluster 1, Fig 3). It is known that the characteristics of the work environment can have positive and negative effects on performance and on the well-being of the performer (Gaillard, 2008). In military service, a certain level of occupational stress is likely to be present in any type of sub-environments (Campbell & Ben-Yoav Nobel, 2009). Findings reveal that there are soldiers for whom the particular types of environments are psychologically more difficult to endure (Parmak, 2011).

Negative impact on performance is related with depleted psychological resources dimension of functional fitness.

- (Cat 2, Fig 4) Integrated interventions should be applied in cases where actual performance is hindered by poor physiological condition but symptoms are not consistent with pathophysiology (ref Cluster 2, Fig 3). Presence of multiple physical symptoms amongst military personnel is not necessarily related with higher exposure to stressors (de Silva, Jayasekera & Hanwella, 2013). Somatisation can be defined as the expression of personal and social distress in bodily complaints which are usually attributed to some physical disorder (Kleinman & Kleinman, 1985). Although somatised symptoms call for medical health check being objectively painful and restrictive, the best results could be achieved by combining medical care and leadership efforts (Otis & Pelletier, 2005).
- (Cat 3, Fig 4) Medical intervention is necessary when symptoms are consistent with pathophysiology having an impact on service quality although the actual performance may not yet be considerably declined (ref Cluster 3, Fig 3). People differ in terms of whether symptoms lead them to seek health care (Klaus et al., 2013). The military is a highly performance and functionality orientated structure where seeking treatment can be prevented by negative attitude (Kim, Britt, Klocko, Riviere & Adler, 2011). People can tolerate bodily discomfort or even pain for a long time if they are motivated to do so. There is evidence that pain tolerance (Fernbach, Hagmayer & Sloman, 2014) as well as pain perception can be altered and should be considered within a context of goal pursuit (Van Damme et al., 2010) as well as a person's mood (Villemure & Bushnell, 2002). However, physical warning signs may actually indicate a serious physiological condition or malfunction calling for immediate clinical attention.

Although no one argues that medical conditions require medical treatment, it is not always clear if the root of a particular condition is really medically treatable. A clear pathophysiology is not traceable for all somatic complaints nor may functional decline stem from physical issues only. Dealing effectively with functional decline, medicine should be able to differentiate cases where clinical attention is necessary for functional recovery from those where non-medical interventions should rather be considered. In order to avoid a worsened prognosis caused by delayed medical intervention, it is also important to identify functional impairments in cases where somatic complaints are intentionally or unintentionally withheld. Collaboration between military leaders and health specialists is crucial to recognise those individuals and intervene appropriately.

## CONCLUSION

In the military, failures can be measured in lives, consequences are often irreversible and errors difficult to correct. Well-functioning staff is required all across military hierarchy as the toll of mistakes tends to increase with the rank of a decision-maker. To serve their purpose well service members have to be in good functional condition. In most cases service related functionality declines when performance restrictive physical symptoms occur. While objectively distressing and painful, those symptoms are not always purely physical and consistent with identifiable pathophysiology. Medical checks which result in false-positives or incorrect diagnoses calling the efficiency of respectively applied therapies into question. From the other hand, the masculine and fitness focused military culture can inadvertently facilitate functional decline amongst military personnel by itself. Service members may (un-)wittingly suppress their physiologically sourced symptoms in order to be perceived strong and fit.

However, a failure to seek medical assistance timely can worsen the prognosis increasing the cost and the length of treatment. All complaints are not necessarily symptoms, and all perceptions of bodily irregularities are not necessarily complaints (Hiller, Rief & Brähler, 2006). The observation that an increased quantity of provided health services in the military is not necessarily associated with improved health (Shelton, Ondra & Levin, 2015) may refer to occasions of misdiagnoses and mistreatments in military healthcare. Wakefield (2010) discusses the problem of false positives (diagnose that mistakenly attributes a disorder when it does not exist) indicating that the symptom-based system fails to distinguish normal distress from disorder. On the other hand, the problem of false negatives must also be noted (not seeing the problem when it is actually there) (Hiller, Rief & Brähler, 2006).

Evidence that prolonged psychological pressure may bring along physical symptoms which are not liable to medical interventions, indicate that the problem can be rooted in psychological dimensions of fitness, such as excessive work stress or occupational misuse (a poor fit between the person and the task) or even too high motivation to keep it going despite of poor health conditions. For military health services it means potentially unnecessary investigations and treatments. For military leaders it means potentially failed performance in critical situations. For taxpayers it means higher costs to sustain national security forces in required health and might.

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# SELF PERCEPTION AS STRESS BUFFERING IN MILITARY

**Samir Rawat[*] Abhijit P.Deshpande, Gunjan Singh**

*'It is not the event but the interpretation of the event that is Stressful'.*

***Abstract*:** It is seen that military personnel dedicate their youthful life in service to the nation. A sizeable portion of these individuals experience combat with enemies of the nation during their military service, due to which perceptual as well as behavioural changes, both positive and negative, are likely to occur (Rawat,2008) . These changes due to combat have a substantial significance to psychological research and an immense value to the nation they defend. A large number of studies of human behaviour emanated after world wars and to that extent, psychology as a subject owes a great deal to military combat for its growth and development (Cronin, 1998; Khan, 2000; Rawat,2011). Study of perceptual and behavioural changes, both positive and negative, in military personnel as a result of a large number of men having experienced combat has been a challenging issue for military researchers (Bartone, 1989; Cronin, 1998; Edwards, 1993; Gal & Mangelsdorff, 1991; Taylor, 1989).

In the present chapter, two major aspects are taken into consideration. Firstly, to understand self perception as a construct by defining important psychological concepts related to self perception. Secondly, to make an attempt to understand self perception of uniformed personnel on certain important psychological aspects.

## INTRODUCTION

Researchers have reported that an individual's perception of self is basic system in psychological processes which depends on individual's relation to other individuals and general social processes. It has been reported that behavior of an individual is determined by one's self-perception ( Rawat , Stevens, 1996; 2008). Self-perception is concerned with qualities of oneself; it also covers personal expectations of one's own effectiveness and competence

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(Riding & Ravner, 2001). Bergner (1985) identified self-perception as one of the dimensions of health.

Kleinke (1978) reviewed studies of self-perception and divided them into two categories: (a) perception and interpretation of bodily states, and (b) perception and interpretation of overt behavior. Research studies in first category deal with how people learn to experience emotions, conditions under which they recognize bodily needs and ways for dealing more effectively with anxiety, depression, and pain. These research studies showed how self-perceptions of emotions, motivation, attitudes, affection, and well-being are influenced by bodily messages and label people give to them. It has been found that people use self-relaxation, relabeling, and cognitive strategies to relate to their bodies in more adaptive ways (Goldfried & Trier, 1974; Lott & Lott, 1968; Maher, 1974; Schachter, 1964; Valins & Nsibette, 1971). The second category of research studies reviewed how people form attitudes, learn to be assertive or helpless, ways in which they perceive their lives as being under internal or external control, and reactions people have to success and failure. People form attitudes by observing their behavior and making attributions about causes of these behavioral patterns. Research has shown that it is possible to influence attitudes with environmental cues, false feedback about behavior, reinforcement of behavior, and inducement to perform behavior that are discrepant and thereby produce dissonance (Bandura, Adams, & Beyer, 1977; Bem, 1972; Mischel, 1973; Weiner et al., 1971).

## SELF –PERCEPTION

According to Bandura et al. (1977), developing self control over overt behavior and strategies for adapting to bodily reactions can provide individuals with greater sense of control over their lives. An individual's perceptions of self-efficacy may have strong influence on success in mastering new behavior, coping with aversive experiences, and remaining persistent in face of obstacles.

Kleinke (1978) studied self-perception of internal versus external control and found that it has an effect on conformity, personal effectiveness, achievement, social activism, personal adjustment, and reactions to success and failure.

According to some researchers, self-perception has important implication for stress and personality and has a protective buffering function (Rector & Roger, 1997; Roger, 1999).

To summarize, it can be said that self-perception is a source of self awareness and is an important factor in understanding human behavior.

## SELF PERCEPTION AMONG MILITARY PERSONNEL

Self-perception is part of one's personality and awareness about self by which individual forms attitudes and opinion about oneself (Greenberg, 1996). In the present chapter , dimensions of self-perception include general adjustment and general maladjustment.

### General Adjustment

A substantial amount of research on combat exposure amongst military personnel has reported that stress, even extremely traumatic stress, may pose both risks and benefits. It has been found that although combat can have lifelong negative consequences, perception of positive benefits from military experience can mitigate negative effects of combat on mental health. These studies indicate that how soldiers appraise and cope with problems may be more important in prediction of positive adaptation than simple occurrence of stress (Aldwin et al., 1994; Boesel & Richards, 1982; Elig, Gade, & Shields, 1982; Goldman & Worstine, 1980; Jennings et al, 2006; Meissner & Puzicha, 1981; Motowidlo et al., 1980 ; Rawat,2012 ,2017).

Dirkzwager, Bramsen, and van der Plorg (2005) studied self-perception of military soldiers from Netherlands deployed in former Yugoslavia as well as Cambodia. The researchers surprisingly, reported positive consequence of deployment (e.g., broadening of their horizons, increased self-confidence).

War-zone exposure and adjustment amongst combat veterans have been extensively studied and reasonably high levels of satisfaction and attainment amongst combat veterans have been found( Rawat, 2014 , 2017a). It is indicated that there is an interaction between problem-focused coping and outcomes of achievement and lifetime adaptation. This form of coping is most strongly related to adjustment at moderate levels of combat exposure (Clemons, 1996; Limbert, 2004; Rawat ,2008,2011 ; Rawat & Wadkar ,2012 ; Watson & Pennebaker, 1989; Watson et al., 1998; Wolfe et al., 1993).

A large body of literature has demonstrated that increased educational levels and higher expectations of military personnel demand a shift from transactional leadership to transformational leadership to inspire and improve leadership effectiveness and thereby lead to stress reduction and better adjustment amongst military personnel (Atwater & Yammarino, 1993; Atwater, Dionne, Avolio, Camobreco, & Lau, 1996; Bass, 1985; Clover, 1989; Curphy, 1992; Tichy & Devanna, 1986).

Studies on impact of homecoming reception on adaptation of military personnel following deployment found that repose of family and community

members at homecoming has a significant restorative role in adaptation of combat soldiers. Most researchers have reported that adjustment to deployment is positively related to homecoming reception (Bolton, Litz, Glenn, & Orsillo, et al., 2002; Day & Livingstone, 2001; Figley, 1994; Kraaij & Garnefski, 2006; Marsella & Scheuer, 1995 Rawat ,2011a, 2011b ).

Suvak, Vogt, Savarese, and King, et al. (2002) in a study on self-perception of military personnel found that religiosity provides a framework for understanding stressful experience in military life and thus may reduce its negative impact. It has been indicated that self-perception of military personnel who are religious provides them with coping resources and a means of promoting greater well-being and mental health.

Most studies reveal that even though decorated war heroes reported highest exposures to battlefield stressors, they functioned better and had better general psychological health (Dekel, Solomon, Ginzburg, & Neria, 2003; Rawat,2012).

In approaching problems of adjustment to stress in military context, most studies have reported a useful, psychological framework of 'interactionism' which emphasizes interaction of situation and person variables in determining behavior. In addition to identifying types of stressors troops are exposed to during operations, research reveals effects of such stressors on health and adjustment outcomes (Derogates, 1982; Godwin, 1986; Magnusson & Endler, 1977). Cronin (1998) reported a growing interest among researchers in identifying both situational and person variables that can account for why individuals adjust differently and respond to stress in military environment.

Persian Gulf War in 1991 provided an opportunity for research on soldiers' health and adjustment under stress of a combat deployment (Bartone, 1993; Gifford, Martin, & Marlowe, 1991; Gifford, Martin, Marlowe, Wright, & Bartone, 1996). It has been demonstrated that social context variables that might influence how stressors get processed in military environment are unit cohesion and leadership climate. Person variables that could influence or moderate stress-outcome relation include past experience, person perception and personality characteristics (Bartone & Kirkland, 1991; Caminiti, 1995; Griffith, 1985; Kanagaratnam et al., 2005; Kirkland, 1987; Kirkland et al., 1987; Manning, 1991; Manning & Ingraham, 1987; Marlowe, 1986a, 1986b; Salas et al., 1998).

Numerous studies conducted on military personnel reveal that adjustment is related to morale- a term used to describe mental fitness, adjustment and motivation of individuals and groups in the military (Labuc, 1991; Labuc, & Ellis, 1983; Levav, Greenfeld, & Baruch, 1979; Manning, 1991; Noy, 1989; Noy, Nardi, & Solomon, 1986 ;Rawat,2013).

Studies on self-perception of soldiers over a period of time reported recognizable and meaningful changes in how self-perception is structured. These studies demonstrated that soldiers in new units display an unidentified, global perspectives, while in more mature units, perception about self, peers, leaders and weapons form a more coherent and meaningful pattern (Bartone, 1988, 1989; Bartone, Marlowe, & Hoover, 1987; Marlowe, 1985).

## General Maladjustment

Taking into account relevant theoretical findings, numerous studies on maladjustment have reported that war-zone exposure has negative implications for post deployment adjustment of veterans. These studies reported detrimental effects of having experienced combat among soldiers (Blake et al., 1990; Figley, 1985; Hermann & Eryavec, 1994; Kulka et al., 1990; Stellman, Stellman, & Koenen, 2000; Vogt, Pless, King, & King, 2005).

Several research studies demonstrate three outcome variables which may be influenced by stress amongst military personnel: performance, social adjustment and health. Stress can lead directly to impaired performance (Eid & Morgan, 2006; Krueger, 1991), can contribute to a variety of physical and mental health difficulties, and can also result in variety of social adjustment problems such as family violence and divorce (Newby et al., 2005; Prier & Gulley, 1987), and substance abuse (Cronin, 1998; Harig, 1991; Long, Hewitt, & Blane, 1976; Whitehead & Simpkins, 1983).

Recent literature on combat veterans has demonstrated that nearly all survivors exposed to traumatic events briefly exhibit one or more stress related symptoms which dissipate within a reasonable amount of time. However, symptoms persisting for a prolonged period following combat experience increases probability of developing maladjustment and stress related disorders (Morgan, Krystal, & Southwick, 2003; Wain, Bradley, Nam, Waldrep, & Cozza, 2005; Zajtchuk, cited in Wain et al., 2005).

Research has shown that toxic leadership can be a major cause of maladjustment and stress amongst military personnel (Ambrose, 1992; Lau, 1998; Reed, 2004).

An important area of investigation has found that emotion focused coping and use of wishful thinking is strongly associated with maladjustment at moderate levels of combat exposure (Suvak et al., 2002; Vogt, King, King, & Savarese, et al., 2004).

One stream of research focuses on exposure to traumatic war events and has found a mediating role of attributing meaning. It has been demonstrated that experience of wartime stress may change a certain aspect of

an individual's personality, in particular, personality trait of neuroticism, defined as, proneness to distressing emotional states such as anxiety, depression and anger. The studies found that relationship between wartime stress and personality trait of neuroticism turned out to be fully mediated by development of a negative world view (Bradshaw et al., 1994; Bramsen, van der Ploeg, van der Kamp, & Ader, 2002; Fiedler et al., 2000; Freeman & Roca, 2001).

Psychological stress in military operations can have a range of serious consequences, including increased risk of death and serious injury from accidents, inattentiveness and errors of judgment, exposure (cold injuries), friendly-fire incidents, and suicide. Research has demonstrated that psychological maladjustment can also increase risk of soldier misconduct, alcohol abuse, and violations of rules of engagement, as well as diminish soldiers' mental health, morale, and psychological readiness to carry out mission (Cronin, 1998; Perconte, Wilson, Pontius, & Dietrick, et al., 1993; Reimer, 1998).

Khan (2006a) studied armed forces and society in India and reported that since military personnel are physically fit, robust, and young; they develop confidence in themselves with military training which improves their self-perception over time.

Khan (2006b) reported that unless self-perception and self-esteem of a soldier is high, the soldier's personal sense of honour will be low and will not be individually able to preserve national prestige. The researcher concluded that self-perception of military personnel can be improved by raising prestige, honour and ethos of the soldier.

## CONCLUSION

The field of psychology owes a great deal for its growth to military research. Studies on military personnel emanated after World Wars and a lot of research has been done all over the world ever since then. In recent years, research studies have explored various aspects of combat, especially after the Gulf War in 1990's and more recently, war in Iraq and Afghanistan.

The chapter focused on relevant review of recent literature pertaining to self-perception amongst military personnel. An overall review of studies found that there are marked differences among military personnel on psychological aspect of self perception considered in present chapter.

In conclusion, it can be stated that self-perception among military personnel is a reflection of image they have in their society. Review of literature provides evidence that self-perception of military personnel is greatly influenced by their confidence in military training and respect and support

society has for them. Review of studies in Indian context suggests that although researchers have shied away from research on military personnel, there are few studies assessing stress, however, self-perception has not been widely studied in India . There is a deliberate need to study self perception of military personnel in India and abroad in more detail.

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# STUDY OF LOCUS OF CONTROL AND SELF- ESTEEM AMONG MILITARY CADETS

**Gunjan Singh[*], Samir Rawat[**], Abhijit P.Deshpande**

*"Unlike the virtuous, far removed from mediocrity, men of action, whose happiness resides in standing out, seek honour only to convince themselves of their own worth".*

– Aristotle

***Absrtact*:** During military training, cadets undergo intense pressures of time, stress and strain of physical activities as well as cognitive overload of learning academics, military etiquettes and soft skills, including leadership and team building – all under constrained environments. Under such circumstances, determining locus of control type and self-esteem is recommended to be known before venturing in military profession, where cadets have to continuously sustain severe pressure, follows a strict schedule and intense military training. Considering that many civilian students in India seek to join the Armed Forces as a profession, having qualities like high self-esteem and knowledge about their own locus of control may help them to get selected for officer cadet training Academies .A gap in literature covering these aspects necessitated the need for studying locus of control and self esteem of military cadets and hence this chapter seeks to find differences in locus of control and self esteem among military cadets and college students .The present study was conducted on a total of N= 400 male participants aged from 18 to 25 years dividing into; n1=200 military cadets and n2= 200 civilian students. The sample was collected from military training institutions for military cadets, while the civilian students were from colleges and universities in India. The study shows highly significant difference between both the groups on both the variables, namely, self-esteem and locus of control and has implications for selection as well as training in military institutions.

***Key words*:** Locus of Control ,Self Esteem, Military Cadets.

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## INTRODUCTION

World over, the uniformed fraternity takes pride in classifying people under two broad umbrella categories in society – you are either ' Military' or 'a civilian.'. Young students, who aspire to become a military officer, are referred to as 'cadets' during their training in military cadet training institutions. To get selected, they undergo a series of tests as measures of qualification and are subjected to interviews, screening, medical fitness followed by progressive and intensive, rigorous military training under constrained environments to meet the prerequisites in becoming a military officer. Whereas, to differentiate military and civilian, we seek elucidation under the International Humanitarian Law, also known as Laws of War, according to which a civilian is a non-combatant member of the society, i.e. he or she does not take partake in his or her country's military activity in a situation of armed conflict or otherwise. (Wikipedia, 2017 a).

In the framework of Positive Psychology (Seligman & Csikszentmihalyi, 2000), concepts such as positive emotions emanating from self esteem and locus of control have been studied in social, work, and economic contexts because of their ability to equilibrate the negative effects of anxiety related experiences, which can influence negatively one's performance, psychosomatic health and psychological wellbeing. Military, and especially Military Academies, which are the pillars of military leadership training, is an interesting field to study such concepts, because they require high mental and physical standards for their cadets (Campbell, 2006; Matthews, 2008; Rawat, 2011, 2017b; Schumm,Gade & Bell,2003).

Research on military socialization may disclose whether the attitudes and values of military cadets are different from civilian students and whether they become more congruent with those of the organization over time (Atwater & Yammarino ,1993). The findings of our research presented here emphasize a moderated support of different changes that may accrue as a consequence of serving in the military profession and hence this chapter.

For the purpose of this study, we look at the constructs of locus of control and self-esteem among military cadets and civilian students as well as the correlation between the two variables, namely, locus of control and self esteem

## THEORETICAL CONSIDERATIONS

### Self-esteem

Baumeister (1996) defines self-concept as "the individual's belief about himself or herself, including the person's attributes and who and what the self is". Self-esteem, along with self-efficacy or mastery and self-identities are all components of this master-term. Self-esteem is defined as a favourable or unfavourable attitude toward the self (Rosenberg, 1965, 1986 ). It refers to the evaluation of a person's capability, significance, success and worthiness held by them and customarily maintained. It reflects a person's overall emotional, behavioural evaluation of his or her own worth and is highly subjective in nature( Baumeister ,1996 ; Baumeister ,Smart & Boden,1996 ; Baumster et.al ,2001; Rosenberg,1965,1989 ).

People who have high self-esteem are socially at ease and are more confident and considerate about their own opinions and judgments. They are more ambitious, more academically successful and participate more in extracurricular activities. On the contrary, individuals having low self-esteem view interpersonal relationship as threatening feel less positive towards oneself and others and hence are unable to take sound and confident decisions.(Rawat,2011). The consequences of low self-esteem have been established as previous studies in India describe low self-esteem as a key factor in the development of various psychological problems such as depression, anxiety, loneliness and social isolation contributing to the lack of confidence in social situations (Ahmad, Bano, Ahmad, Khanam, 2013; Kumar & Kumar, 2014 ; Rawat , 2011 ).

Self-esteem is a positive or negative orientation toward oneself; an overall evaluation of one's worth or value. Rosenberg defines self-esteem as the totality of the individual's thoughts and feelings with reference to himself as an object. It provides a feeling of self-worth, Status and recognition. According to William James, self-esteem is a product of 'perceived competence in domains of importance' (James. 1890). Several researchers argue that self-esteem is positively associated with adaptive outcomes (Block & Block ,1980; Block & Kremen , 1996 ; Bonanno et.al, 2007 ; Lyubomirsky, Tkach & DiMatteo,2006). This can be justified as the better evaluation the subjects make of themselves, the more they believe the better goals they desire. Self-esteem correlates with optimism because of the potential role that optimism has in raising the possibility of successful experiences (Kobasa, 1979; Lazarus, 1993; Fredrickson ,1998; Fredrickson & Joiner ,2002; Heinonen et. al, 2005; Tugade & Fredrickson, 2002 ).

According to Branden, (1994) self esteem links the feeling of personal efficacy to a sense of personal merit; it is the conviction that one is competent to live and merit living.

Self-esteem consists of two components:

- To consider oneself effective, to trust in one's ability to think, train and acquire competence in one's chosen field, choose and make correct decisions; and overcome challenges and produce effective changes.
- To respect oneself, the confidence in the right to be happy and the confidence that one is worthy of respect, dignity and self –fulfillment.

Branden (1994) stated that self-esteem involves an individual's choice to consciously think independently and have an awareness of the outward world as well as to follow one's own mind and to have the courage of conviction of one's own perceptions and judgment. According to Rawat (2011), self-esteem involves the willingness to know not only what we think but also what we feel, what we want, need, desire, suffer over, are apprehensive of, or angered by-and to accept our right to experience such feelings.

Like many other personality characteristics, self-esteem can be thought of as both a trait and a state. An analysis of 50 published studies and data from national samples of nearly 75,000 people found strong evidence for the stability of self-esteem from age 6 to age 83 (Trzeniewski, Donnellan, & Robins, 2003). However, many other studies found that self-esteem fluctuates in response to feedback, such as acceptance or rejection by others (Heatherton & Polivy, 1991; Leary, Tambor, Terdal, & Downs, 1995).

Evidence supporting both the trait and state views suggests that people have a relatively stable baseline level of self-esteem (trait self-esteem) to which they return after specific life events have temporarily pushed self-esteem up or down (state self-esteem). Under these circumstances, we assume that high self-esteem is essential for emotional health of military personnel, especially during their formative years of military training as cadets.

**Locus of control (LOC)**

LOC refers to the perceived location of reinforcement sources for a person—that is, who or what is responsible to the things that happen to a person (Kirkpatrick et. al, 2008). As such, it is similar to other control-related constructs, such as attributions, learned helplessness, and self-efficacy. Those

with an internal LOC expect the important things in their lives to occur because of their own effort, skills, or abilities. People with an external LOC expect these things to occur because of outside forces - such as luck, fate, chance, providence or powerful others ( Abouserie 1994; Block & Block, 1980).

Rotter (1966) published the Internal-External Locus of Control Scale in which respondents were asked to choose between pairs of internal and external items relating to everyday situations. For example, on one item respondents must choose whether people's misfortunes are due to their own mistakes (internal) or to bad luck (external). Since its formulation, LOC scale has been one of the most frequently researched personality variables in the social sciences. Scores on the LOC scale have been correlated with scores on nearly every social and personality characteristic imaginable (Judge & Bono, 2001). Among the areas that most commonly have used the LOC Scale are personality and social, educational, political, clinical, and health psychology (Judge & Bono, 2001; Phillips & Gully, 1997). For example, research shows that whereas high externality scores are associated with high depression scores, internality is associated with more positive adjustment to a physical disability. In addition discrimination based on race or sex has been associated with differences in LOC. Researchers have shown that such group-level internality-externality differences have implications for mental and physical health outcomes (Phillips & Gully, 1997; Triandis et. al, 1982).

In Greek, the word 'Locus' means 'location' and control refers to the 'power to influence' and hence, "locus of control orientation is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation)." ( Zimbardo, 1985, p. 275) A person's generalized belief or expectation about whether behavioral outcomes (specifically rewards and punishments) are within their control (the consequences of their own actions) is termed as an Internal Locus of Control. On the other hand, a person's generalized belief or expectation about behavioural outcomes that result due to the external factors (consequences of chance, fate or the influence of powerful others) is termed as External Locus of Control and a person may possess either of the two.

Internal versus external control, often referred to as locus of control, refers to the degree to which persons expect that a reinforcement or an outcome of their behaviour is contingent on their own behaviour or personal characteristics versus the degree to which persons expect that the reinforcement or outcome is a function of chance, luck, or fate, is under the control of powerful others, or is simply unpredictable (Rotter, 1966). As originally defined by Rotter (1966), locus of control is a broad concept that is

present across dimensions of functioning. This has important implications in understanding how cadets, as future military leaders, view the world and take ownership of their decisions, actions and behavior which may determine military outcomes and strategic leadership initiatives in times to come.

**Army related stressors**

Researchers have emphasized that Military life is a concept that is associated with changes and transitions (Bartone & Priest 2001; Rawat, 2017b). According to Williams (1999), most transitions are associated with significant life events and changes to the individual's role or environment. These transitions have been recognized as the primary cause of stress and even though these significant events are considered as inevitable and repeated, however, the military way of life is leading to more frequent and simultaneous transitions. Therefore, the admission of cadets to Military Academies leads to the first significant changes in their life style which is associated to changes in their interpersonal relations, the removal of reinforcement and relief sources and the stressful requirement for a swift adaptation to military culture and way of life. The training imparted at Military Academies, which is conducted simultaneously in academic, physical endurance, drill, military tactics and all round development, require strong psychological and physical strength, while, in the framework of the Military instruction, the limits of cadets are continuously tested, in order to build the personality and aptitudes that will be the necessary skills for their career. More specifically, it has been found that the transition from civilian to military life as well as the military training itself is strong anxiety factors for cadets (Gold & Friedman, 2000; Myers & Bechtel, 2004).

However, a key question that arises is why some cadets in these extreme stressful conditions manage to adapt, develop and mature, while others do not? What really distinguishes those who can persist with the rigors of military training from those who cannot? Possible answers to these questions is given through the theory and research of resilience and positive emotions, which both buffers the real and perceived stress, interpret crisis as an opportunity and operate as indicators of psychosomatic health, leading to psychological well-being (Kobasa ,1979 ; Bartone ,Snook& Tremble ,2001; Rawat,2017a,b; Riolli,Savicki & Spain,2010) . More specifically, according to Tugade & Fredrickson (2004 a), positive emotions have a special beneficial effect on stressful conditions. Riolli, Savicki, & Spain (2010), by investigating this topic in real situation of high stress, studied soldiers of US Army who served in military operations in Iraq, and found that positive emotions play a very important role against traumatic stress. On the other hand, resilience, as a

powerful process of positive adjustment in a stressful environment (Luthar, Cicchetti, & Becker, 2000; Rawat, 2011; Schumm, Gade&Bell,2003; Tugade &Fredrickson, 2004a,b), consists the main factor for decreasing the stress impact of great changes and transitions occurring on admission and training of freshmen as new cadets in Military Academies.

These startling research studies have elicited increased effort into better understanding the precise nature of the military career that imposes ill effects on psychological functioning. There is now a substantial literature dedicated towards an improved understanding of this phenomenon.

Although the research suggests that a higher than average risk for developing maladaptive psychological symptoms exists among deployed personnel than of other professions, it is important to note that most have not been adversely affected and are able to manage the stress of assignments and transition from deployment in sufficiently healthy ways (Gold & Friedman, 2000; Rawat, 2017b). Specific internal characteristics prevented some soldiers from developing negative symptoms. Challenging events became transformative, character building experiences (Dolan&Adler, 2006; Adler et.al, 2008; Bartone, 1999). One of the most prevailing characteristics of resilient service men and women found in the literature regards the way events are interpreted. Particular cognitive factors that affected sense making of situations were recognized as important contributors to resilience. In particular, when studying meaning making processes of military members, Researchers found that actively finding and maintaining a sense of meaningful purpose behind assignments buffered the negative effects of stress associated with war (McGeary 2011; Park 2010). Thus, study into the underlying factors that contributed to positive meaning formation is a significant area of study in understanding how to facilitate resilience among military members. The literature asserts that personally held beliefs and cognitive styles foster a positive, solution-seeking mindset during problematic contexts (Bartone, 1999; Fredrickson, Tugade, Waugh, & Larkin, 2003; Seligman & Csikszentmihalyi, 2000; Tugade & Fredrickson, 2004). Stylistic ways of perceiving and organizing available sensory information influences the way a person makes sense of challenging circumstances, because they act as guiding frameworks of understanding a situation. Some styles are considered better for managing stress than others (Agaibi & Wilson, 2005; Rawat, 2013)

Investigation into the effects specific cognitive styles and beliefs have on soldiers' behavior during stressful experiences remains an area in which further research would add to our understanding of theory and practice. One variable that has shown significant effects on behaviour during change management regards locus of control as a ways of approaching problems.

## Cadet

A cadet is a trainee. The term is frequently used to refer to those training to become an officer in the military, often a person who is a junior trainee (Webster, 2017). Its meaning may vary between countries. The term is also used in civilian contexts and as a general attributive, for example in its original sense of a branch of a ruling house which is not currently in the direct line of succession. In Commonwealth countries, including the United Kingdom, a cadet is a member of one of the cadet forces. In the United Kingdom these are the Combined Cadet Force, the Sea/Royal Marine Cadets, Army Cadets and the Air Training Corps. Military officers in training are called officer cadets.

In Canada, the term "cadet" refers to an officer in training, with the official rank names as Officer Cadet for the Air Force and Army and Naval Cadet for the Navy. It also refers to any member of the Royal Canadian Army Cadets, Royal Canadian Air Cadets or Royal Canadian Sea Cadets. These three organizations are volunteer youth groups administered by the Department of National Defence.

In Germany, the rank Cadet (German: Seekadett) only exists in the German Navy for officers in training. In the Army and the Luftwaffe, officers in training usually have the rank of a Fahnenjunker or Ensign (German: Fähnrich) before they are promoted into the rank of a Lieutenant (Wikipedia, 2017 b).

In India, the National Cadet Corps (NCC) is a voluntary cadet organization for motivating college students to pursue a career in the Indian Armed Forces. It aims to develop qualities of character, discipline, teamwork, leadership and adventure in the students. The corps organizes outdoor activities, such as camping, trekking, mountain climbing, etc. besides providing small arms training to cadets. NCC cadets have no commitment for serving in the Armed Forces, but are given a preference by the Services Selection Board (SSB) when applying for officer commissions in the military services.

Cadet is also used as a rank for those enrolled in military academies of India, such as the National Defence Academy, Indian Military Academy, Indian Naval Academy, Air Force Academy, Indian Coast Guard Academy, Officers Training School or Armed Forces Medical College in India . These cadets are commissioned as officers in the respective service upon completion of training, and make a commitment to serve for a given minimum stipulated period anywhere in the country or abroad, whenever and wherever called upon to do so on land, sea, air or space.

In our study, the term cadet has been operationalised to refer to those undergraduate /graduate male students who underwent a thorough selection process and are undergoing military training in cadet training institutions in India.

**Civilian**

The word "civilian" goes back to the late 14th century and is from Old French civilien, "of the civil law". Civilian is believed to have been used to refer to non-combatants as early as 1829. The term "non-combatant" now refers to people in general who are not taking part of hostilities, rather than just civilians.

In general, a civilian is "a person who is not a member of the military or of a police or firefighting force" (Webster, 2017). From the perspective of the U.S. Department of Defence, Chapter 18 of Title 10 United States Code refers to non-military law enforcement officers as civilians since they are employees rather than enlisted personnel, and also in order to distinguish itself from military police (Wikipedia, 2017 c). In military and law enforcement parlance, the term "Civies" or "Civvies" are often used to refer civilian population or civilian clothing.

Under the laws of war (also known as international humanitarian law), a civilian is one 'not being a member of the armed services' and does not take a direct part of hostilities in times of armed conflict. The term "civilian" is slightly different from a non-combatant under the laws of war, because some non-combatants are not civilians (for example, religious teachers (RTs) in military/chaplains attached to the fighting armed forces or neutral military personnel in peace keeping operations).

For the purpose of our study, the term civilian student has been operationalised to refer to those undergraduate/graduate male students who are studying in colleges in India.

The idea of our research is that we monitor the locus of control ,self esteem and stress characteristics of the military profession on a sample of cadets and civilian students .When we think about cadets ,we mean those young boys and girls who have striven to put aside their life of comfort to undergo tough military training to serve the nation in uniform and protect the motherland to the peril of their lives while their civilian counterparts lead a cushy life in college and subsequently, a life of relative ease at workplace with no threat to life or limb.

## An overview of current research

Researchers have conducted studies on veterans' self-esteem, optimism and perceived control, combined in the latent variable called 'resilience', were associated with cognitive processing of war-zone experiences. The data was collected from veterans who participated in various war or peacekeeping operations. It was found that resilience is strongly associated with self-esteem, optimism and perceived control. The result shows that higher resilience predicted less distrust in others and the world, more personal growth and less intrusions and avoidance after military deployment (Casey, 2011; Cornum, Matthews & Seligram, 2011; Laurence & Matthews, 2012; Rawat & Wadkar, 2012).

It has been reported that stress related growth is very common after traumatic experience. Though negative coping fully mediated the relationship between depression and perceived stress-related growth, positive coping partially carried the influence of resilience on perceived stress-related growth. The term positive coping generally refers to adaptive or constructive coping strategies. It consists of proactive coping, seeking social support, and meaning-focused coping (Brannon and Feist, 2009; Rawat, 2015; Rawat & Wadkar, 2012).

Brannon and Feist, (2009) conducted research on a group of military personnel who had just completes their recruit training. They have reported some degree of positive change with respect to personal strength after training experience. The researchers assume it as stress related growth which contributes to the personal strength. In those recruits, the mental health problems were very less since they had higher level of resilience and less anxiety and depression. Researchers tried to give three explanations for this, one is the selection criteria itself, second the failure in investigation about severe maladjusted soldiers who might had separated from army at the earlier stage and the third explanation is it might be because of the positive changes from training-related stress. In their study, two mediator models were tested in which resilience and positive/negative coping were predicted as mediators in the associations between depression, anxiety, and perceived stress related growth (SRG) (Brannon & Feist, 2009).

Studies have related high self-esteem and high job satisfaction levels to an internal locus of control, which is typical of military personnel (Bradley et.al, 2002). A civilian, who typically has an external locus of control, if is able to convert it into an internal locus of control, would become a suitable candidate for military,. Also as one matures, the external control orientation shifts to internal control orientation (Bachrach and Peterson 1976; Lefcourt ,

1982). This perhaps suggests that civilians who join military after a certain age would be more successful at adapting to military life (Abouserie, 1994).

Military personnel are confronted with many stressful situations such in peace time during training as well as during combat in military operation; internal locus of control acts as a coping mechanism as fate and chance cannot be relied upon under such overwhelming and life threatening situations. High self-esteem is also related to good leadership qualities, which is a skill required of military personnel; a civilian possessing these two traits would have the potential of making a good military leader. Studying these measures would make job recruitment easier and also, enhancing these measures in military cadets would result in increased efficiency and performance. While job satisfaction is important in both civilian and military life (Schumm et al, 2003), Vijayashree and Jagdischchandra (2011) found that internal locus of control led to higher job satisfaction which in turn increased job performance and reduced stress level. This suggests that possibly the group with an internal locus of control may find their job more satisfactory and this is of great relevance, especially in the profession of arms where collective performance synergizes team effort which can spell the difference between victory and defeat in battle.

Montgomery (2007) hypothesized that people who enter military at an early age, i.e. right after school, tend to have an external locus of control while those who entered military after working or going to college will have an internal locus of controls.

Researchers conducted studies to estimate the link between coping styles, the psychological well-being and work related stress of military veterans and found soldiers with more years of service to have higher self esteem than those with lesser service (Fontana & Rosenheck 1998; Schnurr, Rosenberg & Friedman 1993; Southwick et al 2014). Similar results were obtained in a study of serving military personnel in India where military personnel with 11-20 years of service had better perception of self as compared to serving military personnel with 0-10 years of military service (Rawat, 2014). This suggest that years of military service can influence well being of soldiers.

In a study entitled 'The Role of Collective and Personal Self-Esteem in a Military Context' (Rohall et al, 2013) analyse the relationships between military cadets' personal self-esteem, private and public collective self-esteem, and well-being. Collective self-esteem refers to our evaluations of social identities. According to researchers, we strive to maintain both our personal and collective self-esteem and the two concepts may interact with one another such that collective self-esteem may influence personal self-esteem and well-being .Crocker & Luhtanen (1990) collected data from a survey of Reserve

Officer Training Corps (ROTC) cadets and cadets from American military academies conducted between 2002 and 2009. A total of 3,054 cadets undertook the survey and analyses of the results indicate that cadets who had a positive attitude toward the military reported higher levels of personal self-esteem and both public and private collective self-esteem, which is negatively related to depression. Respondents with higher levels of private collective self-esteem report significantly lower levels of depression and cadets with higher levels of public collective self-esteem were seen with lower levels of depression.Cadets with a positive sense of group identity also reported higher levels of personal self-worth. In addition, having a greater sense of self-worth is known to be associated with greater well-being. Personal self-esteem is seen positively related to personal well-being and cadets with more positive attitudes toward the armed services also report greater personal self-esteem and lower levels of depression.

Montgomery (2007) conducted a comparison study of late enrolees of military members with early enrolees with respect to perceived control and locus of control in active duty .This study attempted to differentiate perceived control and locus of control in two groups of military service members: those who enlisted immediately following high school (early enrolees) and those who enlisted after the age of 21 (late enrolees).

Bates et. al ,(2010) defined psychological fitness in the military as the integration and optimization of mental, emotional, and behavioural abilities and capacities to optimize performance and strengthen the resilience of war fighters; the researcher explained a military demand-resource (MDR) model as a comprehensive and integrated model of psychological fitness for the total force. The model emphasizes the importance of identifying military-driven and evidence-informed variables, and selecting operational outcome measures for resilience and performance. The model integrates the roles of internal (personal) and external (environmental) resources specifically for developing, sustaining, and restoring psychological resources, similar to the maintenance of physical fitness and health.

The characteristics of the MDR model are:

- Primary components are sequenced chronologically with inputs (demands) first, mediators (resource environment) in the middle, and outcomes (psychological fitness end state of resilience and performance) last.
- Internal and external resources are in a larger box representing the resource environment, which can either facilitate or hinder transfer of resources and resource development skills. The mobilization of

resources depends upon the nature of the resource and the skill to use the available resources.

- A robust resource environment is immaterial if the service member does not have the skill to use the resource. Conversely, people who are skilled in using their resources often need fewer resources to achieve positive resilience and performance outcomes. Desired psychological fitness end state is represented by a large box around resilience-enhancing and positive performance outcomes.
- Paths between resources and performance can be either direct or mediated by resilience (5) Path to negative resilience/performance outcomes is indicated by dashed lines. These arrows are shorter and thicker to represent that resource losses are greater in degree and speed than resource gains.
- Cyclical nature of model includes paths from the performance outcomes back to resources as well as from performance outcomes to operational demands.

Sanchez et al (2004) insisted that the differences in the military and civilian settings require more attention. While qualitative reviews such as by Judge et al (1997); Spector (1982, 1997); Tharenou (1979) concluded optimistic relationship between self-esteem, locus of control and job satisfaction, the meta-analysis by Judge and Bono (2001) validated this review.

Unlike civilian organizations, the military is strictly based on order, control over manpower and discipline (Gal & Mangelsdorff, 1991). Critical and independent thinking and challenging authority are acceptable in the civilian society but not quite in a military setup (Gold & Friedman, 2000).

While job satisfaction is important in both civilian and military life (Schumm et al, 2003), Vijayashree & Jagdischchandra (2011) found that internal locus of control led to higher job satisfaction which in turn increased job performance and reduced stress level. So, this suggests that possibly the group with an internal locus of control may find their job more satisfactory.

Before hiring a person, an evaluation of his or her core self-evaluations would determine outcomes such as job satisfaction and job performance (Judge, 2009). Theory of self-consistency by Korman (1970) states a relationship between these core self-evaluations and job satisfaction implying that an individual will engage in behavior that are more in sync with their self-concept; Higher self-core evaluations will lead to greater satisfaction.

Paunonen et al (2006) expounded in their study that "emergent leaders were measured to be high in egotism and self-esteem but low in manipulativeness and impression management."

Campbell (2006) discussed in his study "how organizations, by identifying the factors associated with a person's dispositional orientation, may ultimately develop better interventions to influence responses to change and increase the overall effectiveness of change initiatives." Judge et al (1999) also studied in their report how responses to change are "influenced by 7 dispositional traits (locus of control, generalized self-efficacy, self-esteem, positive affectivity, openness to experience, tolerance for ambiguity, and risk aversion)."

The literature review by Spector (1982) suggested that behavior in an organization and locus of control have numerous links. Montgomery (2007) hypothesized that people who enter military at an early age, i.e. right after school, tend to have an external locus of control while those who entered military after working or going to college will have an internal locus of control. Thus, "battlefield operations where precise carrying out of orders is essential, would be most appropriate for externals who are more suited for directive supervision (Spector, 1982, p.494)." While, internals are "better at collecting and processing information and would be better at performing complex tasks" (Spector, 1982, p.494). Triandis et al (1982; p 6), in their study found that the military sample is more internal than the civilian with respect to locus of control.

Cummins (1989) also stated that people with an internal locus of control were able to cope with stress more effectively whereas those with an external locus of control rely on environmental support to deal with stressful situations.

A study by Hunter and Stewart (2009) found "significant association between sub-scales of Army Locus of Control Scale and accident involvement. This is in consistency with previous studies which also suggested aviators with internal locus of control reported fewer accidents than those with external locus of control. It can, thus, be suggested that externality might be related to lack of caution or "acceptance of fate" and therefore, there is a possibility of a reasonable relation between driving accidents and this particular construct (Hoyt, 1973).

Lack of motivation, self-discipline and poor attitude are the most common causes for withdrawal from a basic training camp or boot camp as studied by Anderson (1981). This possibly is due to some flaw in the screening and selection process that could have eliminated individuals ill-suited for demands of military life and challenges of just living in the military.

Lemelle (2012) suggests more research should be emphasized upon establishing the interrelationship between these measures than studying them individually. Bartone et al (2002) also emphasize that "future studies should explore additional factors, particularly personality ones that may influence leader performance in developing leaders."

Review of studies provides evidence that self esteem and locus of control among military personnel is a reflection of image they have of themselves in society and an indication of their personality traits. The literature so reviewed suggests that although researchers have shied away from research on the military cadet population, there are few studies assessing certain psychological variables .However, important constructs of locus of control and self esteem have not been given the attention they deserve .Under these circumstances, there is a deliberate need to study military cadets in more detail .

## METHODOLOGY OF RESEARCH

### The problem of research, theory and practical contribution

During military training, cadets undergo intense pressures of time, stress and strain of physical activities as well as cognitive overload of learning academics, military etiquettes and soft skills, including leadership and team building – all under constrained environments.

Under such circumstances, determining locus of control type and self-esteem is recommended to be known before venturing in military profession, where cadets have to continuously sustain severe pressure, follows a strict schedule and intense military training. (Adler et al 2008; Bartome, Snook & Tremble, 2002; Gold & Friedman, 2000; Rawat 2014).

Considering that many civilian students in India seek to join the Armed Forces as a profession, having qualities like high self-esteem and knowledge about their own locus of control may help them to get selected for officer cadet training Academies, as these are the qualities during Service Selection Board (SSB), that are understandable attributes that many military psychologists in the selection centers give importance to.

A gap in literature covering these aspects necessitates the need for studying locus of control and self esteem of military cadets and hence this study.

## Objectives of the study

1. To find out the Locus of Control in Military Cadets.
2. To find out the Locus of Control in Civilian Students.
3. To find out the level of self- esteem in Military Cadets.
4. To find out the level of self- esteem in Civilian Students.
5. To compare the Locus of control and Self- esteem between military cadets and civilian students

The dependant variables in the study are types of individuals (Military cadets and Civilian students) and independent variables are locus of control and self esteem.

## Hypotheses

Based on review of literature, the following hypotheses were framed

1. The Locus control will be external in Civilian students
2. The Locus control will be internal in Military Cadets
3. The self-esteem will be low in civilian students.
4. The self-esteem will be high in Military Cadets.
5. There will be significant difference in the Locus of control between Military cadets and Civilian Students.
6. There will be significant difference in the Self-esteem between Military cadets and Civilian Students

## TOOLS

### Rosenberg Self-esteem scale

Self-esteem was measured using Rosenberg self-esteem scale (RSES), developed by sociologist Dr. Morris Rosenberg. It is a self-esteem measure widely used in social-science research. It uses a scale consists of 10 items

which have items of 0-30 where, and a score less than 15 may indicate a problematic low self-esteem.

The RSES is designed similar to social-survey questionnaires. It is a ten-item Likert-type scale with items answered on a four-point scale—from strongly agree to strongly disagree. Five of the items have positively worded statements and five have negatively worded ones. The scale measures state self-esteem by asking the respondents to reflect on their current feeling. The Cronbach's alpha of RSES is reported to be 0.77 to 0.88.

**Julian Rotter's scale of Locus of Control**

The Locus of Control is a 13 item questionnaire developed by Rotter (1966). It measures generalized expectancies for internal versus external control of reinforcement. People with an internal locus of control believe that their own actions determine the rewards that they obtain, while those with an external locus of control believe that their own behavior doesn't matter much and that rewards in life are generally outside of their control. Scores range from 0 to 13. A low score indicates an internal control while a high score indicates external control.

The Cronbach's alpha of Rotter's LOC scale is reported to be 0.65 to 0.79.

**Sample**

The sample comprises of military cadets and civilian students; cadets refer to those undergraduate /graduate male students who underwent a thorough selection process and are undergoing military training in cadet training institutions in India. Whereas, civilian students refer to those undergraduate/graduate male students who are studying in colleges in India.

The present study was conducted on a total of N= 400 male participants aged from 18 to 25 years dividing into; n1=200 military cadets and n2= 200 civilian students.

The sample was collected from military training institutions for military cadets, while the civilian students were from colleges and universities in India. Those civilian students who had NCC training in college were excluded from the sample lest their military training be a confounding variable. Although females are there as military cadets in military training institutions (in relatively small numbers) as well as college students, only male military cadets and male civilian students were considered in the study.

To maintain the confidentiality of the data the questionnaire was anonymous so that the identity of the participants is not revealed.

### Setting

The study was conducted at the work place setting for both military cadets and civilian students.

### Research Design and Statistics

The present research is designed to study certain important psychological aspects of male military cadets. Male college students not having any exposure to military training in National Cadet Corp (NCC) have been selected as a comparison group. The subgroups under study are compared on variables of locus of control and self esteem. Correlation between the variables under study, namely, locus of control and self esteem has also been done.

Non experimental diagnostic survey method of research design has been followed.

### Procedure

The researchers contacted the respective Head of the departments of the cadet training institution and colleges / universities These Institutions were then sent a "research invite" which included the purpose of the study and other relevant information.

The data was collected in two phases. In the first phase, the data was collected from 200 military cadets (males) in the age group of 18-25 years who were randomly selected. Thereafter, the two questionnaires measuring the self-esteem and locus of control was administered to all the respondents and in the second phase the data was collected from civilian college students in the age group of 18-25 (males), after which they too were administered the same questionnaires as mentioned in the manual .

## RESULTS AND DISCUSSION

### Scoring and Data analysis

Scores were obtained as per the scoring instructions mentioned on the respective questionnaires of self-esteem and locus of control .They were analysed and interpreted using t-test. First scores were obtained, and then calculated by finding the mean and standard deviation of each variable separately and then compared between military and civilian subjects.

Thereafter, t-test was applied to examine if there were significant differences between the scores obtained by the two groups.

## Results

Table 1. shows descriptive statistics for locus of control and self-esteem of civilian students. The locus of control mean is 81.31 and sd is 24.58 which shows that civilian students have more of external locus of control. The mean for Self-esteem came out to be 28.17 and sd is 2.97 which shows that civilian students have low self –esteem.

Table 1. Showing descriptive statistics representing mean values and standard deviations (sd) of Locus of Control and Self-Esteem for civilian student population

| Variables | Mean | Sd | N |
|---|---|---|---|
| **Locus of Control** | **81.31** | **24.58** | **200** |
| **Self Esteem** | **28.17** | **2.97** | **200** |

The Pearson Product-Moment correlation coefficients among Locus of control and Self-esteem for civilian students are shown in Table 2. From the above data it can be inferred that the external locus of control is negatively correlated with high self-esteem.

Table 2. Correlation table of civilians for locus of control and self-.esteem in civilian students

| Variables | LOC | SE | RES |
|---|---|---|---|
| **Locus of Control** | **1** | **-.023** | **-.025** |
| **Self Esteem** | | **1** | **-.12** |

Higher the score of locus of control, lower will be the self-esteem in the civilian students. The locus of control is - .023 which is negatively correlated with self –esteem.

The self-esteem is negatively correlated with Locus of control here, having value -0.23 .The data indicates if the self-esteem will be low, the locus of control will be high, that is external locus of control in civilian college students.

The Self-esteem mean is 65.23 and s.d is 4.94 which shows that military cadets high self-esteem (Table 3).

Table 3. showing descriptive of locus of control and self-esteem for Military cadets

| Variables | Mean | Sd | N |
|---|---|---|---|
| **SE** | **65.23** | **4.94** | **200** |
| **LOC** | **29.10** | **8.61** | **200** |

The mean for Locus of control came out to be 29.10 and sd is 8.61 which shows that military cadets have more of internal locus of control.

The data mentioned above indicates that the Self-esteem will be high in Military Cadets and low in civilian students. The locus of control will be internal for the military cadets and will be external will be for civilian students.

The Pearson Product-Moment correlation coefficients among Locus of control and Self-esteem are shown in Table 4**.**

Table 4. Showing correlation of locus of control and self-esteem for military cadets

| Variables | SE | LOC |
|---|---|---|
| **Self esteem** | **1** | **.002** |
| **Locus of control** | | **1** |

Correlation Significance at 0.01*.

The above table indicates that the internal locus of control is positively correlated with self-esteem. More internal the locus of control, higher will be the self-esteem in the military cadets. The locus of control is positively correlated with self –esteem (0.002), which indicates if the locus of control will be internal; the self-esteem would be high amongst military cadets.

The mean score of LOC of military cadets participated in the present study is 29.10±8.61. which indicates the military cadets have internal locus of control, as compared to the civilian students (Table – 5).

Table 5. Showing comparison results of Military cadets and civilian students on variables locus of control and self-esteem.

| Parameters | Category | Mean | SD | t =value | P= value |
|---|---|---|---|---|---|
| LOC | Military | 29.1033 | 8.61231 | 28.34 | 0.000** |
| | Civilian | 81.3102 | 24.58971 | | |
| SE | Military | 65.2375 | 4.94694 | 90.81 | 0.000** |
| | Civilian | 28.1750 | 2.97297 | | |

The mean score of LOC of civilian students participated in the present study is 81.31±24.59. which indicates civilian students have external locus of control as compared to military cadets. The mean comparison of LOC between military and civilian indicates a significant difference (t=28.34, P=0.000**).

The mean score of self-esteem of military cadets who participated in the present study is 65.23±4.94. which indicates that military cadets have high level of self-esteem as compared to civilian students. The mean score of self-esteem of civilian students participated in the present study is 28.17±2.97 which indicates that civilian students have low-self esteem as compared to military cadets. The mean comparison of self-esteem between military and civilian indicates a highly significant difference (t=90.81, P=0.000**).

## Discussion

In order to develop a better understanding of how psychological constructs of self-esteem & locus of control may be utilized in the military in general, and military cadet population in particular, it is necessary to consider research from other domains documenting the relationship of these constructs with positive mental health. Research on military socialization and training should disclose whether the attitudes and values of military cadets are different from civilian students and whether they become more congruent with those of the organization over time. The findings of our research presented here emphasize a moderated support of different changes that may accrue as a consequence of serving in the military profession.

It was felt necessary to find evidence based research and find out the progressive impact of military training in cadet training institutions, whether it is impacting and influencing future military leaders being trained in officer cadet Academies. Therefore, the aim of present study was to examine the Locus of control and self-esteem in military cadets and civilian students; it

also seeks to explore the correlation between both variables under study, namely, self-esteem and locus of control.

Without doubt, the military environment has unique characteristics: austere discipline, rigid hierarchical structure, rigorous physical training, strict rules, separation from family, friends and significant others, and isolation from the familiar civilian setting for long periods of time; such stressors may have a crucial role in the emergence of depressive symptoms but the overall development is being done in such a way that it results in more of eustress than depressive tendencies which results in good performance of cadets. (Campbell,2006; Gold&Friedman, 2000; Haldorsen, et al., 2009; Myers& Betchel,2004; Rawat 2017b).

Contradictory results have also been observed in many literature studies; some studies have also challenged similar findings and have investigated the prevalence of depressive symptoms in military trainees. For example, a cross-sectional study employing the self-rating depression scale (SDS) revealed a higher mean depression score in a cohort of 466 Chinese soldiers who had just completed their initial recruit training, compared to the general population(Xiong et.al ,2005). In another study by Iversen et al (2010), the Patient Health Questionnaire was administered via telephone interview in a sample of UK military personnel drawn from military personnel who were deployed during the active phase of the 2003 Iraq War; in that cohort, the prevalence of any depressive syndrome and major depressive syndrome was 11% and 3.7 %, respectively. Moreover, in another cross-sectional study using the SDS, Xiong et al.(2005) reported a depression rate of 25.2 % during field military training in a random sample of 1,220 Chinese soldiers. In that study, higher education level, shorter military service, origin from a city or town and health problems during military training were associated with depressive symptoms.

In context of the study, other researchers have affirmed the same results and reported similar findings (Atwater&Yammarino,1993; Bartone& Priest, 2001; Bartone et.al, 2002; Campbell,2006; Rohal et. al ,2013). Hypothesis 1, 2, 3, 4,5and 6 are accepted. The study was to find differences in locus of control and self-esteem in military cadets and civilian students, if any. It was hypothesised that the locus of control will be internal and self-esteem will be high in military cadets while the locus of control will be external and self-esteem will be comparatively low for college students.

## Conclusion

It can be concluded that the results of our study show highly significant difference between the mean values of both the variables, namely, self-esteem and locus of control. Therefore the study reveals that:

1. The level of self-esteem in military cadets is higher than the civilian students (male).

2. The locus of control is perceived to be low which is internal in the military cadets and high, which is external, in civilian students (male).

In this chapter, we have aimed to bridge the gap in self-esteem and locus of control research in military cadet context. In general, self-esteem refers to a positive or negative orientation to oneself; an overall evaluation of one's worth or value. Also, locus of control refers to the perceived location of reinforcement sources for a person – that is who or what is responsible to the things that happen to a person & is an orientation about whether the outcomes of our actions are contingent on what we do (internal control orientation) or our events outside are personal control (external control orientation). While self-esteem & locus of control have been extensively studied independently, to our knowledge, researchers have yet to investigate how self-esteem maybe enhanced through development of an internalized locus of control & vice versa. However, there is a plethora of research highlighting the positive link between self-esteem & internal locus of control with positive mental health. Under the circumstances, this work highlights an important avenue for future researchers to examine how self-esteem & internal locus of control training may be incorporated into cadet learning & development initiatives in cadet learning institutions. To this end, future research may examine whether enhancing self-esteem & internal locus of control as leader development initiatives are really applicable to the military cadet population. If the findings from self-concept literature can be considered & implemented into cadet training contexts, instructors in these institutions may be able to customize training programs designed to enhance self-esteem & locus of control of cadets who are future military leaders. If this is implemented in the formative years of cadet development, it may well provide tangible outcomes in creating better military leaders.

## Limitations

The study does not consider intensity, complexity & progressive degree of difficulty of cadet training in each term. Further research could include these aspects.

Like in most studies, methodology of data collection with exclusive use of self-report inventories has been a limiting factor in present study. Besides, rigorous controls exercised for getting precise results have placed a few restrictions in selection of the sample. These are:

a) Study is limited to male cadets and does not include female cadets, although they too are part of the military cadre training to become officers in uniform.

b) Study does not include male cadets above 25 years of age although there are cadets who join from the ranks at later stage in life (25- 30 years) and hence have more experience due to previous military exposure as soldiers.

Besides, research on other variables like leadership styles, coping resources and resilience is also important but present research has focused only on locus of control and self esteem of cadets.

## Suggestions

Military traits and attributes should be studied and reported, more often, so that civilian students can know about them and can prepare themselves better and aspire to join the Armed forces and serve the country in uniform, thereby overcoming the shortage in officer cadre in the Armed forces. This study could also help all stake holders in the selection process to know about the various psychological states a military cadet may go through during military training to ensure the psychological well-being of the military cadets.

In the process of selection for Military Academies, SSB interviews are conducted prior to the selection of military cadets for undergoing training to become an officer. For the same, knowing psychological attributes like locus of control and self-esteem could help better in predicting the potential of civilian students in meeting the criteria to become an officer cadet. For civilian students who aspire to join military services, it would be better for them if they would know the potential psychological attributes essential to be in military services. As such, training in enhancing self esteem and improving locus of

control would go a long way in developing better leaders of men in the Armed Forces.

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# SALUTOGENIC MODEL OF HEALTH, A SENSE OF FAMILY COHERENCE AND PROACTIVE COPING AMONG ADOLESCENTS

**Jelena Minić**[*]

***Abstract*:** The aim of the paper is to promote salutogenesis, which focuses on the health sources of a person, group and society resisting centuries-long domination of pathogenesis, ie. search for the factors that cause disease and a dichotomic health model (health or illness). Theoretical basis of the paper is a salutogenic model of health which was founded, theoretically and practically developed by Aaron Antonovsky during the seventies. The aim of our study is to examine correlation between a sense of family coherence, as a significant resource of resistance in salutogenic model of health, and proactive coping among adolescents.

The aim of this paper is to promote new ways of looking at family and its importance, as well as the possibility of introducing new instruments for the selection of candidates for military service when enroling in military schools. The aim is application of salutogenesis in the field of Military Psychology.

***Key words*:** salutogenic model of health, a sense of family coherence, proactive coping, adolescents.

## INTRODUCTION

During the seventies Aaron Antonovsky (Antonovsky, 1979) founded, and theoretically and practically developed salutogenic model of health, with the aim to emphasise health sources of an individual, group, society and human community in general. Salutogenic model of health is considered today as a leading theory and a good theoretical frame for promotion of health of the world population (Antonovsky, 1993), important base for a number of preventive and intervening programs (Lindström & Eriksson, 2006), as well as a new system of health protection (Becker, Glascoff & Felts, 2010). Central resource of resilience in salutogenic model which affects health protection and moving of an individual towards a positive pole on the health-disease continuum is a feeling of coherence (Antonovsky, 1987), that can be applied both to an individual or a group (Antonovsky & Sourani, 1988), and is defined as an ability to comprehend a situation and a possibility of using one`s own resources. It is determined as a specific personal disposition in relation to

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one's view of the world as being comprehensive, manageable and meaningful (Božin, 2001). As far as a sense of family coherence is concerned, family as a system and belief that family is comprehensive, manageable and meaningful is emphasised (Antonovsky & Sourani, 1988). A stronger sense of coherence of an individual and a stronger sense of family coherence not only stimulate existing individual and family resources of resilience, but also enable gaining new ones.

Antonovsky (1979) divides resources of resilience into generalized and specific ones such as follows: self-respect, cultural values, tradition, intelligence, view of the world, healthy behaviour (Lindström & Eriksson, 2006), belief (Božin, 1994) etc. Generalized resources refer to any characteristic of an individual, group or environment that helps coping with tension caused by various stressors. Antonovsky classifies these resources into eight groups: physical, biochemical, material, cognitive, emotional, estimations and views, interpersonal-relational and macrosocial and cultural ones (Božin, 2003). Generalized resources of resilience termed estimations and views refer to the strategies of coping (Vlajković, 2009), which Antonovsky (1979) defined as a general plan of action taken by an individual in order to cope with stressors. Literature offers a number of definitions of coping (Vlajković, 2009; Zotović, 2004; Zotović, 2002). Thus, Lazarus (Lazarus & Folkman, 1984) defines coping as cognitive and behavioural efforts aimed at coping, reduction or tolerance of inner and outer demands which occur in a stressful interaction between a person and the outer world. One of the conceptions of coping is a proactive coping, that is not based on negative estimations (such as a loss, damage or threat), but on the efforts put into forming general resources for coping, that would make it easier for an individual to find a way towards challenging aims and development of all its potentials (Schwarzer & Taubert, 2002). Proactive coping is defined as an effort to form general potentials that would make a transit towards challenging aims and personal development easier (Schwarzer & Taubert, 2002), that can be comprehended as a conducting of an aim rather than a risk (Đorđević, 2009), and is situated between the resources an individual possesses and possible outcomes of various life events (Greenglass, 2002).

## METHOD

The issue of the research is aimed at studying the relationship between a sense of family coherence as a central resource in salutogenic model of health and proactive coping as a generealized resource of resilience, as well as determining the differences in the expressiveness of variables listed, in relation to sex, age and residence. The aim of our research is to study the relationship

between a sense of family coherence and proactive coping, while the objective of the research is to determine the differences of the variables listed in relation to sex, age and residence of the adolescents. Sex, age and residence are treated as conditionally independent variables while a sense of family coherence and proactive coping are treated as conditionally dependent variables in the research.

A sense of family coherence presents a total relationship which an individual has towards his family (Mitić, 2000) and is operationalised by a score on the Scale for the estimation of family coherence (Antonovsky & Sourani, 1988), which consists of 26 items and measures whether family life and family are comprehensive, manageable and meaningful among the subjects (Antonovsky & Sourani, 1988). The subjects give answers on the scale from 1 to 7 estimating between the two given extremes. Items are distributed into three subscales in which components of sense of family coherence are such as follows: comprehensibility, manageability and meaningfulness. Theoretical range of scores on the overall scale is: 26-182, on comprehensibility subscale: 8-56, while on manageability and meaningfulness subscales: 9-63. Reliability of the instruments in the research is .85.

Proactive coping is a strategy of coping which motivates individuals to plan action ahead, pose certain aims for their personal development and strive towards higher quality of life, the one that they would be more satisfied with. It is defined as an aim oriented long-term behaviour an individual adopts before the stressful situation takes place (Aspinwall & Taylor, 1997) and has three characteristics (Đorđević, 2009): it integrates strategies of planning and preventive strategies with proactive self-regulatory realization of the aim, it integrates proactive realization of the aim with an identification and use of social resources and it uses proactive emotional coping for self-regulatory realization of the aim. Proactive coping is operationalised by a score on the Inventory of proactive coping, which is translated into Serbian language, it has 55 items, which are distributed into 7 subscales (6 subscales measure positive strategies, while the 7th measures negative ones, so-called evasive coping which is often left out from the Inventory). The subjects give answers by estimation on the scale from one fully incorrect to four fully correct. This multidimensional inventory of coping is intended for an estimation of different strategies of coping, which individuals use in stressful situations, as well as in anticipation of stress and prediction of difficult situations they may find themselves in. Theoretical range for the inventory as a whole is: 55-220 (by subscales: proactive coping or proactive coping, in its narrow sense, is: 14-70; reflexive coping: 11-44; strategic planning: 4-16; preventive coping: 10-40; seeking for an instrumental support: 8-32; seeking for an emotional support: 5-20 and evasive coping: 3-12. Reliability of the instrument is .90.

General hypothesis in our study is such as follows: adolescents with more expressive proactive coping have a stronger feeling of family coherence. The hypothesis is based on the knowledge that the resources are support to coping (Zotović, 2004), they precede coping and are based on it to a certain extent (Schwarzer, 1994), also, a sense of family coherence represents a significant resource of family coping with stress (Antonovsky & Sourani, 1988), and a very feeling of coherence (Stanić, 2011). The very existence of the resources enables and determines a general plan of action which an individual uses in order to cope with stressors. Resources of coping encompass attitudes towards oneself, intellectual skills and views of the world, that comprise a sense of coherence and belief of possibility of being in charge and control (Mitić, 2000). Results of the research reveal that persons with a strong feeling of coherence in stressful situations focus on more active coping, coping that is focused on the problem (Ruiselova, 2011) and have higher scores on subdimensions of proactive and preventive coping. Person with a strong feeling of coherence tends to accept challenging situations, which is the essence of proactive coping (estimation of risk and forthcoming demands are seen as a challenge rather than a threat). Also, it is confirmed that there is a relationship between a sense of coherence and styles of coping (Margalit, Raviv & Ankoneena, 1992). In one of the latest studies in our country (Zlatanović, Pavlović & Šekrevski, 2012), it is found that the subjects with stronger sense of coherence use adaptive strategies of coping with stress more frequently than the maladaptive ones. The strength of coherence feeling is also related to the successful behaviour of the individuals that protects them from the stress, as well as to the use of adequate strategies, so that they would face stressful situations more successfully (Zlatanović et al., 2012). There are studies which deal with the relationship between coping with stress and some family characteristics (Zotović, Telečki, Mihić & Petrović, 2008), positive relationship of sense of coherence between individuals and coping (Ruiselova, 2011; Zlatanović et al., 2012), as well as relationship with proactive coping (Minić, Ranđelović & Stanojević, 2010; Minić, Stanojević & Ranđelović, 2011). The hypothesis is tested by correlation analysis.

Besides the general hypothesis, two specific ones are also defined (tested by t- test and variance analysis). The first specific hypothesis that there are differences in the intensity of a sense of family coherence in relation to some social and demographic variables: place of residence (Kosovo and Metohija and Serbia), age (mid-adolescence and late adolescence) and sex of adolescents is based on findings on negative effects of social crisis on different aspects of a person's functioning, and on the changes occuring in the forming of sense of coherence with age (Božin, 2001), as well as on the basis of some previous studies (Minić, 2009) in which certain differences in the intensity of

coherence feeling among adolescents in relation to sex are revealed. The other specific hypothesis that there are differences in the intensity of proactive coping in relation to residence, age and sex of the adolescents is based on our knowledge that certain changes and maturity take place during different aspects of their development, as well as on the findings of some previous studies in which certain differences were revealed (Minić et al., 2010; Minić et al., 2011; Minić, Ristić, Vujović, Cvejić & Ranđelović 2010).

The sample of our research encompasses adolescents (N=360) aged from 15 to 24, who are in the sub-periods of mid-adolescence (from 15 to 19) and late adolescence (from 20 to 24), unemployed, in the process of formal education (secondary school pupils or students), live with their parents and are single. Collecting of the data was carried out in the cities and towns in the territory of Kosovo and Metohija and Serbia on the premises of the secondary schools and faculties.

## RESULTS

Measurements of descriptive statistics for variables: a sense of family coherence and proactive coping in adolescents reveal that the mean values are closer to the theoretical maximum (Table 1).

Table 1. Measurements of descriptive statistics of a sense of family coherence and proactive coping

| Variable N | N. items | T. range | Min | Max | AM | SD |
|---|---|---|---|---|---|---|
| SFC 360 | 26 | 26 - 182 | 81 | 182 | 146,34 | 19,90 |
| PC 360 | 55 | 55 – 220 | 67 | 220 | 170,21 | 21,01 |

SFC- sense of family coherence; PC- proactive coping; N- total number of subjects; N. items- number of items; T. range- theoretical range of scores; Min. minimal realized values; Max.- maximum realized values; AM- arithmetic mean; SD- standard deviation

On the basis of the results it can be observed that there is a weak positive relationship between proactive coping and sense of family coherence both as a whole and individually and all three components: comprehensibility, manageability and meaningfulness (Table 2).

Table 2. Relation between a sense of family coherence (as a whole and by components) and proactive coping

| Family coherence | Proactivecoping |
|---|---|
| A sense of family coherence | .183** |
| Comprehensibility | .104* |
| Manageability | .150** |
| Meaningfulness | .235** |

Results of correlation analysis indicate a weak positive relation between a sense of family coherence components (as a whole) and proactive coping in its narrow sense, reflective and preventive coping, seeking instrumental and emotional support. By an observation within the frame of the components, a positive relation between reflective coping and seeking the instrumental support for all three components of a sense of family coherence is revealed. Positive relationship between proactive coping in its narrow sense and the components: manageability and meaningfulness, preventive coping and seeking emotional support with meaningfulness is also revealed. Statistically significant relationship between a sense of family coherence and strategic planning and evasive coping is not revealed (Table 3).

Table 3. Relation between components of a sense of family coherence and strategies of proactive coping

| | SFC | C | Ma | M |
|---|---|---|---|---|
| Proactive coping | .187** | – | .182** | .228** |
| Reflective coping | .176** | .139** | .127* | .199** |
| Preventive coping | .130* | – | – | .184** |
| Seeking instrumental support | .172** | .105* | . 146** | .205** |
| Seeking emotional support | .126* | – | – | .155** |

** correlation significant on the level 0.01; * correlation significant on the level 0.05; SFC – A sense of family coherence; C – Comprehensibility; M – Manageability; M – Meaningfulness

Results show that there is statistically significant difference of a sense of family coherence in relation to the age of the adolescents. There is also statistically significant difference in the intensity of the components of a sense of family coherence: comprehensibility and manageability (Table 4).

Table 4. t- test of a sense of family coherence (as a whole and by components) in relation to the age of the adolescents

| | N | AS | SD | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|
| SFC<br>mida a.<br>late a. | 180<br>180 | 148,81<br>143,88 | 18,99<br>20,53 | 2,367 | 358 | .018 |
| C<br>mid a.<br>late a. | 180<br>180 | 43,45<br>41,37 | 7,28<br>8,04 | 2,570 | 358 | .011 |
| MA<br>mid a.<br>late a. | 180<br>180 | 51,54<br>49,58 | 7,46<br>7,78 | 2,441 | 358 | .015 |

SFC- a sense of family coherence; C- Comprehensibility; MA- Manageability; mid a.- subperiod of mid adolescence; late a.- subperiod of late adolescence; N- total number of subjects; AM- arithmetic mean; SD- standard deviation; t- value t statistics, df- degree of freedom and Sig.(2-tailed)- probability

Results show that there is a statistically significant difference in the intensity of the component of meaningfulness. Statistically significant difference of a sense of family coherence and the components of comprehensibility and manageability in relation to the sex of the adolescents is not revealed (Table 5).

Table 5. t- test of a sense of family coherence in relation to the gender of the adolescents

| | N | AM | SD | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|
| meaningfulness<br>male<br>female | 180<br>180 | 52,60<br>54,14 | 7,13<br>7,36 | -2,017 | 358 | .044 |

N- total number of subjects; AM- arithmetic mean; SD- standard deviation; t- value t statistics, df- degree of freedom and Sig.(2-tailed)- probability

Results of t-test which show that there is a statistically significant difference in the intensity of the component of comprehensibility in relation to the residence of the adolescents. Statistically significant difference of a sense of family coherence and components of manageability and meaningfulness is not revealed (Table 6.).

Table 6. t- test of a sense of family coherence in relation to the place of residence of the adolescents

| | N | AM | SD | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|
| C<br>Serbia<br>Kosovo & Metohija | 180<br>180 | 41,36<br>43,46 | 7,68<br>7,66 | -2,598 | 358 | .010 |

C- Comprehensibility; N- total number of subjects; AM- Arithmetic mean; SD- standard deviation; t- value t statistics, df- degree of freedom and Sig.(2-tailed)- probability

On the basis of the data it can be concluded that there is a statistically significant difference in the intensity of proactive coping in relation to the age of the adolescents (Table 7).

Table 7. t- test for proactive coping in relation to the age of adolescents

| | N | AM | SD | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|
| Pro<br>mid-a.<br>late a. | 180<br>180 | 167,69<br>172,81 | 20,84<br>21,16 | -2,312 | 358 | .021 |

Pro- Proactive coping; mid- a.- subperiod mid-adolescence; late a.- subperiod of late adolescence; N- total number of subjects; AM- arithmetic mean; SD- standard deviation; t- value t statistics, df-degree of freedom and Sig.(2-tailed)- probability

Results of t- test show that there is statistically significant difference in the intensity of proactive coping in its narrow sense and emotional support in relation to the age of the adolescents (Table 8).

Table 8. t- test for proactive coping in narrow sense and emotional support in relation to the age of adolescents

| | N | AM | SD | t | df | Sig.(2-tailed) |
|---|---|---|---|---|---|---|
| Pro<br>mid a.<br>late a. | 180<br>180 | 44,62<br>46,08 | 5,47<br>4,92 | -2,664 | 358 | .008 |
| Ep<br>mid a.<br>late a. | 180<br>180 | 15,08<br>16,11 | 3,17<br>5,68 | -2,120 | 358 | .035 |

N- total number of subjects; Pro- proactive coping in narrow sense; Ep- emotional support; mid a.- subperiod of mid adolescence; late a.- subperiod of late adolescence; AM- mean; SD- standard deviation; t- value t statistics, df- degree of freedom and Sig.(2-tailed) -probability

Results gained revealed that the adolescents encompassed by the research possess strong central and generalized resourses of resilience, because both sense of family coherence and proactive coping are closer to the theoretical maximum. This result is significant and shows that the adolescents see their families as comprehensive, manageable and meaningful, plan their actions ahead, set certain aims for personal development and progress towards a better quality life, the one that would satisfy them.

Results gained revealed a positive correlation between a sense of family coherence and proactive coping, which means that stronger sense of family coherence is revealed among the adolescents with more expressive proactive coping and vice versa, by which our general hypothesis is confirmed. Results of correlation analysis of a sense of family coherence as a whole and strategies of proactive coping show that the adolescents with more expressive strategies of proactive coping, reflective and preventive coping, seeking of instrumental and emotional support, have a stronger sense of family coherence and vice versa. Results of correlation analysis of a sense of family coherence by components and strategies of proactive coping show that for the adolescentns with more expressive reflective coping and seeking for instrumental support, family life and family are more comprehensive, manageable and meaningfull, that for the adolescents with more expressive proactive coping family life and family are more manageable and meaningful, while for those with more expressive preventive coping and emotional support family life and family are more meaningful. Positive relationship between a sense of family coherence and strategies of proactive coping shows that the

adolescents who have stronger sense of family coherence combine autonomous establishment of aim with cognition and behaviour, consider different behavioural alternatives, create a hypothetical plan of action, also anticipate potential stressors, seek for support from their social net and the like. Relationship between a sense of family coherence and strategy of strategic planning, which relates to the creation of distribution of an aim oriented action, where great tasks are divided into a set of its constitutional components is not revealed, which can be understood when taking into account that use of this strategy requires a certain degree of maturity and skill. Also, a lack of relationship between a sense of family coherence and evasive coping is expected, due to the postponing of an action and negative strategy within the frame of proactive coping.

Results gained reveal that there are differences in the intensity of a sense of family coherence and proactive coping in relation to some sociodemographic variables, by which the first and second specific hypothesis are partially confirmed. Namely, component of meaningfulness is more expressive among female subjects, i.e. among female adolescents, which shows that family life and family are more meaningful for the female adolescents than the male adolescents. This result differs from the results of some previous studies. In those studies of a sense of coherence of an individual (where comprehensibility, meaningfulness and manageability are related to the world the individual is surrounded by), a more expressive sense of coherence is revealed among the male subjects (Minić, 2009). Also, there are studies in which significant differences in the expression of a sense of coherence in relation to the sex of the subjects are not revealed (Margalit& Idan, 2011). Mentioned researchers explain differences in the intensity of a sense of coherence by different ways of facing the stress, also stating that men have tendency to be more agressive, while women tend to be more sensible and emotional. Differences in relation to the gender of the adolescent subjects can be partially explained by the biological factors, and also by the reasons related to different roles, expectations and status of a member of female or male sex in certain social milieu. Traditional role of female and her dedication to family and expectations related to the role of a female may determine relationship with family and comprehension of its sense and significance. Component of comprehensibility is more expressive among the adolescents who live in Kosovo and Metohija in relation to the adolescents from Serbia. This result indicates that for the adolescents from Kosovo and Metohija family life and family are more comprehensive than for the adolescents from Serbia. A question may be posed here: Why do adolescents from Kosovo and Metohija comprehend family and family life more than the adolescents from Serbia? Perhaps, an explanation lies in the fact that the family members are

closer to each other, share feelings and see family as a safe point, particularly when found in difficult and specific conditions of life as they are in the territory of Kosovo and Metohija. Revealed differences in the intensity of a sense of family coherence in relation to the age of the adolescents show that the adolescents in the subperiod of mid-adolescence have stronger sense of family coherence as a whole, and the components of comprehensibility and manageability in relation to the adolescents in subperiod of late adolescence.

Results show that family life and family are more comprehensive and manageable among younger adolescents than the older ones. An answer may be found in the complex changes that take place in the adolescence period, stronger dependence of younger adolescents on their parents and their family as a whole, but also in a lesser differentiation of self in relation to the older adolescents. Results gained reveal that proactive coping is more expressive in older adolescents, i.e. adolescents in a subperiod of the late adolescence in relation to the younger ones, as well as that the older adolescents (late adolescents) more frequently use strategies of proactive coping in its narrow sense and emotional support in relation to the younger adolescents, i.e. adolescents in the subperiod of mid-adolescence. Changes that follow different aspects of a person, particularly those related to the cognitive development and realization of task developing, may help us understand more expressive proactive coping among older adolescents, as well as more frequent strategies of proactive coping in its narrow sense and emotional support. Determination of strategies of proactive coping in its narrow sense and emotional support indicate a necessity of a certain level of cognitive, emotional and social maturity. Namely, strategies of proactive coping in its narrow sense comprise combining of autonomously established aim with cognition and behaviour of a person, while strategy of seeking emotional support refers to the regulation of an emotional distress. Adolescent through communication about his feelings searches for empathy and company from his own social net, in order to gain emotional self-regulation.

## CONCLUSION

The most important conclusion of this study is as follows: adolescents possess strong resources of resilience. Those who see their family as comprehensive, manageable and meaningful plan their actions ahead, set certain aims for their personal development and progress towards better quality life, the one that they would be satisfied with. In addition, family life and family are more meaningful for female adolescents, and more comprehensive and manageable for younger adolescents. Adolescents from Kosovo and Metohija find family life and family more comprehensive in

comparison to the adolescents from Serbia. Proactive coping is more expressive among the older adolescents, who use strategies of proactive coping in narrow sense and emotional support more frequently.

The main point is to promote salutogenesis and to search for the factors that promote health and not disease in the study of adolescents and their families. The survey that was carried out is a continuation of the author's research conducted on a sample of families and adolescents. The aim of salutogenesis is to improve and strengthen the mental health of adolescents on their way to adulthood (through education, choice of profession, particularly military profession).

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# SUBJECTIVE EXPERIENCE OF ACCEPTANCE/REJECTION AS A FACTOR OF ADJUSTMENT AND OVERCOMING OF STRESS IN THE MILITARY PROFESSION

**Anita Pešić**[*]

***Abstract*:** The issue covered in this chapter relates to the importance of perceiving the subjective experience of acceptance/rejection as a factor of adjustment and overcoming of stress in the military profession. The theoretical basis of the chapter is the Parental acceptance/rejection theory by Ronald P. Rohner (Parental acceptance/rejection theory–PARTheory, Rohner, 1984). The empirical part of the chapter examined the theoretical concept in relation to factors of adjustment and overcoming stress in the military profession. In conducting this esearch the Adjustment to the Military Profession Questionnaire developed for the needs of the research was used (Pešić, 2018), Parental Acceptance/Rejection Questionnaire–PARQ (Parental Acceptance/Rejection Questionnaire; Rohner, 1984) and the „Dyadic Adjustment Scale"- DAS (Dyadic Adjustment Scale; Spanier, 1976). The research sample consisted of 443 Professional Army Servicemen (PAS) from the Serbian Armed Forces. The results of the correlation analysis show that there is a statistically significant positive correlation between the experience of acceptance by parents (mother, father) or an attachment figure and the factor of adjustment and overcoming stress in the military profession, namely in the field of professional success, positive experience of work and co-worker's, good collaboration and communication with both superiors and subordinates. The article aims to stress the importance of family in creating a subjective acceptance/rejection experience as a significant factor in adjusting to the specifics of work in the military profession and overcoming professional stress. The obtained results contribute to innovation in: professional psychological selection as the first factor in prevention of stress, plans and syllabuses of professional military training for employees on professional stress as the second education factor in adjusting and overcoming stress in the military environment. Likewise, the theoretical foundation considered and the empirical results may support the development of a psychological empowerment program for the purpose of improvement of resilience of the military profession members to stress.

***Key words*:** military organization, PAS, acceptance/rejection, adjustment, overcoming, stress.

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## INTRODUCTION

The military profession is considered exceptionally stressful. The reason for its stressogenicity lie primarily in the character of tasks implemented by military members on daily basis, which pertain to performing tasks from the 3 missions of the military. The missions and tasks of the Serbian Armed Forces are defined by the National Assembly of the Republic of Serbia in accordance with the Constitution, and are based on the inalienable right of the Republic of Serbia on individual and collective defence, in accordance with Article 51 of the Charter of the United Nations and fundamental principles of the international law governing the use of force. The missions of the Serbian Armed Forces are as follows: Defence of the Republic of Serbia from external armed threats; Participation in building and preserving peace in the region and the world; Support to civil authorities in combating security threats (Constitution of the Republic of Serbia, 98/2006).

The military profession requires more from an employee than other professions, it is demanding due to the specific internal relations of subordination and single seniority, adherence to a strict hierarchy and the obligation to execute orders, sanctioning the refusal of orders, military discipline, adherence to the rules of international war and humanitarian law (Gostović, 2009). The synonyms to the military profession are a profession without working hours, changes in working environment, risk to life and health, also honourable, highly responsible, hierarchically organized. The specifics of the military profession reflect in the increased psychophysical strain at workplace, frequent and long absence away from families, unconditional honouring of the military organization hierarchy, readiness for transfer for the needs of the service, limitation of the freedom to express one's own opinion, to participate in political and trade union organizations (Ćirić et al. 2009). The specifics of the military profession also reflect in specific education, process of health and psychological selection, separation from the primary family, mostly at the age of 14, whereby the family home is replaced by a boarding school where military rules and regulations have to be observed.

The listed specifics of the military profession imminently lead to socio-psychological limitations which require continuous adjustment so as not to become a constant cause of continuous stress and psychosomatic reactions. Deliberations on what are the stressors and what are the consequences of the military environment stressor effects are numerous. What is common is that stress is an everyday companion of employees in the military environment. Stress can be defined as life experience accompanied by biochemical, physiological and cognitive changes and behavioural changes in a person's

effort to adjust to the situation in which their vital values are threatened or in an effort to „neutralize" the consequences caused by a traumatic event (Kostić, 2000, Pajević, Kasagić 2001) On the other hand, adjustment is the creation of possibilities to harmonize the needs of a personality and its behaviour with the possibilities and requirements from the environmnt. This is most often achieved by adjusting to certain conditions through change of patterns and structure of behaviour in accordance with the requirements of the environment or the broader community. Adjusting of PAS to all specifics of the military environment (way of life, organization of work, series of limitations, etc.) is certainly a specific process, especially in relation to other work environments (Šaranović, Suša, Đorđević, 2016).

It might be said that any change in the life of an individual requires a new adjustment, whether to a new living (physical) or working (social) environment. The very process of adjustment to new life and work conditions cannot be temporally limited to a certain number of days, but it duration can vary and it depends on the complexity of the environment and its requirements, but also the characteristics and specifics of each individual, which relates to adjustment in the military as well (Šaranović, Suša, Đorđević, 2016).

Various psychological factors are indicators of adequate adjustment to the military environment and overcoming of stress in the military profession: the achieved level of education, quality of military training, physical fitness, cohesion of the military environment, relations with superiors and subordinates.

## THEORETICAL BASIS OF THE RESEARCH – THEORY OF PARENTAL ACCEPTANCE/REJECTION BY RONALD P. ROHNER

This article takes the family as a factor assisting in adjustment and overcoming stress in the military profession. The influence of the family of origin is examined, and its task of transforming an individual from a biological entity into a social being which exhibits socially acceptable patterns of behaviour. In the family of origin is taught: language and communication skills are learned, patterns of behaviour, working habits, lifestyles and interests are developed. All these factors are resources but they also represent the risks for adjusting and overcoming stress. The influence of the quality of the emotional partnership and the influence of the PAS family in the mature age on the ability to adjust and overcome the stress in the military environment were also considered.

The theoretical starting point of this work is the theory of Ronald P. Rohner (Parental acceptance/rejection theory-PARTheory, Rohner, 1984), which is basically a theory of socialization, attempting to explain and predict the main causes, consequences and correlates of acceptance/rejection by the attachment figure on the behavioural, cognitive and emotional development of a child, and on functionality and performance in adulthood. The dimensions of parents' warmth discussed in the theory are related to the quality of the affective relationship between parents and children, i.e. the physical and verbal behaviour that parents use as an expression of their feelings. One end of the continuum is labelled as acceptance and refers to warmth, attention, care, concern, upbringing, the love that parents feel and show to their children. The other end of the continuum is characterized by rejection which refers to absence or lack of feelings and behaviours associated with acceptance accompanied by various damaging psychological and physical behaviours (Rohner, Khaleque, Cournoyer, 2003).

According to PART Theory attachment figures are all persons a child or an adult maintains a long-term emotional relationship with, i.e. the persons who are emotionally important and irreplaceable by another (Ainsworth, 1989, Bowlby, 1982, Colin, 1996, according to: Rohner, Khaleque, Cournoyer, 2003).

If the needs of an adult for a positive response from the attachment figure are not adequately met, specific emotional reactions and behaviours occur: feelings of anger, restlessness, and other destructive emotions that lead to an emotional shutting down of the person in order to protect against new unpleasant experiences. Also, defensive behaviour or counter-rejection can occur, where the rejected person rejects his rejectors, which may result in a series of interpersonal conflicts. The rejected often construct mental representations of emotional connections as unpredictable, uncertain, untrustworthy. Negative feelings resulting from the decline in self-esteem and self-sufficiency due to perceived rejection reduce the capacity to overcome stress. This is why the rejected persons often feel upset, emotionally unstable (Rohner, Khaleque, Cournoyer, 2003).

The theory can be divided into three subtheories. The personality subtheory strives to explain what happens to children who perceive being loved/not being loved by their parents, and what kind of adults they develop into. Given the topic of the research, the family context as a factor of adjustment and overcoming of stress in the military profession, this part of theory will be dominant in the chapter. The subtheory of confronting (overcoming) deals with the topic of how some rejected people (children/adults) successfully face the effects of daily rejection, without any negative effects on mental health. The prominent ways are: social-situational factors (the existence of an alternative warm and supportive person, spending as little time as possible with the person who rejects, thus reducing the effects

of the negative behaviour of the rejecting figure of attachment); and certain ways of thinking that allow a person to deal with difficulties: depersonalization - the person does not attribute the rejection to himself but to the situation which the unfriendly attachment figure is in, a sense of individuality - a person's consciousness of their personal uniqueness, distinctiveness, diversity from others; self-determination - represents the degree of belief of the rejected person that they have an impact on their own life. (Rohner, Khaleque, Cournoyer, 2003).

## PREVIOUS RESEARCH

The importance of the sense of acceptance from the figure of attachment or secure attachment (at the young age by the parents, at the mature age by the emotional partner), is proven by the results of the empirical research.

Children, later adults, raised in a warm family environment with less strict demands and prohibitions show more independence in work, more originality and creativity, cooperation, higher level of social maturity, friendly feelings towards other people, less hostility and dissatisfaction and less insecurity (Watson, G., 1957, according to: Šaula, 1989); tend to have a stronger sense of professional identity and are more independent in making career decisions (Blustein, 1995).

Professional maturity is positively related to the Secure Pattern of Family Affective Attachment. Students with a higher degree of professional maturity are more likely to be Securely attached. Professional maturity is negatively related to Occupied and Rejecting pattern of family attachment. This connection is in accordance with the theory of affective attachment, according to which children with a secure attachment pattern are exploring the world around them more and are better in establishing relationships with people. Consequently, they are exploring the work world more, and? they are better informed about the procedures for achieving career goals. All this, according to Super's theory, classifies them in the category with a higher degree of professional maturity. (Đorđević, 2014).

Parents are the first figures of authority, which set a model (matrix) for what people expect in relationships with authority. They also state that internal models of authority, as well as internal models of affective attachment (Bowlby, 1988, according to: Pistole, 2003), are initiated by occurrence of anxiety. When people experience insecurity or stress in a work situation, their internal models are activated, prompting them to reject or establish an affective relationship until they feel safe again. A high sum of points on an anxiety/ambivalence scale significantly correlates with the mentioned anxiety

related to work and concern regarding relationships at work; while a high sum of points on the avoiding scale is in correlation with general dissatisfaction with work, arguments with colleagues, concern about working hours and difficulties in social life and relationships at home. (Hardy&Barkham,1994). The results show that affective attachment pattern correlates with effort made at work, job satisfaction, tendency toward excessive commitment and anxiety in performing duties (Davila, J. Burge, D., & Hammen, C. 1997).

When talking about managers, a supportive mentor (supervisor, employer) can help an employee develop self-esteem and self-confidence, which will lead to maintaining a balanced, satisfactory working atmosphere and less stressful interpersonal relationships. Applying the theory of attachment in examination of social support, it has been shown that social support, more than instrumental or technical support, results in a higher level of satisfaction at work, and a lower degree of stress (Nelson& Quick,1991, according to: Pistole, 2003).

Also, the research results analysis shows that the higher degree of emotional quality of partnerships is statistically significantly connected to quantitative estimates of work success (official marks) and to almost all elements of subjective work success evaluation - self-assessment of success, interaction with subordinates and superiors (Pešić, 2017).

The feeling of abandonment produces a type of stress and anxiety which initiates searching for security and prevents risk taking (Kahn,1996, according to: Pistole, 2003).

Behavioural and attachment components in adults are similar to those observed in early age. Adults also demonstrate: desire for proximity of the attachment figure when under stress; increased pleasure in its presence; anxiety when that person is inaccessible and pleasure and joy when she reappears (Shaver 1988; Weiss 1982, 1984, according to: Pistole, 2003).

The employees who are securely attached will have less conflict in communication than those who are insecurely attached. There were attempts to examine compatibility of attachment styles and communication strategies in the relationship between superiors and subordinates. Bowlby 1989; Weiss 1994, according to: Pistole, 2003).

A family climate characterized by a weak affective exchange between the child and the parents combined with the strict control of the child's behaviour, with the demand that the rules be respected without exception, develops a withdrawal in social communication in the child, surrendering to the influence of the "stronger ones", avoiding taking responsibility and disappearing in the mass (Majstorović et al., 1999).

Research has shown that children, thanks to parental support, in adulthood develop the skills necessary for success in life: health or lack of

psychosomatic problems, good communication with the environment and people, adjusting to a given situation and finding solutions, flexibility, work motivation and satisfaction, emotional satisfaction, friendship, life happiness. If parents do not satisfy the child's needs, they create aggressive, emotionally cold people, with low self-esteem and emotionally unstable, exhibiting problematic behaviour, rebellious, depressive, delinquent and generally unsuccessful people. Research by domestic authors shows that personality structures characterized by low self-control, low cooperation, protection and research, and high extraversion and aggressiveness and orientation determines internet addiction, but these personality traits are a potential psychological basis for other forms of addiction as well (Đorđević, Kostić, Milojević, 2011). That is, the same research shows that internet addicts drink, smoke and experiment with psychoactive substances (PS) more than those who spend less time online. This information is important for the military environment because the abuse of alcohol, cigarettes and PS are forms of misconduct in the military. These results justify the research of parents' relationship with children in the military profession selection process.

## METHODOLOGY

The military environment, in its entirety, with a series of its specifics, certainly represents a complex living and working environment. In this sense, in military psychological literature it is defined that the adaptation of an individual depends on multiple factors that can be grouped together as follows: 1) the severity of the conditions of military life and training - measured by professional success; 2) characteristics of personality (andragogical and psychological). In addition to the aforementioned factors, the quality of social relations has a significant impact - the relationship with superiors and subordinates, as well as the system of entire military organization (Šaranović, Suša, Đorđević, 2016).

Having in mind the specifics of the military environment, the problem of research is to determine whether and how the family context contributes to the adjustment and overcoming of professional stress. By family context, we mean the primary family in the early period and the emotional partnership in the mature period of life.

The aim is to determine whether there is a statistically significant link between the subjective perception of acceptance/rejection from figures of affection (parents, emotional partner) and elements of adjustment to stress in the military profession.

The independent variables are: dimensions of parental acceptance/rejection according to PART theory (dimensions: parental

warmth/acceptance, aggression/hostility, indifference/neglect, undifferentiated rejection) and marital quality dimensions - dimension of satisfaction in the dyadic partnership, cohesion of the partnership - getting along in the dyadic partnership, expressing feelings.

The dependent variables are professional elements of adjustment to stress in the military profession (Pajević, D., Kostić, P., Maravić, G., 1988): performance evaluation as an indicator (of quality and usefulness of work, professional efficiency, productivity, precision and timeliness in performing tasks, independence and entrepreneurship, self-initiative and creativity); self-evaluation of success, andragogic elements (degree of education and average grade); adjustment to the military environment through quality of interpersonal relation with superiors and subordinates.

Instruments: Parental Acceptance/Rejection Questionnaire – PARQ (eng. Parental Acceptance/Rejection Questionnaire; R. P. Rohner, 1984), „Dyadic adjustment" Scale - DAS (Eng. Dyadic Adjustment Scale; Spanier, 1976), Adjustment to the Military Profession Questionnaire (Pešić, 2018) is a self-evaluation instrument constructed for the needs of this research.

The basic hypothesis is that there is a significant correlation between parental acceptance/rejection and the emotional quality of partner relations with elements of adjustment to the specificities of the military profession. In other words, the respondents who regard the relationship with their parents and their emotional partner as accepting demonstrate higher level of adjustment to the specifics of the military profession and environment, which is also shown through higher professional results and functional interpersonal relationships.

The research sample was purposive and consisted up of 443 professional army servicemen (PAS) employed at the Ministry of Defence (MoD) and Serbian Armed Forces (SAF).

Basic information on examined characteristics were given through the indicators of central tendency (arithmetic mean (AM), standard deviation (SD)). Statistics was used – namely Correlation analysis (Spearman's correlation coefficient) to determine relations between variables included in the research.

## RESEARCH RESULTS

We assumed that the military specific organizational demands can be easily overcome by employees with accepting relationship with their parents. Such employees have a base that enables the belief in personal qualities, abilities and knowledge, self-esteem, emotional stability, self-confidence at work, readiness to easily recognize and adapt to new organizational changes, experience the working environment as a positive place for further

professional development, evaluation of associates primarily as well-meaning, accessible and collaborative, which enables better communication and work functionality. These are all elements of successful adaptation to the military environment and indicators of overcoming the stress of the military profession.

Interpretation of the obtained results has its limitations that stem from the characteristics of the sample. By analysing the results, we interpret parenting styles in the families of origin of the now adult people of different educational background in the military profession. We link their assessment of childhood experiences and the current success of children/adults who have already achieved high educational results - graduated from university, with a smaller percentage in the sample who finished postgraduate studies. Also, we learn about the quality of emotional relationships by examining only one, most commonly the male partner.

The respondents state that their parents showed acceptance, warmth, love, care, concern, support, understanding, respect, which was evident from the results achieved by their children.

The aim of the research is to recognize the indicators (or predictors for the needs of the selection process) of adjustment to the specifics of the military profession in the category of highly educated employees in the military profession from the point of view of family context.

In the sample, the highest marks are given to parenting acts of mothers and fathers (AM: M-16,26; F-15,35) where respondents perceived their parents as warm and accepting (Table 1 and 2). Another subscale with higher empirical values, ie close to the theoretical maximum is Aggressiveness/Hostility subscale.

Table 1. Perception of acceptance/rejection from mother (complete sample)

| Subscales PARQ | number of items | theoretical range | empirical range | AM | SD |
|---|---|---|---|---|---|
| WAR | 5 | 5-20 | 5-20 | **16,26** | 3,35 |
| AGR | 7 | 7-28 | 7-27 | **9,35** | 2,49 |
| IND | 6 | 6-24 | 6-21 | 8,10 | 2,94 |
| UND | 6 | 6-24 | 6-22 | 7,06 | 1,72 |
| complex rejection | 19 | 19-76 | 19-65 | 24,00 | 5,34 |

WAR- parental warmth/affection, AGR- parental hostility/aggression,
IND- parental indifference/neglect, UND – parental undifferentiated rejection

Table 2. Perception of acceptance/rejection from father (complete sample)

| Subscales PARQ | number of items | theoretical range | empirical range | AM | SD |
|---|---|---|---|---|---|
| WAR | 5 | 5-20 | 5-20 | **15,35** | 3,45 |
| AGR | 7 | 7-28 | 7-26 | **9,33** | 2,46 |
| IND | 6 | 6-24 | 6-23 | 8,76 | 3,15 |
| UND | 6 | 6-24 | 6-22 | 7,20 | 1,96 |
| complex rejection | 19 | 19-76 | 19-69 | 24,74 | 6,18 |

WAR- parental warmth/affection, AGR- parental hostility/aggression,
IND- parental indifference/neglect, UND – parental undifferentiated rejection

By analysing the influence of parental acceptance/rejection to elements of adjustment to the specifics of the military profession (Table 3) we see that the respondents who gave high marks for experience of acceptance by their parents have higher scores in their performance review: mother ($r = .784$, $p<0,01$), father ($r = .738$, $p<0,01$).

***Higher performance review*** **was found in the respondents who see their mothers as warm and who develop the feeling of acceptance, i.e. are less hostile.** Performance review is a collective measure of various indicators of professional adjustment and performance: the realization of tasks, respect of standards and norms, an indicator of the relation of an officer to the rights of subordinates, their peers and superiors, respecting regulations and procedures, human rights, ethical norms, accountability, indicators of commitment to work, care for staff security and asset maintenance, as well as reliability in realization of tasks, independence, resourcefulness, physical abilities. The obtained results are in accordance with the theoretical basis of the research. The perception of parental acceptance influences the development of personality: friendship, the existence of an emotional response, emotional warmth, self-respect, self-sufficiency, a positive view of the world. These are elements of social cognition and mental representations, i.e. the concept of belief in oneself and others, the positive perception of the world based on past experiences. The results of the research support the PARQ theory personality subtheories, the relationship with the mother and the experience of oneself and the world, as well as the quality of relationships that are established with the world and the working environment (Rohner, 2004).

The respondents who highly evaluated the **acceptance by the mother**, evaluated highly their professional success ($r =.249$, $p<0,01$), familiarity with the rules and regulations of the military profession ($r =.143$, $p<0,01$), sense of respect by their superior ($r =.135$, $p<0,01$), helping their subordinates to solve

professional tasks (r =.158, p<0,01), private problems (r =.215, p<0,01), transfer of knowledge and professional experience (r =.171, p<0,01).

Table 3. Correlation between acceptance/rejection from the mother and indicators of adjustment in the military profession

| **Parenting style of the mother** | Subjective criteria of adjustment – self-evaluation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Success | Knowing rules and regulations | Superior accepts my proposals | Superior makes well intentioned corrections of my opinions | Superior allows professional training and education | Superior understands me and helps me with problems which influence my work | I respect opinions of my subordinates | I make well intentioned corrections of my subordinates' opinions | I allow/support further education and training of my subordinates | I am flexible in communication with my subordinates | I help my subordinates in executing tasks | I transfer my knowledge to my subordinates | I help my subordinates in resolving their private problems |
| **Acceptance** r = | **.249** | **.143** | **.135** | .066 | .029 | .031 | .061 | .025 | .094 | .003 | **.158** | **.171** | **.215** |
| p= | **.000** | **.003** | **.005** | .169 | .546 | .516 | .218 | .611 | .058 | .952 | **.001** | **.000** | **.000** |
| **Hostility** r = | -.058 | -.074 | **-.129** | **-.132** | **-.100** | **-.139** | -.089 | **-.109** | **-.125** | **-.133** | -.030 | -.023 | -.012 |
| p= | .235 | .122 | **.007** | **.006** | **.038** | **.004** | .072 | **.027** | **.012** | **.007** | .552 | .642 | .811 |
| **Neglect** r = | **-.255** | **-.123** | **-.123** | -.021 | .069 | .038 | **-.119** | -.044 | -.027 | -.019 | **-.159** | **-.155** | **-.219** |
| p= | **.000** | **.011** | **.011** | .659 | .153 | .433 | **.016** | .377 | .586 | .699 | **.001** | **.002** | **.000** |
| **Rejection** r = | **-.108** | -.032 | **-.142** | -.092 | -.002 | -.058 | **-.161** | **-.128** | **-.100** | -.062 | **-.118** | -.070 | -.012 |
| p= | **.029** | .515 | **.004** | .063 | .967 | .243 | **.001** | **.012** | **.050** | .220 | **.020** | .169 | .809 |
| **Complex rejection** r = | **-.140** | -.065 | **-.134** | -.085 | -.032 | -.073 | **-.117** | **-.117** | -.027 | -.069 | -.051 | -.072 | -.021 |
| p= | **.005** | .188 | **.007** | .089 | .516 | .142 | **.023** | **.022** | .599 | .179 | .322 | .161 | .681 |

Respondents who have the experience of acceptance from their mother have a more positive image of themselves and their performance. The result is consistent with theoretical considerations. According to PART theory, based on experiences from the past, children with a sense of acceptance will have an image of themselves as worthy of love and attention, about the world as a safe place. They will develop into self-confident people, open to communication and cooperation with others, interested in the world in which they live, capable of

solving life's problems, capable of accepting other people and relations with them. Relationships and relations in a friendly world and society are more positive, so the individual himself has a high appreciation of both the world and his own place in and contribution to such a world (Rohner, 2004).

**Likewise,** the persons who see their mother as warm and accepting, **demonstrated better knowledge of *rules and regulations of the military profession*,** unburdened by relationship with their mother, they are better at exploring the world around them, are more curious, and therefore have more varied knowledge they use in their professional and private life (Rohner, 2004).

**The set of items relating to *self-evaluation of the quality of relations respondents have with their superiors* shows that there is statistically a very significant positive correlation of the mother's acceptance estimate and the estimate of respect by a respondent's superior.** There is a statistically negative correlation between the estimate of affection and benevolence of the superior with the feeling of Hostility and Rejection from the mother. The estimate of acceptance brought from the family experience was proven to influence the relations with the outside world and work environment. Co-workers are seen positively and favourably, which makes collaboration and solving professional tasks and problems easier.

**The set of items relating to *self-evaluation of the quality of relations respondents have with their subordinates* shows that there is statistically a very significant positive correlation of the acceptance and the estimate of helping the subordinates in solving professional tasks and private problems, as well as in transfer of knowledge and professional experience.** Assessment of the acceptance and care of the mother has created a personal attitude on the need to help and care for other people (a partner, friends, professional associates). There is statistically very significant and very weak negative correlation between the experience of Neglect, Rejection and Complex Rejection. These results are in favour of positive relations between a mother and a child, a relationship that is full of respect and tolerance, which as such builds a self-confident, curious person, who easily and successfully establishes relationships, a person with great predispositions to adjust and overcome professional stress.

The respondents who evaluated father's acceptance as high (Table 4), achieve good performance review ($r = .738$, $p<0,01$). Also, the respondents who evaluated father's acceptance as high had a high self-evaluation of: professional success ($r = .217$, $p<0,01$), knowledge of rules and regulations of the military profession ($r = .126$, $p<0,01$), relation with subordinates based on transfer of knowledge and experience ($r = .109$, $p<0,05$), resolving of work ($r = .099$, $p<0,05$) and private problems ($r = .194$, $p<0,01$).

Table 4. Correlation between acceptance/rejection from the father and indicators of adjustment in the military profession

| **Parenting style of the father** | Subjective criteria of adjustment – self-evaluation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Success | Knowing rules and regulations | Superior accepts my proposals | Superior makes well intentioned corrections of my opinions | Superior allows professional training and education | Superior understands me and helps me with problems which influence my work | I respect opinions of my subordinates | I make well intentioned corrections of my subordinates' opinions | I allow/support further education and training of my subordinates | I am flexible in communication with my subordinates | I help my subordinates in executing tasks | I transfer my knowledge to my subordinates | I help my subordinates in resolving their private problems |
| **Acceptance** r = | .217 | .126 | .089 | .038 | .018 | .019 | .074 | .074 | .051 | -.005 | .099 | .109 | .194 |
| p= | **.000** | **.009** | .069 | .438 | .717 | .704 | .142 | .142 | .308 | .914 | **.048** | **.029** | **.000** |
| **Hostility** r = | -.232 | -.039 | -.118 | -.087 | -.024 | -.039 | -.162 | -.162 | -.075 | -.087 | -.170 | -.108 | -.219 |
| p= | **.000** | .430 | **.016** | .076 | .625 | .430 | **.001** | **.001** | .138 | .084 | **.001** | **.032** | .000 |
| **Neglect** r = | -.203 | -.096 | -.122 | -.080 | .017 | -.029 | -.080 | -.080 | -.060 | -.057 | -.129 | -.128 | -.230 |
| p= | **.000** | **.048** | **.012** | .101 | .733 | .557 | .111 | .111 | .238 | .260 | **.010** | **.010** | **.000** |
| **Rejection** r = | -.164 | -.023 | -.147 | -.108 | -.029 | -.055 | -.127 | -.127 | -.083 | -.064 | -.071 | -.091 | -.053 |
| p= | **.001** | .652 | **.003** | .030 | .563 | .271 | **.013** | **.013** | .108 | .214 | .167 | .076 | .303 |
| **Complex rejection** r = | -.146 | -.012 | -.108 | -.117 | -.058 | -.049 | -.158 | -.158 | -.118 | -.110 | -.114 | -.081 | -.120 |
| p= | **.004** | .815 | **.032** | .020 | .251 | .329 | **.002** | **.002** | .023 | **.033** | **.027** | .117 | .020 |

The quality of relationship with father proved to be statistically very significant in relation to experience of oneself and one's adjustment in the military environment.

The result on the sense of father's Acceptance and element of adjustment to specifics of the military profession indicates the importance of identifying with the father and the need to confirm, through high work results (performance review), the strength and power that is initially perceived and seen in the father's figure. There is a statistically significant positive correlation between the feeling of parental acceptance (mother, father) and educational and professional success, a

positive experience of work and people, good cooperation and communication, both with superiors and with subordinates.

The results of our research are consistent with theories and research where parental warmth, support, and acceptance have proven to be beneficial to good development results such as: communication skills, expressing thoughts and feelings, success, independence, motivation, curiosity (Rohner, 2004).

Children raised in a warm family environment, with less strict demands and prohibitions, show more independence, originality and creativity than children whose parents are also warm, but very restrictive. These children also show greater co-operability, social maturity and friendly feelings towards others, and less hostility, insecurity and dissatisfaction than children whose parents are very restrictive. (Watson, G., 1957, according to Šaula, 1989).

A record of cross-cultural research indicates that children and young people who have experienced a rejection type of relationship with their parents, regardless of differences in culture, language, gender, exhibit specific forms of poor psychological adaptation: problems in controlling hostility, aggression and passive aggression, dependence or defensive independence, violated self-esteem, an impaired sense of competence, emotional blockade, emotional instability, a negative view of the world (Rohner, 2004). Parents at the same time are the first and most important models of identification for their children. The behaviour of parents toward children also determines the behaviour of the child, while in adulthood it influences the perception of oneself, the world around him, attitudes and opinions about the world he lives in.

Research has shown that children across all cultures have a great desire for parental love and support which helps children, later adults, to develop the skills necessary for success in life: health or lack of psychosomatic problems, good communication with the environment and people, adjusting to the situation and finding solutions, flexibility, work motivation and satisfaction, emotional satisfaction, friendship, life happiness. If parents do not meet the child's needs, they create aggressive, emotionally cold people with low self-esteem who are emotionally unstable, exhibit problematic behaviour, are rebellious, depressive, delinquent and generally become unsuccessful people. The results of our research point to the great importance of the **sense of parental acceptance for adjustment to the specifics of the military profession; for achieving professional results, creating good interpersonal relationships in the working environment as a factor in overcoming professional stress**.

The quality of an emotional partnership affects the stability of the partnership, but also the physical and psychological health of emotional partners. Also, physical and psychological health are the primary prerequisites for working ability, adjustment to the military profession and factors of overcoming professional stress.

Many elements of work activity and workload affect processes and compliance of partner relations, altering the psychological and physical health of partners and behaviour within the partnership. Stress can be triggered by a real external event, but it may also be a subjective stress, an experience of incompatibility or dissatisfaction with work and life. It is important to distinguish the long-term effects of work stress and short-term change in stressors. Short-term work stress is most often caused by work overload, a conflict of work and partner roles, increased tension in the partner relationship, reduced quality and satisfaction with partner relationship. Transfer of dissatisfaction can be temporary, as a response to an increased burden that manifests itself most often by withdrawal of partners, irritability, impatience, and use of power. (Perry-Jenkins, Repetti, Crouter, 2001).

Partner support proved to be essential in raising the individual's resistance to stress, somatization and occurrence of various forms of addiction diseases (Grzywacz, Marks, 2000б).

We have assumed that the emotional quality of partner relations is closely related to adjusting to the specific nature of the military profession. Considering that one of the specifics is frequent absence of the emotional partner from home that has an impact on the quality of emotional partnership. The quality of emotional partnerships is monitored through the following dimensions: cohesiveness of partnership, satisfaction in the partnership, affection in a partner dyad, expressing feelings.

The results of the importance of the quality of emotional partnerships on adjusting to the specifics of the military profession (Table 5) show that the respondents who rated the cohesiveness of partner relationships with higher grades also rated their professional performance ($r = .175$, $p < 0.01$), knowledge of the rules of service ($r = .182$, $p < 0.01$), good professional relationships with subordinates according to***: respecting opinions*** ($r = .137$, $p<0,01$), ***well-intentioned correction*** ($r = .114$, $p<0,01$), ***enabling and allowing training and education*** ($r = .140$, $p<0,01$), ***flexibility in communication*** ($r = .110$, $p<0,01$), ***help in solving professional problems*** ($r = .182$, $p<0,01$), ***transfer of knowledge*** ($r = .154$, $p<0,01$), ***help with resolving private problems*** ($r = .165$, $p<0,01$. On the other hand, the respondents who evaluated the cohesion of partner relations as low, gave the same evaluation about their personal professional success, knowledge of rules of service and relations with subordinates.

Table 5. Correlation between the emotional quality of partner relations and indicators of adjustment to the military profession

| Emotional quality of partner relations | Subjective criteria of adjustment – self-evaluation | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Success | Knowing rules and regulations | Superior accepts my proposals | Superior makes well intentioned corrections of my opinions | Superior allows professional training and education | Superior understands me and helps me with problems which influence my work | I respect opinions of my subordinates | I make well intentioned corrections of my subordinates' opinions | I allow/support further education and training of my subordinates | I am flexible in communication with my subordinates | I help my subordinates in executing tasks | I transfer my knowledge to my subordinates | I help my subordinates in resolving their private problems |
| **Dyadic relationship satisfaction** r = | -.108 | -.063 | -.052 | -.084 | -.084 | -.076 | -.071 | -.107 | -.089 | -.009 | -.028 | -.096 | .004 |
| p= | **.039** | .232 | .323 | .109 | .110 | .149 | .190 | .046 | .098 | .869 | .607 | .075 | .934 |
| **Cohesion of partner relation** r = | .175 | .182 | .087 | .080 | .024 | .017 | .137 | .114 | .140 | .110 | .182 | .154 | .165 |
| p= | **.000** | **.000** | .076 | .104 | .632 | .730 | **.006** | **.023** | **.005** | **.029** | **.000** | **.002** | **.001** |
| **Getting along in dyadic partnership** r = | .099 | .108 | .173 | .121 | .146 | .165 | .164 | .214 | .213 | .145 | .107 | .145 | .069 |
| p= | **.044** | **.026** | **.000** | **.013** | **.003** | **.001** | **.001** | **.000** | **.000** | **.004** | **.033** | **.004** | .169 |
| **Expression of feelings** r = | -.070 | .004 | .057 | .108 | .157 | .158 | .113 | .169 | .162 | .129 | .078 | .045 | -.038 |
| p= | .156 | .927 | .245 | **.026** | **.001** | **.001** | **.024** | **.001** | **.001** | **.010** | .119 | .374 | .445 |
| **Total results of respondents** r = | .111 | .167 | .140 | .107 | .089 | .121 | .187 | .205 | .209 | .178 | .177 | .174 | .118 |
| p= | **.036** | **.001** | **.008** | .043 | .092 | **.022** | **.001** | **.000** | **.000** | **.001** | **.001** | **.001** | **.029** |

The respondents who gave higher values to items relating to **cohesion of dyadic partnership, also have better performance review results** (r =.333,

p<0,05).). The respondents who gave lower values to items relating to cohesion of dyadic partnership have lower performance review results.

Respondents who expressed greater **satisfaction in the dyadic partnership** evaluate their professional performance with lower marks. Respondents who are more satisfied with the dyadic partnership are aware that the emphasis on their engagement at work has been shifted to family life (usually due to starting a family, child care), and also that they have not been investing as much time in the professional engagement as they would want.

Respondents who rated getting along in dyadic partnership with higher marks, gave them also for their professional success, knowledge of the rules of the service, relationship with superiors and subordinates. Conversely, respondents who rated getting along in dyadic partnership with lower marks also assessed their professional performance, knowledge of the rules of the service, relationship with the superiors and subordinates as low.

There is a statistically significant **positive** and very low correlation between **expressing feelings and self-evaluation of relations with superiors:** ***benevolence in correction, allowing training and education, understanding and help in solving problems influencing the quality of work, self-evaluation of relations with subordinates: respecting opinions of subordinates, benevolent correction of opinion, allowing education and training, flexibility in communication***. Respondents who gave higher marks to expression of feelings, gave higher marks to relations with superiors/subordinates as well, in the majority of spheres.

We started the research with the premise that marriage as a social institution should provide more than basic functions of marriage that are usually mentioned, economic security, giving birth to and raising offspring. Marriage and emotional partnership was viewed as a modern institution fulfilling many needs such as: belonging, loyalty, protection, togetherness, support and intimacy, mutual respect and understanding, empathy, acceptance, good communication, harmonization, help in realization of professional and life interests. All these needs represent a resource for adjustment and overcoming of professional stress.

We believed that especially important for adjustment to the specifics of working in the military profession is the quality and satisfaction in marriage or emotional partnership. The analysis of the research results showed that **a higher level of emotional quality of partnership is statistically significantly correlated to quantitative evaluations of professional success (performance review) and almost all elements of subjective professional success (self-evaluation of success, interaction with subordinates and superiors).**

The results show that the initial hypothesis of this research stating there is a statistically significant correlation between the family context and adjustment to the military profession is confirmed. There is a statistically

significant positive correlation between the feeling of Acceptance by parents (mother, father) and educational and professional results, positive experience of work and people, good collaboration and communication, both with the superiors and the subordinates; and also that there is a statistically significant correlation of higher degree of emotional quality of partnerships and adjustment to the military profession.

In the end, i point to certain methodological limitations in research and suggestions for further empirical research that would complete knowledge of family operations on adapting the specifications of military profession.

Research constraints stem from the characteristics of the sample: Respondents are between 22 and 56 years of age (apparent is the distance from the primary family, especially if they see that due to the needs of school, the primary family left 14-15 years), and with a university degree and postgraduate studies in country and abroad. About the educational styles of parents inferred on the basis of reports from the children, now adults, but not on the basis of their parents. About the emotional quality of partner relationships we received information from only one emotional partner, without comparing it with the views of another emotional partner. The results of this research indicate the possible directions for further research on the problem of adaptation in the military profession.

The next research on a sample of members of the military profession could include the examination of the characteristics of the work and the working environment, the psycho-social status of the members, the emotional stability, the locus of control, the strategy of the first time of stress. authoritarianism, value system, computing skills, motivation for work, sports engagement.

## CONCLUSION

The results of the empirical research on the importance of the family context for adjustment to the specifics of the military profession, i.e. on the importance of primary family in early age and high quality emotional partnership later in life indicate several possibilities.

They indicate the necessity of viewing the family context in the selection processes for admission to military schools and academies as an important factor of adjustment to the specifics of the military profession, as well as prevention of psychosomatic reactions and prediction of professional success.

Also, the results point to the topics which should be included in curriculums and syllabuses of military trainings regarding the topics of specifics of working in the military profession, on professional stress, professional and personal psychological factors which represent resources or

risks for adjustment to the specifics of the military profession and overcoming stress in the military profession.

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# ALTRUISTIC OUTCOMES OF STRESS AND COMBAT EXPERIENCE IN MILITARY OPERATIONS

**Chanchal Agarwal[*], Abhijit P.Deshpande, Samir Rawat[**]**

***Abstract*:** Glimpsing into military psychology research reveals that most studies have explored stress and its negative aspects on mental health of military personnel returning from combat operations with very few studies reporting positive outcomes due to experiencing combat (Bartone, 2005; Rawat & Wadkar , 2012; Stern, 1995). Rawat (2017) studied the dynamics of altruism as self sacrifice among military personnel in India and reported that altruistic nature of soldiers was inculcated due to military training and nature of profession; probably due to ingrained military values of making sacrifices largely to a large extent of living in an austere and parsimonious military environment and undergoing hardships so that others may live a peaceful and secure life. This chapter aims to study altruism amongst serving military personnel with combat experience in an effort to find some constructive, optimistic outcomes of stress and combat experiences in military operations. We discuss in detail our study on altruism among military personnel in the backdrop of perceived stressors due to exposure to combat. The research study considered illustrates constructive positive outcomes of stress and combat experiences. Importance of the study is to show that where all these negative outcomes of combat experience do exist and cannot be wished away, there is hope of some positive outcomes as well which gives a sense of worth and meaning to life to military personnel with combat experience who are likely to become more altruistic after experiencing threat of death and destruction in combat operations.

***Key words*:** Altruism, Stress, Combat experience, Military Psychology.

## INTRODUCTION

A glance at research in military psychology indicates that most of the studies have explored stress and its negative aspects on mental health of military personnel returning from combat operations (Gouws, 2017; Hyer et.al 1996 ; Southwick et al., 1993). Only a few studies have recorded positive outcomes due to experiencing combat (Bartone, 2005; Rawat & Wadkar,

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2012; Stern, 1995). According to Rawat (2017), soldiering is a life full of challenges, unflinching demands and sacrifice. The researcher studied the dynamics of altruism as self sacrifice among military personnel in India and reported that altruistic nature of soldiers was inculcated due to military training and nature of profession; probably also due to ingrained military values of making sacrifices of living and operating in an austere and parsimonious military environment and undergoing hardships so that others may live a peaceful and secure life. This chapter aims to study altruism amongst serving military personnel in an effort to find some constructive, optimistic outcomes of stress and combat experiences in military operations. We discuss in detail our study on altruism among military personnel in the backdrop of perceived stressors due to exposure to combat.

## ALTRUISM MEETS EGOISM - MILITARY VALUES

We often think of altruism as pro social behavior in terms of relatively simple motives and acts ,defining an altruist as one who confers a benefit on someone else without profit to himself ,or without intention of profit from his/her act ,or with positive motives to be helpful .Various motives may impact and impel an individual to benefit another ;helpful processes may stem from social pressures and expectations that all costs incurred in providing aid will be adequately compensated ,perhaps with interest ,in some way or another.

In its widest sense ,altruism describes a variety of behaviors which range on the continuum from doing small favours (for example ,offering a seat to a lady with a child) to saving lives (for example ,intervening to help a stranger being attacked with knives) ; from 'doing good' to 'unwarranted self-sacrifice'. While small acts of altruism maybe experienced in our everyday lives, they don't quite measure up to the extreme acts of altruism that take place in the military setting where soldiers often put themselves to harm's way and at times ,even to the peril of their lives so that others may stay safe .Altruism has been operationalized as voluntary behavior carried out to benefit another individual without anticipation of rewards from external resources and done for its own sake (Baron & Bryne, 1997, 2004; Post, 2005).

We now discuss how altruism can be best understood in the military context and results of other useful researches will be enumerated below.

Although enduring in a military environment can be very demanding and stressful, most armed forces personnel adapt and adjust well to rigors of combat soldiering (Bartone,1996,1998, 2006; Basu, 2017; Rawat & Wadkar , 2012; Singh,2006). Just living in a military environment can be overwhelming as it impinges on an individual's overall functioning and tests human limits (Bower,1997 ; Cotton, 2001; Moore, 2006; Rawat, 2008; Schnurr, Rosenberg

& Friedman, 1993). Yet, military research is replete with studies of combat soldiers and their strong spirit in overcoming all odds to survive in battle (Edwards, 1993; Newman, 1992; Singh, 1985). It is evident that several psychological factors are associated with combat. Physical harm involved in fighting a war manifests itself in death, disability and destruction. It has been found that these may have psychological fallouts in form of war-psychosis, fear, apprehensions, uncertainty, and personality disorders during and after combat (Gouws, 2017; Khan, 2000; Srivastava, 2006; Tucker et. al, 2005). Despite rigorous military life which prepares for combat and culminates in soldiers' skills, psychological factors affect cognitive and behavioral aspects of soldiers in an actual battlefield environment (Brooks, Byrne, & Hodson, 2001). Negatively, it may create fear of death, boredom and isolation, shock, confusion, bewilderment, war-neurosis, and weariness (Green et. al, 1988; Hunt & Robbins, 2001 a, b; Jones et.al, 2006; Kroesen, 2001; Southwick et.al, 1997). On the positive side, combat experience may bring trust , loyalty, courage, patriotism, nationalism, morale, and leadership (Gruber, 2004, Husain, 2006; Kala 2003; Kallai, 1983 ; Labuc, 1991; Manning, 1991; O'Nell,1999; Oweini, 1998 ; Rawat, 2008 ; Rawat & Wadkar, 2009 ; Rawat, 2014,2015, 2017; Snow, 1984).

War is becoming more stressful and of all stressors in a military environment, threat of biological and chemical weapons is perceived as most stressful (Coker, 2001). Most researchers have reported battle fatigue as a broad group of physical, cognitive and emotional signs that result from heavy cognitive and emotional task of facing danger under difficult conditions in battle (Bartone, 1998; Gal & Mangelsdorff, 1991; Rawat, 2011, 2011a; U.S. Army Field Manual, 2003). It has been demonstrated that sleep deprivation, combined with sustained workload are more due to psychological or cognitive, rather than physical tasks (Englund & Krueger, 1985; Krueger, 1991; Martin, Bender, & Chen, 1986). Major stressors include work characteristics (e.g., work quantity, diversity and complexity, time availability and deadlines), physical work environment (e.g., climate, noise, working hours), nature of work and human environment (e.g., leadership styles, usefulness of work) (Brooks et al., 2001; Chapman, 2000; Cotton, 2001; Tucker, Sinclair, & Thomas, 2005). Few research studies have found institutional discrimination issues in assignment, promotion, selection and retention and reported lack of equal opportunities to be perceived as emotional stressors amongst military personnel from minority groups (Goel, 2005; Krishnan, 2004; Misra, 2006; Rajan, 2004). While most soldiers go through combat without ever succumbing to stress, few are evacuated from battlefield due to combat stress reaction, while still others go through battle seemingly unaffected, only to develop post-traumatic stress disorder (PTSD) reactions later on ( Gouws,2017

;Hughes, Cameron, Eldridge, & Devon, et al., 2005;Michel,Lundin & Lasron ,2003; U.S. Army Field Manual, 2003).

Majority of studies have demonstrated that factors that help military personnel to adjust to stressors of combat include rigorous military life and training (Fontana & Rosenheck, 1998; Rawat & Wadkar , 2012), positive cognitive appraisal (Jennings et al., 2006; Rawat,2012) and higher cognitive skills, keeping focused and fostering self worth (Munsey, 2006), personality factors like ideological commitment (Kanagaratnam, Raundalen, & Asbjornsen, 2005), beliefs and attitude (Kraaij & Garnefski, 2006;Rawat & Wadkar, 2012), fighting spirit (Hautamaki & Coleman, 2001; Rawat, 2013), resilience and optimism about life (Seudfeld, 1997; Rawat, 2015). Behavior and support of unit and subunit leaders have been identified as crucial coping resource in stress control amongst military personnel (Gal, 1986; Marlowe, 1985, 1986a, 1986b ; Rawat, 2011, 2015; Rawat & Wadkar, 2012; ) .Review of studies in Indian context suggests that altruism among military personnel has not been widely studied in India or abroad and hence this chapter.

## THE PROBLEM OF RESEARCH

The present research is aimed at studying altruism amongst serving military personnel. To assess these aspects, difference in perception of serving military personnel injured in battle (MPI), serving military personnel uninjured in battle (MPU), and other serving armed forces personnel of Indian army not initiated as yet into combat (who will be referred to as non-combat military personnel(NCMP)) will be found in the present study.

The present research also attempts to find difference among groups with reference to number of years of military service (0-10 years of military service and 11-20 years of military service respectively).

The present research also attempts to find difference among groups with reference to rank status (officer rank and personnel below officer rank).

The importance of research on altruism in the military is theoretical as well practical There is a need to examine altruism in the military profession in theoretical sense to increase and strengthen our knowledge and understanding of why do people sacrifice their comfort and at times ,even their lives for the benefit of society. In the practical sense, application of an 'altruistic barometer' could be an innovation in the selection procedures and processes as well as indicators for modification of military and psychological training.

## OBJECTIVES OF STUDY

The study is based on following objectives:

1. To find out whether serving military personnel injured in battle, serving military personnel uninjured in battle, and other serving armed forces personnel not initiated as yet into combat differ with respect to altruism.
2. To find out whether serving military personnel from range 0-10 years of military service and serving military personnel from range 11-20 years of military service differ with respect to altruism.
3. To find out whether military personnel from officer rank differ from personnel below officer rank (PBOR) with respect to altruism. The dependent variable of the research is Altruism while the independent variables are a) types of military personnel (combat military personnel injured in battle, combat military personnel uninjured in battle and non combat military personnel ,i.e. those who are yet to be initiated into combat), b) number of years of military service (respondents with 0-10 years of military experience and respondents with 11-20 years of military experience) and c) Rank status (Officer Rank and Personnel below officer rank).

## HYPOTHESES AND RATIONALE

Certain hypotheses are formulated regarding differences between serving military personnel with combat experience and other serving armed forces personnel not initiated as yet into combat on altruism. These were based on relevant literature on combat experiences and perceptions with reference to variable of altruism considered in present study.

Main hypotheses of the study are:

1.Serving military personnel with combat experience injured in battle, serving military personnel with combat experience uninjured in battle, and other serving armed forces personnel not initiated as yet into combat differ on altruism.

1a. Serving military personnel with combat experience injured in battle are more altruistic as compared to other serving armed forces personnel not initiated as yet into combat.

1b. Serving military personnel with combat experience uninjured in battle are more altruistic as compared to other serving armed forces personnel not initiated as yet into combat.

1c. Serving military personnel with combat experience injured in battle are more altruistic as compared to serving military personnel with combat experience uninjured in battle.

Rationale behind hypotheses stemmed from the reasoning that combat experience changes viewpoint of an individual. Military personnel with combat experience attach new meaning to life as has been suggested by review of related literature. With this background, above hypotheses of differences between serving military personnel injured in battle, serving military personnel uninjured in battle, and other serving armed forces personnel not initiated as yet into combat on the variable of altruism under study have been framed.
Additional analyses will also be carried out by considering number of years of military service (0-10 and 11-20 years respectively) and rank status (officer and personnel below officer rank) with respect to measured variable, namely, altruism .

## SAMPLE

For purpose of present study, serving military personnel with combat experience have been operationally defined as those serving armed forces personnel of Indian army who have continuously served for more than 90 days in a combat zone where military operations have taken place against enemies of the Nation (e.g. military operations in Siachen glacier, Kargil, Jammu and Kashmir). They also meet criteria of having either fired upon enemy or themselves have been fired upon by enemy with weapons, grenades, mines, or aerial shelling. Combat veterans have been further classified into two categories. These are as follows:

Combat military personnel injured in battle (MPI): Those serving armed forces personnel who have suffered with any physical disability during military operations due to any of the following:

- Gun shot wound
- Mine blast injury
- Splinter injury due to enemy shelling
- Grenade blast injury.

Combat military personnel uninjured in battle (MPU): Those serving armed forces personnel who despite continuous service for more than 90 days duration in a combat zone have themselves not suffered with any physical disability due to enemy action.

In the present study, non-combat military personnel (NCMP) refer to those serving armed forces personnel who have no combat experience and have not been initiated as yet into combat zone.

Total sample for present research constitutes 360 serving military personnel. The sample includes 120 serving military personnel injured in battle(MPI) , 120 military personnel uninjured in battle(MPU) , and 120 other serving armed forces personnel not initiated as yet into combat (non-combat military personnel-(NMP) ). Each group has a further split of 60 personnel from range 0-10 years of military service and 60 personnel from range 11-20 years of military service. In each sub group, 30 officers and 30 personnel below officer rank are included in equal numbers to maintain homogeneity of groups. The entire sample of serving armed forces personnel is selected from military cantonment in Pune city.

## STATISTICS

The present research is designed to study altruism as an important psychological aspect of serving military personnel. Serving armed forces personnel not initiated as yet into combat (non-combat military personnel) have been selected as a comparison group.

The present research is a 3 x 2 x 2 (types of military personnel with respect to combat experience x number of years of military service x rank status) between- subject design.

The subgroups of serving military personnel under study are compared on variable of altruism.

## TOOLS

In present study, since not all serving armed forces personnel were fully conversant with English language, translation of tools in Hindi (Indian language), has been done with forward and back word translation. An option was given to respondents to answer in language of their choice. 180 respondents of officer rank answered in English, 171 out of 180 personnel below officer rank answered in Hindi with remaining 9 respondents answering in English.

## ALTRUISM TEST

Altruism test by Jain (1989) is a useful tool to measure altruistic behaviour for personality studies. The test is bilingual in English and Hindi language. It has a total of 25 items, 20 of which are positively scored and 5 items are negatively scored. For each item, three alternate responses are provided ranging from Agree (3), Cannot say (2), to Disagree (1). Respondent's altruism score is the algebraic sum of scores obtained on all different items. As number of items in the test is 25, range of possible scores on it is from 25 to 75, higher scores indicate greater altruism. The author has reported Cronbach's alpha reliability coefficient of .76. The tool has been validated against Buss Durkee's aggression inventory as well as Pal and Naqvi's aggression inventory and showed correlation coefficients of –.47 and –.52 respectively.

## PROCEDURE

Data had been collected from 360 serving armed forces personnel. Pune is one of the largest military cantonments in India with various training establishments and military organizations which provides representative sample of the military population for the present study. Serving armed forces personnel have been selected from those who met criteria of types of military personnel with respect to combat experience, number of years of military service, and rank status. Rapport had been established with individuals and before administration of tests their consent to voluntarily participate had been confirmed. Confidentiality of their responses had been assured and a request had been reiterated to all individuals to be as sincere and truthful as possible in responding, especially since there were no correct or incorrect responses. Participants for research were randomly selected from a nominal roll.

Accordingly, batches were made of 20 individuals, a day prior to administration of tests after matching their profile. Though procedure of test administration has been lengthy and spaced out during five months, respondents had been very enthusiastic in answering each test. Five officers and eight personnel below officer rank could not complete all tests due to their suddenly leaving Pune cantonment on account of various reasons like death in family, temporary duty, being detailed on long course, leaving for UN mission, telegram from home, etc. As such, incomplete tests have were replaced with randomly selected additional participants who met the criteria.

## RESULTS

This section deals with analyses of results. The present research attempts to investigate altruism of serving military personnel with combat experience. The present research is conducted to examine the psychological state of serving military personnel injured in battle (MPI), serving military personnel uninjured in battle (MPU), and other serving armed forces personnel not initiated as yet into combat (non-combat veterans: NCMP)), their responses have been compared on variable under study, namely, altruism. To verify the hypotheses in this context, data of 360 serving armed forces personnel (240 military personnel with combat experience of which 120 were injured in battle, 120 who were uninjured in battle and 120 other serving armed forces personnel not initiated as yet into combat) has been analyzed and their means, standard deviations, and F-values have been computed. Normal distribution of sample, linearity of dependent variable, and homogeneity of variance has been confirmed using statistical package for social science (SPSS, PC version 7.5). Univariate analyses of variance have been carried out to find difference among study groups. The obtained results have been discussed in this section.

## DESCRIPTIVE STATISTICS

The dependent variable, namely, altruism has been covered in this study.

3 x 2 x 2 factorial design has been employed with types of military personnel with respect to combat experience, number of years of military service, and rank status as independent variables. Types of military personnel with respect to combat experience is varied at three levels- serving military personnel injured in battle, serving military personnel uninjured in battle, and other serving armed forces personnel not initiated as yet into combat. Number of years of military service is varied at two levels- 0-10 years of military service and 11-20 years of military service. Similarly, rank status is varied at two levels- officer rank and personnel below officer rank (PBOR). The 3 x 2 x 2 design results in 12 cells. The cell wise means and standard deviations for all variables have been presented from Table 1. to Table 5.

Table 1: Descriptive Statistics: Mean and standard deviation for types of military personnel with respect to combat experience, number of years of military service and rank status.

| **Dependent Variable** | | **Types of military personnel with respect to combat experience** | | | **Number of years of military service** | | **Rank status** | | **Total (N= 360)** |
|---|---|---|---|---|---|---|---|---|---|
| | | MPI | MPU | NCMP | 0-10 yrs | 11-20 yrs | Officer | PBOR | |
| **Altruism** | M | 61.63 | 61.38 | 57.02 | 59.94 | 60.0 | 59.56 | 60.46 | 60.01 |
| | SD | 4.05 | 3.41 | 4.17 | 3.92 | 4.88 | 4.13 | 4.66 | 4.42 |
| | N | 120 | 120 | 120 | 180 | 180 | 180 | 180 | |

MPI- Military personnel injured in battle.
MPU - Military personnel uninjured in battle.
NCMP- Non-combat military personnel .
PBOR- Personnel below officer rank.

Table 2: Descriptive Statistics: Mean and standard deviation for types of military personnel with respect to number of years of military service.

| **Dependent Variables** | | **Military personnel injured in battle(MPI)** | | **Military personnel uninjured in battle(MPU)** | | **Non-combat military personnel (NCMP)** | | **Entire sample Mean N= 360** |
|---|---|---|---|---|---|---|---|---|
| | | 0-10 | 11-20 | 0-10 | 11-20 | 0-10 | 11-20 | |
| **Altruism** | M | 61.22 | 62.03 | 60.97 | 61.80 | 57.65 | 56.40 | 60.01 |
| | SD | 4.10 | 3.99 | 3.01 | 3.75 | 3.56 | 4.65 | 4.42 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | |

Table 3: Descriptive Statistics: Mean and standard deviation for types of military personnel with respect to rank status.

| **Dependent Variables** | | **Military personnel injured in battle(MPI)** | | **Military personnel uninjured in battle(MPU)** | | **Non-combat military personnel (NCMP)** | | **Entire sample Mean N= 360** |
|---|---|---|---|---|---|---|---|---|
| | | Officer | PBOR | Officer | PBOR | Officer | PBOR | |
| **Altruism** | M | 61.73 | 61.52 | 60.98 | 61.78 | 55.97 | 58.08 | 60.01 |
| | SD | 2.46 | 5.19 | 3.13 | 3.66 | 4.00 | 4.10 | 4.42 |
| | N | 60 | 60 | 60 | 60 | 60 | 60 | |

Table 4: Descriptive Statistics: Mean and standard deviation for number of years of military service and rank status

| **Dependent Variables** | | **0-10 years of military service** | | **11-20 years of military service** | | **Entire sample Mean N= 360** |
|---|---|---|---|---|---|---|
| | | Officer | PBOR | Officer | PBOR | |
| **Altruism** | M | 59.91 | 59.98 | 59.21 | 60.94 | 60.01 |
| | SD | 3.68 | 4.16 | 4.53 | 5.08 | 4.42 |
| | N | 90 | 90 | 90 | 90 | |

Evaluation of Effects of Types of Military Personnel with Respect to Combat Experience, Number of years of Military Service and Rank Status : Results of Univariate Analyses.

In the present study, following statistical analyses have been carried out:

1. Univariate analyses of variance for altruism to understand significant effect of dependent variable of altruism amongst study groups.
2. Post hoc comparison tests, wherever necessary, using Duncan's test and their interpretation have been used to understand significant differences in dependent variable of altruism amongst study groups.
3. Graphical representation of interactions (for significant only).

Univariate analyses of variance (ANOVA) followed by Duncan's multiple comparison test has been carried out. Duncan's multiple comparison tests are carried out wherever analysis of variance indicates significant differences among the group means. Post Hoc tests like Duncan's test focus on which of several variables exhibit the main effect demonstrated by initial analysis (Mertens, 2005).

Table -5: Descriptive Statistics: Means and Standard Deviations

| Dependent Variable | | Military personnel injured in battle (MPI) | | | | Military personnel uninjured in battle (MPU) | | | | Serving armed forces personnel not initiated as yet into combat (NCMP) | | | | Entire sample Mean N= 360 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0-10 | | 11-20 | | 0-10 | | 11-20 | | 0-10 | | 11-20 | | |
| | | O | PBOR | O | PBOR | O | PBOR | O | PBOR | O | PBOR | O | PBOR | |
| Altruism | M | 62.30 | 60.13 | 61.17 | 62.90 | 60.43 | 61.50 | 61.53 | 62.07 | 57.00 | 58.30 | 54.93 | 57.87 | 60.01 |
| | SD | 2.17 | 5.20 | 2.64 | 4.89 | 2.78 | 3.19 | 3.40 | 4.10 | 3.77 | 3.26 | 4.01 | 4.84 | 4.42 |
| | N | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | |

## DIFFERENCE AMONG GROUPS ON ALTRUISM

In the present study, Univariate analysis of variance has been used for finding difference among groups with altruism as dependent variable and types of military personnel (Serving military personnel injured in battle (MPI), serving military personnel uninjured in battle (MPU), and other serving armed forces personnel not initiated as yet into combat (non-combat veterans: NCMP)), number of years of military service (0-10 years of military service and 11-20 years of military service), and rank status (Officer rank and personnel below officer rank (PBOR)) as independent variables. Further, Duncan's test has also been carried out. Altruism has been measured using altruism test by Jain (1989).

Table 6: Table showing summary of results of Univariate ANOVA with types of military personnel with respect to combat experience, number of years of military service, and rank status as independent variables and altruism as dependent variable.

| Source of Variance | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Types of military personnel with respect to combat experience | 1608.539 | 2 | 804.269 | 55.727 | <.001 |
| Number of years of military service | 1.600 | 1 | 1.600 | .111 | NS |
| Rank status | 72.900 | 1 | 72.900 | 5.051 | <.05 |
| Types of military personnel with respect to combat experience x Number of years of military service | 86.117 | 2 | 43.058 | 2.983 | =.05 |
| Types of military personnel with respect to combat experience x Rank status | 82.117 | 2 | 41.058 | 2.845 | NS |
| Number of years of military service x Rank status | 62.500 | 1 | 62.500 | 4.331 | <.05 |
| Types of military personnel with respect to combat experience x Number of years of military service x Rank status | 73.717 | 2 | 36.858 | 2.554 | NS |
| Total | 7009.956 | 359 | | | |

NS= Not Significant

Table-7: Duncan's Multiple Comparison Test for Altruism

| Types of Military Personnel | N | Subset | |
|---|---|---|---|
| | | 1 | 2 |
| NCMP | 120 | 57.03 | |
| MPU | 120 | | 61.38 |
| MPI | 120 | | 61.63 |
| Sig. | | 1.000 | .622 |

MPI- Military personnel. injured in battle.
MPU- Military personnel. uninjured in battle.
NCMP- Non-combat military personnel.

In the present study, it is found that there is a significant difference between serving military personnel injured in battle, serving military personnel uninjured in battle, and other serving armed forces personnel not initiated as yet into combat with respect to variable altruism ($F(2, 348) = 55.727$, $p<.001$) (Table -6). Results from Table 7 reveal higher mean score of serving military personnel injured in battle (61.63) as compared to other serving armed forces personnel not initiated as yet into combat (57.03). This indicates that serving military personnel injured in battle are more altruistic as compared to other serving armed forces not initiated as yet into combat. Thus, hypothesis 1a, stated as, serving military personnel injured in battle are more altruistic as compared to other serving armed forces personnel not initiated as yet into combat, has been accepted. It is probable that serving military personnel injured in battle tend to be more altruistic than other serving armed forces personnel not initiated as yet into combat due to positive affect in aftermath of combat which is found to be predicted by response patterns of self-disclosure, finding meaning in survival despite injury, and altruism.

In the present study, Table-7 reveals higher mean score of serving military personnel uninjured in battle (61.38) as compared to other serving armed forces personnel not initiated as yet into combat (57.03). This indicates that serving military personnel uninjured in battle are more altruistic as compared to other serving armed forces not initiated as yet into combat. Thus, hypothesis 1b, stated as, serving military personnel uninjured in battle are more altruistic as compared to other serving armed forces personnel not initiated as yet into combat, has been accepted. This is in consonance with previous research studies which have reported that hardship and danger in combat gives birth to altruism and generosity that transcend ordinary individual self-interest (Khan, 2006a; Kishon-Barash et al., 1999).

The mean score of serving military personnel injured in battle (61.63) as compared to serving military personnel uninjured in battle (61.38) indicates

that there is no difference between the two groups on altruism. Thus, hypothesis 1c, stated as, serving military personnel injured in battle are more altruistic as compared to serving military personnel uninjured in battle, has been rejected. Both groups of serving military personnel injured in battle as well as those uninjured in battle have displayed equally high scores in altruism. This is probably because both the groups of military personnel find altruism as a useful strategy as a means for coping with trauma of combat experience which jeopardizes sense of meaning and bond with others.

Findings of present study are in consonance with previous research literature (Baum, 2001; Kishon-Barash et al., 1999; Midlarsky&Kahana, 1994). Results suggest that military personnel with combat experience (injured in battle and uninjured) tend to be more helpful without anticipation of any reward in comparison to other serving armed forces personnel not initiated as yet into combat. Soldiers with combat experience seem to think about how their behavior will benefit others and derive pleasure just by helping others.

Research studies have reported military personnel with combat exposure to be more altruistic than non-combat military personnel who may have not yet undergone the bonding of group formative experience (Hinde, 1993; Payne, Bettmann,&Johnson, 1992; Shaw&Wong, 1989; Stern, 1995). Research studies have stated that this is probably due to strong emotional bonding experience, cohesion, mutual cooperation and close association in combat.

Other research studies have reported that war calls upon individuals to make altruistic sacrifices out of loyalties and sometimes even give their lives to defend their nation (Anderson, 1983; Druckman, 1993; Posen, 1993; Stern, 1995).

The F value ($F(1, 348) = .111$) (Table 6) of military personnel with respect to number of years of military service is not significant for altruism.
The F value ($F(1, 348) = 5.051$, $p<.05$) of military personnel with respect to rank status is significant for altruism. In the present study, as shown in Table - 1, mean score of personnel below officer rank (60.46) is higher as compared to mean score of officers (59.56) on altruism. This indicates that personnel below officer rank are more altruistic as compared to officers. However, Kumar and Mishra (2006) reported contradictory findings.

Types of military personnel with respect to combat experience in interaction with number of years of military service has yielded significant source of variance ($F(2, 348) = 2.983$, $p=.05$) (Table 6) in altruism. In the present study, as shown in Table 2, serving combat veterans injured in battle with 11-20 years of military service have highest mean score (62.03) which indicates that they are more altruistic as compared to other groups. Findings also reveal that serving armed forces personnel not initiated as yet into combat

with 11-20 years of military service have lowest mean score (56.40), indicating that they are least altruistic amongst groups. In the present study, while types of military personnel with respect to combat experience has yielded significant source of variance, number of years of military service has not yielded significant source of variance on altruism. However, their interaction has yielded significant source of variance as mentioned earlier. This is probably due to the crucial interplay of combat experience of soldiers and their years of military service. This interaction is graphically represented in Graph 1.

The F ratio (F (2, 348) = 2.845) (Table 6) pertaining to interaction effect of types of military personnel with respect to combat experience and rank status is not significant in altruism.

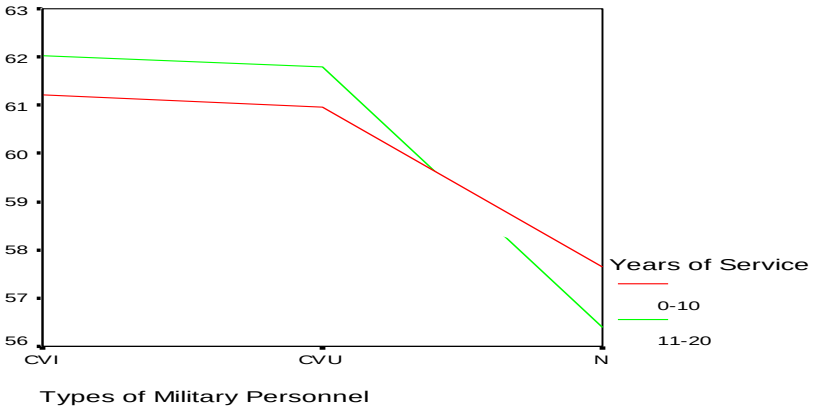
Number of years of military service in interaction with rank status has yielded significant source of variance (F (1, 348) = 4.331, $p<.05$) in altruism. Results from Table -4 reveal that personnel below officer rank with 11-20 years of military service have highest mean score (60.94) which indicate that they are comparatively most altruistic amongst groups. Findings also reveal that officers with 11-20 years of military service have lowest mean score (59.21) indicating that they are comparatively least altruistic amongst groups. While number of years of military service has not yielded significant source of variance on altruism in the present study, rank status of military personnel has yielded significant source of variance. However, interaction between number of years of military service and rank status has yielded significant source of variance as mentioned earlier. This is probably due to the crucial interplay of years of military service and rank status. This interaction is graphically represented in Graph 2.

The F ratio (F (2, 348) = 2.554) (Table 6) pertaining to interaction effect of types of military personnel with respect to combat experience, number of years of military service and rank status is not significant in altruism.

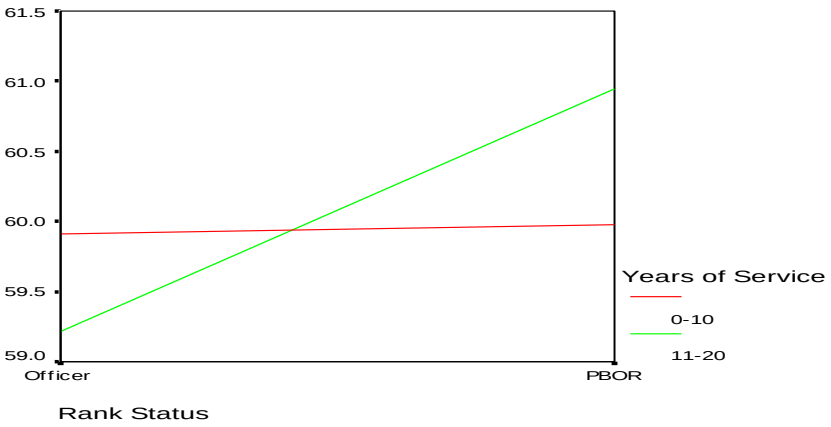
Research studies have noticed that fighting a war creates a situation, wherein, on one hand enemy is to be killed whereas own countrymen need to be protected, even at cost of soldiers risking their lives for others (Baum, 2001). However, Bradshaw et al. (1994), reported lack of altruism among combat veterans for any enemy killed or wounded. Research trend shows that altruism towards fellow-countrymen helps combat veterans to reduce their stressful experience (Kahana et al., 1988; Midlarsky, 1991). The psychological impact of helping each other may be higher amongst combat veterans due to their combat experiences than that of serving armed forces personnel not initiated as yet into combat.

Thus, studies stated above support findings of present study that there is significant difference between military personnel with combat experience (injured in battle and uninjured) and other serving armed forces personnel not initiated as yet into combat with respect to variable altruism.

Graph 1: Graph showing types of military personnel with respect to combat experience x number of years of military service
DV: Altruism




Graph 2: Graph showing number of years of military service x rank status DV: Altruism



## DISCUSSION

Definitely, impact of war stressors cannot be eliminated from life of those who have been in combat. As a result, back to routine military life will certainly be less stressful than war situation (Bramsen et al., 2002; Rawat& Wadkar , 2012). The finding of present research is in consonance with related research literature. Research studies have reported that combat experiences are perceived positively by veterans in the sense of personal growth, thereby reducing their perception of war stressors (Antonovsky, 1987; Bartone, 2005; Frankl, 1973; Rawat,, 2015 ; Rawat&Wadkar , 2012). Researchers have also noticed that soldiers trained for combat are frustrated if not sent to the warfront (Mehlum & Weisaeth, 2002; Weisaeth & Sund, 1982). Some research studies indicate that the military personnel with combat experience perceive lesser stress in routine military life as compared to other serving armed forces personnel not initiated as yet into combat (Aldwin et al., 1994, Rawat, 2008, 2015). However, some research studies have reported higher stress amongst combat veterans as compared to military personnel with no combat exposure (Frey-Wounters & Laufer, 1986; Kulka et al., 1990). Bower (1984) stated that this is probably due to violent experience in war situation and lack of empathy from others on their return, as was seen especially by US troops returning from Vietnam after heroically fighting a war that was not being acknowledged back at home.

The finding of the present study on altruism is in consonance with previous research studies which have reported that hardship and danger in combat gives birth to altruism and generosity that transcend ordinary individual self-interest (Khan, 2006a; Kishon-Barash et al., 1999; Rawat ,2008,Rawat&Wadkar, 2012). Serving military personnel injured in battle as well as serving military personnel uninjured in battle have displayed equally high scores in altruism. This is probably because both the groups of military personnel find altruism as a useful strategy as a means for coping with trauma of combat experience which jeopardizes sense of meaning and bond with others. Results suggest that military personnel (injured in battle and uninjured) tend to be more helpful without anticipation of any reward in comparison to other serving armed forces personnel not initiated as yet into combat. Military personnel with combat experience seem to think about how their behavior will benefit others and derive pleasure just by helping others. Research studies have stated that there is strong emotional bonding experience, cohesion, mutual cooperation and close association in combat (Hinde, 1993; Stern, 1995). Research studies have reported military personnel with combat experience to be more altruistic than non-combat military personnel who may have not yet undergone the bonding of group formative experience

However, despite a large body of research supporting the notion that, war stress precipitate adjustment problems amongst combat veterans (Fielder et. al, 2000; Figley, 2005; Gifford et. al, 2006), a considerable number of studies contradict this finding and support findings of the present research (Deusi, 2006; Harel, Kahana &Kahana, 1988; Mehrotra, 2006; Newby et. al, 2005; Rachman, 1990 ; Rawat&Wadkar, 2012).

## CONCLUSION

The research study considered illustrates constructive positive outcomes of stress and combat experiences. Most of the other studies have been unable to uncover positive outcomes of combat experience and on the contrary, give negative outcomes like depression, PTSD, combat stress reactions, and acts of uncivilized behavior. Importance of the study is to show that where all these negative outcomes of combat experience do exist and cannot be wished away, there is hope of some positive outcomes as well which gives a sense of worth and meaning to life to military personnel with combat experience who are likely to become more altruistic after experiencing threat of death and destruction in combat operations. There is a need to study soldiers returning from war in more detail and look at other positive aspects of life ,including post traumatic growth (PTG), sadly achieved at a colossal cost through experiential learning in overcoming odds while surviving the death and destruction of war .

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# EFFICIENT COPING STRESS STRATEGIES AND DEVELOPMENT OF SELF-REGULATORY MECHANISM AS PREVENTION ACTIVITIES FOR EMPLOYEES IN THE MILITARY

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***Abstract*:** Stress is a significant part of the job in all workplaces, but because of the specific and dangerous work, it is especially present in the military. Stressors present a threat for health to every human. We adapt to stressors with different adaptation mechanisms. When stressors last too long, they can hurt human health. The negative consequences are acute or short-term; in extreme situations, they can cause burn out, a chronicle illness and even death. For efficient coping with stress, we need to recognize different facts about stress and stress prevention. Stress prevention includes practicing different techniques of coping with stress and stress reduction. The most frequent techniques are somatic techniques such as relaxation techniques, for instance progressive relaxation, hypnosis, autogenic training, biofeedback and breathing techniques which reduce intensity of stress symptoms and negative effects of stress symptoms. On the other hand, we use also cognitive techniques, which are based on cognitive changes during stress perception and stress coping. Efficient stress coping starts with good knowledge of stress phenomena, with stress prevention and developing self-regulatory skills. The contribution points out the importance of the coping stress strategies and the benefit function of the development of self-regulatory mechanism for soldiers. It also shows that the workplace in the armed forces suggests strong mental preparation for stressful events; it also presents the aim of all most relevant techniques for the coping stress activities.

***Key words*:** stress, stressors, health, illness, coping stress techniques, relaxation techniques, self-regulatory skills, stressors in the armed forces.

## INTRODUCTION

The human body has wide possibilities of adaptability that allow a person to overcome many unpleasant and unexpected situations. Human health can be compromised due to many non-specific causes. Numerous studies

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confirm that intense and prolonged exposure to pressure from the environment is reflected in a series of physical, experiential, psychological and social disorders. In everyday life, this phenomenon is called stress. Stress is an inevitable consequence of human relationship with the constantly changing environment, to which the individual must adapt. For a very long time experts have been dealing with the issue of adaptation of the human body. Due to rapid changes in technology, many new challenges were set before us, which require that we adapt as quickly as possible. Due to the characteristics of the work in the military, soldiers experience a lot of stress, much more than in other professions, so coping stress is very important task for every employee in all armies around the world. The possibility of fatal outcome during work is the most powerful stressor among all, so soldiers should give special importance to coping stress strategies in the preparation period.

## BASIC ASSUMPTIONS OF STRESS

The concept of stress was introduced by Selye (1956), and is defined as a state of the organism, which is manifested through a set of physical changes, which are known as general adaptive syndrome or syndrome of nonspecific illness. Selye originally realized that non-specific illness syndrome, as he called it, is caused by everything that affects the body and harms it. Although many different definitions of stress are known, we can conclude that stress is a non-specific response of the organism to changing external and internal requirements. Based on the physiological mechanisms of action of stress, Selye (1956) and Lindemann (1977) mainly discussed the so-called biological concept of stress, but more modern concepts include a much broader context of research and understanding of stress, so the term psychological stress is generally accepted (Lazarus, 1966). Lazarus was the first to emphasize the distinction between physiological, psychological and social context of stress.

Physiological processes regulating homeostasis are based on the endocrine and neurological mechanisms, while the mechanisms behind the psychological process of coping with stress are different (e.g. the denial of danger or selective attention directed to the soothing aspect of the environment or a confident constructive response). In psychological stress, reaction depends on individual's assessment of risks or threats, but in the physiological stress, the state of individual organs depends on the level of harmfulness of external factors. Particularly with the development of knowledge about the brain and thought processes, and the related development of mental or cognitive psychology, the focus of research of stress transferred to the mental processes that lie behind it. Let us mention just a few important psychological factors that define human stress response: expectations, motivation and values, self-

confidence and self-esteem, and assessment of the situation or risk, personal hardiness, coping stress strategies, past experience with similar stimuli, preparing for stress, stress tolerance, anxiety in the battlefield, emotional stability and maturity, optimism, social support, and many others. Lazarus originally conceived psychological stress (1966) as threatening requirements placed before the psychological system, and later (Lazarus & Folkman, 1987) as a characteristic of an individual or as a negative emotional reaction based on cognitive assessment of the situation, which is seen as threatening.

## STRESS AND HEALTH

The relationship between stress and health has been confirmed in clinical and psychological research. According to moderating stress model (Hogan, Johnson & Briggs, 1995), for example, stress causes illness, and dispositional factors can make someone more or less vulnerable. Overall, the researchers predict that stress affects health through physiological changes that occur in the body and cause an increase in arousal. Frequent and prolonged arousal causes overloading of organs and systems, which can lead to certain diseases, but especially significantly reduces the psychological well-being. Stress is also indirectly involved in diseases that suppress the immune system, as it is weakened as a result of changes in neuroendocrine (Hogan, Johnson & Briggs, 1995). Many models assume that there is a strong impact of stress on development and treatment of cancer and psychosomatic illnesses (Tušak & Tušak, 2003). It is also reported that people with constructive styles of coping with stress experience fewer depressive symptoms than those with unconstructive style of coping (Hoyt, Austenfeld & Stanton, 2016). The mobilization of forces due to stress, therefore, also induces mental reactions. These are reflected in the specific mental experience and knowledge. Stress as a cause or as a component is present in every disease (Schulz & Sherwood, 2008).

On the other hand, every disease is accompanied by intense stress reaction. Any particular severe stressor is a risk factor, which could become an important disease (Schneiderman, Ironson & Siegel, 2005). Usually stress first affects the weaker organs. Sometimes elevated body function remains even when the adverse factors are removed. This can cause diseases, which are not caused by adverse external factors, but come as a result of uncontrolled or inappropriate adaptive response of the organism. In this respect the psychosomatic disorders, which are manifested in physical symptoms caused by mental stress, are often mentioned. Sometimes even workplace with high physical and mental demands (workplaces in the military) also means strong work stressors, which may result in diseases. Various diseases are stress-

related: cardiovascular diseases, rheumatism, arthritis, allergies, diseases of the digestive tract, inflammation of the skin and the eyes and certain nerve and mental disorder (Kosović, 1989; Lindemann, 1977; McCabe, Gonzales, Zaias, Szeto, Kumar, Herron, & Schneiderman, 2002; Vízek Vidovič, 1990).

## STRESS AND BURNOUT AT WORKPLACE

For most people the most stressful situations are experienced in relationships, whether at home, at work or with friends. Workplace can be a real focal point of stress caused by a mix of various factors (Bae & Min, 2016; Largo-Wight, Chen, Dodd & Weiler, 2011). Sabadin (2002) states that two usual types of psychological burden occur at work. These are the monotony (with simple and repetitive work) and mental stress (as a result of excessive load at work). Specially, workplaces in the military can cause a lot of mental stress, sometimes because of the present awareness of possible dangerous events even if they do not appear later. The most common causes of workplace stress are role conflict, role ambiguity, shift work and so-called "sick organization" (Azzone, McCann, Merrick, Hiatt, Hodgkin & Horgan, 2009). Of course, in the military, the stressors are determined by dangerous situations, problems of surviving and the possibility of losing life, etc.

The concepts of burnout and stress are closely linked, but they should not be equated. Stress refers to a situation when an individual is exposed to psychical or psychological pressure, while burnout occurs as a result of prolonged exposure to stress and excessive demands of environment (Jimenez & Dunkl, 2017; Von Känel, van Nuffel & Fuchs, 2016). Especially in the military, it is sometimes hard to cope with the demands of the situation since it is not related only to the employee, but it can be related to other armies and many unpredictable situations. Burnout is the last phase of the failure to address stressful situations (Vízek Vidovič, 1990). Burnout is a quite vaguely defined term. Some authors speak of exhaustion, while others speak of decline of creativity, decline in dedication, alienation from customers, employees and the work itself, response to stress etc. For Maslach and Leiter (2002) the main source of burnout is discrepancy between the work and the person who carries it out. Most research supports the three-dimensional concept of burnout, so that authors generally agree that the burnout syndrome is characterized by emotional exhaustion, depersonalization, and reduced sense of personal fulfillment (Evans & Fischer, 1993). Golembiewski, Boudreau, Sun and Luo (1998) found out that the development of burnout in organizations is observed through a series of changes in the characteristics and quality of life. The results of their study indicate that work commitment is reduced, job satisfaction decreases, there is an increase of early departures from work, there is a higher

incidence of physical and emotional symptoms, the community connection is reduced, and indicators of operating performance are lowered (Maslach, 2003). The costs of health insurance significantly increase (Wang, Simon & Kessler, 2003). Negative consequences are reflected in various aspects of family life. Workplaces in the military are very different, depending on whether it is peace or war. During war interventions or other interventions in the war regions, burn out is quite normal reaction for many soldiers, so it has to be treated and prevented as soon as possible.

## STRATEGIES FOR EFFECTIVE COPING WITH STRESS

Activating the body's stress response, which cannot be expressed in a physical reaction, is potentially harmful for one's health. Today human is still in exactly the same skin as his ancestors to whom the stress reaction allowed to master particularly physical danger. To develop appropriate responses to stress individual now desperately needs some new skills and gadgets. Various disciplines developed different devices. In recent years, numerous pharmacological aids were developed, which primarily ease the negative effects of stress. Many of them, unfortunately, have a number of adverse side effects, which additionally burden disturbed homeostatic situation and therefore represent a new threat; in particular, they have an effect only as a symptomatic therapy. When symptoms are reduced, the application of medicine stops, and repeated threat, of course, likely triggers similar symptoms. Their use is understandable in situations where the health status of an individual is so threatened that preventive means are no longer able to neutralize the negative processes. Nowadays we strive to use different procedures or resources, which help us to cope with all these threats.

Psychologists have developed a wide variety of relaxation techniques, which extend from the completely non-systemic (walking, sports, recreation, jogging, sauna, massage, swimming, listening to music) to a more systematic, which have specific relaxation and therapeutic effects (autogenic training, hypnosis, Jacobson's technique of systematic desensitization, breathing techniques, visualization techniques, biofeedback method of release, etc.). Using these techniques has little or no contraindications, and together with a systematic effect, a variety of behavioral patterns are developed that are different from the problematic ones (a walk leads to know-how, about how to "disconnect" from work, the use of relaxation techniques necessarily means finding time "for yourself" and etc.). Besides using relaxation techniques that work on the symptomatic level (in terms of reduction of symptoms) as well as etiologic level (in terms of removing the causes of changes in behavior and thinking), we also recommend the use of natural non-invasive means that

acting soothingly. Only joint action of supporting resources will allow an individual not only to mitigate the negative effects of stress, but also to assume an active role in the struggle against the stressors, so that he/she can deal with stress more effectively. In this way, we can reach the core of stress prevention and reduction, and not only extinguish its implications.

## PROGRAM AND TRAINING OF SELF-REGULATORY SKILLS

Psychological stress is one of our greatest enemies. Stress takes away a lot of physical and mental energy for daily activities and gives one a feeling of inadequacy, which leads to a lack of self-confidence. Psychologists developed a variety of techniques to manage stress. With mental preparation, we learn to gain control over ourselves and in this way maximize the ability to realize our own potential when necessary. Preparation for stress can be rehearsed alone or under supervision of a psychologist. Below we describe physical and mental techniques against stress. Stress occurs when there is an imbalance between an individual and environment, when expectations exceed person's abilities. The main cause is misinterpretation of the environment, which leads to a quasi-activation and negative thoughts. The event is not stressful, as long as you do not perceive it as such. As for the military, creating enemies in our minds evoke a lot of unnecessary stress. Negative thoughts lead to stress and tend to show up in the form of anxiety. Self-control skills are among the most basic skills of a socialized human. These skills are learned (not inherited) and affect our self-esteem, communication with others, stress management, processes of (self) motivation and achievement of personal maturity. For the development of effective self-regulatory skills, a lot of systematic exercise and work on oneself is needed (Locker and Gregson, 1993). One of the key tasks of the school and education system should be to teach children and young people to reach efficient self-control. Self-control is the control of thoughts, feelings and consequent behavior. Self-regulatory skills are of great importance in development of positive attitudes towards the world and life. They also play an important role in the development of motivation and goal setting, in managing stress, controlling one's own impulsive and aggressive behavior, and in development of communication. In some areas, the so-called self-regulatory skills are significantly more important than elsewhere. People who are supposed to have very well developed skills are those who have to be calm and rational and react properly in some stressful situations: athletes, politicians, negotiators, top industrialists and businessmen, pilots, surgeons and of course soldiers. In the military units during war interventions, mental preparation for stressful events seems to be one of the crucial elements of sustaining and enhancing healthy life. Fear of death is the strongest stressor that soldiers have

to cope with on daily basis during the war, so a lot of interest should be focused on the development of self-control and psychological preparation for stress. Development of self-regulatory skills includes basic theoretical understanding and training, which involves gradual acquisition of control of our own thoughts, feelings, attitudes and behavior. Such a result is achieved gradually with the help of introspection, mental exercise, as well as proper and special focus on practical solutions. For development of effective self-regulatory skills, huge systematic exercise and work on oneself is needed. That means that for the efficient coping stress strategies in the armed forces we need to use those self-regulatory mechanisms. The more we need resistance to stress, the more we have to create such resistance. It is extremely important that the development of self-regulatory skills is already introduced during the training process of a soldier. Basic training includes the following steps:

- learning relaxation skills, and how to disconnect from stress and danger of the environment,
- learning breathing techniques for the rapid instant relief,
- learning to concentrate and effectively change periods of concentration and relaxation,
- learning to remove negative images, doubts and fears, how to make your head empty,
- learning to focus on the positive images and positive thinking,
- learning to influence oneself through suggestions, autosuggestion, hypnosis
- learning and training to cope with stressful events through visualization techniques

## RELAXATION TECHNIQUES

To cope with stress before, during and after a stressful task, we most commonly use different relaxation techniques. Today we know that there is no need to be a psychologist to learn to release tension. Among the most commonly used relaxation techniques are different forms of autosuggestion, breathing techniques, hypnosis and autohypnosis, certain behavioral techniques (e.g. systematic desensitization), biofeedback method of relaxation, Jacobson's method of progressive relaxation, various forms of meditation and autogenic training. Of course, we cannot forget the daily relaxing activities. These are, for example, shower or sauna, gentle jogging or walking, but

sometimes even enjoying a good company. In the periods of increased physical and mental burden, one must be able to relax, or the amount of stress will rise above the limit of tolerance and the result may be a problem in everyday life.

## BREATHING TECHNIQUES

Breathing techniques represent the most common way to release tension. In fact, everyone is aware that slow breathing has a beneficial and relaxing effect on body and mind. Although breathing techniques actually derive from yoga and have a deeper meaning, they are most commonly used together with other relaxation techniques. They are also very practical, because one may include them in his/her mental preparation right on the ground, where he/she expects his/her performance. For optimal functioning, a person requires an enormous amount of energy that can be produced only with an adequate quantity of oxygen. Oxygen deficiency causes fatigue, lapses in concentration, heavy body feeling, lack of activity and often a bad and depressing mood. The result is reduced efficiency. A good and steady supply of oxygen, on the other hand, accelerates blood circulation and enables greater mobilization of energy, so a soldier also feels stronger and fresh, and as a result often becomes even more confident. Due to the vitality of breathing, a major part of the psychological preparation is always oriented towards the management and control of breathing. Most people often breathe with chest only, and forget about deep abdominal breathing. Especially in stressful situations, for instance in the war, breathing becomes shallower and less efficient. The essence of breathing techniques is that people learn to calm and relax the breathing. A soldier must learn to breathe spontaneously as if the breath passes through the body in every little part of it, it fills it with energy and calms it down to prepare it for the state of concentration.

In connection with breathing exercises, we may mention the following (Tušak & Tušak, 2003):

- calm breathing (practicing slow, steady and deep breathing, with which we orient a soldier towards himself/herself)
- breathing by counting (includes steady breathing together by counting e.g. from 1 to 10, or 100);
- controlling the rhythm of breathing 4: 2: 4 or 6: 3: 6, which emphasizes the training of breathing, especially exhalation, which is often neglected (a person focuses on the breath, takes a deep breath and counts to four, then retains the breath for two counts and then

exhales slowly, counts to four, then everything is repeated several times; rhythm 6: 3: 6 is quite difficult and requires more exercise; more difficult and somewhat less useful are longer rhythms e.g. 10: 5: 10)

- respiratory walk around the body (in which the soldier takes a deep breath and imagines how every breath reaches each part of the body, a first exhalation goes to the fingers and toes, then in the hands and feet, and so on to the middle of the body to the heart; we have the focus in each part of the body and try to feel how oxygen came up to it).

## JACOBSON'S METHOD OF PROGRESSIVE RELAXATION

In the German area, the most popular technique of relaxation by far was autogenic training, but in English-speaking environments, the progressive relaxation technique by Jacobson was more important. The aim of gradual relaxation or release is to learn to relax the entire body systematically, thereby achieving the alignment operation of the vegetative nervous system. The classic form of relaxation has the following stages: relaxation of arms, relaxation of legs, breathing and relaxation of forehead and voice organs. The soldier relaxes each part of the body so that he/she intensively tightens it, and then slowly releases the tension. Besides all this, we must focus on the feelings of stress upon activation and feelings of relaxation. If a particular part of the body is not sufficiently relaxed, the whole procedure is repeated. Today the technique is used even more fragmentally on individual body parts, so that we can achieve a partial or holistic relaxation effect. The technique removes tension and general stiffness, which is a result of some emotional problems or disruption, while mobilizing person's defense mechanisms to help him/her successfully cope with a stressful situation.

## HYPNOSIS, AUTOHYPNOSIS AND POSTHYPNOTIC SUGGESTIONS

Hypnosis, autohypnosis, suggestions and autosuggestions are commonly used techniques of psychological preparation in sport activities, but those experiences helped us to adapt these techniques for other professions such as military actions and general workplace situations. We speak about hypnosis when the hypnotist "leads" the individual to a relaxed and hypnotic state. This state can vary from mild hypnotic states in which the person is actually aware of everything, to deep states in which the conscience is completely excluded. In such states a person/soldier is extremely perceptive to hypnotist's (psychologist's) instructions and suggestions. Autohypnosis differs

from hypnosis in that the soldier himself (without the aid of hypnotists) brings himself/herself in a relaxed situation. Then he/she becomes more sensitive to any suggestion that he/she has prepared in advance. By repeating such suggestions (by listening to the recording) soldiers achieve the same effect as would be achieved by a hypnotist. The advantage of autohypnosis is the absolute independence of hypnotist, the person himself/herself is free to decide on the suggestions, the way and the amount of time of performing them. The advantage of a classical hypnosis on the other hand is that it is usually performed by a trained hypnotist (psychologist) who is able to achieve a very deep state in which the susceptibility to suggestions is extremely strong. Today, the use of hypnosis is highly controlled. People reject any technique they have not been informed about. Therefore, the use of hypnosis and specific suggestions is always a matter of agreement among psychologists and specific individuals. Even the most common suggestions are selected depending on the problem, which is present in an employee (e.g. a lack of confidence), while the hypnosis is performed later, when the client and psychologists have already established a therapeutic alliance or a relationship based on trust. Due to exclusion of external stimuli and the high concentration in the state of hypnosis, soldier's imagination is also increased significantly, so it is often used for mental training. In these states a person most frequently visualizes a task, mentally learns new techniques or some specific demands of the task, etc.

At the same time, by specific suggestions we try to remove possible fears, phobias and anxiety. When talking about the suggestion, specific examples to explain their purpose are recommended. Suggestions are present in our lives every day, e.g.: "Now you are relaxed, you know that you can do that, that's your job, etc." The long-term nature of these suggestions, especially if they have some real basis, may lead to change in individual's emotional states, e.g. increased self-confidence. If these suggestions are made in a suggestive state of hypnosis, when consciousness is excluded, their effect will be stronger, including subconscious levels at which individuals often function in particular stressful times. If these suggestions are followed by posthypnotic suggestions, the effect will only increase. Such posthypnotic suggestions are:

- at the beginning of the task, I will feel relaxed, I will trust myself
- when hitting the legs, I'm instantly relaxed and completely concentrated
- when I swing my arm, I start to enjoy

In this sense, the use of hypnosis and autohypnosis are considered particular methods of psychological preparation to stressful events. In practice, we most often combine hypnosis and autohypnosis. At the sessions, the

psychologist repeatedly hypnotizes the person and gives him/her posthypnotic suggestions, on the spot the individual himself/herself, using designed procedures tries to "lead" himself/herself to the state of "autohypnosis", which will allow him optimal, relaxed and concentrated performance.

## METHOD OF RELAXATION BASED ON BIOFEEDBACK DEVICE

Biofeedback method of relaxation was quite popular in the eighties, when instruments that were responsive to an individual's physiological changes were developed. The most commonly measured was galvanic skin reaction (electrodermal reaction or changes in skin conductance - GSR), which is changing under the influence of emotional changes. The instrument, which is connected via electrodes to an individual's skin (fingers), emits sound or light signals of different frequencies or colors, which constantly inform us whether we are relaxing or tensing. One has to get into a comfortable position and try to relax, while constantly receives feedback. When he/she manages to reduce stress to a minimum, he/she can change the sensitivity of the instrument to make the task harder and then attempts to relax deeper. The essence of the technique is that the person learns to relax by himself, having continuous feedback as a support.

## TECHNIQUES OF SYSTEMATIC DESENSITIZATION

Systematic desensitization techniques are considered as behavioral techniques. Psychologists often use it to discard phobias, other fears, anxieties, and some other unpleasant emotional states. In the military, it is used to remove fears (of dying, injury, pain, opponents, failure), which sometimes get dimensions of real phobias. The technique of systematic desensitization consists of use of techniques of relaxation and usually visualization. It is a process of progressive removal of negative emotions. A situation that provokes fear or anxiety is decomposed into multiple (e.g. ten) stages or problem situations, depending on the intensity of the negative emotions. Intense fear of failure is divided into fear and feelings of anxiety:

- seeing the place where the stressful task will occur,
- monitoring the tasks of other soldiers-opponents,
- waiting for the task to start,
- preparation of the equipment,
- seeing someone who was injured in the task,

- at the beginning of one's own participation in the task,
- doing task which slightly exceeds the normal level of risk
- at 100 per cent aggressive performance in extremely risky conditions

First, the person is brought into a slightly relaxed state and then we suggest pleasant feelings of relaxation, self-confidence and complete security. This is followed by a phase in which we "process" situation after situation. We start with the least problematic, and then continue to the last stage, which provokes the most fear in an individual. Most often, this may take several days or even weeks, because each problematic situation has to be repeated several times so that the negative feelings disappear. For successful processing of problematic situations, we use two versions of the technique: through visualization and live. Most often, we begin with visualization technique, where the soldier would be in a relaxed state of mind and has to visualize and "process" the first problem situation, followed by the next one, etc. All the while, the psychologist suggests a pleasant feeling of relaxation and comfort to soldier who loudly visualizes the situation, and directs his attention so that he constitutes an effective solution to the problem situation. When the first situation does not provoke any negative feelings any more, we move to the second and so on. As a technique of relaxation autogenic training is used most often, sometimes we also help ourselves with hypnosis, where visualization is more pronounced. These phases are conducted by a psychologist. When an individual has processed all the problematic situations successfully, we try to confront him with them "in vivo". Again, the process occurs gradually, this time, of course, in a specific war situation or military exercise on the ground. The most effective is when a psychologist who ensures constant relaxation, accompanies the soldiers or employees at the time of the important stressful activity.

## AUTOGENIC TRAINING

People have a very vague idea about autogenic training (AT). Some see it as a successful cure, while the others connect it to spiritualist séances, thinking it is a way to deceive people and not seeing any benefit in it. Very few people know that it is a scientific method, which is based on a kind of autosuggestion, self-hypnosis, which we can use to try to transfer power of some ideas to the human organism. It is a systematic and efficient method of integrated global physical and mental relaxation. Studies confirm that using the AT, which includes six basic exercises (for a relaxed hand, hot hand for calm breathing, the steady heartbeat for a relaxing solar plexus and cold

forehead), we achieve the strongest state of relaxation, which is the best possible basis for any mental training, for learning to influence oneself. In this way, we learn to "disconnect ourselves", also being able to focus on the desired (positive) aspects and on the risk that poses a threat in a stressful or threatening situation.

## MEDITATION TECHNIQUES

Today meditation techniques have an increasingly important place in all therapies, where relaxation must be achieved. Meditation includes thinking, deepening the problem and is a technique of controlling our mind and thoughts. Meditation is most frequently used in treatment and prevention of stress-related diseases, which do not have any organic basis, as well as for treatment of drug addiction. Because of its positive effect on concentration and mental control it is often used by people who are experiencing a lot of stress. In many ways, it is similar to autogenic training, although derived from a different world, and based on some philosophical and religious principles. In the East, meditation has developed into yoga and has become a major form of yoga life style. In the West, meditation is a means to achieve a therapeutic effect, a form of practical self-help. The technique calms the sympathetic nervous system, slows the heart rate, decreases respiratory rate, lowers blood pressure and slows down metabolism. Much like autogenic training and Jacobson's progressive relaxation method, it helps in activating human internal defense mechanisms to combat stress and tension. Meditation calms your body and mind, makes a shift in concentration from the outside into ourselves and in this way allows access to internal sources of power that remain largely unexploited. Meditation teaches us to control the thoughts and feelings. We gain a clearer picture of the internal processes of our own reactions and internal events that elicit specific reactions in some specific, stressful situations. Meditation provides help in solving problems, as it helps us to focus on the problem. There are different types of meditation:

- Concentrated breathing method involves primarily focusing on breathing, the movement of the abdomen and chest, and the flow of air through the nostrils.
- Method by counting breaths involves concentration on breathing and counting from one to ten (or a hundred) and back.
- Mantra meditation includes silent repetition of a word (or suggestions) with each inhale and exhale. The most famous word or mantra is "Om".

- Meditation with concentration involves staring at a small object at eye level. The view is released and lasts for one minute. Then we close our eyes and imagine the subject. When the image disappears, we repeat the procedure. A burning candle is used most often.
- Transcendental meditation is the most widespread form of meditation developed by Maharishi Mahesh Yogi. It enables the passage from one mental state to a different mental state using the "miraculous river or suggestions or mantra". This meditation is actually the modern Western adapted version of mantra meditation.
- Meditation visualization is based on the presentation of images, processes and activities, which could help to solve our problems. Positive performances should mobilize forces that give us extra energy to solve problems (e.g. to perform at a contest).

Concentrated breathing method, the method of counting breaths, meditation, transcendental meditation and visualization are most commonly used.

## COGNITIVE TECHNIQUES OF PSYCHOLOGICAL PREPARATION FOR STRESSFUL EVENT

What we believe strongly influences our emotions and our behavior. The main task is to find a way that would alter the destructive way of thinking. Our purpose is not the exclusion of thinking. We must not forget that the work of the left half of the brain (analyzer) is decisive when it comes to learning or modification of technique. Through cognitive techniques, we just want to reach out to people so that they can find benefits in their minds and not destroy with their thoughts what they have produced. Negative thinking is the cause of stress, which leads to poor performance. Does this then mean that people should act according to the principle: if you think you can do something, you will do it, if you think you are not capable, you will not do it? Not everything is black and white, as it seems at first glance. Positive thoughts are as vague generalized medicine that lacks one of the ingredients. Thinking realistically and constructively, and then train respectively leads to physical and mental strength, which leads to the desired result. Nevertheless, there is still no guarantee that this will be a way to help achieve the goal. Below, we present techniques that represent a bridge between the physical and mental techniques.

## EMPTY HEAD TECHNIQUE

It often happens that something bothers us, employing our thoughts that cause stress, fear or just experience of discomfort. Such negative thoughts or images become a source of doubts, unease, anxiety, tension and consequently depression. They cause a decline in self-confidence and in the long term, motivation. The technique of empty head is used to eliminate such negative thoughts or doubts and fears and thus prepare our thoughts/head to be filled with positive images and perceptions, which can focus our behavior, motivate or stabilize us.

## VISUALIZATION AND SENSORIZATION TECHNIQUES

In preparation for a stressful situation, visualization technique is probably one of the most commonly used one. The technique is used in all sorts of strategies to learn to cope with stress or self-transformation. Visualization is a form of mental representation. It can only be for the representation of an object or activity, performance, training, military action etc. It is used:

- to assist in learning new motor skills and movements (e.g. learning a new element, which is included in the program)
- to assist in learning or setting up strategy to provide stressful tasks in war situations or military strategy actions
- to remove negative emotions or as part of a systematic desensitization techniques,
  as a concentration training technique
- as a training technique where the task is impossible to train before the execution, when we cannot train in the usual way or preparing for battle where we cannot train in vivo, because we are not able to go there; and as additional training in cases where, because of any limiting factors, it is impossible to train for a long time, etc.,
- as a technique of preparing for stressful events (visualization of the beginning of negotiations, critical moments in the battle, fighting against a specific soldier, etc.)
- as a technique of preparing for stressful performance (mental repetition of the act increases the possibility of automation, certainty in the preferred embodiment, self-esteem, etc.)

- to assist in learning or coordinating the performance of a number of professionals within a team (we achieve optimal consistency and automation more quickly through individual and collective mental exercise).

## DEVELOPING POSITIVE THINKING

Visualization technique is most commonly used to influence the development of positive attitudes, opinions about ourselves, to raise self-esteem in order to obtain a more active role, a more positive image of ourselves. We help ourselves with imagining ourselves in a favorable position: "I as a successful person", "I as a successful negotiator who achieves his goals", "I physically like I want to be". Many times, we help ourselves by imagining positive passwords written on a white blank wall.

## AWARENESS OF NEGATIVE MONOLOGUE

People look at the same events differently. Each person has their own views and opinions about the environment that surrounds them. With opinion, we create emotions and certain opinions eventually become automated. Therefore, it happens that our opinion is very difficult to change. Of course, all this affect our monologue – our thoughts. They can be rational and productive or unreasonable, irrational and destructive. Negative thoughts are like discrete messages that occur in a very short period and we almost always believe in them no matter how irrational they are. They occur spontaneously and they are very difficult to get rid of. Negative thoughts are collected by life experiences and fortunately, they may be changed. People also differ in how they detect negative thoughts. When we are in stressful situations, negative thoughts become less certain, more plausible and the centre of our attention. Awareness of negative thoughts is a very important step that helps in reducing stress.

Five main categories of negative thoughts:

- concern about performance, especially in comparison to other people,
- inability to make decisions due to too many different options
- a person becomes preoccupied with physical signs of stress,
- reflection on the possible implications due to poor performance, which also includes disapproval, punishment, and loss of confidence,
- thoughts of inadequacy, which may include self-criticism or guilt.

## STOPPING THOUGHTS

When people realize that their thoughts are unproductive, we can help them with the technique of stopping the thoughts. When one finds himself in a situation with a head full of negative thoughts, he has to shout: "Stop!" With this, one can stop negative wave and change it with productive thoughts. However, the technique does not work well if one does not have productive thoughts already prepared in advance. Using the technique:

- we have to help the person to identify the events which cause the negative thoughts,
- the person should recognize that negative thoughts are destructive,
- we should set a clear sign that the man means STOP (loud word, snapping fingers, a red flag ...)
- we have to help the person to find realistic thoughts to replace the negative thoughts,
- the technique should be practiced in imaginary circumstances, first we let the negative thoughts develop, then we give the sign, which means stop, and finally shift the mind on something productive,
- the use of techniques in real situations.

## REASONABLE THINKING

The technique is useful in cases where an individual cannot get rid of negative thoughts and replace them with constructive ones. In such cases, the negative thoughts are so ingrained that people blindly believe that they are true. Irrational thoughts have the following forms:

- Successful people do not make mistakes. I have just made a mistake, so I'm unsuccessful
- All criticism is bad. Someone (e.g. my superior) has just criticized me; he wants to harm me.
- Winning is the only goal in business; I did not win, so I am a loser.

The first step to deal with irrational thoughts is to discover them. As already indicated, this is not easy. Most of the time they occur in unpredictable situations, when we hold a different opinion, when someone does not behave according to our rules, when we cannot stand things that are not as they should

be ... The origin of these problems is that the individual tries to control a situation or people when this is not possible. The key to the solution lies in the fact that the individual realizes that some of the events and things are beyond his control.

## SMART SPEECH (STRESS INOCULATION)

There are also some other cognitive techniques for stress management. One of them is stress inoculation. The technique helps to develop a hierarchy of stress. It includes ten to fifteen of specific events, which cause varying degrees of tension. Events are ranked from the least to most stressful. People connect events with the negative thoughts they experienced during them. Then they develop positive conclusions and replace them with negative ones, which are written on a piece of paper. They have to examine them in detail. A person begins with a less stressful situation, tries to imagine it and to feel the stress that would be experienced in reality. Then he/she uses the technique of relaxation and technique of replacing negative thoughts with positive ones and continues to the point that he/she does not feel tension at the event any more. He/she approaches each subsequent event in this way.

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# PSYCHOANALYTIC THEORY OF TRAUMA AND ITS APPLICATION IN THE MILITARY ENVIRONMENT

**Boris Kordić*, Lepa Babić****

***Abstract***: Knowledge of trauma theory is a prerequisite for understanding human reactions in traumatic situations. Therefore we pointed out the important fundamentals of the psychoanalytic trauma theory. When applying the mentioned theory to the military environment it is suggested that the organizational approach includes the processes of selection, education and advisory services, with the emphasis on the resistance to the trauma and care for others as personality traits, and taking into account both processes of gaining theoretical knowledge and experience learning. In particular, we stressed the importance of the broader social environment and people performing responsible positions, who should provide safe environment where it is possible to talk about the trauma and help individual assessment of the underwent.

***Key words*:** trauma, psychoanalysis, military.

## INTRODUCTION

The concept of a psychic trauma was first used and defined within psychoanalytic theory. Although its onset is associated with an understanding of the psychopathology of certain types of psychological disorders, it soon gained significance in understanding the psychological disorders of the war. The essence of the psychoanalytic theory of trauma has not changed significantly and therefore we consider it important to show its essential determinants in order to facilitate the understanding of the concrete measures taken to prevent and repair psychological traumas occurring in the military environment. In this paper we will give a historical context of the development of the psychoanalytic theory of trauma, its essential determinants and application on the understanding of traumas arising in military related situations.

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## DEVELOPMENT OF PSYCHOANALYTIC THEORY OF TRAUMA

Freud, together with Breuer, postulated the concept of psychic trauma to explain the emergence of symptoms in hysteria patients (Breuer & Freud, 1893). The concept of psychic trauma was introduced to explain the consequences of sexual seduction of the underage children by parents or close relatives. As such it proved to be an inescapable concept for understanding psychological development. Trauma disturbs the natural psychological human development. The traces that trauma leaves in the mental structure continue to work and disturb the day-to-day functioning of human being.

The impact of the First World War on humans had resulted in the occurrence of specific mental disorders. Observing the symptoms of "war neuroses", psychoanalysts have supplemented their theories about trauma with new concepts and laws. In this way, the notion of the psychic trauma has lost its specific meaning associated with prepubertal sexual seductions and has spread to all situations that block the normal psychic functioning of human being.

After the First World War, there was a time lag in the development of trauma theory. The Second World War, in addition to the specific psychological disorders associated with the war, brought about a new form of disorder created by the genocide systematically carried out over the Jews. Such a form of trauma was followed by a "conspiracy of silence" because of disbelief in the veracity of the human destruction of such a proportion and of such a form. Long after the war there were no stories about the Holocaust. Later research has shown that such traumas have consequences that are felt in the third generation of offspring, at least according to today's research. Another important fact resulting from the trauma analysis due to the Holocaust is that it is impossible to treat traumatic disorders on the individual level if society has not recognized the traumatic nature of certain events and their impact on humans.

It is interesting that trauma caused during the Second World War was not a sufficient reason for specific disorders arising from traumatic events to be classified into diagnostic categories. It happened due to the Vietnam War's impact on the US soldiers. A large number of traumatised people sought psychotherapy. A number of psychoanalysts were employed to work with traumatised soldiers. To make cure possible, the army had to permit telling military secrets to psychoanalysts, because there is a tendency in human to hide behind the secret information essential for understanding the psychological disorder. A free and open narration about anything is a basic requirement in psychoanalytic work. Finally, in the framework of medical

diagnostics, PTSD diagnosis was officially introduced – post-traumatic stress disorder.

The modern age brings two new forms of traumatic events. Some are linked to terrorism and the consequences of terrorist acts, and others are related to population migrations that are often caused by local wars and conflicts. Terrorism affects civilians and introduces an element of unpredictability and surprise, constant caution and fear. Migrants face separation from home and managing new cultural environments that are not always inclined to accept foreigners.

## ESSENTIAL DETERMINANTS OF PSYCHOANALYTIC THEORY OF TRAUMA

Before we move on to the presentation of the psychoanalytic theory of trauma, we have to mention that it is part of the psychoanalytic theory of personality and that for its understanding it is necessary at least a basic knowledge of the given theory. We will briefly outline the basic postulates that are needed to understand the theory of trauma.

Freud, together with Breuer, postulated the notion of a psychic trauma to explain the emergence of symptoms in hysterical patients (Breuer & Freud, 1893). Psychic trauma was associated with prepubertal sexual seduction. In order to explain the trauma effect, Freud formulated an economic point of view: the trauma is an excessive excitement that can't be freed by motor discharge, nor can it be associated with other psychic contents, nor be dealt with by memory work.

The economic point of view is based on a couple of assumptions about the functioning of the psychic apparatus. The principle of constancy denotes the tendency of the psychic apparatus to maintain the amount of excitement at a constant level. Freud was a neurologist at the beginning of his career and knew that the nerve cell was trying to free the excitement at the same moment as it arises, but retained constant level of tension in order to react to the new excitement. Trauma as an excessive excitement disturbs the usual functioning because it represents something that is too much, and therefore it is not possible to release the tension freely in the usual way, but the feelings become quenched. Freud noticed that, during psychotherapy, these feelings are freed by abreaction, when the excess of excitement subsequently finds an opening through expressing feelings and motor discharge.

To this "neurological" form of thinking Freud adds a significant observation about the psychic: remembering the traumatic event does not necessarily exist in consciousness. Initially, the traumatic event was reached by hypnosis, and later Freud replaced the given technique with the

introduction of a psychoanalytic method. Recall of traumatic events does not only bring relief from excitement through motor discharge, but also brings associative connecting of events with other psychic contents and processing it through memory work.

This first formulation of the trauma theory carries in itself a couple of important postulates. One is that the traumatic event influences the body/psyche by causing the occurrence of excessive excitement. Another important postulate is that excessive excitement acts by blocking both the processes in the body (motor discharge disabled) and in the psychic (the inability to associate and do the memory work). It is therefore said that "the trauma is indelibly recorded in the body and has a direct influence on the organic basis of psychic functioning" (Bohleber, 2002, p. 210). The third postulate is essential for the therapy, by recalling the event the abreaction (motor discharge) happens, associative linking becomes possible together with memory work, and in that way the consequences of the trauma are worked out.

Based on the study of "war neuroses", Freud supplemented his theory with new concepts. One of them is a "barrier against stimuli" (Freud, 1920), which denotes a protective shield that the psyche forms to protect itself from excessive excitement (stimulation). In relation to this new concept, trauma can be defined as breaking of the barrier against the stimuli that leads to overflowing of the psyche with stimuli. The trauma brings with it the experience that the psychic space has been invaded and that the working through, i.e. associative linking and the abreaction of adequate feelings, was disabled.

Another important term is the fixation (Freud, 1917). Fixation on the traumatic events indicates a firm, almost unbreakable, association with traumatic events from personal life. A fixation invokes the psyche to return to the given event, and by subsequent repetition it creates conditions for working through. So it comes to the tendency to repeat a traumatic experience either in nightmares or in reality through hysterical attacks. Freud called this tendency for repetition the repetition compulsion. A good example is the war neurosis of the partisans from the World War II in Yugoslavia, which was manifested in a hysterical attack (Klajn, 1955).

In subsequent analysis, Freud emphasized the importance of the state of helplessness and anxiety. At the moment of breaking out the barrier against the stimuli and when the psyche is overflowed by the stimuli, the Ego is in a state of helplessness (Freud, 1926). The state of helplessness denotes the inability of the psyche to deal with excessive stimuli, or the inability for working through owing to "too much".

The basic feeling that accompanies the helplessness of the Ego is anxiety. Freud distinguishes automatic anxiety from anxiety as a signal.

Automatic anxiety appears as the original reaction to helplessness in trauma. If a psyche recognizes dangerous situations, i.e. situations that can lead to helplessness, it can react with anxiety as a signal to prepare Ego for taking an active role in responding to a dangerous situation. Anxiety as a signal appears, economically speaking, as a tolerable amount of excitation. However, if the "sum of excitation" exceeds the critical threshold then there is an increase in anxiety that turns into panic, i.e. a condition similar to an automatic anxiety, and announces the phenomenon of a trauma.

The above-mentioned upgrades of the trauma theory carry in themselves new important postulates. Through compulsion to repetition psyche tries to create conditions for overcoming the trauma, which means that the trauma is an obstacle in the psychic structure for normal functioning. Automatic anxiety is a feeling that is accompanied by excessive excitation caused by a traumatic event, and the state of helplessness of the Ego is the result of the inability of the psyche to free the trauma by motor discharge, associative linking and memory work.

The helplessness of the Ego points to the need for others that will help with the situation of personal helplessness. Balint (1969) was among the first to highlight the importance of another human being and human relationship. He drew attention to the fact that relations with significant persons are those that have a traumatic character. Human beings expect empathy and understanding from someone close to them. If there is no empathy, the dangerous situation turns into a traumatic situation. In other words, the active presence of an empathic understanding person after a traumatic event can alleviate the event, but if the person has no understanding, it can greatly aggravate it.

Later psychoanalytic theories have examined the parent-child relationship and its importance for the formation of psychic structures and resistance to trauma. A parent, or significant other, carries a number of important functions during development. A parent helps to distinguish between dangerous and harmless situations and in that way settles in child the ability to respond to dangerous situations through anxiety as a signal. The parent provides a sense of safety, empathy and understanding, and in this way helps the child to avoid the state of helplessness because he has someone to rely on. A parent helps the child in working through of dangerous events, their symbolisation, and thus prevents them from being fixated as traumas on the psychic structure.

By identifying with a good parent, a child builds internal supports that allow him to deal with difficult situations in the future. If a parent missteps in any of the vital functions during the development of a child, an insufficiently integrated psychic structure is formed and the person is more vulnerable to

traumatic events. Adults often do not take into account the difference between their and child's cognitive apparatus, because what seems to them harmless to children may be traumatic (Ferenczi, 1988). For this reason, more attention should be paid to the subjective truth of the traumatised than to the traumatic in the event itself.

Considering the role of another human being on the trauma leads to new important postulates. Being betrayed by a significant other is a trauma. Early development and childhood are a time when resistance to trauma is being built. Identification with parental figures determines the kind of internal psychic structures that will be built. Subjective truth is decisive for understanding trauma.

In the end, we will look at the descriptions and explanations of the trauma effect on psychic life. There are many different ways in which the authors represent the effect of trauma. Freud first used the metaphor of the holes in the psyche (Freud, 1892). Baranger and associates (Baranger, Baranger, & Mom, 1988) speak of a pure trauma that indicates absence, nothingness, emptiness in the psyche, a horror that is impossible to name. A pure trauma corresponds with Freud's notion of automatic anxiety that points to forms of anxiety that can not be named, but only described by economic vocabulary as a breaking of barrier, overflowing, helplessness. A similar method of describing by quantity also applies to instincts as long as they are not represented in fantasy but are expressed by compulsion to repeat (Perelberg, 2015).

What belongs to the sensory domain and which is impossible to think of Bion (1992) marked as beta-elements. In order for beta elements to become a mental representation, it is necessary to go through transformation process, called alpha function. Beta-elements can be conceived of as an indigestible surplus of excitement that remains to live as a foreign body at the boundary between the organic and the psychic. This means that the trauma remains at the level of the body, unprocessed and untranslated in the sphere of the psychic. Because of the lack of ability to symbolize traumatic experience and understand its meaning, a "black hole" is created in the psychic structure (Bohleber, 2002). The person stays speechless because he is unable to narrate the trauma.

Traumatic experiences remained split of and without communication with the rest of the psyche. Only non-integrated trauma fragments, beta-elements, break into consciousness and overwhelm the psyche by repeating the traumatic experience. The person feels lonely, hopeless and helpless. The presence of a third (such as a psychoanalyst interpreting during a psychoanalysis) is needed to initiate the process of connecting between then

and now, a process of historicisation in which the unprocessed event becomes part of a personal history and is represented in the psyche.

## APPLYING PSYCHOANALYTIC THEORY IN ORDER TO UNDERSTAND EXTREME TRAUMATISM

The most extreme forms of traumatisation were brought by the Holocaust. Experience of working with survivors showed that personality traits have proved insignificant in relation to the prolonged traumatic situation. The presence of feelings of guilt over survival, a number of physical problems, severe sleep disorders, nightmares with traumatic experiences, affective mortality, inability to describe traumatic experiences, short-term outbreaks of anger, chronic apathy and mild depression could be detected among all survivors (Niederland, 1981). In order to survive extreme traumatisation, the splitting of the Ego was used as the mechanism of defence dividing psyche to the part that sees and the part that is related to the body and which is sacrificed. Affective alienation occurs in order to block painful feelings, and consciousness is more and more reduced to the part that sees until psychological death occurs. After the end of the traumatic situation, the double life continues, on the one hand there is a person living a daily life, while in the background, the traumatic experience latently exists and occasionally comes to the surface. The effects of the Holocaust are felt even in the third generation, which points to the power of unconscious transmitting of unprocessed traumatic experiences from generation to generation.

Research indicates that, after an acute and life-threatening trauma, the first next experience a person has is extremely important. Ideally, security and stability should first be ensured, and then encounter with an empathic human being who will be ready to listen to the story of an inconceivable traumatic experience that is often associated with what people are able to do to each other (Leuzinger-Bohleber, Rickmeyer, Tahiri, Hettich & Fischmann, 2016).

Two world wars and a series of other war conflicts in the recent past have caused traumas and behavior specific to war circumstances. It was noticed that the war circumstances contributed to the splitting within the psyche on the warlike and peaceful Ego, that is, the militant and civil Ego. In this way, one is able to do something in the war that one would not allow oneself in peace. Because of increased insecurity and uncertainty, people rely on one another. The importance of linking lies not only in the security that the group provides but also in associating to help one another, as a form of active opposition and an attempt to take control over the situation (Golomb, 2002).

The rules dictated by the group have vital significance for the survival of the group as a whole and for the each individual separately.

In addition to the group, the collective, in the military, superior got the special significance as a person from whom security and protection is expected in circumstances full of danger, uncertainty and fear. The expectations from the superiors are overemphasized so that his misguided moves easily lead to disappointment that leads to the feeling of abandonment and rejection. We have already pointed out that the loss of an empathically significant other is basic traumatic factor in the otherwise dangerous situation.

In the end, it should be emphasized that trauma created by social circumstances such as war and genocide destroys the historical and social existence of man (Bohleber, 2002). It is therefore important that there is a public talk about the historical truth of traumatic events in order to make the empathic listeners' efforts to help in understanding individual traumas successfully. If the conspiracy of silence is public, victims are left by the side with their experience and condemned to isolation because no one dares to talk about what happened.

## PREVENTION AND TREATMENT OF TRAUMA IN THE MILITARY ENVIRONMENT

Within this chapter, we will emphasize the basic guidelines and address more closely the experiences and lessons learned by civil wars in our region. The starting point for our consideration is the military organization as a specific organization with clearly defined roles, role-play behaviour, communication system, subordination, command responsibility, and position and role in the country. It is important for a military organization, as well as for any other organisation, to have procedures for selection, education and counselling. These procedures must be defined and designed to include, among other things, issues of prevention and treatment of trauma. So, we will discuss the prevention and treatment of trauma in the military environment from the organizational angle more than from the individual.

The selection procedures should be such that, for a military call, persons with certain qualities, including trauma resistance and care for others, should be accepted. It is extremely important that they are integrated persons with a stable psychic structure because on the one hand, it is the basis for the ability to handle difficult situations (qualities called tolerance to frustration or resistance to trauma), and on the other, for the ability to feel empathically with people and to help them in trouble (qualities like taking care of others). In most difficult situations, such personality traits will contribute to greater flexibility in meeting traumatic events and to better handling during and after

the event itself. However, as we have pointed out earlier, it is necessary to keep in mind that personality traits lose weight in extreme traumatic situations and that people respond with defence mechanisms leading to psychic deaths in order to endure impossible and survive.

Selection procedures are performed at critical moments of selecting people for specific positions. Unlike that education could be continuously present and adapted to current needs and circumstances in order to achieve the set goals. Two aspects of education are significant from the angle of military training: experiential learning and theoretical knowledge. These two aspects should be integrated into training focused on building capacities to respond to trauma. Since resistance to trauma is not developed by exposure to traumatic situations, education should be directed in two ways, psychophysical readiness for trauma and readiness for care of people.

The role of theoretical knowledge in the field of psychophysical readiness is to recognize, through your own and others' reactions and behaviour, psychic states associated with the trauma, to accept them as a normal reaction to abnormal circumstances and to turn to those forms of response that are appropriate at the given situation and best assist in its overcoming. The role of theoretical knowledge in the field of human care is to recognize the importance of social support, trust in others, empathic support, readiness for help, responsibility for others' lives and health, for overcoming traumatic situations.

In respect of experiential learning, practical part of military training helps to raise overall psychophysical abilities and so readiness for trauma. More emphasis should be placed on experiential learning of social skills that contribute to building confidence in collective and superiors, strengthening social and empathic support, readiness to help others, and strengthening the responsibility for human lives and health. The greatest obstacle to this education in peacetime conditions is the system of subordination and inequality associated with roles and ranks. One should not forget that the trauma equally affects all people regardless of their position in the military hierarchy.

Consultation procedures are particularly important because they represent a point to which insufficient attention is paid. Usually, counselling as an expression is related to individual work where a psychologist or a doctor helps an individual to overcome certain disorders, in this case, trauma-related disorders. In addition to the importance of individual counselling, we want to draw attention to the importance of expert counselling at various levels within the military organization. Regardless of the differences that exist in the organization of mental-hygienic services in military organizations, we will begin with the assumption that there are expert advisers of the commander in

the basic units and that they are hierarchically subordinated to the mental hygiene team that serves as a support to the general staff. It is important to respect two principles: counselling is done in safe and stable situations, an expert should be in a stable psychological state ready to empathically listen to the traumatised.

Thanks to the information collected about the traumatic events and the reactions of the people exposed to such events, expert advisers analyse data and propose measures to command structures aimed at maintaining mental health and mental stability of the people. When talking about mental health and psychological stability we use abstract concepts that are not usable unless it is defined what exactly they relate to. In the military environment they signify a sense of security in the collective of the unit to which they belong, the feeling of trust between one another, the feeling of trust and faith concerning correctness of the decisions of the general staff and the immediate superior, the sense of psychophysical readiness, etc.

In order to get closer to the significance of the counselling, we will mention examples of civil war on the territory of the former Yugoslavia during the nineties. The first shock had been connected with the engagement of military forces on the territory of Slovenia. The army found itself in a conflict situation with the people they were supposed to defend and whose children were serving in the military. It was the beginning of the collapse of the state and the state leadership consisting of eight members, representatives of the republics and autonomous provinces, decided on military operations. The ambiguities arising from such a situation led to the fact that some soldiers, in the military service, fled toward their homes and, on arrival, reported at military centres. Some of them did not leave the traumatic situation just to escape to a safe territory. What made the situation seem traumatic, in addition to the danger, was the lack of an empathic other, that is, a person who understands what is happening and provides security and support in the circumstances. Given the general unpreparedness for this situation, it happened that soldiers could not find a person who would listen to them and understand them, but they often encountered criticism and sentencing because of their escape. The persistence of some individuals to be heard was so strong that they were eventually released to report to mental hygiene teams at military medical centres. However, team members were also unprepared for this situation, and among them, they transferred hot potatoes among themselves. Those who were ready to listen to soldiers noticed that it was enough to receive them, hear their subjective experience and accept it as such, and to recognize and emphasize their intention to continue serving in the military. A similar negative attitude existed among the officers. Those who were in a safe territory, far from the conflict area, saw cowardice and unprofessional behaviour in their colleagues

from the conflict area, and thus turned their fears and misunderstanding of the situation into a critique and scorn.

When the civil war spread in the territory of Croatia, the army mobilized reserve units from Serbia for actions carried out on the territory of Croatia. Due to the uncertainty about the nature of the war, calls were referred to as if for a military exercise but the mobilization took place according to the war plans, in short terms. That, at one point, led to the rebellion of the reservists. The analysis found that the problem was in the psychological incompetence of the reserve military seniors for military actions. Instead of being confident in themselves and ready to receive and care for their own people, they were on the side of frightened reservists. Later mobilizations, when reserve officers were first mobilized and preparations where made with them for the final mobilization, gave the expected results. Thus mobilized units showed better managing on the front line, greater resilience to traumatic situations and fewer human losses.

Many reservists manifest traumatic reaction only after returning home. They would be welcomed by people who lived a normal civilian life and listened to war only on the news. They were often not interested in paying attention to war stories and trying to understand how returnees from the war felt. It was precisely the misunderstanding of the environment and the contrast of the two realities that triggered the returnees to isolate themselves from other people and withdraw, and the trauma would begin to work through the clinical picture of PTSD. If mental hygiene teams had prepared programs for work with returnees, they would have calmed the traumatic reactions in them.

Refugee families of military personnel were a particular problem. Many families have lived for many years in the emergency accommodation and felt different from others. Many of the trauma reactions were less evident and covered by psychosomatic diseases, because responsibility for family forced them to fit into the current reality and forget everything they had gone through. Friendships were more often fostered with people who were also refugees. In this way, they provided empathy support to each other in difficult circumstances.

The above examples speak of traumatic situations and the importance of empathy and understanding of the person who will listen to and accept the subjective experience of the person who has undergone the trauma. The greater emphasis is on preventing the onset of PTSD and other diseases that result from exposure to traumatic events. The occurrence of psychiatric disorders means that the trauma was severe and that there was no empathy support. If there is no empathy support then people become disappointed, and in order to regain the trust in relationship, a lot of individual devotion and psychotherapy work is required.

## CONCLUSION

Knowing the trauma theory is a prerequisite for understanding human reactions in traumatic situations we highlighted the important assumptions of the psychoanalytic trauma theory. The trauma is the phenomenon of excessive excitement followed by automatic anxiety and the state of helplessness when there is no empathy by another person. Therefore, the trauma is often accompanied by a feeling of being depressed, abandoned and/or rejected. The trauma acts by blocking the physical and psychological processes and by means of compulsion to repeat the conditions for overcoming the consequences of the trauma. In order for change to take place, an empathically important one is needed to listen to the subjective truth and to initiate the abreaction and enable the psychic processing of the trauma. During childhood, due to adequate parenting, stable psychic structures as the basis for the resistance to the trauma are formed.

When planning the prevention and treatment of trauma in the military environment, it is proposed that (1) the organizational approach involves selection, education and counselling processes, (2) the resistance to trauma and care for others as desirable personality traits are emphasized, and (3) the theoretical knowledge acquisition processes and experiential learning are respected at the same time. Unlike the selection process, the processes of education and counselling are continuous processes that need to be adapted to the current situation. Although the basic forms of traumatic reaction are approximately similar for everybody at the body and psychic level, from the reactions of other people, potential empathic conversational partner, depends how the trauma will be processed further. It is therefore important that professional teams always try to understand new traumatic events and traumatic situations in order to be able to respond adequately and timely to prevent trauma from blocking physical and psychological functioning. In particular, we emphasized the importance of a wider social environment, and especially responsible people at high positions, which should provide a safe environment in which trauma can be told without the conspiracy of silence, and help to work through processes of traumatic experiences at the individual level.

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# ASSERTIVE COMMUNICATION AS A WAY TO DEAL WITH STRESS

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***Abstract*:** Modern day life often involves coping with daily stress. Contact with different people in both private and professional environments can lead to conflicts that cause some of this stress. Poor communication is one of the major causes for this conflict because it diminishes the ability of a person to talk about their needs, concerns and frustrations.

Good communication skills facilitate conflict resolution and thus help overcome or prevent stress. Assertiveness, as a form of behavior and communication that manifests self-confidence, helps an individual to adequately place himself in the preservation of one's own needs, without compromising someone else's needs. Research shows that the adoption of assertive skills is important for efficient social functioning at work. Assertiveness directly affects personal self-confidence and satisfaction with relationships with others in the workplace; which in turn, reduces stress.

Subordination, hierarchy, limited participation in the decision-making process and constrained communication networks are characteristics of every military organization. Military activity is regulated by rules and regulations that diminish the personal initiative of members of the armed forces. This can lead to a disturbance in the functioning of individuals due to its limited capacity and difficulty in adapting to the special conditions and requirements of the environment.

This paper discusses the possibility of using assertive communication in a military organization. The results of research on the importance of mastering assertive communication in a military organization as a strategy for more efficient stress management are also presented.

***Key words*:** assertiveness, stress, communication skills, military organization

## INTRODUCTION

Work stress is recognised world-wide as a major challenge to worker's health and the successful operation of their organisations. Workers who are stressed are more likely to be unheatlhy, poorly motivated, less produtive and

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less safe at work (Leka, Griffiths & Cox, 2003). It occurs when job demands exceed the ability of an employee to deal with them. Most often it is the result of an inadequate psychosocial work environment.

At work, people satisfy different needs and establish important social interactions. A job provides a certain income to an individual, but also enables the fulfillment of a number of other needs: the need for change, a sense of self-worth and competence, solving intellectual tasks and making social contacts.

Contemporary theories of stress, either explicitly or implicitly, recognise the central role of psychological processes (such as perception, cognition and emotion) in understanding stress at workplace (Hassard & Cox, 2015) Theories such as Person-Environment Fit theory or Job Demand-Control also have moved away from understanding the construct as either a response or as an external event, but rather view it as a dynamic interaction between the individual and their environment. While there are no direct concurrences when determining stressors and their rankings, it is obvious that some of the stressors are related to job characteristics and job requirements, while others cause different types of conflicts in relation to colleagues and managers. SkillSoft, an American educational technology company that deals with corporate learning, collected data from 3,000 respondents and found that stressors related to colleagues and managers are: seeing others not pulling their weight, managers changing their minds about what they want to be done, lack of support from managers, pressure from managers, feeling put-upon by managers, interruptions by colleagues, interruptions by managers, bullying behavior by managers, lack of support from colleagues, bullying behavior from colleagues. (Butcher, 2006). These findings are also supported by the European public opinion poll carried out by the European Agency for Safety and Health at Work called European Business Research on New and Emerging Risks (ESENER) According to this survey, workers in Europe think that stress is related to work in the following way: 72% of workers think that reorganization of work or unsafe work is one of the most common causes of stress related to work; 66% of stress attributed to '*working hours or workload*'; 59% of stress is in a 'condition caused by unacceptable behavior, such as abuse or harassment' or today known as "mobbing". About 51% of workers report that stress is associated with routine work at their workplace. Four out of ten workers consider that stress in their workplace is not taken seriously.

Some organizations deal with reduction of stress of their employees in a serious manner, because they loose large sums of money due to absenteesim or low productivity. However, the success in reducing everyday stress is primarily based on how individuals are dealing with it themselves, as it is

often claimed *'you can't change other people; but you can change how you deal with them'*.

Members of military organizations are exposed to numerous stressors related to their profession and the basic goal of the organization: armed struggle. Yet, during peace times, members of the Army are exposed to the causes of stress like any other civilian profession. Research into the psychosocial environment and psychophysical distress, that is internal for our military organization, showed that the problems of interpersonal relations, motivation and satisfaction with the living and working conditions are equally present in military organizations. Despite the intention to screen members of military organizations to be emotionally stable, resilient and at a certain level of education, real life experience reveals that constant or intense stress can cause mental and physical problems to military personnel too.

Reducing stress and preserving its psychophysical abilities is a particular challenge for a military organization due to its specific role in society as an exemplar of its highest values. Armed forces have unique organizational structure. Internal relationships are significantly different from those in any other public organization. The army consists of personnel who have specific position and roles, defined by their structural relationship between each other, and in the hierarchy that create special social relations. Mechanical organizations (Robins, 2009), such as the army, reduce subjectivity. The hierarchy of authority is precisely determined, while decision-making is foreseen for those in higher positions only (Djuric-Atanasievski & Alargic, 2016).

The character of the armed forces reflects the character of its society. The social nature of the military organization has evolved and changed with the historical development and changing of character of society. Contemporary managerial theories similarly find their place in military organisations. An army that is ready to implement those solutions often finds that they enhance its effectiveness and efficiency. Many theories and studies deal with organisational internal communication, in particular the relationship between supervisors and subordinates which as an important condition for creating a satisfactory and productive relationship.

One of the most frequently used communication theories is the concept of assertive communication. Fostering assertiveness in modern organizations has shown good results. Our previous research dealt with the possibility of using assertive communication in a military organization (Djuric-Atanasievski &Alargić, 2016). Results that were obtained clearly indicated significant benefits of using this mode of communication in certain work processes in the military.

Starting from the fact that conflicts, caused by stress, can exist in military organizations, we carried out a survey on the relation of individual assertiveness as a strategy of behavior and conflicts as a cause of stress in military organizations. The aim was to determine how the assertiveness of an individual in a military organization affects overcoming of stress and conflict resolution.

## INTERPERSONAL RELATIONSHIP AND CONFLICT AS WORK STRESSORS

A person is exposed to more than a hundred causes of stress daily. Although one often can not change the circumstances, he/she can control his/her own reactions and chooses a certain way to reduce the stress.

One of the most common causes of stress in the workplace is damaged interpersonal relationships resulting from conflict between staff members. Various theoretical interpretations of workplace conflicts provide different interpretation of conflict causes and consequences. The reason for this variety is due to various manifestations, types and levels of intensity of conflict itself. The definitions of conflict range from determining conflict as contradictory ideas and interest to the view that the conflict is a sharp disagreement (Javitch, 2007). One commonly cited definition states that organizational conflicts are disagreements between two or more members of an organization or group which happens because people share rare resources, work together on the same assignments, have different goals, attitudes or perceptions. The causes of conflict can be divided into organizational (Lathans, 2005, p. 47) and interpersonal (Schermerhorn, Hunt, Osborn. 2005, p. 13) depending on whether they are associated with organizational factors (such as high differentiation of organizational units, organizational ambiguity and inadequacy or lack of merit awards) or personal differences (such as misconception, communication errors or mistrust).

However, it is also true that a conflict does not always have a negative implication for the organization, environment or individual. In constructive conflicts, employees seek to solve the problem. Those conflicts can be positive organizational phenomena that can lead to optimal solutions to a particular problem. Conflict in a positive sense can improve the quality of decisions making process, encourage creativity and innovation, become a tool to reduce tension and thus enable better adaptation to change. If the conflict is resolved successfully, it can lead to professional and personal progress.

The problem exists with destructive conflicts, when individuals or groups can not resolve conflict or they can come up with inadequate solutions

only. Those that are involved in such conflicts can become apathetic, hostile, with negative emotional affect that creates difficult work environments.

Moral values and personal interests are highlighted as some of the most important causes of conflicts. For example, The Department of Human Resources, University of Oklahoma explains that workplace conflict may arise due to the fact that employees can have different values due to the fact that a workplace is made up of various individuals who see the world differently. Conflict occurs when there is a lack of acceptance and understanding of these differences. In addition, scarce resources are often a cause of conflict. It occurs when individual workers 'fight' for their personal goals, ignoring organizational goals and organizational well-being. All work environments are made up of different personalities. Unless colleagues understand and accept each other's approach to work and problem-solving, conflicts will occur. If one or more individuals within a work unit are not performing (not working up to their potential) and this is not addressed, conflict is inevitable.

## STRESS AND CONFLICT IN A MILITARY ORGANISATION

The stress experienced by members of the army, officers, non-commissioned officers and soldiers is a consequence of the specific nature of their profession and the nature of their basic activity, armed struggles. In combat actions, military interventions, defense of the country, counter-combat and fighting threats such as terrorism: a professional member of the army is exposed to special physical and psychological stressors. A variety of factors including physical danger, long periods away from home, physical demands, being in the public eye, and being responsible for the lives of others (Harms, Krasikov, Vanhove, Herian & Lester, 2014) are responsible for ranking military jobs as one of the most stressful occupation. Some members of the army such as pilots, submariners or special forces units operate under extreme conditions which cause stress to their bodies even during peacetime. (Kumar, Vijay & Manas, 2013)

Similarly, members of a military organization may be under stress even in peacetime while performing their everyday duties and activities. Research has shown that stress at work is not in correlation with regard to performing a difficult job or that they can be deployed in war zones (Pflanz & Sonnek, 2002). This can be explained by the existence of a specific military culture and personal awareness of every soldier that particular military profession is, after all, their personal choice.

A defining characteristic of a military is that specific personal, interpersonal or organizational factors that reduce stress can be clearly identified. On a personal level, the factors that create resilience to stress are

problem solving skills, good physical and mental health, sense of purpose and meaning of life, life optimism, high level of self-assessment and social-emotional competence which is especially reflected in proficient communication skills. On an interpersonal level, support comes from the family and the community to which a person belongs. At the organizational level, stress may be reduced if there is a group synergy and cohesion amongst the members of a unit (Kumar et al. 2013). In our survey, the affiliation of the group and the willingness of a military persons to support their colleagues is shown by the fact that the largest percentage of negative answers is given to questions: 'I do not feel guilty when rejecting someone else's request' and 'When it's needed, it's not hard for me to reject someone else's request'.

There is a wide range of factors which contribute to the experience of stress and many classification of them. Regarding the three most common causes of stress mentioned in literature: workplace concerns, overwork, and conflicts that may exist in different interpersonal and group relationships, it can be noted that the first two are less evident in military organisations. Concern for the workplace in a military, as a social institution with special missions, is less likely than in the corporate organizations. Overloading with tasks is not rare in a military organization but it is often resolved by the adequate organization of workload. In a military organisation, employees are highly specialized for certain tasks fitting within the organisational structure where it is a norm that one person is responsible for one specific task. The third most common stressor at work - the interpersonal conflict is also present in military organizations. The reasons for the conflict can be the same or similar to any civil organization. In his research on the stress of members of the US Army, Pflanz found that only one in five causes - a change of the place of service - was typical for a military, while the others were applicable to civil organizations as well. This research identified the following stressors as the most common: job responsibilities, long working hours which is a standard for a military profession, and problems with superiors that are present in other jobs where there is not much independence.

Since conflicts adversely affect performance, an organization aims to resolve or at least manage them. The majority of solutions are products of repressive measures or a verdict brought by a third party. This can create frustration and dissatisfaction of conflicting parties which would prevent complete conflict resolution. Managing conflicts in an organization does not mean their complete elimination. Rather the aim is to bring those conflicts to a functional level, suitable for resolution. The most important is the first step that assesses whether the conflict is constructive or destructive. Management of constructive conflicts involves peaceful conflict resolution with usually positive consequences that increase creativity and reduce tension among

conflicting parties. A positive strategy means that the disputed conflict situation is not developing into an attack on another person, but a joint focus on the problem, which is the key for resolving any conflict. The turning point in the conflict is the transition from the position of demand to the position of considering needs and interests of each party.

From the perspective of an employee a conflict that creates workplace stress should be resolved in a way that it does not create a permanent or suppressed stressor. A person, like other animal species, resolves the conflict by fighting or fleeing. These reactions are innate, instinctive and of supreme importance for survival. In addition, people can verbalize their feelings and thoughts which create an opportunity for communication in order to solve the problem.

Good communication at all levels of the organization (vertical and horizontal) contributes to greater understanding, trust, satisfaction and motivation for work. It improves organizational culture and climate, which also affects work productivity and well-being of employees. (Bojanović-Đurišić, 2015).

The correlation between adequate, healthy communication amongst employees/ members of the organization and level of stress has been proven by numerous studies. Inappropriate or ineffective communications in the organization cause conflicts that are one of the main causes of stress. Also, different communication styles can lead to misunderstandings between employees or between employees and managers.

Lack of communication can temporarily hide the conflict and make it resurrect later in an even more intense form. Scientists offer solutions to the problem of interpersonal conflicts by introducing effective communication skills such as: treat others respectfully, set the right tone for the conversation, use active listening, avoid negative attributions and solve conflicts when they are small. (Zhu, Hu & Cui, 2016)

## SPECIFIC COMMUNICATION IN A MILITARY ORGANIZATION

Many communicologists consider internal communication within the organization to be of the outmost importance. It is an important element of success and a key determinant of individual and group achievements towards organizational effectiveness and efficiency (Schneider & Bowen 1985, Cutlip, Center & Broom, 2006).

Communication is one activity that significantly contributes to the creation of an atmosphere in which each member of the organization can feel satisfaction. This is a condition for creating a responsible employee who will,

for the benefit of the organization, use all of their knowledge, abilities and skills.

Communication occurs within the organization whether it is managed or not. Daily interactions between people are an essential part of accomplishing a job. As modern organizations grow, internal interactions become increasingly complex. Employees can be separated due to hierarchy, location of the organization, their own job location or the way the work is done. The goal of internal communication is to create and maintain mutually effective relationships between an organization and its employees. Organizations develop internal public relations in different forms as its special function. It is made of mechanisms of mutual connections that establish contacts within the organization, as well as the tools and techniques for transmitting information with a specific impact on employees.

The process of communication in a military organization is specific because it entails hierarchy and subordination based on leadership or chain of command. With clear, precise and concrete information, it becomes clear who, what, when and how to perform and thus accomplish one's task. Communicating in a military organization is particularly important in armed conflicts. War is successfully managed through effective communication and developed communication systems that allows the flow of information.

Internal communication within a military organization can be enhanced with good communication skills: speaking, listening, understanding, providing feedback or writing skills of superiors, but also that of subordinates. Both play a part to positively influence the efficient execution of tasks. Good communication is promoted by credible sources of information. True and accurate information creates trust among members of the organization. Adequate communication channels are needed that enable fast and reliable information flow. Face-to-face communication or personalized electronic communication between superiors and subordinates enhances communication in which the subordinates are free to express their opinions and are openly accepted by their superiors.

Along with the claims about the need to develop communication for a healthy environment in the organization, it is important to choose an optimal communication style that will create satisfied and self-confident members of the organization.

## VERBAL COMMUNICATION STYLES

Various factors - developmental, environmental or circumstantial – influence the decision which style of communication will be chosen in a specific situation. People are often recognized by their style of behavior and

communication. Aggressive communication involves an uninhibited expression of one's opinion, conviction and feelings in a way that is most often threatening to others. Aggressive people are able to stand up for themselves, to demand their own rights and reject the inadequate demands of others. However they do it in a way that endangers other people, even frightening them. Sometimes aggressive people express a greater need for domination or subordination of others than for safekeeping their own rights. Their goal is to challenge passivity and withdrawal of others with their aggressive performance.

The complete opposite to this expression of personal interest is passive communication. People who do not know or will not express their own opinion on any issue that arises avoid direct communication and hide true problems. They easily give up their needs and, in every way, try to avoid conflict with others. Passive-aggressive behavioral models can be identified with people who do not feel able to cope with real situations. They compensate for their shortcoming when conflict is over and when they find themselves in a safe environment. They take upon themselves a victim's role and proudly point out to injustice they did not even try to prevent.

Assertiveness is a golden mean between behaviors and communication styles outlined above. Assertiveness is the ability to express one's own feelings and rights while respecting the feelings and rights of others. Assertive communication is direct, open and honest, and it expresses one's own needs to other people (Garner, 2012). An assertive person has control over his/her life and all aspects of it: work, interpersonal relationships, intimate relationships, parenting, etc.

Assertive behavior relates to a problem that relates to a person, and not to the person themselves. Negative feelings and opinions are directed towards the problem; actions are aimed at solving the problem, not altering one's personality. That is why assertive behavior is useful in all potentially frustrating social engagements, when the interests or needs of a person are threatened, a person finds himself ostracized by another, they want to refuse a demand, their rights are violated or when they encounter any other kind of injustice. Assertiveness does not only imply a way of behaving but also the way a person feels. Absence of guilt and fear and the sense of acting out properly, make up the emotional component of assertiveness. The emotional attitude towards social situations is deterministic for how a person will behave.

Assertive communication means that one expresses one's views, wishes, opinions and beliefs in a sincere manner, respecting an interlocutor. It does not guarantee success, nor does it enable achievement of a goal, but it reveals the struggle for one's rights, in a discreet, non-aggressive manner at the right time. An assertive person knows how to take care of themselves,

avoid manipulation in communication, provide constructive criticism, but also to receive criticism without feeling insulted. Such a person is also a good public speaker. In this way, assertive communication increases self-confidence and reduces anxiety.

However, it is not possible to communicate assertively with every person in every situation. Others do not have to accept such a style of communication or the views of a person who behaves and communicates assertively. Assertive communication can give the impression of an arrogant or even aggressive person and be rejected by colleagues. Perhaps the biggest problem in achieving assertiveness is a lack of social skills which enable effective self-expression.

Assertive theory and practice originated from clinical practice in the USA of the 1960s. Clinical psychologists came to the conclusion that unassertiveness was at the root of some psychological problems and developed coaching programs to help patients increase self-confidence and self-actualization. In the seventies of the last century, when human rights movements grew, a number of psychologists began to treat assertiveness as a means of protecting human rights. They believed that assertiveness provides the opportunity for people to protect their rights in a humane and democratic way, without compromising the rights of others. As early as the eighties of the last century, assertiveness and elevation of assertiveness began to be treated as a skill needed in various social situations (Peneva & Mavrodiec, 2013, p.3-26). However, assertiveness is rarely acquired in childhood and spontaneously expressed at the early stage of development. Assertive behaviors and communication skills are usually taught. Research has also shown that assertive individuals are progressing considerably faster in their business career than their equally capable but non-assertive colleagues. That is why the world's leading companies have included assertiveness training in a basic education package for their employees. Assertiveness training programs have the aim to improve interpersonal relationships, creating more effective and flexible communication and reduce stress.

Since assertiveness primarily affects social interaction, it is clear that assertive communication affects both the sphere of work and workplace relations. There are numerous situations in which assertive communication can be of great importance to the job as well as to the organization in general, such as: job recruitment interviews, performance review interviews, delegation of less pleasant work tasks, criticism of a team member, standing up to unreasonable requests from superiors, communication with demanding customers, presentation of one's own ideas and opinions, public speaking at meetings, resolving conflicts among team members, and similar (Čabarkapa, 2016).

Assertiveness in a work environment can be directed towards oneself, work colleagues, supervisors or anyone else. It is possible to project assertiveness towards some groups at work, but not others, which depends on the different level of responsibility that is felt for different people. Usually, the biggest concern is relations with one's superiors, which is one of the biggest and most common stressors in the workplace.

Some authors (Gaddis, 2004) argue that assertive behavior is the most productive method of conflict resolution not just in life, but also in the workplace. Assertive people have less conflict in their relationships with others, and therefore less stressful situations. They satisfy most of their needs, which means that they experience less stress. In doing so, they can also help others to satisfy their requirements and precipitates having stronger and better relationships with other people which they can rely on which, in turn, also helps in stress management (Mayo Clinic Staff).

Contrary to this, aggressive individuals alienate themselves from others and create unnecessary stress. Those affected by aggressive behavior feel attacked and often avoid aggressive people. Over time, aggressive people would experience increasingly poor relationships and little support from others, without understanding that this is the result of their aggressive behavior. Often, they feel victims themselves, which can increase their aggression or fear, which is at the core of aggression. Passive people, however, aim to prevent conflicts by avoiding communication about their own needs and feelings. Such behavior also damages relationships with others over a longer period. Passive personalities feel victimized, yet, they continue to avoid confrontation and thus increase their dissatisfaction, which can ultimately result in their own aggressive expression. Others may not know what the problem is until a passive person explodes. This leads to difficult feelings, weak relationships and creates even greater passivity.

Research papers provide a great number of studies on the positive impact of assertiveness on the levels of workplace stress but there are also some claims that there is no causation with assertiveness lessening workplace stress (Ames, 2009). Research with positive results was undertaken for professions that have great responsibility and where work is accompanied by extraordinary physical and psychological efforts such as those in medical fields. (Kim & Yi, 2015)

Some research examines assertiveness as a moderator of stress reactions by examining the correlation between levels of assertiveness and the way of solving stressful situations. In one of these studies, assertiveness was investigated as a moderator of stress reactions among women, that is, how high and low-assertive women cognitively assess, affectively and physiologically respond to and solve stressors that create an assignment to

improvise speech. Highly assertive women have estimated that such a speech is a challenge, while low-assertive women have assessed it as a threat (Tomaka, Palacios & Schneider, 1999, p.1008). Some research also experimentally deals with the relationship of assertiveness and stress. In the Lee and associates research (Lee & Swanson, 1994), the experimental group completed an assertive communication course, while the control group had IT training. A group that has mastered assertive communication techniques has shown a statistically significant difference in stress management.

## ASSERTIVE COMMUNICATION IN MILITARY ORGANIZATIONS

Members of a military are always expected to be ready to carry out the task - either in or outside of the context of armed struggle. A sense of self-confidence, personal and professional integrity allow them to use their potentials in performing tasks, teamwork, risk management in command and control or motivating subordinate members. Assertiveness, as the ability to express one's own opinion in a socially acceptable way, is evident in horizontal and diagonal communication within a military organization, regardless of whether it is formal or informal communication. However, there are some issues with its application in vertical communication, i.e. communication between superiors and subordinates.

In a survey published in 2016 (Djuric-Atanasievski & Alargic) the researchers examined empirically how officers, of the lieutenant-colonels rank, assessed the possibility of assertive communication in a specific environment such as the military. Participants of the survey were familiar with the basic concept and nature of assertiveness. They were asked to evaluate personal assertiveness in the relevant questionnaire. In the combined questionnaire (with closed and open type questions) respondents answered questions related to military organization and assertiveness. Although the sample was relevant it did not meet the strict requirements of representativeness. The answers were analyzed only at the descriptive level which provided some generalizations and perceptions of the attitude of the military towards assertiveness and its use in a military organization.

The results showed that most respondents (55%) considered that assertiveness is possible in formal communication in the military environment, 41% of respondents thought that it is possible in some cases, and only 4% considered that this type of communication is not possible. However, answering if assertiveness could violate the principle of hierarchy, the majority (68%) opted for the answer that it was possible in some situations, while only 5% strongly believed that it could violate the principle of hierarchy. A similar

result was also revealed with the question of whether an assertive communication undermines the authority of the command and management staff. While 50% of the respondents thought it did not, 45% thought that this could happen in some situations and 5% estimated that assertiveness could undermine authority.

The analysis of open questions showed that the positive attitude towards assertiveness is not accompanied by the belief that assertiveness is always desirable in the practice of management and subordination, especially in situations where it would violate the implementation of a decision. Examining the assertiveness in the context of the relationship between the superiors and subordinate respondents, they pointed out that subordinates may show misunderstanding or personal judgment in relation to the assertive communicator. The view that assertive communication undermines the authority of the command/manager is the influenced by the view that assertiveness may be inadequately applied and may turn into aggression and arrogance. In addition, officers considered that there are unforeseen consequences to successful management, when the orders are carried out formally, with tacit resistance, or when the authority of the superiors is questioned by the subordinates.

No respondent answered positively to the question on whether assertive communication in the military environment may contribute to worsening of interpersonal relations, but a high percentage felt that "in some situations" this could happen. The view of many respondents that assertive communication in some situations can lead to a disruption of interpersonal relationships can be explained by the experience of respondents who have an authoritarian personality and who perceive assertive behavior to be inadequate. Although respondents rated assertiveness highly as a useful style of behavior and communication, even as many as 18% felt that assertiveness did not help a person to achieve their goals or to gain the respect of their immediate peers. That is approximately the percentage of those who exhibited lower levels of personal assertiveness and expressed less trust in the importance of assertive behavior and communication.

## EMPIRICAL RESEARCH – ASSERTIVNESS AS A TOOL TO REDUCE STRESS IN THE MILITARY

The aim of this research was to determine the role of assertiveness in overcoming professional stress with members of a military organization The main goal of the research was to establish the connection between assertiveness and perceived potential conflicts, sources of conflict, that is, the relation between assertiveness and problematic behavior, as well as the way

of resolving these conflicts. The starting point was to determine whether more assertive members of the armed forces can better cope with conflicts at the workplace, or with the stress that these conflicts can cause. The survey was conducted on a sample of 45 officers with the rank of major. It means that the survey included a homogeneous group - men, similar age and length of service in the armed forces, so these parameters were not statistically processed. The survey used the questionnaire prepared for the research on assertiveness and stress and published in the journal Acta medica Croatia (Stojičić, et.al., 2014), but adapted to suit the profession of the sample (military officers). The first two questions examine the attitude towards the "conflict" with three offered answers, as well as the knowledge of the term "assertiveness" with the confirmatory answer requesting the explanation, as well as the denial and answer, "I'm not sure". Assessment of assertiveness was carried out by 15 statements describing assertive behavior, while the individual score was a sum showing the amount of assertiveness.

For all other questions, respondents selected grades from 1-never to 5-always (1-never, 2-very rare, 3-occasional, 4-often, 5-always). Questions on conflict related to the perception of potential sources of conflict at the workplace, personal involvement in conflicts due to the mentioned sources of conflict, then to the persons with whom the respondent most often was in conflict, as well as on the manner and success of conflict resolution. The respondents also assessed: a) how often they enter conflicts with their superiors, associates, subordinates or some other persons, b) the time of resolving the conflict, immediately, later, or there is a tendency not to resolve the conflict c) the method of resolving the conflict directly or hierarchically, and d) how successful they are in constructive conflict resolution.

When calculating the results, the indicators of descriptive statistics (frequency, arithmetic mean, standard deviation and range of results) were calculated, as well as the ratio of answers and correlation. Processing is done in the SPSS for Windows program.

## RESULTS

### Definition of conflict

To define a conflict, respondents were offered three possible answers (Table 1). A total of 29% of respondents define a conflict as "a situation where there is a disagreement between individuals on certain issues, desires or ways to fulfil those desires". About 7% see the conflict as "a situation in which one openly expresses disagreement or

dissatisfaction". A conflict is seen as "a situation in which quarrels, insults, displays of contempt, aggression and hostility happen" by 64% of respondents. From this data, it can be concluded that the most respondents consider conflict only as a negative phenomenon, and that only a small percentage consider the possibility that conflict can be constructive.

Table 1. What would be the most correct definition of a conflict in your opinion?

| Answers | % |
|---|---|
| a) There is disagreement on the opinions, wishes, needs, or ways of their fulfillment. | 29 % |
| b) Someone openly shows disagreement or dissatisfaction | 7 % |
| c) There is arguing, insulting, displays of, aggression and hostility | 64 % |

**Definition of assertiveness and descriptive statistics on assertiveness**

The concept of assertiveness is familiar to 29% of respondents. About 16% are not sure if they know what assertiveness is, and 56% of respondents in the sample state that they are not familiar with the notion of assertiveness. Although there is a smaller percentage of those who are familiar with the concept of assertiveness, the other results show that assertiveness is present in the communication skill sets of the examined officers. It was found that the most of respondents expressed above average assertiveness, i.e. that the respondents can be considered assertive ($M = 3.68$, $SD = 0.93$). It was also examined what kind of significance they attach to individual indicators of assertiveness at the manifest level. The picture of the degree of preference of individual items is given in the form of arithmetic mean (M). The average acceptance of each indicator (on a scale of 1 to 5) is given with the accompanying data on the dispersion of individual measures or standard deviations (SD) (Table 2)

Table 2. Descriptive statistics on assertivness

| Standpoint | Descriptive statistics | | | | |
|---|---|---|---|---|---|
| | N | min | max | M | SD |
| a) I know how to ask someone for a favor | 45 | 2 | 5 | 3,89 | 0,93 |
| b) I do not feel guilty when I reject someone's request | 45 | 1 | 5 | 2,82 | 1,09 |
| c) When I talk to someone, I look them in the eye | 45 | 3 | 5 | 4,73 | 0,54 |
| d) I know how to accept the compliments I get | 45 | 2 | 5 | 4,02 | 0,92 |
| e) When someone angers me, I tell them how I feel (because of them) | 45 | 1 | 4 | 3,02 | 0,92 |
| ) I express clearly to others what kind of impression they leave on me | 45 | 1 | 5 | 3,22 | 0,97 |
| g) I resolutely fight for my rights | 45 | 2 | 5 | 4,11 | 0,71 |
| h) My needs are my priority | 45 | 1 | 5 | 2,64 | 0,86 |
| i) When it is necessary, it is not difficult for me to reject my friend's request | 45 | 1 | 5 | 2,24 | 1,07 |
| j) I know how to tell others I like them | 45 | 2 | 5 | 3,93 | 0,81 |
| k) In any discussion, it is important for me to reach a joint solution | 45 | 4 | 5 | 4,53 | 0,50 |
| l) I stick to what I believe in | 45 | 3 | 5 | 4,42 | 0,54 |
| m) I do not allow others to exploit me | 45 | 1 | 5 | 3,84 | 1,04 |
| n) When I ask someone for a favour, I do it in a clear and appropriate way | 45 | 2 | 5 | 4,47 | 0,73 |
| o) I ask others for feedback about myself because it helps me improve my own performance | 43 | 1 | 5 | 3,26 | 0,98 |

The percentage indicators of assertiveness also show that the most prominent indicators of assertiveness are: *When I do someone a favor, I do it in a clear and appropriate way; I resolutely fight for my right; I stick to what I believe in,* and the fact that for the most respondents it is important to reach consensus in any discussion. (Table 3).

Table 3. Frequency of response according to items of assertiveness

| Standpoint | Scale | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| a) I know how to ask someone for a favor | 0 | 11 | 16 | 47 | 27 |
| b) I do not feel guilty when I reject someone's request | 16 | 18 | 40 | 22 | 4 |
| c) When I talk to someone, I look them in the eye | 0 | 0 | 4 | 18 | 78 |
| d) I know how to accept the compliments I get | 0 | 11 | 7 | 51 | 31 |
| e) When someone angers me, I tell them how I feel (because of them) | 9 | 13 | 44 | 33 | 0 |
| f) I express clearly to others what kind of impression they leave on me | 7 | 16 | 29 | 47 | 2 |
| g) I resolutely fight for my rights | 0 | 2 | 13 | 56 | 29 |
| h) My needs are my priority | 2 | 51 | 29 | 16 | 2 |
| i) When it is necessary, it is not difficult for me to reject my friend's request | 24 | 47 | 11 | 16 | 2 |
| j) I know how to tell others I like them | 0 | 4 | 22 | 49 | 24 |
| k) In any discussion, it is important for me to reach a joint solution | 0 | 0 | 0 | 47 | 53 |
| l) I stick to what I believe in | 0 | 0 | 2 | 53 | 44 |
| m) I do not allow others to exploit me | 4 | 4 | 22 | 40 | 29 |
| ) When I ask someone for a favour, I do it in a clear and appropriate way | 0 | 2 | 7 | 33 | 58 |
| o) I ask others about feedback about myself because it helps me improve my own performance | 2 | 19 | 42 | 26 | 12 |

**Link between assertivness and a strategy in conflict resolution**

The results show that more assertive respondents:

1. notice behavior of associates which can lead to conflict and organizational problems more often. But at the same time, they end up

more often in conflicts (the correlation of assertiveness and conflict is high which reflects the basic essence of assertiveness - advocating for themselves.

2. Those who do not allow others to exploit them criticize others' moral values less and do not impose persistently their own ideas and attitudes. (r = -0.37, r = -0.35). (Table 4)

The fourth question in the questionnaire is related to frequency of different behavior of associates at work: a. Often expressing dissatisfaction with something or someone b. Lack of self-criticism, c. Use of curses and rude expressions, d. Persistent imposition of one's own attitudes and ideas, e. Criticizing others' values , f. Lack of sense of humor g. Mocking others' ideas and views, h. Unconsciousness and lack of understanding for other problems i. Lack of readiness to provide assistance to others

Table 4. Correlations between assertiveness and behavior that can cause conflict

| Correlations between assertiveness and behavior that can cause conflict | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Behavior | Assertivness | | | | | | | | | |
| | 3a | 3d | 3e | 3g | 3h | 3k | 3l | 3m | 3n | 3o |
| 4a | 0.08 | -0.18 | -0.09 | -0.14 | -0.08 | 0.02 | 0.00 | -0.21 | -0.09 | 0.13 |
| 4b | 0.12 | -0.01 | -0.20 | -0.09 | -0.04 | 0.05 | 0.12 | -0.21 | 0.19 | 0.00 |
| 4c | -0.01 | -0.16 | -0.07 | -0.03 | -0.15 | -0.21 | -0.09 | -0.19 | -0.01 | -0.13 |
| 4d | -0.08 | -0.20 | 0.08 | -0.22 | -0.24 | 0.00 | -0.01 | **-0.35** | 0.19 | 0.21 |
| 4e | 0.26 | -0.10 | 0.25 | -0.18 | -0.24 | -0.09 | 0.04 | **-0.37** | 0.02 | 0.15 |
| 4f | -0.03 | 0.07 | 0.16 | 0.12 | -0.08 | -0.07 | -0.06 | **-0.21** | 0.06 | **0.20** |
| 4g | 0.26 | -0.05 | **0.28** | -0.13 | **-0.28** | -0.18 | -0.14 | **-0.24** | -0.08 | 0.07 |
| 4h | 0.24 | 0.04 | 0.11 | -0.12 | -0.23 | -0.10 | -0.09 | **-0.28** | -0.02 | 0.06 |
| 4i | 0.17 | 0.02 | 0.06 | -0.11 | -0.21 | -0.10 | -0.16 | **-0.28** | -0.06 | -0.01 |

The same items are offered for the assessment in question 5**:** How often do you personally enter into conflict because of the behavior of your colleagues?

The data in Table 5 shows that those respondents who are determined to fight for their rights do not mock the ideas and attitudes of others. They are susceptible and show understanding for someone else's problems; they are ready to help or to get into conflict if they notice unacceptable behavior (r = -0, 36, -0.34, -0.34).

Table 5. Correlations between assertiveness and conflicts

| Correlations between assertiveness and conflicts | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Conflicts | Assertivness | | | | | | | | | |
| | 3a | 3c | 3d | 3e | 3f | 3g | 3h | 3k | 3m | 3n |
| 5a | -0.02 | -0.07 | -0.22 | 0.24 | **0.37** | -0.08 | -0.36 | -0.13 | -0.14 | -0.22 |
| 5b | 0.11 | -0.19 | -0.24 | 0.22 | 0.33 | -0.15 | -0.25 | -0.13 | -0.10 | -0.18 |
| 5c | 0.20 | -0.07 | 0.04 | 0.06 | 0.07 | -0.17 | -0.26 | -0.04 | -0.22 | -0.09 |
| 5d | 0.25 | -0.14 | -0.14 | **0.34** | 0.24 | **-0.26** | -0.30 | -0.02 | -0.18 | -0.18 |
| 5e | 0.28 | -0.14 | -0.13 | 0.31 | 0.06 | **-0.27** | -0.28 | -0.24 | -0.31 | -0.31 |
| 5f | 0.16 | -0.14 | -0.20 | -0.08 | 0.21 | -0.13 | -0.20 | 0.02 | 0.03 | -0.06 |
| 5g | **0.39** | -0.16 | -0.10 | 0.13 | -0.11 | **-0.36** | -0.16 | -0.22 | -0.18 | -0.29 |
| 5h | 0.23 | -0.23 | -0.05 | 0.22 | 0.06 | **-0.34** | -0.15 | -0.11 | -0.05 | -0.21 |
| 5i | **0.31** | -0.14 | 0.04 | 0.04 | -0.09 | **-0.34** | 0.03 | 0.13 | 0.04 | -0.19 |

**Link between assertiveness and frequency of conflict with individuals in different hierarchical positions.**

Analysis of the results in Table 6 shows that more assertive respondents:

- often clash with their superiors and colleagues at the same hierarchical level, but rarely with their subordinates
- more often clash with their peers than those respondents who do not feel guilty when rejecting someone else's request (r = 0.30).
- Those of superior rank are more often confronted by those who openly express their feelings (r = 0.30), but also by those who do not care about reaching a common solution in the discussions (r = -0.28). (Table 6).

Table 6. Correlations of assertiveness and frequency of conflict with individuals in different hierarchical positions

| Correlations of assertiveness and frequency of conflict with individuals in different hierarchical positions | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hierarch. positions | Assertiveness | | | | | | | | | | | |
| | 3a | 3b | 3d | 3e | 3f | 3g | 3i | 3j | 3k | 3m | 3n | 3o |
| 7a | 0.06 | 0.09 | 0.08 | 0.30 | 0.21 | 0.05 | 0.09 | 0.01 | -0.28 | -0.13 | -0.25 | -0.12 |
| 7b | 0.05 | 0.30 | -0.04 | 0.29 | 0.14 | -0.02 | 0.30 | -0.01 | -0.12 | 0.03 | -0.01 | -0.09 |
| 7c | 0.22 | 0.21 | 0.13 | 0.12 | 0.04 | -0.08 | 0.11 | -0.08 | -0.06 | 0.01 | -0.06 | -0.10 |
| 7d | 0.06 | 0.22 | -0.23 | -0.07 | 0.15 | -0.04 | 0.21 | -0.04 | -0.27 | -0.31 | -0.18 | -0.21 |
| 7e | 0.19 | 0.08 | -0.07 | 0.02 | -0.32 | -0.21 | 0.06 | 0.21 | 0.28 | 0.14 | 0.08 | -0.11 |

The offered positions are: a. Superior b. Colleges c. Subordinates d. Someone else or e. I'm not confronted.

**Correlations between assertiveness and the time taken to resolve or continue conflict**

Assertive respondents:

- are inclined to resolve conflicts immediately;
- those that want to reach consensus (r = 0.36) and those who do not allow others to exploit them, (r = 0.23) are also more inclined to solve conflicts immediately;
- those who feel guilty when rejecting someone else's request (r = -0,26) and those who do not clearly express their views, often take time to resolve conflicts they are less assertive (r = -0,33).
- Less assertive respondents are not only inclined to subsequently solve problems, but consider themselves less successful in resolving conflicts (r = -0.27) (Table 7)

Table 7. Correlations of assertiveness and the time taken to resolve conflict

| Correlations of assertiveness and the time taken to resolve conflict | | | | | |
|---|---|---|---|---|---|
| Time | Assertiveness | | | | |
| | 3b | 3f | 3i | 3k | 3m |
| 8a | 0.02 | 0.08 | -0.32 | 0.36 | 0.23 |
| 8b | -0.26 | -0.33 | -0.02 | -0.16 | -0.10 |

8a. Immediately, 8b. Subsequently

**Correlations of assertiveness and ways of resolving conflicts (personally / hierarchically)**

Most respondents resolve conflicts themselves. Respondents who personally deal with conflicts, apart from being more assertive and not delaying conflict resolution, are even more likely to consider themselves successful in resolving conflicts (r = 0.39) compared to those who resolve conflicts hierarchically (insignificant correlation).

Those who do not allow others to exploit them (r = 0.20) and those whose needs are not their priority (r = -0.34) resolve conflicts themselves.

Those who do not establish eye contact resolve conflict in a hierarchical manner more often. (r = -0.27). (Table 8)

Table 8. Correlation between assertivness and the way the confilct is resolved (personally/hierarchically)

| Correlation between assertivness and the way the confilct is resolved (personally/hierarchically) | | | | | | | |
|---|---|---|---|---|---|---|---|
| Way of resolving | Assertiveness | | | | | | |
| | 3c | 3d | 3e | 3f | 3g | 3h | 3m |
| 9a | -0.03 | 0.00 | 0.14 | 0.22 | 0.02 | -0.34 | 0.20 |
| 9b | -0.27 | -0.03 | -0.12 | -0.01 | 0.07 | 0.07 | 0.10 |

9a. Direct (personal) or 9b. Hierarchical

**Correlations of assertiveness and success in solving conflicts at work**

Respondents who are determined to fight for their rights, those who hold their beliefs (r = 0.22), and those who do not care about others (r = -0.28) believe that they are successful in resolving the conflict (r = 0.34) (Table 9)

Table 9. Correlations between assertiveness and success in solving conflicts at work

| Correlations between assertiveness and success in solving conflicts at work | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Success | Assertiveness | | | | | | | | |
| | 3g | 3h | 3i | 3j | 3k | 3l | 3n | 3o | 3g |
| 10 | **0.34** | -0.01 | -0.09 | **0.36** | 0.10 | **0.22** | -0.04 | **-0.28** | **0.34** |

**Nexus between assertiveness, perception of problematic behavior of associates and entering into conflict because of these behaviors**

Respondents who are more assertive more often notice unacceptable behavior of their associates that may be the source of potential conflict, but also often enter conflicts because of such behavior (Table 10).

Table 10. Correlations between perception of problematic behavior of associates and entering into conflict because of these behaviors

| Correlations between perception of problematic behavior of associates and entering into conflict because of these behaviors | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Conflict | Behavior | | | | | | | | |
| | 4a | 4b | 4c | 4d | 4e | 4f | 4g | 4h | 4i |
| 5a | 0.29 | 0.30 | 0.26 | **0.48** | 0.42 | **0.47** | **0.50** | 0.33 | 0.30 |
| 5b | 0.34 | **0.45** | 0.28 | **0.52** | 0.44 | 0.44 | **0.60** | **0.45** | **0.46** |
| 5c | **0.43** | **0.50** | 0.31 | **0.50** | **0.59** | 0.42 | **0.56** | **0.51** | **0.41** |
| 5d | 0.32 | 0.35 | 0.32 | **0.46** | **0.59** | 0.31 | **0.53** | **0.48** | **0.42** |
| 5e | 0.36 | 0.33 | 0.23 | **0.40** | **0.56** | 0.34 | **0.57** | 0.41 | 0.35 |
| 5f | 0.31 | 0.37 | 0.29 | 0.34 | 0.26 | 0.26 | **0.49** | 0.38 | 0.39 |
| 5g | 0.30 | 0.26 | 0.07 | 0.25 | 0.38 | 0.14 | 0.44 | 0.29 | 0.31 |
| 5h | 0.34 | 0.29 | 0.06 | 0.36 | 0.37 | 0.23 | 0.38 | 0.24 | 0.19 |
| 5i | 0.32 | 0.32 | -0.03 | 0.22 | 0.30 | 0.13 | 0.26 | 0.16 | 0.20 |

## CONCLUSION

Conflicts in an organization are inevitable and it is also certain that their presence causes stress. Creative disputes and different views on conflict resolution can be an incentive to solve problems that exist in both organizational and interpersonal terms. The positive impact of conflicts is reflected in finding optimal solutions. However, destructive conflicts, in connection with interpersonal or group relationships, can be one of the most common causes of stress in the workplace.

Communication is one of the most important functions in overall relationships between people at work. It is a challenge to communicate in a way that meets the needs of individuals, but also the goals of the organization. Assertive communication stands out as the most adequate style of communication in the workplace for its content and quality**.**

The research has shown that surveyed military personnel achieved relatively high score of assertiveness, although they have presented relatively modest awareness of assertiveness and assertive communication. The analyses of assertiveness have shown that it is most presented in survey in questions which illustrate the existence of group cohesion and solidarity, which is a feature of military organizational culture.

The research also showed that more assertive people in a military organization recognize behaviors that can be a source of conflict more easily, but they also more often get into conflicts and strive for their resolution, indicating that more assertive respondents are more daring and sure in themselves; they do not delay the resolution of the conflict and resolve it personally and directly.

According to the literature (Čabarkapa, 2016), research of assertiveness shows that the level of assertiveness slightly grows relative to the level of education. Obviously, assertive behavior should be stimulated by appropriate methods of teaching and education. Since the mid-1970s, organizational psychology has drawn attention to the importance of social climate and ways of communication among the employees of an organization, so that psychologists and HR managers began to apply different forms of coaching and training in practice. The training of assertive communication has found a wide application in managing stress, as it has shown positive effects in improving interpersonal relationships at work, improving the organizational climate and working efficiency. The persons who are assigned this type of training are managers and employees, whose goal is to improve their social skills. Thus, they achieve a better climate at work, as well as personal prosperity in terms of greater self-sufficiency, freedom to express their own opinion and realization of their own rights.

Adopting assertive skills is essential for social functioning at work, which directly affects self-confidence and personal satisfaction with oneself in

relationships with others in the workplace and contributes to organizational success.

In addition, assertive training helps employees improve their personal plans, increase self-confidence, improve communication skills and achieve better social relationships and increased resilience. Today, HR services are increasingly implementing so-called, 'soft skills' trainings that can give effective results and contribute to overall organizational goals (Phillips, 2003).

Our research has shown that assertiveness in a military organization is important for resolving conflicts which are one of the most common causes of stress. More assertive officers independently., quickly and successfully solve conflict problems, but they also easily recognize behaviors that lead to conflict. This makes it possible to manage stress more effectively and to create better relationships between people.

Assertiveness training would contribute to an increase in the number of assertive officers and other members of military organizations and thus better manage stress in the work environment.

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# PHYSICAL ACTIVITY AS PREVENTION OF UNHEALTHY LIFE STYLE FOR EMPLOYEES IN THE MILITARY

**Matej Tušak*, Patricia Blatnik****

***Abstract*:** Physical activity is an essential part of active life-style. Physical activity helps to sustain balance and physical and mental well-being in all stages of life. Different forms of activity that cause increased heartbeat have many positive effects on physical health, while lack of movement has been scientifically proven to accelerate disease. Research indicates a link between physical inactivity and multiple medical conditions that include cardiovascular disease, diabetes and breast cancer. On the other hand, physical exercise also has a wide range of beneficial effects that contribute to mental equilibrium. According to researches, physical activity reduces anxiety and depression, relieves stress, has a positive effect on cognitive functions and helps to build positive self-image. Workplace for soldiers in the military is full of stress and tension, therefore employees should strive after a healthy lifestyle that includes exercise to prevent burn out and to lift their energy to cope with all stressful demands of the workplace. The exercise has to be motivated by right inner healthy motives and bring satisfaction. The article proves the research findings of importance of physical activity for healthy life-style for employees working in stressful conditions. Therefore, the article is focused on the educational aspects since the economic benefits of preventive physical exercise and negative economic results caused by lack of physical activity are also proven.

***Key words*:** healthy lifestyle, physical exercise, prevention, physical health, mental health.

## INTRODUCTION

Human health represents a special value. There are many ways to maintain good health and avoid both acute and chronic diseases. According to the global scientific organizations, a lack of physical activity is defined as the fourth major risk factor for premature mortality and morbidity in the world (Škrbina, 2013, p.15). One of the most important preventive factors is undoubtedly physical or sport activity. The human body was created for the

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motion, therefore, a human needs a physical activity that can function optimally and remain healthy (Škrbina, 2013).

## PHYSICAL EXERCISE, HEALTH AND QUALITY OF LIFE

Physical activity represents various movements that cause increased heartbeat and consequently positive impact on our health. Physical activity can be carried out through sports, when playing with friends, or cycling to work. Health-beneficial activities constitute sport and recreation, work and recreational activities, and some forms of transportation (bicycle) , which are intended for the general population, irrespective of age, gender, skills and abilities (Škrbina, 2013; p.15). The adequacy and appropriateness of physical activity (Berčič et. al., 2007) is determined by: the frequency (number of days per week), intensity (e.g. lightweight, high), duration (the amount for each day) and type of physical activity (e.g. aerobic, for strength, for flexibility etc.) The need to move is one of the basic human needs. You can clearly observe it through children who are moving all the time, and cannot sit at all.

Socialization and requirements of modern society sometimes begin to restrict that to such an extent that many adults become completely inactive. We could say that physical activity is an integral part of the quality of life of modern human. So far, this explicit relationship has been theoretically and professionally supported.

Berčič (2001; p.11) argues that sport is an important factor that affects the overall balance of human and creates harmony between his multidimensional nature and everyday efforts and work commitments. Physical exercise certainly has a beneficial effect on the human psyche. Studies worldwide show that physical and recreational activity is designed to improve the quality of life. In addition to the positive aspects of physical activity we can also emphasise the negative effects, but those negative effects are limited only to the practice of professional sport, and not recreational forms of sport and physical activity. The recreational physical activity is scientifically proven as healthy activity and is intended to restore equilibrium, by developing the potential for a healthy lifestyle and behavior. We also highlight the impact of physical activity on the following psychological characteristics: stress, self-esteem, emotional status and mood, personality and motivation.

Effects of physical activity are extremely wide and varied: from direct effects on physical health, energy consumption, and formation of body, to mostly broad mental effects that extend from educational impact of sport to change in lifestyle, reduction of anxiety, stress, depression and other negative

emotions. Physical activity is an integral part of the quality of life of modern human and an important tool, which regulates the overall balance of a person (Tušak & Kandare, 2004). Studies worldwide show that physical activity is really designed to improve the quality of life (Kandare & Tušak, 2010; p.128).

## PHYSICAL ACTIVITY AND WORKING ABILITY FOR SOLDIERS

Regular physical activity is an important factor in avoiding reduction and a slowdown of working ability (Berčič, 2011). Regular and systematic physical exercise is associated with overall health, improvement of the immune system and better adaptation of skills in the workplace. Exercise is often associated with reducing overweight and increasing labor productivity; in case of productivity in the military, sometimes it could be crucial even for surviving, not only for well-being of employees. Physical activity has a significant effect on inhibiting the development of osteoporosis (Berčič, 2011), so in addition to the quantity and type of physical activity intensity, the relationship between strength exercises and aerobic activities is very important. The findings on the general benefits of physical activity in the workplace have shown that physical activity, fitness and energy consumption during working hours receives insufficient attention (Blatnik, Jensterle & Tušak, 2016). Lack of physical activity has a negative effect not only on human health but also on the health care system and the economy in general, because it causes significant direct and indirect economic costs (Blatnik, Marinšek & Tušak, 2016).

## RELATIONSHIP OF PHYSICAL ACTIVITY TOWARDS PHYSICAL AND MENTAL HEALTH

Studies around the world confirm the importance of physical activity for physical health and well-being, the health of the cardiovascular system, development of inertia and weight management. Daily physical activity may even reduce mortality and contributes to extending of lifetime (Paffenbarger and others, 1993; p.540). There is plenty of research that reflects the impact of physical activity on the psyche (Fras, 2002). Constant participation in physical activity is associated with better mental health (Tušak & Tušak, 2003; p.378). It contributes to reducing anxiety and increases self-evaluation (Masten, 2016).

A lack of physical activity together with adverse effects on physical health and immune system also influences the human's mental health and well-being. Recently the relationship between physical activity and indicators of mental health and psychological adaptation has been investigated (Salmon, 2001). In conjunction with an active lifestyle we highlight the influence

mainly on the following psychological characteristics: self-esteem, emotional and mood status, personality traits and motivation, and especially stress. Physical activity reduces anxiety and depression, and it increases self-evaluation (Masten, 2016). A variety of studies have shown that the beneficial effects of practicing physical exercise were reflected in the design of general motivation to achieve vital objectives and the corresponding value system, aiding in the removal of stress in adults, helping the elderly with reintegration into social life, and achieving maturity in all areas (social, emotional, intellectual and moral). Physical activity is used to help a person in the process of searching for meaning in life, which helps to remove problems with anxiety and depression. Physical activity also has a therapeutic effect on psychosomatic disorders and diseases, etc. (Blatnik & Tušak, 2016). The results of numerous studies in recent decades have revealed the beneficial effects of physical activity on human emotional states (Kajtna & Tušak, 2005).

Regular physical activity is associated with a lower incidence of depressive symptoms in epidemiological and intervention studies. There is a lot of researche, which demonstrated the impact of physical activity on reducing depression (Kajtna & Tušak, 2005). Most of it confirms the consistent and moderate decline of depression when integrating regular exercise into life. Evidence show that appropriate physical fitness reduces the somatic effects of stress (Salmon, 2001) and anxiety (Tušak & Tušak, 2003). Physical activity significantly contributes to the reduction of anxiety signs. Physical activity is therefore an important factor in the maintenance and restoration of mental balance. "Better mental state is related to good physical health and sufficient physical adaptability and vice versa" (Tomori, 2002).

Why does physical activity affect good mental balance? To find the right answer we have to look into the idea that physical exercises are in most cases playful and relaxing movements that simultaneously relax human both physically and mentally. Physical relaxation is basic condition for mental relaxation and vice versa (Kajtna & Tušak, 2005). Tomori (2002) states that, with the help of physical activity, we can not only relieve feelings of anxiety, but can also cause antidepressant effect.

Most researches attribute mood improvement, caused by relaxing physical activity, to the accelerated production of endorphins (Kajtna & Tušak, 2005). The beneficial effects of engaging in physical activity have also been linked even with the search for meaning, which helps to remove problems with anxiety and depression, and has therapeutic effects on psychosomatic disorders and diseases (Kajtna & Tušak, 2005). Major changes in life and great life stressors (death of a partner, children leaving home, retirement, divorce, etc.) often result in the loss of meaning in life. In organized physical activities, where they can improve their physical health, people sometimes find that

meaning again. This leads them to better self-esteem, which consequently also increases their motivation. That increased motivation results in more physical activity, but also has an affect on many other personal areas of life, esspecially on self-esteem and self-image. Indirectly, reasons for anxiety and depression, and many psychosomatic problems, disappear. Physically and mentally healthy soldier is, of course, much more ready for the everyday struggle with stress. In recent epidemiological studies, data support the beneficial effects of regular physical activities on certain cognitive functions (Kajtna & Tušak, 2005). Various studies have shown link between the absence of any physical activity in the life with different components of mental health (Tušak, et. al., 2008a). The study, which simulated life in space, where physical activity is extremely limited, found quite a few negative aspects of the change in the psyche as a result of lack of exercise. (Dolenc et al., 2009). General health of such people is worse, depression and anxiety increases, their moods are worsening and they experience negative events as stressful more intensively.

Symptoms that are even more neurotic can be observed with people who are extremely limited in physical activity. Physical activity has a positive impact mainly on the personality traits, associated with mental or emotional strength, resistance to stress and coping stress strategies. Physical exercise increases the ability of self-regulation and self-control and directs human communication more outwards (Tušak, 2003). Physical activity also increases extraversion (Tušak, Misja & Vičič, 2003), the ability of self-control, and reduces emotional lability (Tušak & Tušak 2003).

## LIFESTYLE AND HEALTH

Lifestyle represents one of the most important factors affecting the health status of a person (Tušak, et al., 2008b). Lifestyle indicates the individual's characteristic way of life, defined by a group of distinct behaviors occurring consistently over time. It refers to a wide variety of areas of life and related views, attitudes and values of the individual, which include physical activity, social behavior and relationships, nutrition, stress management, use of tobacco, drugs, alcohol, safety concerns, sexuality, etc. The latter enable the preservation and strengthening of health, as well as the quality of life of the individual. The key questions are: how to encourage an active lifestyle for children and adults, how to change their physical habits, how to teach them, how to conquer the value of sports. Certainly, the parents and the family play the most important role, as they promote physical activity as a value to their child. It is important that physical activity becomes an integral part of the value system. Motives should at least initially be primarily internal (Tušak, 2010). The key motive should be enjoyment. Parents should strive to find a

physical activity in which the children enjoy. It is important that active children feel happy and successful, and this often means that the physical activity should not be primarily competitive. This is particularly important for physically less successful children, as competition can be a source of stress and frustration for them. The same is true for adults. People should be able to relate close personal contacts and should see physical progress, or at least maintain a certain level of skills. Through activity, they must receive positive feedback, which will help them to develop self-esteem and the motivation (Masten et al., 2010). The role of the instructors or guided exercise is extremely important. Another particular problem is changing the attitudes towards physical activity of those who come from physically inactive families.

The role of teachers in promotion of physical activity is therefore extremely important if we want to develop a solid value system in the early childhood. Besides all this, in the modern world, which strives primarily to the aesthetic ideals rather than to health, one should be aware of potential problems with neurotic children and adolescents as well as adults. They can sometimes find the means to satisfy their obsessions and eating disorders in physical activity. Exercise should have the connotation of health, rather than disease. In the case of eating disorders physical activity may also be misused.

## PHYSICAL INACTIVITY AND DISEASES

Physical inactivity, which does not meet the recommendations of the World Health Organization (World Health Organization, 2010), or an unhealthy lifestyle is a risk factor, which is closely associated with various disorders and diseases. Insufficient physical activity is associated primarily with the development of chronic non-communicable diseases. On a global scale, low level of physical activity causes 6% of the disease burden of cardiovascular disease, 7% of the burden due to type 2 diabetes, 10% of the burden of breast cancer and 10% of the burden of colon cancer. Physical inactivity is also related to obesity (Keim, Blanton & Kretsch, 2004) and is to blame for 9% of premature deaths (Bouchard, Blair & Haskell, 2012; Katzmarzyk et al., 2009). Some studies even show that due to physical inactivity, there is a 15-20% risk of developing cardiovascular disease, type 2 diabetes, colon cancer, breast cancer and hip fractures in the elderly.

According to data from 2004, physical inactivity is responsible for 3.5% of the disease burden and 10% of all deaths in Europe. Physical inactivity is also in the top ten of the most common risk factors that affect the total number of years of life lost (Cavill, Kahlmeier & Racioppi, 2006). Unhealthy lifestyle or way of life, which includes insufficient physical activity throughout the day, or is limited to a short period, is a risk factor, which does

not get sufficient attention. Studies show that the time we spend sitting, affects both overall mortality and mortality due to cardiovascular disease. Sitting too much has a negative impact on health in individuals who achieve recommendations for physical activity, so we have to focus on activities to reduce the time we sit (Cavill, Kahlmeier & Racioppi, 2006; Katzmarzyk et al., 2009). Experts recommend that activities which are carried out in a sitting position can be interrupted by intermediate movements, such as getting up, stretching, walking, using stairs instead of elevators, etc.

## SYSTEMATIC EXERCISE PROGRAMS TO HEALTH AND THEIR EFFECTIVENESS

The modern time brings a new understanding of health, which also includes individual's responsibility. Labor organizations and health systems, which encourage employees to adopt a healthy lifestyle, exercise and a healthy diet may have significant benefits, so organizations are increasingly using programs which seek to encourage employees to change their lifestyles. The most important change is to initiate exercise in physically inactive adults. Poor health generally means absence from work due to illness, especially observed in new employees. In order to solve the problem of absenteeism, the researchers have developed a variety of programs. Programs for physical exercise, recreational programs and other cognitive programs to protect employees from the negative effects of stress on psychological highly demanding services, have proven the most useful (Van Rhenen et al., 2007).

Study by Hassmen, Koivula and Uutela (2000) showed that there is a constant correlation between the level of psychological well-being, as measured by various psychological measures, and regular physical exercise. The results of the measures showed that physical exercise gave favorable results for individuals who are active two to three times per week. With regular physical exercise the employees reduce negative emotions (decrease depression, anxiety), increase the sense of cohesion and social integration and reduce the stress and improve the internal locus of control. Low level of physical fitness is associated with lower performance and an increased level of absenteeism (Lechner et al., 1997). In addition, it also increases the risk for cardiovascular disease (Holtermann et al., 2010). The physically active lifestyle can be seen as an important component of health promotion at work. New studies of promotion of physical health (Gerber et al., 2013) investigated how the cardio-respiratory fitness and self-perception of stress relates to burnout and depression. Cardio-respiratory fitness is a protective factor against stress. Gerber and others (2013) have concluded that the promotion and measurement of cardio-respiratory fitness may motivate employees to adapt to

the more physically active lifestyle. In this way, they increase their ability to cope with stress and stress-related disorders.

From all this we can conclude that the measures aimed at physical exercise are highly effective in reducing absenteeism in the workplace and improving interpersonal relationships. Measures aimed at physical fitness of employees, can further contribute to better physical and psychological well-being of employees, which in turn increases the satisfaction with themselves, with others and, at the same time, work satisfaction. Consequently, it is associated with greater psychological well-being of employees and higher life satisfaction. Cardio-respiratory exercise reduces stress for employees and thereby indirectly reduces absences from work. Consequently, we can observe greater cohesiveness in a team work, which means a better participation of employees. Gerber and others (2013) indicate that cardio exercise is a protective factor against stress, which means that the use of such a measure can be very effective for stress reduction in the organization. At the same time, the employees develop techniques to deal with stress and reduce stress-related disorders (burnout, depression, anxiety, etc.). The most successful are the measures that are more complex and along with other intervention always include exercise.

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# STRESS AS AN INTEGRAL PART OF LIFESTYLE

**Boris Glavač*, Jasmina Nedeljković****

***Abstract*:** In the last couple of decades the problem of stress has been of special interest as a cause of numerous health problems. Based on the research of the Institute in Munich, the facts state that 70% of illnesses are caused by stress. Stress can be defined as disturbance of balance, which implies adjustment. With regard to the global picture, the causes of stress could be various. The culture of modern age entails civilization achievements, some of which, such as drinking water, are habitual in certain parts of the planet and unavailable in others. Regardless of the origin of stress, Canadian physiologist Selye determined that the body response to stress is always the same: the enlargement of the adrenal gland, the decrease of thymus and lymph glands and cankers. Besides this physiological response, which involves stress hormones such as catecholamine and cortisol, the change in glycaemia and blood pressure, psychological response is important as well and it includes reacting, that is facing the problem or people, but also a simple avoidance or escape from a stressful situation. Military organization, as an inseparable part of society, is also subject to stress in both peacetime and war conditions. In that sense, the developmental path of making an officer, from a pupil in the High Military School and a cadet at the Military Academy to becoming a professional officer, should involve a permanent and continuous educational programme related to stress and its consequences. Consistently, the experience from foreign armed forces indicates that there are institutes (e.g. APFRI in the USA) which deal with the problem of stress in addition to other things. Man must come to terms with the fact that stress exists and must accept it as a part of life, that is, he must anticipate stress or stressors, possible consequences, coping strategies as well as the programme of increasing resistance to stress.

***Key words***: stress, armed forces, lifestyle, Military Academy, emotions.

## INTRODUCTION

It has been noticed recently that there is an increase in using stress as the explanation for different illnesses. "The research results of the Institute for Man and Management from Munich show that almost 70% of all illnesses are caused by stress, and 60% of people do not know how to reduce the burden

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created by it" (Tomić, 2015). Our opinion is that in the past times people were under much more intensive stress than we are today. Modern age is characterised by the current problem of stress, more due to the increased comfort, therefore, it is easier to spot it as a disturbing factor than as a segment which has appeared in modern times.

In contrast to the contemporary freedom of speech, which is often a manner of releaseing stress, in the past times people had to pay attention to the way they expressed themselves. "Gavran mentions data related to swear words outside the Balkan area. In the Roman Empire, at the time before Christ, blaspheming against God was punishable by death. Later, in 9$^{th}$ century, tongue cutting was punishment for cursing against God and king by the Scottish Code. Louis X established the punishment of branding the forehead for cursing for the first time and cutting the tongue and lips if repeated" (Glavač, 2006). Today, considering the report of the World Health Organisation (WHO) related to the whole world, the term modern times must be viewed in a relative manner since there are drastic differences in some basic human needs, which are very present in the undeveloped areas of the planet, and which would cause big stress and frustrations among the Europeans.

Therefore, we can conclude that stress has existed in the past times and it was much more intensive, but people understood their existence differently then, so the stress itself was not something they perceived as we do it today. Democratic achievement enables free thinking, perceiving and systematizing of all segments of human existence, therefore, stress is kept apart as an inseparable category of human existence.

Contemporary literature (Lečić-Toševski, Draganić-Gajić, Vuković et al, 2001) states that previous biomedicinal stress models and direction of attention towards physical stressors and reactions following them have been replaced by a holistic approach to studying stress. Such an integrative approach refers to a complex analysis of stressors and consequences they lead to in the overall functioning of a person.

"Stress involves the disturbance of personal balance and it is inevitable in everyday life. The essence of the problem with stress is that its consequences are registered and accumulated, and an individual should learn to live with stress and to enable himself not to be exhausted and helpless due to stress" (Tomić, 2015).

"Stress is a strong, intensive, negative experience, any important change in life (positive or negative) which disturbs the balance and sets the requests for adjustment. One classification present in literature is the division of stress into physical and socio-cultural. The category of physical stress has a wide range, from stress related to events involving direct danger to life (fire, car accident, etc) to unfavourable living environment conditions such as

pollution, noise etc. The category of socio-cultural stress is even more complex, and is suitable for the appearance of other stressful events or intensifying the stressfulness of the existing conditions" (Babić, 2011).

"Considering the emotional meaning, there are two kinds of stress for an individual:

1. Eustress – pleasant, constructive experience of joy although it was preceded by fight and a certain level of exhaustion (e.g. child birth, wedding, professional recognition);
2. Distress – unpleasant, unfavourable, painful experience (e.g. the death of a close person, illness in the family, losing a job).

The basic difference between these two kinds of stress is for how long their consequences affect the individual, with cumulative effects being more prominent in distress, whereas body recuperates quicker in eustress and goes back to everyday activities:" (Tomić, 2015).

It does not matter whether stress is pleasant or unpleasant, reacting in a stressful situation depends on neurophysiologic, cognitive, affective and behavioural components of a person. In the work environment, a special kind of stress develops among employees and it is called professional stress. The causes of professional stress represent imbalance between the demands of the work place on the one hand, and the capabilities and goals of the employees on the other hand. The stress caused in this way leads to harmful consequences for the individual's health (Berry, 1998), which can be physical and psychological, such as cardiovascular problems, anxiety, chronic tiredness.

Since all people are exposed to stressful situations, the ways of coping with stress represent an integral part of personality. There are studies that examined, inter alia, the relationship between neuroticism (Smith, Pope, Rhodewalt et al, 1989), extraversion (Amirkhan, Risinger & Swickert, 1995), time perspectives (Kostic & Nedeljkovic, 2013) and the coping mechanisms.The ways of coping with stress, or stress coping strategies, can be defined as *everything that a person does in a cognitive and behavioural plan in order to solve a problem or reduce the intensity of the psycho-physiological reaction to stress* (Lazarus & Folkman, 2004). Carver, Schier & Weintraub (1989) mention two groups of coping strategies of general character, within which there are fourteen specific coping strategies. The first group comprises strategies directed at solving a problem, and the second group consists of strategies directed at regulating emotions. Specific strategies within these general groups are: *Positive reinterpretation and growth, withdrawal, focusing on emotions, need for instrumental social support, active coping, denial, turning to religion, humour, limitation, use of emotional-social support, use of chemical substances, acceptance, suppression, planning*. Endler & Parker

(1990) proposed a three-dimensional model of coping with stress, with coping strategies – task-oriented, emotion-oriented and avoidant.

An ordinary man is exposed to everyday problem solving. "On principle, frustration is defined as an internal state, not as an external requirement. The very existence of an obstacle does not have to mean frustration" (Glavač, 2006). Still, it is evident that every day we must solve some problems, which cause a higher or smaller level of frustration, and in the so called modern world a specific lifestyle which has developed has its advantages in terms of comfort and pleasantness, but on the other hand, certain negative points originate from this kind of life.

## STRESS AS A GLOBAL PROBLEM

Perceptive accommodation to stress characteristic of Europeans refers to certain categories utterly unknown in some parts of the planet, since in the modern world it is customary to have not only drinking water, but hot water at all times, to have clean streets, open markets full of groceries and goods, and enough money. However, based on the WHO report from 2015, this is not the situation in every part of the planet. Some of the modern man habitual and common categories are not available to a many people around the world, leading to frustration due to inability to fulfil the basic life needs.

The WHO report emphasises: "Preventative risk factors include: unsafe water and lack of sanitary conditions; using solid fuels in households; inappropriate nutrition of infants; denutrition and nutrition; anemia in women; diabetes; hypertension; obesity; harmful alcohol consumption; tobacco consumption; and unsafe sex. Unsafe water supply and inadequate level of sanitary and hygienic conditions increase the transmission of diarrheal diseases (including cholera), trachoma and hepatitis. The use of solid fuels in households is an indicator proportional to air pollution in households. Using solid fuels, such as wood and coal, is connected with increased mortality due to lung and other acute diseases, diabetes in children, as well as increased mortality due to chronic obstructive lung disease, lung cancer (where coal is used) and other diseases in adults" (WHO, 2015). As it can be seen, even today there are places on Earth where drinking water, sanitary facilities or energy sources still pose a problem.

In 1980 certain authors stressed that: "Modern way of living is characterised by environment pollution, inadequate diet, decreased movement and physical activity as well as the phenomenon of stress" (Pavlica, 1980).

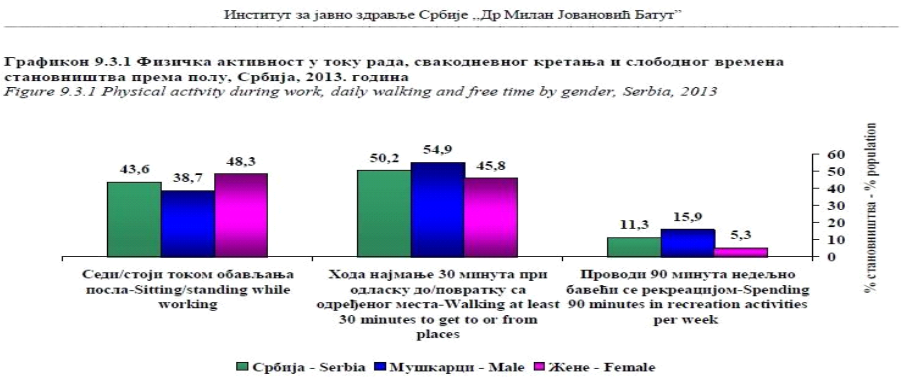
"In the research in 2013 it was determined that 56.6% of citizens of Serbia were exposed to stress (Institute for Public Health Batut, 2013). In EU 28% of employees are exposed to stress, and in the USA in the 1990s 29 to

40% of the employees considered their job stressful. Higher exposure to stress leads to weakening of the immune system and makes body susceptible to infections, and it can provoke heart attack and stroke as well (Babić, 2011). In the territory of Serbia, the following health problems are on the increase: hypertension, depression, sugar and fats in blood, as well as allergies (Institute for Public Health Batut, 2013). Partially, it is about the illnesses which are classified into the so called metabolical syndrome" (Glavač & Tešanović, 2016).

It can be seen from the report of the WHO that the prevalence of glycaemia in Serbia is 8.55% in men and 7.1% in women, also, increased blood pressure is noticed in 33.2% of men and 24.9% of women. The data for glycaemia for Swedish people are 7.7% and 5.1%, and 24.45 and 14.5% for blood pressure (WHO, 2015), which means that the prevalence of increased blood pressure is 10% lower in Scandinavian people. Does it mean that they are less exposed to stressful events or do they have better coping strategies?

In Table 1 we can see the situation in Serbia regarding physical activity in terms of work load during work time and leisure activities as well (Institute for Public Health Batut, 2016). In one kind of research the motivation for physical activity is to preserve health, to maintain body weight, to socialise and to maintain abilities (Zrnić, 2007). Physical activity is an important factor of energy consumption and balance as well as a regulator of body mass. Besides this, it decreases the risk of certain illnesses. The World Health Organisation recommends 30 minutes of physical activity of moderate intensity every day (Institute for Public Health Batut, 2014).

Table 1. Physical activity in the territory of Serbia (taken from Institute for Public Health Batut, 2016)



In Table 2 we can see the report by WHO 2015 regarding the probability of mortality among adults, aged 15 to 60, by regions. It can be seen that the Western Pacific Region is the area with the lowest mortality rate of women per 1000 citizens – 76, and that the highest rate of mortality is recorded in Africa among men – 396.

Table 2. WHO report 2015, p. 53 (life expectancy at the global level)

WORLD HEALTH STATISTICS 2015

| Healthy life expectancy at birth[a] (years) | Neonatal mortality rate (per 1000 live births)[b] | MDG 4 | | | | | | Adult mortality rate[a] (probability of dying between 15 and 60 years of age per 1000 population) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Infant mortality rate (probability of dying by age 1 per 1000 live births)[b] | | | Under-five mortality rate[b] (probability of dying by age 5 per 1000 live births) | | | Male | | Female | | |
| Both sexes | Both sexes | Both sexes | | | Both sexes | | | | | | | |
| 2013 | 1990 | 1990 | 2000 | 2013 | 1990 | 2000 | 2013 | 1990 | 2013 | 1990 | 2013 | |
| 39 | 2.5 | 4.6 | 3.1 | 1.6 | 6.3 | 4.0 | 2.0 | 80 | 54 | 40 | 36 | Minimum |
| 63 | 20.5 | 37.0 | 26.9 | 15.3 | 46.8 | 32.7 | 17.7 | 246 | 184 | 145 | 102 | Median |
| 76 | 64.8 | 165.3 | 141.3 | 107.2 | 327.3 | 231.5 | 167.4 | 634 | 577 | 512 | 496 | Maximum |
| 50 | 44.7 | 105.9 | 94.4 | 59.9 | 175.6 | 154.9 | 90.1 | 395 | 332 | 326 | 281 | African Region |
| 67 | 17.6 | 33.7 | 21.7 | 12.4 | 42.4 | 26.1 | 14.7 | 205 | 157 | 115 | 87 | Region of the Americas |
| 59 | 47.4 | 83.6 | 61.3 | 37.3 | 118.3 | 83.4 | 46.9 | 276 | 219 | 226 | 146 | South-East Asia Region |
| 67 | 14.1 | 26.0 | 18.8 | 10.5 | 31.9 | 22.7 | 12.2 | 216 | 178 | 96 | 79 | European Region |
| 59 | 40.0 | 74.6 | 60.3 | 42.5 | 100.6 | 80.4 | 55.2 | 239 | 181 | 196 | 135 | Eastern Mediterranean Region |
| 68 | 23.5 | 40.3 | 28.5 | 12.7 | 52.1 | 35.5 | 15.3 | 174 | 114 | 119 | 76 | Western Pacific Region |

With regard to illnesses and possible causes of mortality, in the WHO report in Table 3 it can be seen that in Serbia in 1990 the mortality rate was 16 per 1000 babies, and 4.2 in 2013; at the same time the probability among Slovenians is 5.4 and 1.6. The mortality of people aged 15 to 60 in the 1990s was 184 and 207, whereas in 2013 the limit among men was 172 in Serbia and 112 in Slovenia, and 84 and 49 among women.

The WHO report presupposes peacetime conditions, which, depending on the region, contribute to mortality in a greater or lesser degree. We can certainly ask ourselves to what degree have the environment conditions caused stress, which has consequently led to certain diseases or conditions causing mortality.

In addition to peacetime conditions, "the Second World War was very stimulating for researching stress. A more intensive interest appeared primarily

due to frequent 'nervous breakdowns' during the fight, which became known as 'war neuroses'. Stress represented a big concern and a potential danger for the armed forces: it increased the vulnerability of soldiers and weakened fighting potential of the group and efficiency in actions. In critical moments of bloody battles soldiers exhibited various conversions such as freezing, or they experienced very intense forms of panic attacks" (Babić, 2011).

Table 3. WHO report 2015, p. 51 (life expectancy)

WORLD HEALTH STATISTICS 2015

| Healthy life expectancy at birth[a] (years) | Neonatal mortality rate (per 1000 live births)[b] | | MDG 4 Infant mortality rate (probability of dying by age 1 per 1000 live births)[b] | | | MDG 4 Under-five mortality rate[b] (probability of dying by age 5 per 1000 live births) | | | Adult mortality rate[a] (probability of dying between 15 and 60 years of age per 1000 population) | | | | Member State |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Both sexes | Both sexes | | Both sexes | | | Both sexes | | | Male | | Female | | |
| 2013 | 1990 | 2013 | 1990 | 2000 | 2013 | 1990 | 2000 | 2013 | 1990 | 2013 | 1990 | 2013 | |
| 73 | 4.0 | 1.1 | 9.7 | 4.9 | 2.8 | 10.9 | 5.5 | 3.1 | 80 | 54 | 40 | 46 | San Marino |
| 57 | 32.2 | 19.4 | 70.3 | 58.4 | 36.7 | 110.4 | 89.3 | 51.0 | 264 | 221 | 210 | 168 | Sao Tome and Principe |
| 65 | 20.7 | 8.8 | 35.3 | 19.3 | 13.4 | 44.1 | 22.8 | 15.5 | 178 | 89 | 131 | 67 | Saudi Arabia |
| 55 | 41.5 | 23.0 | 70.5 | 69.2 | 43.9 | 141.1 | 137.0 | 55.3 | 282 | 244 | 220 | 192 | Senegal |
| 65 | 16.6 | 4.2 | 24.0 | 11.1 | 5.8 | 27.8 | 12.8 | 6.6 | 184 | 172 | 94 | 84 | Serbia |
| 67 | 10.2 | 8.9 | 14.2 | 12.2 | 12.2 | 16.5 | 14.2 | 14.2 | 318 | 214 | 127 | 99 | Seychelles |
| 39 | 57.3 | 44.3 | 158.1 | 141.3 | 107.2 | 267.7 | 231.5 | 160.6 | 525 | 444 | 512 | 423 | Sierra Leone |
| 76 | 4.0 | 1.1 | 6.2 | 3.1 | 2.2 | 7.7 | 4.0 | 2.8 | 152 | 69 | 93 | 38 | Singapore |
| 67 | 12.1 | 4.2 | 15.6 | 10.2 | 6.0 | 17.7 | 11.8 | 7.2 | 269 | 168 | 104 | 67 | Slovakia |
| 69 | 5.4 | 1.6 | 8.8 | 4.5 | 2.3 | 10.4 | 5.5 | 2.9 | 207 | 112 | 82 | 49 | Slovenia |

"After the Second World War it became more evident to scientists that different conditions and processes in everyday functioning – for instance, marriage, growing up, dealing with exams and illnesses can cause the effects similar to those from battles. The dominant stress – model consisted of two elements: input (weight, external and internal requirement) and output (effort, breakdown, deformation)" (Babić, 2011).

Continuing the pattern of parallel, i.e. equivalent understanding of stress, we can have a look at the sports players. "Coaches, viewers and sports commentators often use the term 'mental stamina' to describe the mental state of a sports player who endures in difficult sport circumstances in his efforts to play in the best way he can. A team of sport experts has assessed that **confidence, concentration, control and challenge** are the key factors of mental stamina, which directly influence the sport performance. This concept is known as "the four Cs'. Furthermore, the authors emphasise that: "The key

component of mental stamina is to learn how to train 'the mind' to work confidently in order to overcome the frustration and suppress the negative self-criticism". "World-class sports players generally achieve world-class results in resistance, especially in the dimensions dedication and control'' (Grgurinović and Sindik, 2015). A similar classification can be found in the work of Idrizović, who quotes Momirović from 1982, saying that around 75% of sports success depends on non-standard strength of the human being, i.e. not on strength, which is a segment of the motoric space. Strength is much more a mental ability than intelligence is" (Idrizović, 2008).

## THE RESPONSE OF THE BODY TO STRESS (PHYSIOLOGICAL AND PSYCHOLOGICAL)

"Hans Selye was the first one to notice and state the fact that regardless of the possible cause of stress (illness, injury, hard effort and emotional disorder), the response is always the same: the stress syndrome, which consists of the enlargement of the adrenal gland, the decrease of thymus and lymph glands and the bleeding cankers of the digestive system" (De Vries, 1976).

"There are various proofs that physical effort itself, if not completely exhausting, does not provoke a typical response to stress. Psychological and emotional components of a sports activity seem to be a much more important response to stress than the effort itself" (De Vries, 1976). In his book, De Vries then says that animals can become less susceptible to experimental heart attacks caused by biochemical substances and additional stress provided that they are prepared by means of physical exercise. De Vries states that the Canadian physiologist Selye thinks that gaining fitness by means of moderate stress of the reasonable physical exercise programme results in criss-cross resistance to different forms of pathogen stress. "Through intelligent exercising man can train his heart to cope with attacks, which would otherwise kill him" (De Vries, 1976).

Physical exercise suitable for reducing stress is aerobic activity which lasts for more than 10 minutes and provokes moderate increase in the heart rate of 60-70% of the maximum heart rate (MHR) and which includes big muscle groups. The most suitable forms are running, swimming, cycling. What can be seen in Chart 1 is the physiological response, the change in the level of glucose in blood during moderate physical activity of 30 minutes (without emotional load), i.e. running on a treadmill. Based on the levels of glucose in blood, ranging from 5.00 to 5.5 mM/L, it can be concluded that this activity does not represent physical stress for the body since glycaemia is within the reference values.

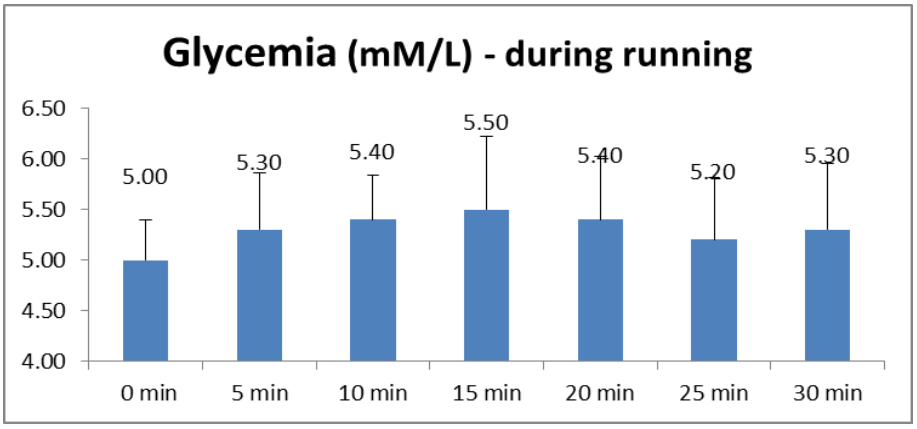



Chart 1. Glycaemia during moderate activity (taken from Glavač and Tešanović, 2016)

Table 4. The pressure during cyclic activities (taken from Glavač and Tešanović, 2016)

| **CYCLIC ACTIVITIES** | **SYSTOLIC PRESSURE (Upper) mm Hg** | **DIASTOLIC PRESSURE (Lower) mm Hg** | **HEART RATE** | **REMARK** |
|---|---|---|---|---|
| Running on treadmill 8 km/h | From 160 to180 | Around 80 | Around 130 | Around 6 minutes |
| Bicycle 200 W 60 RPM | From 160 to 220 | 90 to 100 | 100 to 140 | Progression over 6 minutes |

Furthermore, practically the same activity causes the arterial pressure shown in Table 4. It can be seen that running of moderate intensity is useful for the body, so the lower pressure stays at around 80 mm Hg, or below this value, whereas the upper pressure is within reference values acceptable for this kind of activity (RTS 2, 2015). Based on these two physiological indicators, it can be concluded that such a moderate physical activity is desirable for regulating stress. It can be seen in Table 4 that during cycling, where the load is progressively increased, there is an adequate response depending on the user's level of fitness. In progressive load increase, or intensive muscle work which usually lasts short, the physiological response is in accord with the level of physical stress, so the levels of glycaemia in that case are 9 and 10 mM/L, which is 3 – 4 units higher than the reference values (Glavač, 2010). In that

case, we can ask if such an activity is useful for the person, who aims to reduce stress through physical activities.

Another author states that the response of the body is the activation of "the hypothalamic–pituitary–adrenal axis, which under stress causes the increase in the concentration and activity of catecholamine, rennin, angiotensin, insulin, cortisol, parathormone, procalcitonin and prolactin. This is the reason why these hormones are called stress hormones" (Radaković, 2015).

The physiological response to stress is usually independent from our will, but we must not forget that physical activities can, to a large degree, influence the defence ability from stress (De Vries, 1976). Besides this, there are psychological strategies that act as defence from stress.

**Psychological strategies** of defence from or coping with stress are dealt with by a large number of scientists. Endler & Parker (1990) operationalised coping with stress by constructing a psychological instrument which enables us to determine the dominant mechanism for coping with stress. Which strategy will develop in a person largely depends on the personality traits such as neuroticism, extroversion, self-respect, optimistic or pessimistic attitude towards life, self-efficiency (Stanković-Đorđević & Nedeljković, 2016). Besides personality traits, the person's response to a stressful situation depends on the characteristics of the situation itself. If a stressful situation is completely new and unknown, the response will be rather cognitive than emotional or behavioral (Lazarus & Folkman, 2004).

According to Endler & Parker, a person can develop one of the three ways of coping with stress. The response to a stressful situation can be *directed at situation, problem and task*, then *at people and emotions*, and at *avoidance* to face stressful situations. Being directed at solving a problem involves a person's effort to find a solution for his own problematic relationship with the surroundings and in this way to reduce the negative effects of a stressful situation. The purpose of coping which is directed at the emotional aspect of the response to a stressful situation is to reduce the feeling of tension in the body and to establish an emotional balance. In order to control the emotional effect, people resort to distractions, fantasies and conscious assigning of the new meaning to the situation which brought about the stressful state. Endler & Parker (1990) defined the third coping strategy as being *directed at avoidance*. This coping style is defined as a cognitive, behavioural and emotional attempt to "escape" from the cause of stress. Within this third modality of coping with stress, according to Endler & Parker (1990), there are two subcategories – distraction and social diversion. Distraction is a way of avoiding directed at a task and its goal is to divert attention from a stressful situation to a new situation or a task, which are in no

way connected with the disturbing circumstances. Social diversion is a form of avoidance which is connected with people and emotions and its basic goal is to search for social support in order to avoid a stressful situation.

## MILITARY PROFESSION AND LIFESTYLE

The WHO report from 2016 gives an overview of some health indicators of the world population, including Serbia, so we must ask ourselves what the situation is like in the Serbian Armed Forces. Health protection and prevention of the armed forces are dealt with systematically, the only question is whether the data have been processed statistically and whether they are accessible to the public. By comparing and longitudinal monitoring possible problems could be detected and the trend of change of the required health factors could be established. The level of glycaemia and blood pressure as well as obesity and the disruption in the metabolism of lipids are part of the so called metabolical syndrome (MS) (APFRI, 2011), (Sewaybricker, Antonio, Mendes et al, 2013) which is a new kind of a non-contagious disease, in addition to the work-related illnesses (Govedarica, 2003). It is considered that the existing problem of the modern lifestyle involves the lack of physical activity, inadequate diet, environment pollution and stress.

The armed forces are definitely an inseparable part of the society and without a doubt stress is encountered in these structures as an integral and recognisable segment of social relations. In addition to this and the very nature of the soldier's job, which is highly stressful, in some cases certain members of the armed forces voluntarily expose themselves to highly stressful factors. Such exposures to stress can also be seen in the so called adrenaline or extreme sport disciplines.

"Since the Military High School and the Military Academy, with pupils and cadets aged 15 to 23, are part of the Armed Forces of Serbia, it is necessary to establish in them the work and life habits, which will later in life enable them to have full functionality and maintenance of health status through adequate educational work" (Glavač, 2015). In accordance with the current problems regarding stress, something that would be desirable in the military educational system lasting for 8 years is to emphasise and carry out the educational segment which refers to coping with stress, that is, pupils should be taught how to cope with stress, how to overcome it or deal with it, regardless of the fact that over time they do understand it themselves through their personal and the experiences of others.

"When we imagine a soldier, we have an image of a young and healthy person, physically fit and mentally stable" (Radaković, 2015). We even expect him to be a person resistant to various difficulties, which an ordinary man

could not endure. In her book "Adaptation to Extreme Conditions" Sonja Radaković, PhD, states what professional soldiers in certain specialties are exposed to stress while performing regular tasks, i.e. she mentions the conditions that pilots, divers, alpinists etc. endure. Specifically, in the Armed Forces of Serbia the physical abilities check-up for all the members is performed under the conditions when the outside temperature is between 5 and 30 degrees. A couple of years ago, the maximum allowed temperature was 35 degrees (Manual for Physical Training in the Armed Forces of Serbia, 2011). To check swimming and diving skills, the water in the pool must be above 18 degrees. Therefore, when physical abilities check-up is done in peacetime conditions, ambience conditions characteristic of the surroundings are taken into consideration; however, the armed forces have to act fully equipped in much more extreme conditions, which additionally increases stress, that is, it is often about the situations in which no limitations are set, but only the obligation to carry out the task.

Professor Radaković states that ambience stress, or the demands of the military service, involve carrying out the tasks in extremely unfavourable surrounding conditions. "Ambience stress encompasses the influence of high, or low, outside temperature, high or low humidity, high or low atmospheric pressure, lack of oxygen, the changes in the composition of air and tiredness" (Radaković, 2015).

With regard to the range of a stressful experiences, professor Radaković mentions the initial positive level of stress as **the optimal stress**, i.e., the level of arousal or readiness to act. "In the state of complete absence of stress, which is also lacking is arousal" (Radaković, 2015). It is perhaps easier to understand if we illustrate it through the 100 metre race example. In the case when the competitor is tense and is expecting to hear the start gun shot, the arousal of the body is such that it will enable a quicker and better start, rather than if the competitor is passively waiting for the sign to start the race. According to professor Radaković, the point is that while performing routine tasks man still finds the way to maintain the body arousal by means of some small tasks, precisely to be able to react more efficiently if necessary. This is an important piece of information for the armed forces and individuals, who while performing routine activities such as being on call or patrolling, may reach the state of lack of arousal, and when something happens, the person may not react as efficiently as expected.

Furthermore, in his work Zrnić examined the motivation of war invalids for practising sports and doing recreational activities in relation to certain categories. The oldest respondents consider the preservation of health as the main motive for practising sports, whereas for the youngest ones it is socialising, rest and relaxation. With regard to the social background,

agricultural workers see socialising and regulating body weight as the main motive, while people coming from the family of intellectuals consider preservation of health and vitality as the main motive for sports and recreational activities. Socialising represents the main motive for pupils and students as well as for the unemployed (58%), whereas pensioners (57%) think that preservation of health is the main motive for practising sports. The same goes for war invalids living in the countryside (Zrnić, 2007). Several motives for practising sports and doing recreational activities have been grouped, with regard to age, social background, place of living and other categories from research range, such as health preservation, socialising, relaxation, maintaining abilities and vitality, so this research should serve as a guide for an adequate approach to people who are under constant stress in the sense how to preserve health, functionality and find one's own position in the social environment.

Modern way of living has introduced a special style and life habits among all generations, such that contribute to increasing the risk of irregular development in youth and potential health problems in adulthood (Glavač, Dopsaj, Djordjević-Nikić, et al 2015).

The research has shown that some causes of such a condition can be found in early youth and adolescent age, in terms of forming inadequate life habits, which involves reduced physical activity and inadequate diet, and which is kept as a lifestyle and continued in adulthood (Tremblay & Willms, 2003; Kelder, Perry, Klepp et al., 1994). One of the ways of coping with stress is doing some physical activity. It is especially important for soldiers for whom physical activity is an obligation, not only a therapy.

With relation to this, we will emphasize the findings and recommendations of the U.S. Army War College, i.e. Army Physical Fitness Research Institute (APFRI) from 2011. The general idea of the institute is to pass to the personnel the awareness about the connection between **leadership, health and fitness**. It was established in the 1930s that leaders have better health than other soldiers, which makes them obliged to pass this positivity to their subordinates. By summing up the research, it was concluded that fitness, or defined physical activity, is a way of fighting depression and anxiety, i.e. it is the basis for increased body resistance and overall health.

For a successful leader it is important not to succumb to the following categories: depression, anxiety, rage, A-type behaviour, sleeping disorder and fight rage. The research confirms the connection among these categories and uncontrolled rage, so APFRI recommends a list of techniques how to control stress so as not to disturb basic functions of a leader, which are: **memory, attention and ability to make decisions**, which are directly under the influence of uncontrolled stress.

Morphological and functional status is important for the members of the Armed Forces of Serbia since it represents the basis on which, through educational work, personality with a high level of emotional stability and cognitive abilities is developed; these are in turn necessary for safe and successful carrying out of tasks in specific work positions (pilots, sailors, special units etc.) (Radaković at al., 2007).

Chronic stress is not only the reason for disturbing the emotional state but the whole body as well. The first physiological response to stress is hormonal, that is the adrenaline exudation, which leads to the increased heart frequency and breathing. The level of sugar in blood also increases, which can result in diabetes type 2 in the long run. Then, cortisol is the next hormone that is activated due to prolonged stress, which as a chronic state leads to the increase in the abdominal mass, heart and sleeping problems, muscle tension etc. (APFRI, 2011).

In the event of stress, APFRI recommends the following activities:

1. Physical exercise which reduces the level of stress, depression and anxiety, which have the key role in the appearance of cardiovascular diseases.
2. Positive emotions and optimism.
3. Sufficient amount of rest, or healthy sleep.
4. Simplifying obligations which, if accumulated, should be well prioritized.
5. Using relaxation techniques: diaphragmal breathing, muscle relaxation, visualisation of the pleasant
6. Images, repetition of mantra with the breathing technique.
7. Avoiding excessive use of alcohol.
8. Establishing social relations.
9. Keeping a pet.

Since we know so much about stress, it seems logical to prevent it because it will result in multiple benefits. In the Armed Forces of Serbia the preparation for professional service begins at the Military High School and continues at the Military Academy. Eight years of education in boarding type conditions at the age of between 15 and 23 years is very important for forming habits and attitudes. The fact is that later in life stressful situations will definitely occur, therefore, it is possible during those 8 years to take the steps which will prevent unnecessary stress, teach pupils how to cope with stress, or

how to prevent it and if it is unavoidable, how to deal with it in the best possible way.

"In his work Simpinks and associates name two theories which explain the way to find friends. **Social theory** supports the approach of getting closer and forming friendships based on mutual activities at the specific time period, and **the theory of selection** is based on recognising similarities. Selection based on similarities can have positive and negative consequences since mutual induction or interaction increases the influence of either healthy or unhealthy life habits, depending on the mutual content of friendship. That is why it is necessary that the educators in boarding schools are trained people who know how to recognise the formation of negative tendencies and groups and can, therefore, react according to the pedagogical principles" (Glavač, 2015).

An interesting occurrence has been noticed and explored among the male pupils of the Military High School. They were divided in groups of smokers and non-smokers. It turned out that the smokers are taller and they have more muscular mass. It is absurd to assign this advantage to cigarette consumption, but the result must be explained. The assumption is that the pupils who grew up to be taller than their peers resorted to cigarettes in order to copy the adults, since they needed a social symbol of "superiority in addition to the physical appearance" (Glavač, Dopsaj, Djordjević-Nikić et al., 2015). This could be a signal for pedagogists and a wider community to offer in this period some other, more useful identification symbols than cigarettes, because many of them continue smoking later in life.

"The same or similar rules of meeting people and making friends that are valid for the Military High School also apply to the cadets of the Military Academy, who become part of the military group for the first time. Social theory, which defines making friends based on the mutual work in a certain field, and the theory of selection based on recognising and attracting similarities are the basic models of forming social micro environment, which will contribute to adopting the lifestyle that will represent a compromise between the demands of the system and personal aspirations" (Glavač, 2015).

"Very inspiring research was conducted on German students. Besides the survey about life habits, they also defined the convictions regarding health status – internal and two external in relation to authority and coincidence. Therefore, certain people have their own conviction about health status (ILOC – Internal locus of control), the others have more trust in external authorities (PLOC – Powerful others locus of control), whereas the third group believes that health problem is the consequence of a coincidence (CLOC – Chance locus of control). With relation to the conviction regarding health status, it was determined that people with the concept ILOC do more physical activities and

take more care of a proper diet. People with the concept PLOC are more prone to taking medications and relying on doctor's advice, whereas people with the concept CLOC are more prone to the frequent consumption of alcohol" (Helmer, Krämer & Mikolajczyk, 2012).

"Although the Academy is an institution at the faculty level and it should place emphasis on the educational component, due to the specificity of the profession they are preparing for, educational work is also emphasised in life and work regime, therefore, for certain cadets, who attended the Military High School, there is a process of 8 years of schooling according to military standards. The officers and professors who conduct the educational process in the Military High School and the Military Academy have great responsibility to make sure the education is carried out in the correct direction" (Glavač, Dopaj, Djordjević-Nikić et al., 2015).

"One of the possible reasons which contributes to the worse body composition was dealt with in the research with freshmen students of the American college, aged 18-26 years, regarding the chrono-types, i.e. persons who prefer night or day for running errands. It was determined that sleeping disorders can lead to the increase in the body mass index, which was confirmed and is about 8 to 9 pounds per year (~4 kg). Some researchers point out that those persons who are oriented at being awake during the night are prone to depression, regardless of how well-fed they are, although a much stronger connection was determined among the persons who are excessively well-fed. In the context of gaining excessive body mass, the authors indicate that it was determined that the lack of sleep causes certain changes, which lead to the increased body mass in the overall metabolical chain. The authors mention that what should be carried out is the education with students who belong to the night type so as to neutralise to some extent the bad habits, such as drinking coffee and lack of physical activity, which can cause the increase in body mass and everything else stemming from it" (Culnan, Kloss & Grandner, 2013);

"These statements show how important it is during the schooling in the military group to pay attention to balance between work, rest and sleep and to establish proper life habits which will contribute to a healthy growth, development and a healthy maintenance of morphological characteristics and functional abilities. The cadets at the boarding school have established norms, which are in accord with life habits and are related to the schedule regarding rest, sleep and eating, so from a theoretical point of view, cadets are somehow forced to have the habits which are at the same time proper and imposed. The question is whether such a long continuous period of external imposing of rules will develop among cadets the concept of trust in authorities or the system (which would match PLOC concept), and whether PE classes, which

cadets attend, are inspiring enough for them to develop the mechanism of self-control and, as far as health is concerned, develop the above mentioned ILOC concept, which was proven to guide a person along the way of healthy life habits" (Glavač, 2015).

As it can be seen in the statements of the American institute APFRI, when it comes to regulating stress, it is recommended to adult persons, i.e. officers, to bring their life habits and physical activity to such frameworks that are beneficial for the body. In relation to this, it is necessary to educate young people from school days and to teach them proper values on time, since properly included physical activity, as emphasised by De Vries (1976), increases the body resistance to additional stress.

## CONCLUSION

Considering the problem globally, it can be concluded that the perceptive accommodation to stress is conditioned by the level of cultural achievement. In one part of the world, stress is impossibility to get drinking water, whereas in the other part of the world, stress is if it rains when a sunny day is needed. Man must accept the fact that stress exists, that is, he must anticipate stress or stressors, possible consequences, coping strategies as well as the programme of increasing resistance to stress. Regarding the integral segment of existence, practically there is no social class exempt from stressors. In the developmental sense, adaptation to stress should be conducted through education, which would prepare a young person for future events so as to be able to overcome possible stress related problems in the most rational way. The Armed Forces is precisely the environment where it is suitable for stress to become actual in peacetime conditions, and especially in the conditions of war or disasters. Depending on the situation, over time man should strategically plan defence from stress, through physical activity on the one hand, and through the system of rationalization, avoidance or facing stress on the other hand.

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# PSYCHOSOCIAL STRESS OF EMPLOYEES OF SLOVENIAN ARMED FORCES

**Nika Kavšek[*], Darja Kobal - Grum[**] Robert Masten**

***Abstract*:** The study examines factors related the perception of stress in general and in work-life of the employees of the Slovenian Armed Forces. It was conducted on 302 employees from different categories regarding to rank. The focus was mostly on demographic factors (gender and age) as well as on some other work-related factors. The scale of the perception of stress in general and The scale of the perception of stress in work-life (Fernández Seara & Mielgo Robles, 1992) were used. Statistical analysis was based on t-tests, ANOVA and Kruskall-Wallis. Significant differences were observed in both the type of stress according to gender and age and some work-related factors: seniority, the formal duty and the intention to leave the armed forces. For both types of stress, no differences occurred depending on the amount of sick leave and performing a managerial position or not.

***Key words*:** workplace, stress, Slovenian Armed Forces.

## INTRODUCTION

Stress in the Slovenian Armed Forces has already been researched in several different studies. This survey thus represents an additional, albeit not unimportant, aspect of the problem of stress. The subject of interest includes both daily stress and workplace stress.

The term *stress* is nowadays increasingly used in all circumstances and for all responses experienced in the ever faster pace of life. In lay terms, it could be said that the very way of life is associated with stress, and is its inevitable source. However, stress is not only a phenomenon of modern times, but is as least as old as the humankind.

The concept of stress originates from medicine and is centuries old. The development of the definition of stress was more intensive from 19$^{th}$ century onwards. At the beginning of 20$^{th}$ century, stress was initially seen as the individual bodily response to changes in the external environment (Seyle, 1956); later its theoretical concept was developed when researchers began to

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focus on its psychological and sociological aspects (Lazarus, 1966; Holmes & Rahe, 1967; Lazarus & Folkman, 1988).

Today, researchers still differ in their definition of stress. There are almost as many different definitions as the authors dealing with this phenomenon. There is no single explanation of stress being either a reaction, a stimulus or a set of consequences for the organism. When defining stress, some authors mainly focus on the stimulus that triggers a response and the need to adapt, others prioritize the reaction to stress – thinking of stress as a physical and/or mental overload of the organism (Musek, 1993, Dernovšek, Gorenc & Jeriček, 2006) while some definitions focus on the process between one and the other (Looker & Gregson, 1993; Mikuš Kos, 1993; Jones, 1997).

There are several types of stress, which occur with relation to the objective factors that influence a person and cause a stress reaction (Bilban, 2007):

- **Physical stress:** This is caused by energy changes in the human environment or by a rapid and unexpected activity of physical and mechanical factors of high intensity and/or continuous, long-term activity, such as, for example, blows, high or low temperature, or noise.
- **Biological and physiological stress**: This is evoked by biological and physiological factors such as bodily injury, loss of body fluids, toxic and infectious agents, starvation, disruption of biological rhythms, metabolic balance disorders, and the like.
- **Psychological stress:** This is caused by sudden and unexpected life events, dangerous situations, threats, conflicts, overload and a series of other events and factors that are unpleasant or threatening to an individual.
- **Social stress:** This is caused by factors that are largely social in nature, and which usually affect not only the individual but also a certain social environment and society as a whole. This includes all rapid social changes that threaten personal and collective rights and the moral and social security systems. It is most often caused by various interpersonal conflicts, social crises, riots, uprisings, and the like.

The title of this research article includes the term *psychosocial stress* in order to emphasize the fact that the paper focuses on the sociological and psychological aspects of this phenomenon, rather than on the biological or physical aspects. There is usually no single cause, but rather a series of factors

linked together to form psychosocial stress which, in addition to external stressors, include the characteristics and experiences of an individual.

Similarly, most studies in the field of stress focus mainly on the psychosocial aspects of stress; this is, however, not explicitly mentioned in their terminology (generally, only the term stress is used, both in the titles of research articles as well as in their contents).

Today, stress is mostly psychosocial and does not only represent a physical threat, as was the case in the distant past. The remainder of this article follows other researchers and, for simplification, only uses the word stress (rather than psychosocial stress). Similarly, reference could also be made to psychosocial work stress, which is only perceived as work stress.

Just as there are many different definitions of stress, there are several different models of stress, which can be classified into three basic categories, depending on the aspect of the treatment of stress:

- Those that consider stress as a response or internal state of the organism (e.g. Selye's stress model);
- Those that consider stress as a stimulus or an external event – stressor (e.g. Holmes and Rahe's stress model);
- Those that see stress as an interaction or transaction, referred to as interactive models of stress (e.g. Lazarus' stress model, the inverted U-curve stress model, Cox and Mackay's stress model, Cooper and Marshall's stress model).

Different authors talk about different types of stressors. By integrating different classifications, stressors can be summarized as those of physical, physiological, psychological and social origins. They cannot be confined to only external (environment) or internal (organism) environments.

Figure 4 shows the possible sources of stress (stressors) which are more or less familiar to each individual.

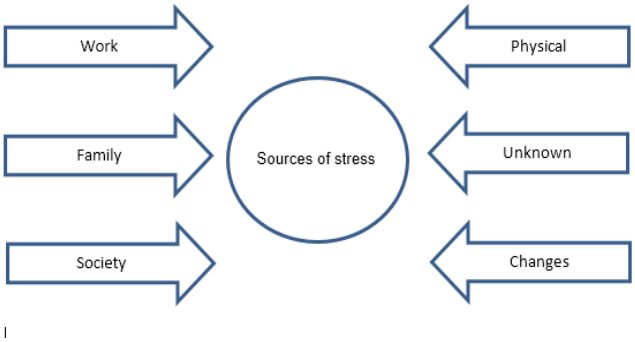


Figure 4. Typical sources of stress (Resman, 2008)

Stress at work includes all major and minor problems which individuals face in carrying out their work, and are connected to the nature of the work performed and to the interpersonal relationships that exist in the work organization. It can be a matter of unrealistic requirements or too high expectations placed on an individual, confusing or conflicting roles, improperly assigned tasks, powers or responsibilities, difficulties in interpersonal relationships, or mobbing.

Family, like the workplace, can also be a source of stress, although its primary task is that of providing security, shelter, acceptance and encouragement. Stress can be caused by common problems that are faced daily (coordination of schedules and obligations of family members, illness, lack of common free time) as well as by poor relationships and conflicts between family members.

When talking about society as a source of stress, reference is made to the broader social environment and the trends that, through the organization of systems and the written and unwritten rules, set requirements and expectations on an individual, with the mass media playing an important role in shaping public opinion and creating new tendencies.

Physical sources of stress are external stimuli, such as unfavourable, extreme weather or climatic conditions (cold, heat, snow, rain, storm, etc.) or, for example, work in unfavourable conditions (poor visibility, noise, night work, work at height or underground).

The last two groups of stressors relate to changes that could be placed in any of these categories, and to unknown sources. The latter include the demands placed on an individual that cannot be classified in any of the other

described groups (Resman, 2008). This study focuses on all the categories of stressors other than physical.

Considering stress as an inevitable consequence of human relationships with the constantly changing environment to which the individual must adapt (Tušak & Masten, 2008), it is not surprising that stress is often experienced in our lives because of constant adaptation to the changing conditions of everyday living. The majority of people perceive domestic relationships as the most stressful: relationships with family members, neighbours, relatives, and friends, stress on the way to work, in organizing daily routines, when moving, and in sudden disasters, disease, and death. However, stress may also be caused by seemingly pleasant events such as weddings, vacations, and so on.

Stress in our everyday lives can be caused by significant life events and changes or by a large number of minor excitements which are constantly encountered in life. These are of small intensity but very common and thus a significant source of stress. They are referred to as micro-traumas and are even more threatening to the individual's physical and mental balance than macro-traumas (Rakovec-Felser, 1998). Micro-traumas are tiny, seemingly insignificant dilemmas, which represent the everyday efforts that have no end in sight and which an individual often has or wants to have no influence on. They include, for example, housework, time pressure, financial worries, and parental responsibility (Tušak & Masten, 2008). Also, the work environment, with its own characteristics, can greatly affect the mental and physical well-being of an individual. If this impact is detrimental to the individual, we can talk about stress at work or, in short, work stress.

A detailed definition of workplace stress was provided in the 70s by Beehr (1978, as cited in Sutherland & Cooper, 2000), who described work stress as a state in which work-related factors influence an individual in such a way as to change or destroy his or her physical and mental state. This disrupts the normal functioning of the individual.

The occurrence of workplace stress is growing, but fortunately, so is people's awareness of its impact and their better identification of its symptoms.

Not all professions are equally stressful. The military profession, in addition to medicine, police, fire service, judiciary, teaching, social work, acting and advertising, belongs to those professional areas in which additional pressures are common (Masten et al., 2008).

The factors that contribute to greater or lesser stress in individual professions are: requirement for decision-making, continuous monitoring of devices or materials, repetitive exchange of information with others, unpleasant working conditions, performance of unstructured tasks, and working with people (Shaw & Riskind, 1983). Karasek (1979) points out that the most stressful are those occupations with low autonomy and high demands,

as is the case of soldiers without rank in the armed forces. Similarly, according to Theorell (1990, as cited in Masten et al., 2008), most tension is caused by those professions which are psychologically demanding and do not provide the freedom of decision-making to individuals.

So it is supposed that members of the Slovenian Armed Forces are particularly exposed to stress because, in addition to the stressors that may be present in the private and professional life of all people, the nature of their work exposes them to special stress situations. These are, for example, the performance of tasks in extreme weather conditions, frequent great mental and physical stress, prolonged absence from family, and frequent changes and relocations which require the members to constantly adapt to a new environment. Members are required to accept unfavourable working hours or work overtime, and to perform night work and on-call duty. In the eyes of the members of the Slovenian Armed Forces, such work is often poorly and inadequately rewarded, especially in recent years, and does not compensate for the moments missed in their private life. Due to frequent long absences from home (training, working unfavourable hours, peacekeeping operations and missions, etc.) members face family problems, since it is difficult or impossible to structure shared free time and organize an appropriate sharing of responsibilities. Thus, military families are also exposed to stress because they have to adapt to the requirements related to the military career. Employees in the Slovenian Armed Forces, as military staff, face the strong possibility of being relocated, for the needs of the service, to a different post or duty without their consent. Transfers bring a change of workplace and work tasks, and thereby a re-introduction into the field of work, a change in environment and work colleagues, and the need to adapt to new situations and people, while leaving behind in the previous workplace possibly good and stable relationships which brought satisfaction to the individual. Work transfer also means a change in the family environment, particularly with regard to child care and carrying out other family obligations. In the past, when relocations which included driving to more remote locations were frequent, those problems were even greater, bringing about fatigue and daily risks associated with traffic. Due to national financial savings, such transfers are slowly decreasing.

Members of the Slovenian Armed Forces are often involved in crisis response and peacekeeping operations which expose them to a series of stress factors. In this context, Lewis quotes Deahl and colleagues (as cited in Polič, 2008), who refer to operational stress which is related to the internal and external stressors present in military operations. Frequent stressors in this context are prolonged absence from family, care of soldiers for their family members and their ability to cope with problems, difficult environmental

conditions, extended working hours, inadequate housing, boredom, exposure to human suffering (e.g. hunger, civil war, war-crime victims), unclear rules of engagement, hostile attitude of local people, and limited public support. Operational stress indicates the extent to which an individual perceives one or all of the following: a) lack of clarity of the role and mission of peacekeeping operations and the rules of engagement; b) inability of the family to handle their absence; and c) hazardous environment and personal risk (Delva et al, 2002; as cited in Polič, 2008).

Practical experience shows that members of the Slovenian Armed Forces who occupy lower positions in the military hierarchy often experience stress due to improper management by their superiors, lack of adequate resources to carry out tasks effectively, too short implementation deadlines, unclear instructions for carrying out certain tasks, uncertainty regarding their workplace, double standards, and unfair use of rules. The superiors, on the other hand, may often experience stress due to responsibility they have to their subordinates as well as to their higher superiors, or because of the conflicts between their subordinates, their failure to carry out tasks, or maladjusted individuals who disrupt the work and negatively affect the cohesiveness of the group and the personnel. The heads or superiors are doubly-stressed because they experience their own stress in addition to feeling the effects of the stress of their subordinates.

These stress factors are mostly objective, some more, others less stressful, but what we have to be aware of is that the experience of stress is also very individual. People differ both in their perception and their management of stress. Stress in an individual is not determined simply by its direct cause, but mostly by the importance attached to it by the individual. Susceptibility to stress, stress management, and the use of strategies for coping with stress are all significantly dependent on an individual's personality traits and abilities.

In general, factors affecting stress management can be divided into (Bilban, 2007):

- Personal characteristics: emotional stability, neuroticism, tendency to depression and learned helplessness, feelings of control and competence (locus of control), learned styles of coping with stress and defensive reactions and others;
- Transient personal characteristics: various transient conditions such as moods, emotional states, roles, the possibility of emotional "emptying", and the expression of negative feelings;

- Situational and other external factors: social support, resources and reserves (material resources), and the degree of empathy and altruism in other people.

Moreover, there are differences in the perception of stress and stress reactions in terms of demographic characteristics, particularly age and gender, and in terms of socioeconomic factors (education, socioeconomic status, etc.). Gender and age are among the most important demographic factors of resistance to stress found in the literature.

Gender affects both the perception of stress and the symptoms of stress. In general, women experience more stress than men, and they often experience it more "emotionally"; there are also differences in intensity (Burke, 2002; Jick & Mitz, 1985; Jeriček Klanšček & Bajt, 2009; Meško et al., 2010).

Age is also an important factor of experiencing stress and its effects. Shirom and colleagues (2008) established that the negative effects of stress at work diminish with the age of the employees. Older employees are more satisfied with their jobs, more loyal to the organization, more motivated and involved in the work, more familiar with the organizational culture, and better able to cope with stress than their younger colleagues. Older employees are less absent from work and change jobs less, but face more problems if their work requires more physical effort and quick responses. Age differences were also revealed in Slovenia (Jeriček Klanšček & Bajt, 2009), but did not confirm the findings of Shirom and associates. In Slovenia, the biggest strain is on people in the age group of 40-54. They are more stressed than younger ones. The older age group (55-64 years) is the least burdened by frequent or daily stress and express less risky stressful behaviour, but they stand out with respect to greater stress due to other causes such as loneliness with women and material deficiency with men.

Socioeconomic factors have proven to be an important factor in the experience of stress. Better, higher education (higher and above) means more frequent experience of stress, while lower (primary school) education means less effective stress management. The higher- and better-educated stand out for their frequent or daily experience of stress. Moreover, they stand out for their greater perception of workplace stress and for their poor relationships with colleagues (Jeriček Klanšček & Bajt, 2009).

## METHOD

As members of the Slovenian Armed Forces (SAF) differ by gender, age and other characteristics, this study has focused on whether, within the

framework of demographic characteristics of gender and age, there are differences between members in experiencing both types of stress (general and work). The same question was posed with regard to certain work-related factors. The issue was whether there are differences in the perception of both types of stress by groups of employees in the SAF, particularly with regard to their seniority, formation duty (linked to their professional group), and managerial position. Another issue was whether the experience of stress is reflected in the amount of sick leave and whether the experience of both types of stress is associated with the intention of seeking employment outside the Slovenian Armed Forces.

The sample included 302 professional members of the Slovenian Armed Forces from all categories: soldiers, non-commissioned officers, officers, military specialists (junior and senior), with the exception of civilian personnel, who represent 4% of the professional members of the SAF. The sample was random. The study, conducted in 2012, was based on the voluntary and anonymous participation of members of different SAF units. The final sample included all those SAF members who fully completed the questionnaire and provided all the required information. The sample comprised 80.8% men and 19.2% women. Most were aged 26-40 (43.7%), 28.5% were younger (aged up to 25), and 23.2% were older (aged 41-50), while only 4.6% were aged over 51. Regarding the educational profile, 10.9% of all the employees included in the sample had vocational education, 62.9% had secondary education, 18.6% had post-secondary and higher education, and 7.6% had university and higher education.

The variables measured in relation with gender, age, and work-related factors included two aspects of psychosocial stress:

- Experiencing general stress in life, for which three variables were used:
- the intensity of overall general stress (current and past stress)
- the intensity of current general stress
- the intensity of past general stress

Experiencing stress in professional life, for which, also, three variables were used:

- the intensity of overall work stress (current and past stress)
- the intensity of current work stress
- the intensity of past work stress

To measure stress exposure or the intensity of experiencing stress, the Perceived Stress Scale by Fernández Seara and Mielgo Robles (1992) was used. It was suggested by Center za psihodiagnostična sredstva, the biggest publisher of psychological tests in Slovenia, since at the time of our study they were gathering data for adaptation and standardization of these Scales to Slovene psychological field.

To assess the overall stress, the Perceived Stress Scale for life in general was applied, which contains 53 items related to everyday life. These are events that can be potentially stressful for an individual. Respondents are asked whether or not an event is or was present and to what degree (on a scale of 0-3), and whether or not the event still has an impact on them. The scale gives an estimate of the incidence of general stress and its intensity. For statistical analysis, only the latter was used, relating to the above-described three variables (overall, current and past general stress).

To assess work stress, the Perceived Stress Scale for experiencing stress in professional life was utilized, which contains 50 items related to working life. The method of completing the questionnaire is the same as for the first scale, but the type of events is different. Here, also, two estimates were obtained: an estimate of the incidence of work stress and of its intensity. For statistical purposes, only the intensity estimate was used in this case, relating to the described variables (overall, current and past work stress).

For statistical analysis, the t-tests for independent samples were applied, to determine the intensity of stress with respect to gender, management/non-management position, sick leave, and the intention of seeking employment outside the SAF, on the condition that the dependent variables were normally distributed. In cases when this condition was not met, the nonparametric Mann-Whitney test was used. By conducting ANOVA and later post hoc t-tests (Bonferroni), differences in the intensity of work stress with respect to the independent variable of formation duties were researched. In all other cases (all other stress intensities regarding the age, formation duty and seniority), it was necessary to use the Kruskal-Wallis nonparametric test and the Hodges-Lehman post hoc nonparametric test to assess the statistical significance of differences between groups. For all the statistical methods used, the effect size was also calculated. As dimensions of the size of effect, Cohen's coefficient d for the t-tests, $\eta^2$ for the ANOVA, and Rosenthal's r for both nonparametric tests (Mann-Whitney and Hodges-Lehman) were applied.

## RESULTS

The results of the descriptive statistics for all the study participants indicate that employees in the Slovenian Armed Forces experience relatively little stress, both general and work-related, irrespective of whether the assessment relates to stress in the past or in the present.

Table 1. Descriptive statistics for intensity of general stress and work stress in a Slovenian sample

| *Scale of stress* | *Min* | *Max* | *M* | *SD* | *Skewness* | *Kurtosis* |
|---|---|---|---|---|---|---|
| Overal general stress | 2 | 99 | 27.14 | 17.076 | 1.147 | 1.484 |
| Current general stress | 0 | 68 | 14.49 | 11.149 | 1.393 | 2.753 |
| Past general stres | 0 | 73 | 12.68 | 11.436 | 1.584 | 3.451 |
| Overall work stress | 0 | 88 | 29.57 | 19.152 | 0.883 | 0.207 |
| Current work stress | 0 | 88 | 21.18 | 15.348 | 1.160 | 1.354 |
| Past work stress | 0 | 62 | 8.39 | 8.617 | 1.994 | 6.214 |

*Note.* N=302, $SE_{Skewness}$= 0.140; $SE_{Kurtosis}$ = 0.280.

The experience of work-related stress is somewhat greater than general stress. The intensity of stress is rated higher in the present than in the past; these differences are especially great in work-related stress.

Statistical analyses showed **significant gender differences** in the intensity of general stress, both in the present and the past, and consequently differences in the intensity of overall stress (current and past).

Table 2. Gender differences in the intensity of general stress and work stress (t-tests)

| *Stress* | *t* | *df* | *p* | *Effect (d)* | *M diff.* | $SE_{diff.}$ | *95% Confidence interval* | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | *lower* | *upper* |
| Overal general stress | -4.740 | 73.708 | **0.000** | 0.82 | -13.255 | 2.796 | -18.827 | -7.682 |
| Current general stres | -2.315 | 74.929 | **0.023** | 0.39 | -4.302 | 1.858 | -8.003 | -.601 |
| Overall work stres | -2.554 | 300 | **0.011** | 0.37 | -7.080 | 2.773 | -12.536 | -1.624 |
| Current work stress | -0.908 | 300 | 0.365 | 0.13 | -2.037 | 2.243 | -6.450 | 2.377 |

*Note. N = 302;* $N_{man}$*= 244,* $N_{women}$ *= 58.*

Table 3. Gender differences in the intensity of general stress and work stress (Mann - Whitney test)

| *Stress* | *M rang man* | *M rang women* | *U* | *z* | *As.p* | *Effect (R)* |
|---|---|---|---|---|---|---|
| Past general stress | 139.86 | 200.45 | 9.915.00 | 4.754 | **0.000** | 0.27 |
| Past work stress | 142.89 | 187.71 | 9.176.00 | 3.521 | **0.000** | 0.20 |

*Note.* N = 302; $N_{man}$ = 244, $N_{women}$= 58.

In the professional field (work stress), there was no gender gap between experiencing current stress, while there were statistically important differences between the sexes in the experience of past stress and thus the overall stress (current and past). According to the results obtained, female members of the SAF experience more current general stress compared to male members; also, they experienced more stress in the past.

Table 4. Age differences in intensity of general stress and work stress (Hodges – Lehmann posthoc tests)

| *Stress* | *Age group I* | *Age group II* | *Hodges-Lehmann estim.* | *SE* | *SD* | *p* | *As.p* | *Effect (r)* |
|---|---|---|---|---|---|---|---|---|
| | up to 25 y. | 26-40 years | -26.058 | 12.098 | -2.154 | 0.031 | 0.094 | -0.15 |
| Overall general stress | up to 25 y. | over 40 years | -58.674 | 13.392 | -4.381 | 0.000 | **0.000** | -0.34 |
| | 26-40 years | over 40 years | -32.616 | 12.185 | -2.677 | 0.007 | **0.022** | -0.18 |
| | up to 25 y. | 26-40 years | -22.841 | 12.093 | -1.889 | 0.059 | 0.177 | -0.13 |
| Current general stress | up to 25 y. | over 40 years | -41.760 | 13.387 | -3.120 | 0.002 | **0.005** | -0.24 |
| | 26-40 years | over 40 years | -18.918 | 12.180 | -1.553 | 0.120 | 0.361 | -0.11 |
| | up to 25 y. | 26-40 years | -14.868 | 12.090 | -1.230 | 0.219 | 0.656 | -0.08 |
| Past general stress | up to 25 y. | over 40 years | -46.200 | 13.384 | -3.452 | 0.001 | **0.002** | -0.27 |
| | 26-40 years | over 40 years | -31.332 | 12.177 | -2.573 | 0.100 | **0.030** | -0.18 |
| | up to 25 y. | 26-40 years | -24.237 | 12.098 | -2.003 | 0.045 | 0.135 | -0.14 |
| Overall work stress | up to 25 y. | over 40 years | -35.134 | 13.393 | -2.623 | 0.009 | **0.026** | -0.20 |
| | 26-40 years | over 40 years | -10.897 | 12.185 | -0.894 | 0.371 | 1.000 | -0.06 |

*Note.* N = 302; $N_{\text{up to 25 years}}$= 86 , $N_{\text{26-40 years}}$= 132 , $N_{\text{over 40 years}}$= 84.

Statistical analyses showed **statistically significant differences** in the experience of overall stress only **among certain age groups** of SAF members. With regard to the intensity of work stress, significant differences were only seen between the oldest and the youngest SAF members, which, however, are very small based on the size of the t-test. Afterwards no significant differences were found in the current work stress ($\chi 2 = 5.497$, asy.p = .064) and past work stress related to age ($\chi 2 = 3.981$, asy.p = .137).

Table 5. Differences in the intensity of general stress and work stress depending on seniority in SAF (Hodges – Lehmann posthoc tests)

| *Stress* | *Group I* | *Group II* | *Hodges-Lehmann estim.* | *SE* | *SD* | *p* | *As.p* | *Effect (r)* |
|---|---|---|---|---|---|---|---|---|
| | up to 10 y. | 10-20 years | -27.780 | 12.682 | -2.191 | 0.028 | 0.085 | -0.14 |
| Overall general stress | up to 10 y. | over 20 years | -35.256 | 15.275 | -2.308 | 0.021 | 0.063 | -0.15 |
| | 10-20 years | over 20 years | -7.476 | 17.842 | -0.419 | 0.675 | 1.000 | -0.04 |
| | up to 10 y. | 10-20 years | -32.326 | 12.674 | -2.550 | 0.011 | **0.032** | -0.16 |
| Past general stres | up to 10 y. | over 20 years | -33.251 | 15.266 | -2.178 | 0.029 | 0.088 | -0.14 |
| | 10-20 years | over 20 years | -0.925 | 17.831 | -0.052 | 0.959 | 1.000 | -0.01 |

*Note. N = 302;* $N_{up\ to\ 10\ years}$ *= 201 ,* $N_{10\text{-}20\ years}$ *= 62 ,* $N_{over\ 20\ years}$ *= 39.*

Statistical analyses **showed no significant differences** in the perception of the overall general stress among the members of groups **depending on their seniority in the SAF**. Also there are no differences in the current general stress ($\chi 2$ = 2.174, asy.p = .337). There were, however, statistically significant differences in the experience of the past general stress, but only between two groups; moreover, these differences were small with regard to the size of the t-test effect. There were no statistically significant differences in the experience of work stress between members with different seniority, either with regard to the overall work stress ($\chi 2$ = .875, asy.p = .645) or with regard to current ($\chi 2$ = .671, asy.p = .715) and past work stress ($\chi 2$ = .975, asy.p = .614). The perception of general stress in the past showed a statistically significant difference only between members with a shorter seniority (up to 10 years) and those with longer seniority (10-20 years), but the size of the effect in the t-test was small. No statistically significant differences in the experience of the previous general stress were found between the members of other groups depending on their seniority.

Table 6. Differences in the intensity of general stress and work stress according certain formation duites (Hodges – Lehmann posthoc tests)

| *Stress* | *Group I* | *Group II* | *Hodges-Lehmann estim.* | *SE* | *SD* | *p* | *As.p* | *Effect (r)* |
|---|---|---|---|---|---|---|---|---|
| | soldier | OF | -47.640 | 15.992 | -2.979 | 0.003 | **0.017** | -0.21 |
| Overall general stress | soldier | NCOF | -66.245 | 16.583 | -3.995 | 0.000 | **0.000** | -0.28 |
| | MS | NCOF | -51.633 | 18.920 | -2.725 | 0.006 | **0.038** | -0.28 |
| | | | | | | | | |
| | soldier | NCOF | -48.268 | 16.576 | -2.912 | 0.004 | **0.022** | -0.20 |
| Current general stress | MS | NCOF | -53.962 | 18.912 | -2.853 | 0.004 | **0.026** | -0.30 |
| | | | | | | | | |
| | soldier | MS | -36.049 | 13.071 | -2.758 | 0.006 | **0.035** | -0.18 |
| Past general stress | soldier | OF | -48.979 | 15.982 | -3.065 | 0.002 | **0.013** | -0.21 |
| | soldier | NCOF | -57.257 | 16.573 | -3.455 | 0.001 | **0.003** | -0,24 |
| | | | | | | | | |
| Past work stress | soldier | NCOF | -53.722 | 16.548 | -3.246 | 0.001 | **0.007** | -0.23 |

*Note.* N = 302; $N_{soldier}$ = 173, $N_{MS}$ = 60, $N_{OF}$ = 36, $N_{NCOF}$ = 33.
MS = military specialists, OF = officers, NCOF = non-commissioned officers. Only significant differences between groups are included in the table.

Table 7. Differences in intensity of work stress according certain formation duties (posthoc t-.tests Bonferonni)

| *Stress* | *Group I* | *Goup II* | *M diff. (1-2)* | $SE_{diff.}$ | *p* | *Effect (d)* | *95% Confidence interval lower* | *upper* |
|---|---|---|---|---|---|---|---|---|
| Overal work stress | soldier | NCOF | -11.924 | 3.582 | **0.006** | 0.66 | -21.44 | -2.41 |
| | MS | NCOF | -11.030 | 4.087 | **0.044** | 0.53 | -21.88 | -0.18 |

*Note.* N = 302; $N_{soldier}$ = 173, $N_{MS}$ = 60, $N_{OF}$ = 36, $N_{NCOF}$ = 33.
MS = military specialists, OF = officers, NCOF = non-commissioned officers. Only significant differences between groups are included in the table.

Statistical analyses showed **statistically significant differences between certain formation duties**, both in the experience of general stress and work stress. No statistically significant differences were observed in the intensity of the current work stress, but they can be seen in the experience of the past work stress; however, these differences are smaller than with regard to general stress. Statistically significant differences in the experience of current general stress are present between military specialists and soldiers, and between military specialists and non-commissioned officers. Statistically, soldiers differ significantly in their experience of past general stress compared to members performing all other duties.

Table 8. Differences in the intensity of general and work stress according to managerial positions, sick leave and intention of seeking employment outside the SAF (t-tests)

| | *Stress* | *t* | *df* | *p* | *Effect* | *M diff.* | $SE_{diff.}$ | *95% Confidenceinterval* | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | *lower* | *upper* |
| Managerial position | Overall general stress | 1.028 | 300 | 0.305 | 0.19 | 3.194 | 3.108 | -2.923 | 9.311 |
| | Current general stress | 0.887 | 300 | 0.376 | 0.16 | 1.801 | 2.030 | -2.195 | 5.797 |
| | Overall work stress | 0.527 | 300 | 0.598 | 0.10 | 1.840 | 3.491 | -5.030 | 8.710 |
| | Current work stress | 0.246 | 300 | 0.806 | 0.05 | 0.690 | 2.798 | -4.817 | 6.197 |
| | | | | | | | | | |
| Sick leave | Overall general stress | -0.191 | 300 | 0.849 | 0.04 | -.681 | 3.572 | -7.709 | 6.348 |
| | Current general stress | -0.557 | 300 | 0.578 | 0.12 | -1.297 | 2.331 | -5.884 | 3.290 |
| | Overall work stress | 0.254 | 300 | 0.800 | 0.05 | 1.017 | 4.006 | -6.866 | 8.900 |
| | Current work stress | -0.278 | 300 | 0.781 | 0.06 | -0.892 | 3.210 | -7.209 | 5.425 |
| | | | | | | | | | |
| Intention to leave SAF | Overall general stress | 0.916 | 300 | 0.360 | 0.12 | 2.066 | 2.255 | -2.371 | 6.504 |
| | Current general stress | 2.708 | 300 | **0.007** | 0.36 | 3.944 | 1.457 | 1.077 | 6.811 |
| | Overall work stress | 1.526 | 300 | 0.128 | 0.20 | 3.850 | 2.523 | -1.115 | 8.816 |
| | Current work stress | 2.499 | 300 | **0.013** | 0.33 | 5.020 | 2.009 | 1,067 | 8,973 |

*Note.* N = 302; $N_{managerial\ position}$= 34, $N_{non\text{-}managerial\ position}$ = 268. $N_{cisk\ leave\ <1montt}$=*25*, $N_{cisk\ leave\ >1montt}$ = *277*. $N_{intention}$=*77*, $N_{no\text{-}intention}$=*225*

Table 9. Differences in the intensity of general and work stress according to managerial positions, sick leave and intention of seeking employment outside the SAF (Man – Whitney nonparametric test)

| | *Stress* | *M rang* | *M rang* | *U* | *z* | *As.p* | *Effect (R)* |
|---|---|---|---|---|---|---|---|
| Managerial position | | *Managerial position* | *Non-managerial position* | | | | |
| | Past general stress | 172.06 | 148.89 | 3.857.00 | -1.459 | 0.145 | -0.08 |
| | Past work stress | 172.06 | 148.89 | 4.091.500 | -0.971 | 0.332 | -0.06 |
| Sick leave | | *Up to 1 month* | *Over 1 month* | | | | |
| | Past general stress | 172.06 | 148.89 | 3.363.00 | -0.238 | 0.812 | -0.01 |
| | Past work stress | 172.06 | 148.89 | 3.088.000 | -0.898 | 0.369 | -0.05 |
| Intention to leave | | *Intention* | *No-intention* | | | | |
| | Past general stress | 136.53 | 156.62 | 9.815.000 | 1.744 | 0.081 | 0.10 |
| | Past work stress | 139.82 | 155.50 | 9.561.500 | 1.362 | 0.173 | 0.08 |

*Note.* N = 302; $N_{\text{managerial position}}$= 34, $N_{\text{non-managerial position}}$ = 268. $N_{cisk\ leave\ <1montt}$=*25*, $N_{cisk\ leave\ >1montt}$ *= 277.* $N_{intention}$*=77,* $N_{no\text{-}intention}$*=225*

Statistical analyses (Table 8 and Table 9) showed that **managerial responsibility did not significantly affect** the experience of overall general stress, either in the past or the present, and consequently joint stress (current and past). The same is seen in the experience of work stress. No statistically significant differences in experiencing past or present work stress were found between the members of the SAF in managerial positions and others, and

neither were there any differences in their experience of joint stress (current and past).

Statistical analyses showed that there were also **no statistically significant differences between the members of the SAF with a different amount of sick leave** regarding their experience of both past and present general and joint stress, and, consequently, no joint stress (current and past). Also, there were no statistically significant differences between them in their experience of work stress.

Statistical analyses showed that the **SAF members with the intention of seeking employment outside the SAF were statistically significantly different** from those without such an intent, but only in their experience of the current general stress and not in their experience of the past general stress. The same applies to work stress: members with the intention of seeking employment outside the SAF are statistically significantly different from those without such an intent, but only in their experience of th ecurrent work stress and not in their experience of the past work stress.

## DISCUSSION

The results of the descriptive statistics are somewhat surprising, as one would expect that the SAF employees would be exposed to considerable stress, both in the workplace and in life in general. As is known, the military profession belongs to one of the most stressful occupational fields, which should also apply to the Slovenian Armed Forces. The specific nature of the work, which requires the employees to be often absent from home, has a significant impact on private life. We would therefore expect that the SAF members would feel quite stressed in life in general, but this was not confirmed.

Reasons for the lower stress load of SAF members in both types of stress in comparison to the Spanish norm can be attributed to intercultural differences, as well as to some other variables (differences in the representation of gender, education, the SES, etc.); or perhaps the reason already lies in the selected population.

The results obtained in Table 2 and Table 3 (gender differences) confirm the prevailing professional view of the impact of gender on the perception of stress. On the basis of various studies (Burke, 2002; Jeriček Klanšček & Bajt, 2009; Jick & Mitz, 1985), it was found that women experience more stress than men, as was also demonstrated in the case of SAF members. As is typical of women in general, female SAF members are also probably more involved (emotionally and mentally) in their family lives than their male colleagues. They are therefore more susceptible to experiencing

stress in small, everyday events. Due to the tendency to reconcile the demands of work and family, a "conflict of roles" appears, which contributes to women feeling more stressed. This conflict of roles is even greater in the case of female SAF members, since they are expected to be absent from home frequently for a variety of work assignments such as field training, participation in peacekeeping operations and missions, and so on. This hinders their desired performance of all family and other private obligations. The results also showed that female members of the SAF experienced more stress in their professional lives in the past than their male colleagues. In the present, however, they experience the same amount of stress as male members of the SAF. These results are somewhat surprising, as differences between men and women in experiencing work stress in the present were also expected. The same, however, was shown in a survey conducted by Lukenda (2007) on a sample of male and female soldiers in the Slovenian Armed Forces, where there were no major differences in the level of work stress between male and female members. It appears that female members experience no extra stress on account of sex in the male-dominated culture of the Slovenian Armed Forces. Apparently, women feel good in the SAF, are well accepted, and do not feel more pressure from work compared to men. It can be said that men and women employed in the SAF probably encounter different sources of stress or stressful situations, which, however, somehow equalize between the sexes, which results in the same level of stress experience. Based on the resulting differences between men and women in experiencing work stress in the past, it is assumed that women, on entering the military organization, had to build and win a proper position in a male environment, which is why they experienced more work stress during that period. It could also be that they were previously employed in a different organization where they faced different and higher stress loads.

The results show also that the oldest SAF members (over 40) are the most burdened with stress, especially in experiencing general stress, and only somewhat more in experiencing work stress. In the literature, opinions on the impact of age on the perception of stress are not uniform. Shirom et al (2008), for example, found that the negative effects of stress at work diminish with age. Our results did not confirm this and generally supported the findings in the Slovenian environment in the years between 2001 and 2008 (Jeriček Klanšček & Bajt, 2009). In Slovenia, the most burdened people fall in the age group of 40-54 years, which includes our oldest members. H. Jeriček H. and M. Bajt (2009) note that this age group stands out in terms of frequent or everyday experience of stress, as well as experiencing stress at work, mainly due to poor relationships with their colleagues and poor material conditions.

Our data indicated that the oldest age group of SAF members experienced significantly more general stress in the past than the other two groups of younger members. The reason for these differences is likely due to more stressful life events or circumstances to which the oldest members were exposed over a long-term period. Younger members are yet to gain similar experience in terms of the developmental tasks of adulthood.

The oldest members experience more current general stress, but only in comparison to the youngest age group. These two age groups differ the most with regard to their age range and the characteristics of the developmental periods, including stressful situations; on account of this the greatest statistically significant differences are between them.

In the area of work, different age groups of SAF members experience about the same degree of stress, but it is hard to say that they face the same stressors.

The results of intensity of stress depending on the seniority in the SAF were exactly the opposite of what we expected. We did not expect any differences in the perception of general stress. It seems, however, that members who have been employed in the SAF for a shorter duration (up to 10 years) experienced less general stress in the past than members who have been employed for 10-20 years. These differences were not anticipated and can be attributed to the influence of the moderator variables (such as age, gender, education, socioeconomic status, etc.); moreover, depending on the size of the effect of the t-test, they can almost be ignored.

We expected statistically significant differences in the experience of work stress between members of different seniority. According to the authors Tabak and Koprak (2007), those with longer seniority are supposed to experience less stress in the workplace. We would assume that the SAF members with shorter seniority would be most exposed to stress, since they are at the beginning of their careers, when they are still adapting to their new jobs, posts, tasks and interpersonal relationships, and are at the stage of validating and proving themselves, and striving for progress. Gordon (1993) talks about "career crises" in this context, which, in his view, are synonymous with stress. The expected differences probably did not occur because the time interval of seniority (10 years) was too great and included not only those who are at the beginning of their careers in the SAF but also those who have been employed for several years, even up to 10. In the case of the latter, we cannot argue for the characteristics of consolidating the career path which are linked to a higher work stress load.

The results between different formation duties showed that military specialists experience more current stress in life in general than soldiers and non-commissioned officers. It can therefore be concluded that frequent

absences from home, which are most notably linked to the work tasks of soldiers and non-commissioned officers, have no significant impact on the perception of general life stress. Because of the nature of their work, soldiers and non-commissioned officers have already found appropriate ways to reconcile their work and private life (with the help of others, clearly defined roles, etc.), making them less susceptible to stress. It is difficult to say why military specialists experience most general stress in life. Perhaps the reason lies in the differences in the level of education. On average, military specialists have a higher level of education than soldiers and non-commissioned officers, which is supposed to contribute to a more frequent experience of stress, as shown in the survey conducted in the Slovenian population in the years 2001-2008 (Jeriček Klanšček & Bajt, 2009). Furthermore, the results show that, in the past, soldiers experienced the least amount of general stress in comparison to all other formation duties. This is probably due to age as, of all the members of the SAF, soldiers are generally the youngest and are mostly in the period of early adulthood. In relation to this, the connection of age and experience of general stress has already been described.

Members on different formation duties experience the same level of current stress in the professional field. This does not mean that members on different duties experience the same stressors, but that these have a similar impact on the assessment of the current work load stress. Further research should examine the nature of stress factors in individual duties in more detail, as this was not the focus of this survey. Looking at the experience of work stress in the past, it was found that soldiers, in comparison to military specialists, experienced significantly less of this kind of stress; similar was shown with regard to past general stress. The reasons for this can be attributed to their different educational structure, described previously, and which, in this case, can be transferred to the professional field, as it brings about differences in the complexity of work. The difficulty of work is said to represent one of the major causes of stress (Furham, 2005). In this case, however, there should then also have been differences between soldiers and officers, which were not shown in our survey, so the reason must lie somewhere else; perhaps in the very status and position of individual duties within the military system.

We expected that military leaders, compared to non-leaders, would experience more stress in both their private and professional lives but no significant differences were shown in the results. Leadership positions in the military system bring about greater demands in the workplace, which are linked to greater responsibility for work and responsibility to people (regarding their safety, decisions on their status, development, etc.); a greater amount of work; greater difficulty and complexity of tasks; complex decision-making and problem-solving; immediate decision-making in crisis situations;

longer working hours; a double burden of stress (due to the leaders' own experience of stress factors, and the experience and effect of stress in their subordinates); competition for career development; and more difficulties in reconciling work and private life, which all contribute to the stress strain on leaders' professional and partly private lives. The acquired results, however, do not confirm this. The reasons for this can be found in the appropriate selection of personnel, effective training in leadership skills, better stress management strategies, and the like. The results themselves unfortunately do not provide an insight into the structure of stress factors in both groups of members – military leaders and non-leaders – but it can be concluded that they face different sources of stress which, however, cause the same level of stress.

It should be noted that the study was focused primarily on members from the tactical and some from the operational levels, but it did not include any members working at the strategic level of the SAF. The latter includes the most important SAF leaders, whose positions are comparable to business managerial positions, belonging to the group with the highest risk of stress (Meško et al., 2010). It is assumed that the results would be different if the survey only included the most important leader representatives at the strategic level and they were compared to other members. These, as "managers" of the Slovenian Armed Forces, are probably more burdened by stress than other SAF members.

The results show that members who take more sick leave (more than a month) experience no more stress than those who take less sick leave. It can thus be concluded that the sick leave of SAF members is not related to their stress strain or the level of stress experience, be it general or work stress. Considering the fact that literature mentions health problems as the most common effects of stress, the results expected were exactly the opposite. SAF employees do not seem to go on sick leave on account of physical, physiological and psychological symptoms resulting from stress. The results thus do not confirm the studies (Looker and Gregson, 1993) which claim that 75-90% of visits to family doctors are caused by stress-related health problems. It is known that in the past not as many alternatives to medical care were available as in the present. Perhaps nowadays the stressed employees see other professionals instead of medical in case of stress and that they do not take sick leave. SAF members seem to take sick leave due to health problems (probably mostly injuries) which often occur as a result of physical exertion and training, connected with the nature of their work, rather than as a result of stress. The results also suggest that taking sick leave in the SAF is not a way of avoiding stressful work situations, and neither is it a (unconstructive) method of dealing with stress or stressful situations that occur in life in general.

The results showed that employees with the intention of looking for employment outside the SAF experience significantly more general and work stress in the present than employees without such an intention. In various studies (Babin & Boles, 1996; Schwepker, 1999), stress has been shown to be an important predictor of an individual's intention to leave an organization, especially one associated with a minimal chance of promotion (Bell DeTienne, Agle, Phillips, & Ingerson, 2012). It can thus be concluded that members of the SAF mostly want to leave the armed forces because their work environment presents (too) much stress for them. A survey on the employees of the SAF (Korenjak, 2010) showed that the most common stressors were inadequate pay and performance review. There are currently minimal chances for promotion in the SAF; moreover, there has been a reduction in salaries and other benefits since 2012. Based on the agreement on the termination of employment, as many as 137 members left the SAF in 2013, with numbers also being similar in the previous three years. The reasons for termination of employment are not clear, but there is an assumption that these members have found a different, better job (Jakič, 2014). It can be assumed that SAF members intend to leave the armed forces primarily on account of low wages and absence of other benefits and the unavailability of promotion, as well as other possible reasons. The ones leaving are mostly soldiers who are looking for a better job in neighbouring countries. Work stress seems to include an important aspect of the overall stress, which results in the SAF members with the intention of leaving the armed forces experiencing more general stress.

## CONCLUSION

The present survey shows that employees of the Slovenian Armed Forces experience little stress, with the level of work stress being slightly higher than the level of general life stress. The burden of stress is assessed to be greater now than in the past. This seems somehow logical, as researchers have found that people tend to forget or have a distorted memory of past events and the way they handled them (Smith, Leffingwell & Ptacek, 1999).

As the armed forces belong to one of the most stressful professional fields, the expected levels of stress were much higher, especially in terms of work stress, which, in turn, also contributes to more general stress. The deviation from the expected results is mainly explained by the fact that SAF employees are a screened population possessing more efficient and constructive strategies of coping with stress, as compared to the general population. This, in turn, should also have an impact on their lower perception of stress. We should be careful in our conclusions since the demonstrated low

levels of stress can perhaps also be attributed to a distortion of results due to the mode of sampling and the weariness of participants during the survey.

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# TRANSNISTRIA WAR (MARCH 2 – JULY 21 1992) LIVED AND NARRATED BY MILITARY REPORTERS

**Lidia Prisac**[*]

**Abstract.** In the context of the *perestroika* and liberalization processes, many soviet republics proclaimed their sovereignty, as the Soviet Union was collapsing. For Republic of Moldova this process began in 1990 with Declaration of Independence. But, the transformation of MSSR into a sovereign state, in context of the national renaissance movement, determinates the Eastern region of the country, inhabited predominantly by the Russian speaking population, to proclaimed, on September 2, 1990, so called "Transnistrian Moldovan Soviet Socialist Republic". In the spring of 1992 this action quickly passed into a military conflict.

Usually, the memories concerning war conflicts are linked to those who participate in them - combatants. But there are a small number of people who could make the connection between the war and the reports concerning war events, actions and situations on the battlefields. Moldavian military reporters were side by side with combatants and became witnesses and chroniclers of the military conflict events hold in 1992.

Thus, the basic objective of the present work is narrative description of the war events made through the reporter's point of view, their social integration after the war and recent war aspects revision (after 25 years).

**Keywords:** military reporters, Transnistrian war, Republic of Moldova, Russian Federation.

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## INTRODUCTION

The 25th anniversary of the outbreak of the Dniester war[1] was on 2 March, 2017. The events of the escalation of the military scourge are placed in the conditions of the most dramatic period from the recent history of the Republic of Moldova. The human losses in the war (which lasted almost for five months) are estimated between 320 and 1,000 people, other 1,180 or 2,000 people were injured and/or mistreated. The area of the armed conflict was abandoned by approximately 3,000 refugees or, according to other data 108,000 persons left from the left bank of the Dniester and from Tighina (51,000 were located on the right bank of the Dniester). According to the statistical data from Tiraspol, the separatist forces lost over 500 people and 899 were injured. At the same time, in full process of establishing the

[1] From a physical-geographical point of view the territory of the Transnistrian region comprises the Eastern part of the Republic of Moldova and is divided into five districts: Slobozia, Grigoriopol, Dubasari, Rabnita, Camenca and the cities of Tiraspol and Tighina. The natural environment of the Transnistrian region has a plain relief and a temperate continental climate with transition to maritime one. Thanks to the location in an area of forest steppe and steppe with fertile chernozem soils the Transnistrian territory was populated and exploited since ancient times. Another important peculiarity is in the position of the region towards the intersection of land and maritime transport routes, which favored its economical and cultural relations with various adjacent territories. The population of the Transnistrian region is preponderantly located in urban areas, 66, 3% constituting the urban population and the rest the rural one. The most populated cities from the left bank of the Dniester are Tiraspol, Rabnita, Dubasari, Grigoriopol, Dnestrovsk, and Camenca. Out of the most economically significant centers we note Tiraspol and Rabnita. The Transnistrian region is an industrial-agrarian one (compared to the rest of Moldova, which is preponderantly agrarian), specifically thanks to the fact that in the soviet era the Kremlin authorities polarized here the industrial economy, the most developed branches of the industry being the heavy industry (Rabnita), power production (Dubasari and Dnestrovsk) and light industry (textiles and food processing from Tiraspol). Beginning with 1947, 80% of the Transnistrian region becomes part of the fourth economic area of the Moldavian SSR, and specifically the South-Eastern one (the other areas were: North, Center and South). In the period 1960–1975, this area had approximately 30% of the total industrial funds of the MSSR, thus it was privileged compared to the other areas of the republic, especially if we remind that it constituted only 11% of the territory of Soviet Moldova. If we make an estimate, we can say that the Transnistrian region was producing 40% of the industrial production of Soviet Moldova. In the same register we must highlight that the South-Eastern region was the most urbanized region of the MSSR, and the linguistic environment was predominantly Russian speaking (not coincidentally the two cities – Tiraspol and Bender were at the front of the movement Unitate-Edinstvo in 1989, which was strongly contesting the linguistic legislation adopted in Chisinau on August 31, 1989). Also in this region, in the soviet era were deployed a part of the division of the 14th Army. See more in Chapter VII (written by Igor Casu) *Raioanele de est ale Republicii Moldova în perioada postbelică (1940–1941, 1944–1989)* from *O istorie a regiunii transnistrene din cele mai vechi timpuri până în prezent* / I. Chirtoaga, I. Jarcutchi, E. Negru et all, Chișinău, Civitas, 2007, p. 344-348; Codrin Valentin Chirica, *Republica Moldova între Rusia și Europa,* Iași, Helios, 2004.

Moldovan independent entity, the material losses of the Republic of Moldova in the war are estimated among 12 billion and more than 40 billion rubles (the equivalent of US $10 billion), other 15 billion rubles being necessary for restoring the destroyed infrastructure and buildings[2].

From the beginning, the memory and history of the Dniester war were presented in public space in different forms: round tables, symposiums, conferences, photographic exhibitions, etc. Various memorial articles, studies and books dedicated to the Transnistria war[3]. Usually, memories about the Dniester war are related to those of the combatants – direct participants in military operations. However, few are those who make a connection between this war and those who caught sequences and created reports about the development of the military actions and the situation on the battlefield. Namely the war reporters who made the chronicle of the dramatic events became witnesses of the military scourge from 1992, side by side with the combatants from the right bank of the river Dniester.

Therefore, the objectives the title of this study displays are related to presenting and redefining the Dniester war from the perspective of military reporters. What our approach suggests is communicating an "unsaid". "The story" lived by them remains first of all a source of historical reconstruction, and their confessions can be exploited both as reconstruction/completion of a dramatic history, and as reflection on the moment of this type of history.

The meditation from the war reporters may be consecrated as a precious completion in the perimeter of historiographical interpretation. The message released by the military reporters is the most often not intermediated. Therefore, the shape of war reconstruction via memory may argue the descriptive and interpretative valences of the war disputed today between history and memory.

Methodologically, in approaching the subject, together with conventional historical sources, we also turned to polling the memory of war reporters. In this respect we interviewed several Moldovan journalists – direct witnesses of the dramatic scenes on the Dniester.[4].

## HISTORICAL CONTEXT

[2] Lidia Prisac, *Războiul din stânga Nistrului (2 martie–21 iulie 1992) și integrarea minorităților național-etnice din Republica Moldova,* in *Revista militară. Studii de securitate și apărare. Publicație științifică*, Chișinău, 2015, nr. 2 (14), p. 141.

[3] More on this subject see: Lidia Prisac, *Istoriografia separatismului transnistrean*, Iaşi, Lumen, 2008, p. 21-30.

[4] The interviews with Valentina Ursu and Nicolae Pojoga were carried out by the author of the study in the period March 20–22, 2012 within the School of Advanced Journalism Studies. See on https://ssaj2011.wordpress.com/2012/03/28/razboiul-de-la-nistru-trait-de-jurnalisti/ [25 March 2017].

The transformations occurred as a result of Gorbachev's restructuring and liberalization from the late 1980s, after determination of the dissolution of the Soviet Union and affirmation of independent states. The declaration of sovereignty of the Republic of Moldova also meant a polarization of the population of the republic on the ethno linguistic principle (Romanian-speaking/Russian-speaking)[5].

At the beginning of the 1990s, the Romanian language was becoming the most politicized factor of the ethno cultural model of identity of the population in the republic. If the thesis regarding the Latin origin of the language of the majority of population is hard to deny, being confirmed via the Law *Regarding the functioning of languages on the territory of the Republic of Moldova*, then the problem of linguistic identity (Romanian/Moldovan) led to divergences, engaging the political class in a series of hostilities and provoking the appearance of some considerable fissures within the post soviet Moldovan society. Thus, while in full transition towards a state of law and a competitive economy[6] the population of the republic was in an endemic identity crisis[7]. This critical moment marked the ulterior evolution of Moldovan statehood[8] as well as its social political structure[9].

Shortly, under the patronage of the Kremlin authorities in the public identity discourse also got involved the representatives of the politically active Russian and Gagauz minorities from the republic[10]. They interpreted the perpetuation of Romanian ethno linguistic identity as a tendency of unification between the Republic of Moldova and Romania, as well as the destabilizing

[5] Lidia Prisac, *Factorul etnic din Republica Moldova la 25 de ani de la proclamarea independenței*, in National scientific conference with international participation of young researchers *Valorificarea patrimoniului etnocultural al Republicii Moldova în educația tinerii generații*, November 17, 2016, Chișinău, CartPrint, 2016, p. 31-32.

[6] Octavian Şofransky, *Republica Moldova: capital geopolitic*, Chişinău, Cartier istoric, 1999.

[7] Mihai Gribincea, *Basarabia în primii ani de ocupaţie sovietică (1944–1950)*, Cluj-Napoca, 1995, p. 62.

[8] Iulian Fruntaşu, *O istorie etnopolitică a Basarabiei. 1812–2002*, Chişinău, Cartier, 2002, p. 262.

[9] In the first years after 1991, the public debates regarding the national identity was arbitrated by the Christian Democratic Popular Front and the Democratic Agrarian Party of Moldova. If the former insisted on the Romanian character of the territory of the republic and favored the unification of Moldova with Romania, the latter, especially made up of the former communist elite of the soviet era promoted the idea of Soviet Moldova and was strongly against Moldovan-Romanian unionist tendencies.

[10] Lidia Prisac, Prisac Lidia, *Războiul din stânga Nistrului (2 martie–21 iulie 1992)..*, p. 134-141; Lidia Prisac, *Factorul etnic din Republica Moldova*...

factor of the interethnic relations from the republic[11]. Thus the identity determined by the name of the Romanian language became the main reason for the division of the population of the republic based on ethnic and political criteria, so that via the indirect line of promoting the Romanian language, the discourses took aggressive forms which did not represent anything other than the confrontation of two stereotypes: that of the majority group (Romanian) and that of the minority groups (Russian and Russian-speaking).

This "interethnic" disagreement in the identity-linguistic issue was subsequently skillfully maneuvered both by subversive forces from inside and from outside the country (especially from the former metropolis) in order to start the territorial disintegration of the Republic of Moldova via feeding separatism in the East and South of the republic[12] and to maintain the former soviet republic in the sphere of influence of the Russian Federation.

Although, on this explosive background in the national issue[13] in order to mitigate the "(separatist – a.n.) obsessions of the minorities"[14], immediately after the proclamation of independence (on August 27, 1991) the Moldovan authorities offered increased attention to ensuring the rights of national-ethnic minorities and to their integration in the new state framework[15], the efforts were anyway qualified by the Russian-speaking representatives as "very rigid"[16], and interethnic relations continued to have a tense character.

The peak of "discontents" of the minority representatives determined attracting the Republic of Moldova into a war by the pro-Russian forces, named by the separatists as "interethnic"[17], although it did not involve by far such a character for the simple reason that the Russian population from the

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[11] Lidia Prisac, *Arhitectura relațiilor interetnice în spațiul ex-sovietic: Republica Moldova (1991–2014)*, Iași, Lumen, 2015, p. 96-97.

[12] On August 19, 1990, in the districts Comrat, Ceadar-Lunga and Vulcanesti was declared the so called Gagauz ssr with rights of union republic, succeeded by the creation of the so called Transnistrian mssr on September 2, 1990.

[13] Gheorghe Cojocaru, *Separatismul transnistrean: aspecte interne şi internaţionale*, in *O istorie a regiunii transnistrene din cele mai vechi timpuri până în prezent*, Chişinău, Civitas, 2007, p. 438.

[14] Matei Cazacu, Nicolas Trifon, *Moldavie ex-soviètique: histoire et enjeux actuels*, in *Collection Cahiers d'Itzok*, nr. 2-3, Editions Acratie, 1993, p. 36.

[15] Lidia Prisac, *Republica Moldova în contextul edificării statului de drept: tendinţe şi caracteristici generale (1991–1994)*, in Materials of the international scientific conference *Consolidarea şi dezvoltarea statului de drept în contextul integrării europene*, Edition V, March 31, 2011, Chişinău, 2011, p. 97-111.

[16] Ирина А. Субботина, *Стратегия поведения русской молодежи в странах нового зарубежья: Молдавия*, Москва, 1998, с. 33.

[17] See the non ethnic character of the conflict in Lidia Prisac, *Istoriografia separatismului transnistrean*, Iaşi, Lumen, 2008.

region the conflict was initiated was a minority, the largest part (75%) living on the right bank of the Dniester[18] and not the contrary[19].

Unleashed in the night of March 1 to 2, 1992, at 22$^{oo}$, when illegal secessionist armed forces attacked and occupied the Dubasari District Police Station subordinated to Chisinau[20], the Dniester was extend, in only a few days to the localities Cosnita, Cocieri, Pohrebea, Dorotcaia, Speia, Tocmagiu, Malaiesti etc., risking to escalate from a local conflict to a regional one[21].

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[18] Nicolae Ţâu, *Politica externă a Republicii Moldova*, Bucureşti, 2000, p. 158.

[19] In 1989, according to the last soviet census, the population from the left bank of the Dniester had the following ethnic structure: Moldovans – 40.4%, Ukrainians – 28%, Russians – 25%.

[20] *Republica Moldova. Ediţie enciclopedică*. Ediția a doua revăzută și adăugită, Chișinău, Institute of Encyclopedic Studies, 2011, p. 232.

[21] For more details about the political-military conjuncture before the war, conduct of military actions, activity of legal state structures in overcoming the belligerent situation and solving the Transnistrian conflict see: Chiril Levinţă, *Conducerea militară în războiul pentru independenţa Republicii Moldova*, in *Cugetul*, nr. 3-4, 1993, p. 54-60; Gheorghe Budeanu, *Transnistria în flăcări*, Chișinău, 1993; Victor Bârsan, *Masacrul inocenţilor. Războiul din Moldova. 1 martie–29 iulie 1992*, Bucureşti, Editura Fundaţiei Culturale Române, 1993; Victor Bârsan, *Procesul Ilaşcu. Cartea Albă a Comitetului Helsinki Român,* Bucureşti, 1994; *Conflictul din Transnistria: adevărul aşa cum a fost el: Materialele conferinţei ştiinţifico-practice, Interesele de stat şi rolul organelor de interne în asigurarea ordinii constituţionale, drepturilor şi libertăţilor omului în raioanele de est ale Republicii Moldova*, Chișinău, January 12–13, 1993, Chișinău, Logos, 1996; Olga Căpăţină, *În memoria ostaşilor căzuţi în Transnistria*, Chișinău, Editura Centrală, 1997; Olga Căpăţină, *Cartea memoriei celor căzuţi în luptele pentru independenţa şi integritatea Republicii Moldova*, Chișinău, Editura Centrală, 2000; Gheorghe Cojocaru, *Separatismul în slujba Imperiului*, Chișinău, 2000; Tudor Iovu, *Poduri de foc: cronica alb-negru a unui război*, Chișinău, 2002; Anatol Ţăranu, *Cauzele conflictului armat de la Nistru*, in *Caiete de istorie*, Chișinău, 2002, nr. 2, p. 1-10; Natalia Cojocaru, Stela Suhan, *Organizarea şi reorganizarea socială a memoriei conflictului din Transnistria*, in *Sociologie românească*, nr. 3, 2003, p. 40-53; Alexandru Cimbriciuc, *Eroi Soroceni în războiul de la Nistru*, Chișinău, 2004; Ștefan Jurja, *Ciuruit de zeci de schije în dealul lui Traian: ce facem cu ecologia din sufletele noastre!?!* Chișinău, 2004; Anatolie Munteanu, Nicolae Ciubotaru, *Românii de la est. Războiul de pe Nistru (1990–1992)*, Bucureşti, Editura Ager Economistul, 2004; Anatolie Munteanu, *1990–1992. Luptele pentru Tighina. Sacrificiu şi trădare*, in *Cugetul*, nr. 4 (24), 2004, p. 27-35; Nicolae Enciu, *Transnistria, breşa strategică a Uniunii Sovietice/ Rusiei în Balcani*, in *Caiete de istorie*, nr. 12, 2004, p. 23-27; Eduard Boboc, *Implicarea Armatei a 14-a a Federaţiei Ruse în războiul din Transnistria (1991–1992). Aspecte social-politice, militare, memorialistice*, in *Anuarul de Istorie Orală* (AIO), vol. V, Cluj-Napoca, Editura Presa Universitară Clujeană, 2004, p. 285-305; Eduard Boboc, *Aspecte bizare ale războiului de pe Nistru* (I), in *AIO*, vol. VI, Cluj Napoca, Editura Presa Universitară Clujeană, 2005, p. 311-338; Vlad Grecu, *O viziune din focarul conflictului de la*, Chișinău, Prut Internaţional, 2005; Anatolie Munteanu, *Sacrificiu şi trădare. Războiul de secesiune din Republica Moldova (1990–1992)*, Bucureşti, 2005; Ștefan Trofim, *Candela Speranţei*, Chișinău, 2005; Petru Soltan, *Transnistria, lacrima mea*, Chișinău, 2006; *Femeia în zonele de conflict: Istoria verbală*, Chișinău, 2006; Eduard Boboc, *Aspecte bizare ale războiului de pe Nistru* (II), in *AIO*, vol. VII, Cluj-Napoca, Editura Presa Universitară Clujeană, 2006, p. 367-398; Anatol Ţăranu, Mihai Gribincea, *Conflictul transnistrean: Culegere de documente şi materiale (1989–*

Worldwide recognized by the international community, the Dniester war was for the Republic of Moldova one of self-defense, of safeguarding its sovereignty, independence, and territorial integrity, taking into account the imminent involvement of the 14th Army of the Russian Federation on the separatist side.

According to statistical data, the soviet troops from the left bank of the Dniester included in 1990 more than 3,000 officers and over 12,000 in term and contract based personnel, who had a huge arsenal of weapons and ammunition – 120 battle tanks, 166 armored vehicles, 129 pieces of artillery, six armored vehicle-launched bridges, nine battle helicopters, 36 antitank rocket launchers and approximately 50,000 automated weapons[22]. The Armed Forces of the former USSR put generously at the disposal of separatist forces military personnel, experts and sophisticated equipment[23]. Already in the spring of 1992, 8,000 active officers, reservists and military in term were enrolled in the "Transnistrian separatist army", who formed the "Transnistrian guard", to which 5,000 employees of the internal troops and 4 000 armed workers from the "self-defense detachments" were also added. Besides the defenders of the separatist cause there were also 3,000 inmates liberated from Russian prisons on the condition to come to the assistance of the separatist enclave[24]. At the same time, the enterprises from Tiraspol and Rabnita were put on war production in order to ensure the combat capability of the separatist forces.

Certainly the chances of the Republic of Moldova to solve the Transnistrian conflict by military means could not be other than illusory, while the Armed Forces of the Republic of Moldova were only in the incipient phase of formation, the Decree regarding the formation of the Armed Forces of the Republic of Moldova signed by president Mircea Snegur on 3 September,

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*2012)*, Chişinău, Lexon-Prim, 2013; Ion Stăvilă, Gheorghe Bălan, *Conflictul transnistrean: eşecul reglementării unui conflict care poate fi soluționat*, in *Revista Militară. Studii de securitate şi apărare. Publicație științifică*, 2010, nr. 2 (4), p. 4-26; Vitalie Ciobanu, Eduard Ohladciuc, *Conflictul transnistrean şi perspective de soluționare*, in *Revista Militară. Studii de securitate şi apărare. Publicație științifică*, 2011, nr. 1 (4), p. 12-18; Vitalie Varzari, *Noile perspective de soluționare a conflictului din raioanele de est ale Republicii Moldova în contextul integrării europene*, in *Revista Militară. Studii de securitate şi apărare. Publicație științifică*, 2012, nr. 2 (8), p. 25-33; Ion Costaş, *Transnistria 1989–1992: Cronica unui război „nedeclarat". Dedicată celor căzuți în luptele pentru integritatea Republicii Moldova*, Bucureşti, 2012.

[22] Chiril Levinţă, *Conducerea militară în războiul pentru independenţa Republicii Moldova*, in *Cugetul*, nr. 3-4, 1993, p. 54-60.

[23] Anatolie Munteanu, Nicolae Ciubotaru, *Românii de la est. Războiul de pe Nistru (1990–1992)* Bucureşti, Editura Ager Economistul, 2004, p. 117.

[24] *Ibidem*, p. 119.

1991, entered into force with a delay of six months. Thus, at the end of March – the beginning of April 1992, the staff of the Moldovan Armed Forces, with volunteers and reservists was reaching a number of 1,500 people. Internal troops and police subunits had under arms approximately 10,000 people[25].

It is to be noted that when the Dubasari incident was produced, which delimited the passing from the period of provocations and continuous harassment of the legal authorities of the Republic of Moldova by the separatist forces to an undeclared war against Chisinau, the Republic of Moldova entered this war practically without an army, weapons and ammunition, having at its disposal only the personnel of the police subunits[26]. Besides it, the central authorities applied from the breaking out of the conflict the tactics of positional war, of defense in trenches, which was acting demoralizing on the combatants[27]. The authorities from Chisinau had at their disposal a limited maneuver space.

## THE WAR VIA THE OPTICS OF MILITARY JOURNALISTS.

At the beginning of the war, the Republic of Moldova did not enjoy either the support of the Organization for Security and Cooperation in Europe (OSCE), or that of other international organisms, while the Transnistrian separatists, besides the support of the 14th Army, were also enjoying the support of the State Duma and of the mass media from the Russian Federation[28]. In this respect the media war conducted by the Russian Federation went on in parallel to the military one unleashed in the Transnistrian region. Triggered especially by the information agencies and Russian televisions in the context of the military scourge on Dniester, the media war consisted especially of the denigration of the Republic of Moldova, its authorities and politics. Via the mass media the Russian Federation was conducting an aggressive propaganda against the Republic of Moldova for imposing its own opinion on the public both from the perimeter of ex-soviet

[25] *Ibidem*, p. 135-136.

[26] About the inequality of forces see: Iurie Pântea, *Aspectul militar în soluționarea conflictului din zona de est a Republicii Moldova*, in *Aspecte ale conflictului transnistrean*, Chișinău, 2001, p. 94-122; Iulian Fruntaşu, *Work. cit*., p. 314-329; Iurie Gârneț, *Considerații privind structura forțelor armate*, in *Revista Militară. Studii de securitate şi apărare. Publicație științifică*, 2012, nr. 1 (7), p. 29-33; Vitalie Ciobanu, *Organizația instituției militare a Republicii Moldova (1990–2011)*, Chișinău, Bons Offices SRL, 2011; Constantin Manolache, *Organismul militar al Republicii Moldova. Construcția militară şi securitatea statului: Monografie*, Chișinău, Biblioteca Științifică Centrală „Andrei Lupan", 2015.

[27] Anatolie Munteanu, Nicolae Ciubotaru, *Work. cit.*, p. 259.

[28] *Republic of Moldova. Encyclopedic edition...*, p. 232.

space and the international one regarding the causes, development and consequences of the Transnistrian war. In a broad sense, the media war conducted by the Russian Federation comprised the entire specter of confrontations led exclusively by the mass media regarding the war in question for imposing their own points of view[29].

In comparison to the media arsenal of the Russian Federation the one from Chisinau was very fragile, telling the story of the war in the mass media was put on the shoulders of only five war journalists: the cinematographer Victor BUCĂTARU[30], the photographer Tudor IOVU[31], the photojournalist Nicolae POJOGA[32], the collaborator of the information news program

[29] According to the same principles the Russian mass media guides itself today, in the context of the war in Ukraine. See: *Информационная война: как работает российская пропаганда*, on https://delo.ua/ukraine/informacionnaja-vojna-kak-rabotaet-rossijskaja-propaganda-229022/ [19 March 2017].

[30] The director and screenwriter Victor Bucataru was born on December 25, 1948. He was a member (from 1980) and chairman of the Union of Cinematographers of Moldova in the period 1991–1993. In 1991 he founded the first independent studio of production and film from the Republic of Moldova. He was the author of the video reports from the first line of the armed conflict on the Dniester from 1992 broadcasted on TVR-București, TF-1, Canal TV-Boston, Canal Los Angeles, BBC. In 2013 he launched the documentary "Massacre of the innocents or chronicle of a forgotten war" dedicated to the commemoration of the war in Transnistria. He died at the age of 65, on August 12, 2013 following a heart attack. See: *The cinematographer Victor Bucătaru passed away* on http://adevarul.ro/moldova/actualitate/cineastul-victor-bucataru-s-a-stins-viata-1_5208b3b4c7b855ff56cc6ddd/index.html [ 23 March 2017].

[31] The war photo reporter Tudor Iovu was born on October 1948 in the village Ciopleni, district Criuleni. He graduated from the Faculty of Journalism of the State University from Moscow. From 1990 he collaborated with the Reuters Agency. Through it, the images captured by Tudor Iovu during the scourge on the Dniester were spread all over the world. After 1991 he worked as a photo reporter for the newspapers "Moldova Suverană", "Adevărul", at the Creation Studio "Fotojurnalist" etc. He participated in several photo exhibitions from the country and abroad. He obtained the Great Prize and Gold Medal at the Contest of military photography FOTOARM-97 organized by NATO. He died on December 5, 2016 at the age of 68 years old. See: *Tudor Iovu passed away* on http://unica.md/monden/stiri-de-acasa/tudor-iovu-s-stins-din-viata/ [23 March 2017].

[32] Is a university professor, *stringer* for Reuters, AP, EPA, BBC, RomPres, journalist and editor in news agencies, regional expert in problems of ethics and press freedom. Founder of the agency of photojournalism "Argus", which in the period 1991–1993 worked in Latvia, Lithuania, Nagorno-Karabakh, Republic of Moldova, and Russian Federation. After the armed conflict from the Republic of Moldova was frozen, it participated with its own photos (taken in the period March–July 1992) in different exhibitions from Sibiu, New York Bucharest, Tokyo, dedicated to the dramatic events from the right and left bank of the Dniester. See: *„Out of the blue", Nicolae Pojoga at „C. Brâncuși"*, on http://www.jc.md/din-senin-nicolae-pojoga-la-c-brancusi/ [02 March 2017].

"Mesager" from TV Moldova 1 Gherman SANDU[33] and the reporter from Teleradio-Moldova Valentina URSU[34].

After 25 years from the onset of the war, out of the five named war reporters only two remain alive: Valentina Ursu and Nicolae Pojoga. Although each one's story in this war may appear identical, they however, have different perceptions, memories being recalled differently. The perception of the tragic events on the Dniester, in which the two military journalists were involved, was related to the manner in which each was moved or touched by a certain moment or scene of war, doubled by the feeling of despair which makes the perception become acute.

The photojournalist Nicolae Pojoga recalls that the news of the war caught him digging in the garden, " (...) although I was aware of what was happening, because I had been in Tiraspol, I had heard then on the radio the discourse of the president Mircea Snegur". He remembers that only a little time earlier he had returned from Karabakh, where he also was a military journalist for a month and a half. "I was working for the MoldPress agency and I became a war reporter for the newspaper "Oastea Moldovei", (…) I had a permit for the conflict area from the Ministry of Internal Affairs, thus in the morning I was at the war, in the evening I was at home (…) half an hour through Vadul lui Voda, to Bender, it was taking about an hour".

Valentina Ursu, the only female war reporter, remembers that she became the chronicler of the armed conflict when she was working in the News department from Radio Moldova "(…) it was a kind of fulfilling my mission as a journalist (…), the armed conflict had to be elucidated, an area of great risk, it is true few fellow journalists dared go there (…), over the years I was asking myself if I had to go there or not (…) today maybe I would judge differently. I would definitely go now too, but God forbid (!) such a tragedy to happen again (…)".

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[33] The reporter Gherman I. Sandu was born on August 19, 1946 in the village Codreanca, district Straseni. From 1976, he worked as deputy editor-in-chief at the Department of News and Publishing of the State Company "Teleradio-Moldova". In 1990 he is named senior editor. In 1999 he asks to be transferred to the position of regular correspondent. Due to his precarious health (he was injured in the war on Dniester), but also due to the reformation of the institution in which he was working, he was dismissed in 2000. In his family the subject of Transnistrian war was a taboo theme. He died on June 3, 2007, at the age of 61. See: *Archive of the State Company "Teleradio-Moldova"*, Inventory 7, Dossier 578, ff. 236-295; Data offered by his daughter Cornelia Pana (Gherman) on 18.04.2017.

[34] From 2004 is an editor at Radio Free Europe. Author of the book "The river of blood", appeared in two editions (1993; 2013), in which she included her own reports made on the front line during the armed conflict on the Dniester. See also: *Valentina Ursu. Journalist, radio "Free Europe"* on http://arhiva.vipmagazin.md/top-femei/99_femei_ale_Moldovei_2013/Valentina_Ursu_femei13/ [ 11 March 2017].

Even if the days of a war reporter looked different, however, they started the same "(…) I went early in the morning, if you had to get to the Cocieri plateau, you went via Molovata, after which you needed other 2 hours to return to Chisinau because the technical equipment of a reporter was different from that of nowadays. You had to pick the information, gather recordings, to return to Chisinau (…), although I used to include the phone for live reports, the most often I made direct live transmissions from the spot, from the battlefield, either from the office of the chairman of the Criuleni district, or from the mayor of Cocieri, or from the Police Commissariat from Tighina (Valentina Ursu). I was going in the morning and often I was forgetting about myself, I was forgetting even to eat (…). I had no fear, maybe for this reason I got to know so many good people, real patriots of this land, time was passing very fast (…)" (Nicolae Pojoga).

Nicolae Pojoga recalls that in comparison to those who were fighting, the war reporters only had the part of simple spectators "(…) I was going almost everywhere, I spoke with one person, another (…) (the military – a.n.) were a bit angry with us, who were walking here and there, blasé with the photo camera around the neck (…) I was the messenger of the parties, of what was happening in Chisinau, in the Parliament and there, in the trenches, my mission was never clear to me and is not clear even today (…)".

Valentina Ursu believes that she was advantaged as a military reporter "(…) I even felt favored because being a woman among men I could get to the risk areas, in the trenches etc. Fate was on my side, because I could obtain information (…), now I presume that a man would have had a hard time to get it. Many of the combatants became friends, good acquaintances, each time I returned it was not hard to find them to tell me about how an operation went, how they mobilized, how they retreated (…) etc.".

The hardness of the war, according to the testimonies of the military journalists, is in the death you see each moment. Death is what marks you irreversible – this is the message of the war chroniclers. Valentina Ursu says she saw so many human lives get finished, cases after cases, beginning with Cosnita, Cocieri, Tighina. "(…) The bloodiest fights were at Tighina, where soldiers who were 18 came even unprepared, they had no idea how to fight in an armed conflict, besides the fact that they were young and unskilled they were also left on their own. I remember the bloodiest Sunday, on 19 June in Tighina, which really marked me, because I saw how heads, hands, feet were flying apart and how bulldozers passed over those killed by the enemy's bullets (…). Out of fear there were many who ran away from the battlefield and who nowadays pretend to be big politicians and leaders of political parties (…)" (Valentina Ursu).

From the testimonies of Nicolae Pojoga we find out that he "got into an encirclement in the summer, at Tighina, and he did not see any way out of the situation". "(…) They were firing from all sides, and nobody needed you (…). I saw people dying near me, it was awful and degrading (…), death at war is not like in movies (…). I had the luck not to take up a weapon, not to fire, although now, after so many years, I have nightmares related to the moment when I was in the encirclement (…) fear, it is great, and it comes very late (…). At war, there are no feelings, no life, there is nothing personal, war is the most devastating feeling" (Nicolae Pojoga).

Referring to what the authorities knew about the evolution of the war on the Dniester, we discover the fact that "(…) Chisinau had no idea what was happening there (…)", both reporters affirm that in the capital of the country it was not known by far what was happening on the Dniester. Nicolae Pojoga mentions that there was a difference like between sky and land, "Chisinau had no idea (…), cold, no food, sometimes no ammunition (…). The combatants never felt the shoulder of Chisinau, this is a great tragedy – here there were celebrations over celebrations, discos, there, there was death (…)". Valentina Ursu recalls that "(…) in very many cases the realities from there and what was spoken here was not known". The conclusion she drew is that in the entourage of the leaders from then there were persons who did not inform objectively about what was happening there. "The greatest contrast was that there was shooting there (…), there was one weapon for three combatants, and in Chisinau there were discos from morning till evening, including the children of the great dignitaries had fun in bars and discos (…)" (Valentina Ursu).

Both Nicolae Pojoga and Valentina Ursu claim that those who fought in the war on the Dniester did not truly know their adversary or against whom they were fighting. "Compared to those from Karabakh, who were more psychologically motivated, based on the ethnic, religious factor, our combatants did not know to define for themselves what they were fighting for – for the damn separatists! On the other side of the Dniester, they were more prepared, they fought against Romanian fascism, against nationalism – vector which is important in a war" (Nicolae Pojoga). "It is true that Moldovans had a very strong enemy, a lot of criminal elements came, who were paid then US $1,000 each, an important amount for those times, including the 14$^{th}$ Army with military staff and latest weapons. Those who came said that they were looking for Romanians and they had to destroy the nation (…)" (Valentina Ursu).

Regarding the media propaganda conducted by the Russian Federation in the region and not only, Valentina Ursu concludes that "(…) the war on the Dniester even if it was won, then it was only thanks to propaganda and the ideology the mass media from Russia (…)", thus Russian propaganda in the

war on the Dniester was decisive in the fact that Moldovans lost it. "We know very well the "Maiak" from Grigoriopol, who told from morning to evening that Romanians are coming, that Romanian tanks have reached the Dniester (…) etc.". In his turn, Nicolae Pojoga believes that there is no ideal war, not even on a simple chess board you do not understand what the orchestra of forces is (…)".

The way the nonverbal discourse of those involved on the battlefield is represented is the key to understanding inter-human relations, which exclude ideologies and conjuncture adversities, because in any part of the world and at any time, human communities work naturally and only military quakes can affect for a time these relations. The reply of the war chroniclers Valentina Ursu and Nicolae Pojoga, related to this discourse may be seen as a pure human side caught by them. "Now I know well that there were members of the parliament who negotiated some things over the heads of the leaders, certain pauses such as those for Easter or Christmas. I have photocopies which show negotiations for ceasefire, documents which were signed by generals, who fought in Afghanistan, and there, in the Dniester war, they were suddenly fighting against each other (…) but they found common ground, putting great expectations in that armistice (…), but which was not liked (…)" (Nicolae Pojoga). Valentina Ursu claims that beginning with March until June she participated including in negotiations which were held between the Moldovan part, Russian part, and Transnistrian part. "In many cases they found common ground. They understood that the war was imposed and was not worth it to fight more, they got along, signed conciliations (…). I remember we were close to the monastery Noul Neamt (Chitcani – a.n.), and some of them said they would leave us alone, only to bring them a jar with wine and give them to drink a glass. After this on certain security segments an armistice lasted several days, but each time appeared provocateurs and those orders from above (…) to open fire had to be executed (…)" (Valentina Ursu).

Aware of the unjust character of the war, both Valentina Ursu and Nicolae Pojoga try to caution first of all the military combatants who fought on the Dniester. In this respect it is highlighted that the most wronged as a result of the war were the combatants. "They are nobody's people, they are so wronged, dissatisfied, marked (…) an indication is the multitude of war organizations which do not get along (…) according to the state they ask for too much, according to the combatants the state offered them nothing. Unfortunately, there was no contract between the state and combatant, there was none, and there will be none" (Nicolae Pojoga). "I saw death with my own eyes, but I cried out of pity for many combatants who killed themselves without being at war. It is a great tragedy for the Republic of Moldova and it should give great headaches to the government (…). Combatants who got to

the limit of poverty killed themselves. And this is not one, but tens, hundreds who got at the limit of desperation (…)" (Valentina Ursu).

## CONCLUSION

In this register of confessions we may conclude that the phenomenon of the war remains on the conscience of the survivors and posterity as dramatic moments and of discontinuity in the evolution of a community and not lastly in the individual biography. The confessions of the military reporters Valentina Ursu and Nicolae Pojoga, are found in a lexicon of shock and of the traumatic event which translates a difficulty in the understanding, and therefore in expressing the events seen or lived. The consequences of this war in contemporary history remain to be established and analyzed by historiography via the instruments of scientific investigation, which must contain a varied range of interpretative directions: social, political, economical etc., all constituting or reconstituting a chapter from the more recent history of the Republic of Moldova.

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# STRESS, VALUES, AND MOTIVATION OF SOLDIERS IN PEACEKEEPING MISSIONS IN CONTEMPORARY SOCIETIES

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***Abstract*:** Armed forces and their missions are closely related to contemporary social conditions and global relations, which are distinguished by a great level of complexity and uncertainty. Adjustment to these conditions requires a change in perception, training, and operating. Experience of soldiers during peacekeeping operations suggests that the high levels of stress, before and after the mission itself, merit special attention. While experience during the actual mission may differ in terms of the level of intensity, individual soldiers get the experience based on their assignment, while some stressors are experienced equally. With regard to soldier's values and motivation for participating in peacekeeping operations, it is clear that units of the Armed forces are not homogeneous and that motivations and values fluctuate based on the phase of the mission, as well as the age and rank of a soldier. It would be useful and sensible to apply such findings in designing the selection, training, and activities of soldiers.

***Key words*:** Stress, motivation, values, peacekeeping operations.

## INTRODUCTION

The global changes in societies, in recent years, have significantly changed the role of the armed forces and the competencies required of their members. This includes peacekeeping operations, which unfold in circumstances and in an environment that are structurally different than that of traditional military operations. Furthermore, times of increased terrorist attacks change the context of any military operation. Various types of global counterterrorism operations also require activities in remote locations, which poses unique physical, emotional, and mental challenges (Hoyt, 2006); instead of the traditional binary logic of "friend and foe" peacekeeping operations are fertile ground for polyvalent logic. The soldier's function changes from "following orders" to the role of watching, assessing, negotiating, etc., i.e. from the role of a party involved in a conflict to an impartial role. This is a shift from direct involvement to mere presence without involvement, to the

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role of mediator. How should a member of armed forces carry out this changed role in untraditionally defined tasks, when there is no longer a large contrast between the roles that are characteristic of traditional fighting, but when the soldier finds himself in a situation that is more likely to be unclear, confusing and indecisive.

The multiplicity of loyalty, polylogue, and pluralism of values are typical of postmodern society. It is harder and harder to say what is wrong, what is right, and, as a result, *who* is right. Nonetheless, relativism can quickly mislead us into apologizing away the fact that things remain unclear and that we do not take a certain side. This is not desirable.

Thus, it is difficult to achieve a final world view, perhaps due to a subject's unpreparedness to even form such a final world view. Reductionism, which should otherwise help us mitigate the problem of such indecision, is probably not sufficient any more. Western thought, from Aristotle onwards, which was founded on binary logic, on determinism and causality, has largely become invalid, especially in light of the development brought about by the information boom experienced with globalization. The amount of information that each and every individual now has at their fingertips was, until very recently, simply unimaginable.

In contrast, the 1960s were the time where the opposite was championed, namely a plurality of possible states instead of our familiar dichotomy. Many applications since then have been based on such logic, such as expert systems and cybernetics. Similarly to how in this case polyvalent logic has replaced binary options, the options "ally" or "enemy" are replaced by an entire continuum of choices, from friend, to neutral, to foe (or even "not unfriendly" or "not unantagonistic" or "third party"). This, after all, meshes well with the modern context of the modern world's tendency to be multifaceted and multilayered.

The armed forces must also perceive the world through different eyes, in accordance with this shift from mono to polyvalence. In short, it must be much more flexible, smarter, and it must think globally while acting decisively and locally. Since the complexity is greater at the strategic level of planning, the circumstances are no longer monovalent even at the tactical level. It is not known in advance whether a soldier or civilian is an enemy or an ally. The organization's reaction can no longer be planned and determined a priori, but must be handled locally, on the basis of circumstantial metrics. It is difficult for members of armed forces in the context of peacekeeping operations to shoot, yet at the same time remain "fair, firm, and friendly" (Dorfmeister, 1992). How similar the armed forces is to post-modern society is a question; however, there is no doubt that there is a general similarity, since armed forces are not separate from broader society. Often the links between the involved

parties are unclear and distinguishing between the various types of actors and observers is not always easy. Even ignoring the problems of converting political goals and targets to military plans, soldiers in unclear roles face a great deal of cognitive dissonance due to the "unclear enemy". At the tactical level there is an area that the unit covers that is full of potential hazards, but there are no strategic enemies. There are scores of the innocent, unknown, neutral, third parties, etc. the armed forces need a program that would help it keep involved parties separated (Segal & Eyre, 1996).

This all hints at the need to recognize and accept the characteristics of post-modern society that have been mentioned and the role of the armed forces that such characteristics require. This process is connected to the strong resistance displayed by traditional cultures, which have their own inertia. Politicians play a special role in this, since they must replace their macroscopic view of the world with a microscopic approach in order to transform from strategic abstraction to operationally concrete objectives. Soldiers must similarly replace their binary vision with multivariate vision. It is crucial for peacekeeping operations to achieve consensus at the national level – a fact often overlooked in the process of securing international consensus; after all, actors themselves at the national level – soldiers and other involved parties – are the ones who actually implement the plan. This makes recognition of local customs, such as speaking the language and understanding the culture, extremely welcome.

Several sides are involved in peacekeeping operations, specifically representatives of the international community, the country or countries contributing toward peacekeeping forces, the military unit, and the host or target country. The international community provides the necessary political and legal resources, while the organizational and material resources are provided by the country supplying people and funds. Implementation is entrusted to a military unit (contingent), while the "user" is represented by the host country or countries or other sides in the conflict.

It is challenging and demanding to think through the prism of all these various requirements. It is clear that the status has changed in the world, and many new missions call for units that can handle cultural and societal diversity, tolerate disunity, take initiative, etc.

The problems soldiers face are becoming more and more complex, and dealing with those requirements can increase cognitive dissonance and levels of stress.

Here it serves to mention the question of differences in understanding and experiencing the requirements between various levels in the armed forces, e.g. between the boots on the ground and commissioned officers. There are also differences in the perception of requirements, burdens, and measures

between various armed forces, especially in terms of who has what role and how important and extensive individual roles are.

In terms of the levels within the armed forces, it can be presumed that the difference in understanding between the higher levels of command and units on the ground has been reduced in the sense that a soldier is no longer simply an enforcer of orders, but must know how to independently, intelligently, and flexibly make his own decisions.

Regarding the other distinction, military and economic superpowers have a much more different position than other, smaller members of an alliance, due to their global political and strategic roles. This is due inter alia to the fact that larger powers are less flexible and they have a harder time appropriately reacting to changes. Peacekeeping operations can serve as an opportunity for smaller countries both to prove themselves and prove the worth of their armed forces, as well as to try out new approaches to peacekeeping. Smaller armed forces have proven to react better to new situations upon gaining new professional expertise than larger ones, which until recently termed peacekeeping operations as "operations other than war" (Segal & Segal, 1993).

The white and black dichotomous view of the role of military is thus preserved and it can affect soldier training as well as operations themselves. Exchanges among armed forces in European countries are for this reason different than exchanges with larger forces. Soldiers are trained more or less for military operations, which means using weapons and being willing to fight (MacKinlay, 1990). Jelusič (2007) says, on the other hand, that the use of weapons in the majority of peacekeeping operations since WW II has been extremely limited, and even then with light weaponry. This perhaps leads to an additional problem, as the weaponry used in such examples is not in accordance with the nature of some units and their members.

It can be extremely problematic when a rather inexperienced soldier, perhaps in his first mission after basic training, finds himself on the ground in a peacekeeping operation that is completely different from the missions he was trained for, operating differently, acclimating to new rules that he never learned before.

A soldier in a peacekeeping operation can fall into an ambush, suffer an attack, or be captured, even though he was trained to prevent such a situation in other circumstances. Despite the environment a soldier must act according to the regulations that are applied for the specific type of military operation he was assigned, whether that's peacekeeping or peace enforcement. The requirement to use force only with extreme discretion can provide for an extremely stressful situation for soldiers. The dichotomous thinking taught in

basic training if present could potentially fail to train soldiers for unclear circumstances.

This article aims to add some specific experience from various armed forces that took part in peacekeeping operations to the context in questions, as well as to soldiers' disposition to actively participate in the mission. It would be important to know how the specific experiences of armed forces included in peacekeeping operations are in tune with the described social changes. The stress that soldiers experience is the primary concern, followed by their level of motivation and their values.

The extant literature speaks of "stress syndrome" that members of peacekeeping operations experience (Johansson, 1997). The unique characteristic here is that soldiers are more afraid of losing control over their own aggression (or the tendency to actively react in critical situations) than they are afraid of external threats (Egge, Mortenssen, & Weisaeth, 1996). This means that it is stressful for soldiers when their authorization to actively participate in certain tense situations is extremely limited. Looking from another angle this is also often an accusation heard from certain involved actors, especially locals, complaining that, "they don't do anything, even though they should." This type of experience from the ground confirms the initial thoughts about the nature of contemporary military operations. The role of participants in peacekeeping missions is such that a soldier must protect himself, but often is not allowed to combat force with force. Such soldiers report the stress of low levels of intensity and not, for example, of direct danger to life or limb, or any other external threat. The cumulative effect of these "minor daily hassles" can pose an even larger threat than the occasional incident with shooting or other existential danger. Tušak, Marinšek, and Blatnik (2017) maintain that the most common causes of stress are inter alia a conflict or lack of clarity about roles, shift work, or organizational problems. Organizational problems, specific to the particular armed forces of an individual country, can compromise the effectiveness with which assignments are carried out.

Bartone (1998) and Litz (1996) stress that some of the burdens that soldiers face (e.g. isolation, the lack of tasks identified as important, monotony, familial concerns) that are key in understanding the stress soldiers experience on their missions. Britt (1998) and Britt and Adler (1999) add to this set of circumstances, which correlate with the stress soldiers experience, significant additional burdens like difficult weather conditions, a long working day, being separated from partners, etc. Britt (1999) says that it is imperative for preserving the appropriate level of inclusion and participation of soldiers to have clear guidelines, appropriate self-monitoring, an experience of the

purpose behind actions, the appropriateness of training, and the strengthening of identity in both accomplishing tasks, as well as in the mission itself.

Studies into the level of burden that soldiers display have yielded interesting results. Members of peacekeeping units had more psychological problems before the beginning of their operation than after it (Paiva, Cerdeira, Rodrigues, & Ferro, 1997). In a study of Portuguese military units these problems were primarily focused on three areas of emotional experience, namely "paranoid ideation" (hatred, suspicion, lack of autonomy, persecutory thoughts, projections), "hostility" (boredom, conflicting communication, emotional outbursts in relationships), and "obsession" (obsessions and compulsions). It is possible to explain these signs as a result of a lack of clarity, the novelty and uncertainty involved with the mission, as well as the already mentioned expectations of somewhat atypical tasks and activities that characterize peacekeeping missions.

It also became clear that soldiers who are not commissioned officers and NCOs experience a higher level of stress, and that the levels of stress were lower after the mission than before it. Members of peacekeeping units who spend less time serving have higher levels of stress. However this correlation is not so simply linear and depends on how long the unit has been operationally active. Soldiers in special forces units experienced higher levels of stress.

Often a soldier's level of stress corresponds to his views of peacekeeping missions (De Soir, 1997). Many soldiers did not expect to be employed abroad in crisis situations when they entered the armed forces, and therefore what happens there can prove quite stressful. The relationship that a soldier has with the mission itself, or the way they view its merits, can also be a source of stress. This is an old and recognized problem, namely how to choose soldiers that will go on peacekeeping missions, as well as the problem of adjustment (personal and organisational) to new environment and new tasks. Adjustment takes some time but they adjust themselves in certain period in time.

The main stressors affecting the Portuguese before the beginning of its mission were (Paiva et al., 1997) fear of injury (mines, snipers), dealing with hunger, cold, and general discomfort, fear of undisciplined soldiers, stress, fear of missing and craving unattainable things, fear of routine, unprepared fellow soldiers, and insufficient training.

Layes and Kammhuber (1997) assert that German peacekeeping soldiers in Cambodia and Somalia reported on their fear of possible kidnapping, and of being held hostage, being seriously injured, and being killed. They expressed surprise later that such events were rather unlikely. They also reported being afraid that they wouldn't be able to complete their

tasks with sufficient quality. A strong stressor was also identified in the problems the soldiers expected to have while separated from their families. Other things that are especially stressful are potential health problems soldiers or their families can experience, preparations ahead of the start of the mission, and conflicts with superiors and colleagues.

During the mission itself the main source of stress is a soldier's lack of contact with his family, the feeling of isolation and loneliness, daily routine and monotony (65% of respondents), living conditions (46%), and a lack of information (30%) (Paiva et al., 1997).

The monotony is connected to boredom and can lead to an increased likelihood of interpersonal conflicts within the unit (Bartone, 1997). This also means a drop in the unit's cohesiveness after a certain period of time (Vaitkus, 1994), for instance after 3 months in the case of American units in Sinai (Bartone, 1997). For the first three months the unit's cohesiveness increases. These results, however, are not consistent, as we have evidence, on the other hand, from the 12-month IFOR mission in Bosnia, where cohesiveness increased for the duration of the mission. Even later in the mission's middle phase and toward the end, the main source of problems – in addition to the mentioned boredom – were conflicted interpersonal relationships, especially at the end and even with superiors.

Let us recall the above statement that stress decreases over time. Rather, stressors may change when adapting to new conditions on the ground change, stressors that otherwise, if you quantify them, are less significant but more stable, and may persist to the end of the mission, even increasing before the end.

Chambel and Oliveira-Cruz (2010) report that the frequency of burn-out among soldiers increases during the mission if the extent of their inclusion in the mission itself is reduced.

According to the experience of the Dutch (van Slagmaat, 1997) some 1.8% of members of peacekeeping missions are sent home early due to psychological issues. The Danish , on the other hand, (Andersen, 1998) sent home 2.5% of soldiers. It is customary for this part of the population to be rather young and uneducated. They also scored lower results on the part of the survey addressing the locus of control, meaning that they attribute the causality of things happening to them to external factors. A psychological survey aims to identify such soldiers in advance, measuring their level of psychological problems (paranoid thoughts, bizarre actions, delusional ideas – inaccurate perceptions that have no basis in reality and have nothing to do with the individual's cultural and educational background, such as e.g. an unfaltering conviction about the guilty party in a given incident). The psychological reasons are of course not the only ones that cause individuals to

return home ahead of schedule; Dutch evidence indicates that health problems can be as common cause as psychological ones. Disciplinary troubles and criminal activity do not stand out significantly in importance as causes (van Slagmaat, 1997). It is of interest to note here that the Dutch and the Danish indicate substance abuse as a category separate from psychological problems. In fact substance abuse is listed as a reason for premature discharge at a rate three times less than the three most common reasons listed above (psychological, health, and disciplinary issues).

Researchers in Sweden (Johansson, 1997) found that the main reason Swedish soldiers prematurely abandoned peacekeeping missions was a problem with the family. This hints at the obviously diverse background of the composition of soldiers that units in peacekeeping missions have, which would be a good thing to explore further. A positive and favorable social and familial situation is the single greatest factor protecting soldiers from stress (Adler, Bartone, & Vaitkus, 1995; Willigenburg & Alkemade, 1996). The Danish study also found a significant correlation between family problems and stressed reactions at the end of a mission (Bache & Hommelgaard, 1994). This is certainly understandable, as if participation in the mission itself increases or deepens family problems, then it is completely understandable that this causes additional problems when returning from the mission.

The Belgian commonly deals with soldiers who deny feeling unpleasant emotions upon returning from missions (De Soir, 1997). The period after returning from a mission is often called the honeymoon period of readapting to family life, which produces what is called the "tunnel effect". Soldiers often say: "I don't want to talk about what happened there; let's talk about something else; life must go on..."

A common way of adapting is found in the conviction that those who were not there cannot understand, and in seeking support from friends who were there. Many also avoid emotional expression by being pensive, praying, meditating, or emphasizing their improved confidence in professional contexts as compensation for emotional problems.

Caforio (2015) states that in the Portuguese example the largest amount of stress was reported after returning from a mission because of readaptation; this means that it was less stressful to be separated from one's family than to carry out their soldierly duties.

The Danish experience (Andersen, 1998) shows that 16% of their soldiers had psychological problems after returning home, including 2.5% with serious problems. Primarily the difficulties were in interpersonal problems, depression, aggressive reactions, and PTSD, which includes symptoms of agitation, experiencing stressful situations, etc. The biggest predictors of problems two years after the end of a mission were interpersonal problems

right after returning home, as well as how the soldier was received when returning to their domestic environment. These two things form a more important predictor of long-term problems than mere exposure to stressful situations.

Thus a brief review of various experiences from peacekeeping missions shows that the methods soldiers employ to adapt to peacekeeping missions is also quite unique. The "planned suppression" of military activity therefore can be linked to certain problems that soldiers face, as they must mitigate their own desire to be active. In terms of stressors, it is clear that stressors that are typical of the period leading up to a mission and immediately following its beginning eventually disappear. These are primarily separation from the domestic environment and uncertainty about the new situation. Monotony, boredom, and a range of minor stressors are primary throughout the whole period of the mission, and they have a cumulative effect. This reduces the unit's cohesiveness and this is seen inter alia in an increased number of interpersonal conflicts.

An extremely important detail that it is possible to infer from these is that the mission does not end upon returning home. Coming home might even be a more stressful situation than deployment, as at least the soldier is prepared for deployment. The stress that builds up must be addressed; otherwise it could cause undesirable long-term consequences.

As stated, it is interesting in terms of the experience of armed forces in the motivation and values of soldiers in peacekeeping operations, in addition to their levels of stress.

The nature of atypical military operations is, as said, that they require more or at least differently trained soldiers, with a higher level of intellectual potential, who are more motivated and more result oriented. This shift towards the subjective is not just a shift that is characteristic for armed forces, but much more broadly, as subjectiveness is one of the main characteristics of postmodern society, especially among young people.

These are the values of self-actualization, with targeted values in the forefront, like accumulating material wealth, achieving economic security, consumerism, and satisfying the needs of the individual. This is markedly different than the values of premodern society. On the other hand, the values of participation, aesthetic, and self-actualization differ from those focused on gainful endeavors in that, they are not so connected to materialism, and are therefore postmaterial.

As far as values are concerned it is more of a question of what kind of relationship individuals establish with the system itself, instead of the composition of the organization of armed forces. In the age of modernism this relationship was fundamentally grounded in loyalty; loyalty to the armed

forces helped an individual achieve personal goals. In the postmodern age, however, this relationship between the armed forces and the individual developed more towards self-expression and the achievement of independence and identity.

The continuation of this article will further present findings from a study on motivation among soldiers in the Italian Armed Forces working in peacekeeping units in Somalia, Albania, and Bosnia (Battistelli, 1997).

The values that were the characteristic of these soldiers were divided into three groups (Battistelli, 1997), namely premodern or paleomodern (motivation that is slightly connected to material viewpoints of participation and altruistic orientation, e.g. being useful for other people, promoting the image of one's home country, serving ones homeland, being part of society – loyalty); modern (the importance of material gains, self-orientation, e.g. additional earnings, learning things that are useful for a career or civilian life, achieving the advantages of a stable, safe, and permanent career, improving one's social position, entering the workforce); and postmodern (reduced importance of material gain, more pronounced self-orientation, e.g. visiting new, foreign lands, testing oneself, gaining personal experience, experiencing adventure).

An analysis showed three primary factors behind motivation, which all overlap (Battistelli, 1997). The factor that explains the majority of this variation was still the "premodern motivation" (the traditional military motivation). The second-largest factor was the "modern motivation", which primarily refers to economic and career-based reasons. In the third place, there was "postmodern motivation", referring to expressive needs that are focused on the needs of self and self-actualization.

The experience of Portuguese soldiers included in peacekeeping missions (Paiva et al., 1997) shows that the most important motivator for them was material, therefore the modern type. After this followed postmodern motivation (adventure, new lands and new peoples), "real combat" environments) and escaping the monotony of life on base. Meanwhile for Swedish soldiers in peacekeeping operations, this last set of motivators proved the most important, namely the possibility of authentic and exciting experiences, as well as the chance to form contact with people from different cultures (Hedlund, 2011). This is linked to the standards of living in the countries that members of the military unit come from; here, for instance, we are referring to the generally high Swedish standard and the lower Portuguese standard, etc. Such differences lead to variations in the significance of the different types of motivation soldiers experience, e.g. the different perspective of the Swedish soldiers.

Slovenia's soldiers are younger, generally unmarried soldiers, who emphasized the attractiveness of mere participation in peacekeeping missions, as well as the opportunity to represent and promote their country abroad. These motives were followed by economic factors, the chance to help a local population, and the experience of participating and learning about new peoples and cultures (Jelusič, 2007).

The values that proved most important to the Portuguese were by and large postmodern, as follows: achieving good results, using and testing one's own abilities, personal development, interpersonal relationships, and improving one's material living standard (Paiva et al., 1997).

On the other hand, Italian soldiers in peacekeeping missions listed modern types of motivation as the least important. Premodern motivation was the most important to higher-ranked officers, while younger soldiers tended to favor postmodern ones.

This proves that there are not just intersocietal differences, but also intergenerational ones, among younger officers who are more interested in self-actualization, adventure, and in testing themselves. The increase in age correlates with an increase in the tendency to attribute to oneself more traditional values, which are clear and which provide a feeling of security. Here I must also include the sense of security provided by higher income, improved standing, and similar factors.

This means that the values and affiliated motivation change over time and consequently also in the process of socialization. This does not mean that the question of satisfying needs is unimportant or that the typical "military" view of the world does not exist. This can be explained by the fact that a soldier's early training, which is most the characteristic of premodern society is untypical for modern or postmodern soldiers, who arrive at the former, through socialization over the course of their military careers.

In the less clear situations that have been mentioned several times it is important that a soldier sees and feels the purpose of his actions, which can help him establish a sort of justification for a given military operation. This should result in a sense of security and continuity that would otherwise be impossible for a soldier to obtain from the situation itself. Changing the type of mission also requires an appropriate adaptation of soldier's social roles, or to put it more simply, soldiers must adapt to the philosophy behind a given mission. Among the armed forces it is especially necessary to have a transition between the "classically trained" soldier, who assesses situations in terms of binary logic, and the soldier's actions on the ground during peacekeeping operations. This transition or transformation can be ensured with the right training, which results in more flexible ways of thinking.

Motivation can also change within the course of a mission. The case of the Portuguese showed that officers were more motivated before a mission than others, but that, comparatively speaking, their motivation fell the most (Paiva et al., 1997).

An analysis of the thought processes of the soldiers in the Italian (Battistelli, 1997) showed four different types of participants in peacekeeping units. The first group was made up of "warriors". This group is further broken down into "international" and "isolated" warriors. The former are older and more educated than average and they condone the use of force more. They say that the use of force should be allowed during peacekeeping operations and they like the stereotypical characteristics of military life, like hierarchy, discipline, the uniform, combat, using weapons, taking risks, and camaraderie. They have a high level of patriotism and want to serve their homeland. Further, they are strong proponents of the need for international military interventions in conflict zones. Their motivation is mostly premodern and postmodern. The others were "isolated" warriors, who were characterized by national pride and complete acceptance of the military idea of serving one's country and nation, as well as by indifference to questions related to the other countries. This group also shows a higher level of intolerance to foreigners. Mostly these are volunteers whose contract with the military is for a relatively short period of time and they also have the lowest level of education. They have a modern type of motivation that is instrumental, meaning that it is the instrument by which they achieve a certain objective; nonetheless they show an extremely strong loyalty to military ideals.

"Centrists" made up the other large group, in fact the largest single group of 40% of soldiers. The motivation this group shows is often a mix of paleomodern and postmodern. The group is also fairly well balanced in terms of rank, station, and age. As the name implies, this group is somewhere in the middle of the axis stretching from "humanitarianism" to "combat". Perhaps this group is a typical indicator of how it is difficult to determine exactly what a member of a peacekeeping mission should be like, as in contrast to a combat soldier, the role of the peacekeeping soldier is not entirely clear.

The third group was named the "humanitarians", as they are most oriented away from the "traditional ideology" of the military; they make up 15% of soldiers. Just as some "warriors", these soldiers are humanitarians and internationalists; we might even call them pacifists. This means that they do not approve of the use of force in peacekeeping missions. They do not consider combat a prerequisite for serving their country and they often agree with the idea of increasing immigrants' rights. No single type of motivation outshines the others (80% of such soldiers are volunteers). The level of education in this group exceeds the average. The last of these four groups or

types of soldiers in peacekeeping missions are "stationary" (16% of the whole sample), which means that they are also moderate like the centrists but they are, it could be said, "less organizationally correct" than the centrists. They are less likely to support using force in peacekeeping missions as centrists are. Further, they are less passionate about serving their country and have a more positive stance on questions of an international nature. Their motivation is more "modern" than the centrists'. This means that they are most attracted to the security of a job in the military. The military seems to them just as other institutions where they could work (e.g. they do not stress the difference between any company and the military). Even though they are well-socialized in terms of the demands that peacekeeping missions place on soldiers, they are less prepared to take risks to achieve the organization's goals and they place personal safety ahead of institutional objectives. This group, compared to the total sample population, included slightly more volunteers, unranked officers, and a lower level of education.

It is clear that members of armed forces in peacekeeping operations have diverse perceptions and representations of the world, and these are in many respects different than the traditional military perception. It is a significant change, one that refers to the "traditional" military logic, which is binary and which implies a dichotomous view of the world. This doesn't mean that binary logic is wrong, but rather that it is somewhat simplified, as it does not cover all the possible contingencies that are characteristic of the new requirements that a soldier is faced with.

Furthermore, a peacekeeping mission itself can differ greatly from mission to mission; they can be, for instance, expressly humanitarian in nature, they can be used to enforce peace, to keep peace, and several other forms.

Solidarity will take a prominent position in largely humanitarian missions, and this will most match the interests of those with paleomodern motivations. In peace enforcing, there is likely to be more action, and thus will likely suit those with postmodern motivations the most. Usually young soldiers are "postmodern", while older members of peacekeeping mission include more NCOs with a paleomodern type of motivation (aligning with the described categorizations of motivation types). Comparatively older commissioned officers are primarily influenced by the modern type of motivation.

All of this makes sense if, of course, it holds that the satisfaction of various actors correlates to the effectiveness of their work.

Do soldiers in the "traditional" sense of the word hate peacekeeping mission or do they like them? The answer is not an easy one, but it seems as if soldiers are generally content after arriving home from peacekeeping missions. Satisfaction is found in many different places, as the needs of each individual vary. It seems that two of the described types of soldiers in peacekeeping

missions are less suited to such operations; "centrists" are somewhat indifferent and have lukewarm feelings about their military job and peacekeeping operations, while those who are "stationary" do not have a lot of enthusiasm, especially not for peacekeeping operations.

On the other hand, "humanitarians" enjoy peacekeeping mission and have what we have deemed postmodern motivation, and "warriors" enjoy their military occupation and have premodern (paleomodern) motivation. Both are probably more suited to working in peacekeeping mission.

Traditional military logic (binary, dual valency) sees peacekeeping operations more as a development of the traditional aspects of war. Instead of traditional ideology these days there is contemporary ideology, which tries to reinterpret peacekeeping missions through the perspective of the macroscopic environment from where soldiers come (postmodern society) and through the perspective of the new local environment where the peacekeeping operation is being held. These other ones are young and less educated. Given the fact that there is still no convincing definition of what a peacekeeping operation is, it seems that the answer is actually a conglomerate of experiences that the actors themselves acquire on a daily basis on the ground, instead of a tried and true definition. This poorly structured situation, in which we must consider a bottom-up approach from the specific to the general, as well as the incomplete adaptation of the organization(s) (, etc.) to the new requirements (organizational vacuum), is not necessarily bad. The armed forces, that are prepared to "open their eyes", observe the new situation, and ultimately accept it, can prove to be an invaluable resource for effective work in the future.

## CONCLUSION

The armed forces are the part of society, so it must adapt to changes in society. This primarily means that the role of a soldier or individual in the armed forces is quite specific and complex, and that the soldier must be trained according to the actual conditions in society and for the roles the soldier will play. The approach to training must be tailored to the unit's tasks within a social environment, and at the same time this entails a more personalized approach to individuals. Values and associated levels of motivation vary from individual to individual, and this determines the way a particular soldier behaves. Knowledge of the specific stressors and how individuals react to them can assist in selecting the right soldiers to send on missions, training those selected for specific peacekeeping missions, and understanding and handling less than successful methods of adapting to new situations. This all should lead to an increase in the satisfaction and efficiency levels of people in the units assigned.

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# INHERENT STRESS FACTORS TO SERVING IN THE ARMED FORCES

**Jacques J. Gouws**[*]

***Abstract*:** Military service requires resilience and resourcefulness to cope with the extreme demands placed on individual soldiers and their units. These constructs must be understood as collective, rather than individual skills being applied during military operations. Individuals with the capacity to adapt to challenging, rapid changing operational demands cope better with adverse memories than those who lack the resourcefulness to assign positive meaning to these experiences. Disintegration in otherwise resilient and resourceful individuals arises from the inherent pathology of military operations.

***Key words*:** cohesion, vertical cohesion, horizontal cohesion; combat, combat experiences; constitutional dissonance; coping; deployment, deployment experiences; guilt; psychological injury, physical injury; meaningfulness; media reporting; militarism, military operations, military training; mind-body dichotomy; peacekeeping; perpetrator; psychological stress reactions; resilience, resiliency; resourcefulness; self-criticism; sense of coherence; shame; social norms, socialization; stress factors, stress reactions; trauma, trauma reactions; victim; warfare, pathology of warfare, war stress.

## INTRODUCTION

Soldiers' perspective on what constitutes psychological stress reactions must be understood in the context of how they experienced themselves during the performance of their training, deployment, and subsequent roles. What is not well understood in mental health is that their roles in combat create for at least some soldiers a sense of being both the "victim" and "perpetrator" of the combat actions they were engaged in. This is because, regardless of the reason to engage in war operations, the fall-out of combat actions is often completely contrary to the morality of the society soldiers came from.

What is more, while deployed in theatre soldiers can rely on each other and share the feelings they have about their combat experiences, but these circumstances change when they return from deployment and are reunited with their families and friends in their home country. In addition, once back in society after deployment, some soldiers who had been emotionally negatively affected by what they had done often experience the negative aspects of their

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deployment more intensely, especially if media reports also present a negative picture of the deployment. This in turn causes an inner turmoil, often consisting of shame, guilt, and self-criticism that can be quite devastating to the soldier. Unless this personal and internal conflict is resolved promptly, it may erode the well-being of the individual soldier to the point of causing mental health concerns. (Gouws, 2017).

## WAR OPERATIONS

One cannot fully understand the impact of war operations on soldiers unless one also considers what lies at the core of the war-engagement decision-making processes before nations go to war. Stoessinger (1992) in one of his landmark works on war questions the archaic arguments on the causes of war:

> "I read that wars were caused by nationalism, militarism, alliance systems, economic factors, and by some other bloodless abstraction that I could not understand… Often I was told that war was an ineradicable part of human nature. ...I wondered if this could be true... The conventional wisdom... somehow always missed the human essence of the problem. After all, wars were begun by people. Yet this personality dimension was seldom given its due weight in traditional books on war. Instead, forces over which men had no control often were enthroned as "fundamental" causes." (p. ix.)

When governments engage in war operations, they argue that these "fundamental causes" leave them no other option but to act aggressively. In this, they commit the country's most able, fit, and healthy young people to face *the Enemy*, how and for whatever purpose so defined. This is made possible because those who are willing to serve their country in the military have already committed themselves to a belief system by which they rationalise the laying down of their lives for the country as noble and good. Soldiers are a special group of people who, without question, will abide by whatever orders the government and its military commanders give them. What emboldens them to diligently perform their allotted tasks in service of their country during deployment is the justification put forward in the political narrative on why they are being deployed.

However, the horror of war quickly forces those who participate on the frontlines to conduct their own analysis of why they were deployed. The

advances of modern media and communications add a new component to this analysis. Soldiers who had served willingly, but had started to search for the "real" reasons why they were deployed, can use this to put role of political personalities under scrutiny. Often they express their very disappointing conclusions, although not as eloquently and diplomatically as Walsh (1971):

> "It is now quite universally recognized that the superficial and naive statement that war maintains the balance of nature in humans in the same way that predators do in the animal world is a myth, since the present studies show that the expression of naked aggression, manifested through the destruction of other human beings, is largely led and initiated by psychologically abnormal individuals.
> One can say with certainty that the time-honored human habit, unfortunately not rare, of placing nations under the control of psychologically abnormal, aggressively perverted persons, together with the modern factor of the ever-increasing new invention of massive weapons of destruction, is certain to be suicidal for the human race unless interrupted. This tendency of societies to select psychiatrically and pathologically charismatic abnormal individuals, of the nature of aggressive perverts, to control nations and to lead them into war indicates that intra-specific aggression in the human race has gotten out of hand and has become a serious threat to the survival of the species. This can only mean that natural selection in the human is being interfered with, and that unconscious forces, basically responsible for the existence of aggressive perversions as well as for the uncanny ability of such pathologically charismatic individuals to seduce normal human beings into selecting them as leaders and following them to death, can effectively upset the balance of human nature and can brutalize and destroy human beings *en masse* with enormous damage to the painfully attained process of civilization." (pp. 6-7)

It is against this background that soldiers are affected by the way that the society (of which they are a part) and their government may reinterpret the rationale for which they had been deployed in the first place. Often the original rationale for going to war had changed so much by the time the deployment or even the war ended, that it is almost impossible, when reading government press releases, to come to an understanding of the logic that brought about the

war in the first place. This political reinterpretation of the rationale for deployment and combat missions adds another significant stressor to the already existing and very challenging stressors arising from the deployment and combat experiences soldiers had been exposed to, as well as the difficulties some of these soldiers face when attempting to reintegrate into society after they returned from a deployment.

## MEDIA AS A SPECIFIC STRESSOR IN MILITARY LIFE

In modern warfare, even without the politically-based stressors touched upon briefly, soldiers are faced by a number of inevitable physical and psychological stressors. Some of these stressors are directly related to the various roles assigned to units to achieve the government's war objectives. Each of these roles have its rules of engagement, each deployment its apparent designated objective of either peacekeeping, support, or combat. Modern communication technology added another significant stressor to these roles-based political dictates: soldiers and their actions are placed under scrutiny by journalists, whether freelance, embedded, or independent. These journalists use advanced technological media that convey vivid, real time images of events in theatres of war, reaching audiences worldwide. Soldiers, when they return home, face both the positive and negative reactions of their respective societies to this perpetual war reporting. More often than not, society is questioning their role execution during the deployment. Whether serving as part of an alliance, such as NATO operations or UN peacekeeping, or acting in defence against armed aggression levelled at a particular nation, individual soldiers are held responsible for every single act they committed or omitted. The cases of British Marine A and USA military guards' actions at Abu Ghraib prison are two examples that illustrate the impact of such reporting and the consequences for individual soldiers.

Not only media images such as these examples, but also images of the constant conflict between groups in various parts of the world fill TV screens in every country. Often the images of atrocities in conflict areas cause groups of people, sometimes even nations, to react in dismay and shock at the indiscriminate violence and destruction they witness on their living room TV screens and handheld devices. In response, calls go out from segments of a population for governments to act and find ways to stop the aggression, the violence, the destruction and, most of all, the killing and maiming of innocents. Invariably the first choice of action in finding a solution is not a diplomatic one. Safe from the real (but not necessarily the political) dangers of military deployment, the government of the day can be relatively unconcerned about the consequences of publicly supported military options – this simply

because their soldiers have been trained to perform the operations required of them.

Simultaneously it seems particularly peculiar that governments' deployment of the military in various roles rests on a belief system that assumes that the stressors involved in warfare are no different from those in any other civilian job. What is never openly talked about, and will never be acknowledged by governments, is that soldiers, as normal human beings, are expected to engage in what is essentially abnormal and illegal behaviour, except that both these abnormal and illegal components are government sanctioned.

This is the elephant in the room: because actions, otherwise illegal and abnormal, have been government-sanctioned they are deemed legal and normal, even if often it transpires that they were not. To make the point: there is a plethora of books and articles on the legality problems with particularly the Afghanistan and Iraq wars, yet it appears as if very few international political leaders even considered the possibility that, by engaging in these wars, especially in light of the many thousands who have been killed, injured, and displaced, there also may come a day when they may face a Nurnberg-type trial for these actions. While history so far indicates that individual soldiers, and especially those of the lower ranks, have been prosecuted for a variety of unacceptable actions during their deployments, very few senior ranks had been held accountable for what took place under their command.

## CONSTITUTIONAL DISSONANCE

Humans are psychological, social, philosophical, moral, and spiritual beings. This human constitution is established at birth and modified throughout a person's lifetime by the society of which that individual is a member. Each society has its own set of rules by which the behaviour of its members are determined and prescribed, including how they interact with each other, as well as with people who are not members of that particular society. Furthermore, each society has a set of values, defined in its moral codes, by which that society lives. Moreover, every society prides itself on the degree to which it had developed its place within the world, including their knowledge base and wisdom on which they base the solutions to problems within their society. Every society also has an understanding of itself and its beliefs about the meaning of life, what it holds sacred, and the reason why things happen. Thus, regardless of the society in which one grows up and/or eventually lives, there is a set of moral values that dictates the value of life and property, there is a set of social values that determines interaction between individuals and groups internal and external to a society, there is a philosophical/cultural

component reflecting the knowledge and wisdom of the society, and there is an expression of spirituality in the spiritual belief system, however this may be defined. The result is a complex combination of societal dictates by which an individual is judged and then either accepted or rejected within society.

The one place in society where this complex set of dictates is entirely altered is the military organisation. When committing to the defence of a particular society, starting from the day they are recruited, soldiers are trained to look out for their own and to destroy with all their might everything that poses a threat to their society. Indeed, one could claim that the primary function of military training is the alteration of the constitutional socialisation that had taken place up to the time of recruitment by adding a new value set: treasuring one's own society above all else while detesting all others. Military training is thus a reprogramming process with a flaw: in the aftermath of combat and when returning to society, these reprogrammed individuals are expected to return to their pre-recruitment level of function as if they were never reprogrammed. Put another way, following return from military operations, including combat, there is no deprogramming of individuals to restore them to the same constitutional socialisation they had prior to military service.

The core of all warfare entails politically and socially approved - hence legitimised - killing of persons outside of a defined group while protecting persons inside of that defined group. This creates an inner conflict of what are extreme opposites resulting in two conflicting moral laws for the same, identical act: permitting the murder of one group, but not another. War, therefore is pathological in that it places the soldier in a situation where the previously socially inhibited emotions of fear, hate, revenge, and aggression are now required, encouraged, and permitted against all who are outside of one's own society. Indeed, against the enemy anything goes - what would be punished if perpetrated against one's own group is approved and even rewarded when perpetrated against the opposition. Hence, what is a heroic act against the enemy forces would be an act of murder, terrorism or treason if committed against one's own forces and/or society.

At the core of political manoeuvring that results in the waging of combat operations, regardless of whether these are coined "peacekeeping" or not, is the expectation that soldiers will follow the orders issued through the political channels. It also presupposes that there exists within the military a culture, a trait, and a special attribute that would enable otherwise normal, well-functioning people, trained as soldiers, to venture out and face adversity at its most extreme in settings that may well cost them their lives. What is frequently forgotten is that soldiers are normal people who have been selected and trained to perform abnormal sets of tasks that are completely contrary to

the general civilian belief system about the value of human life and property. Conversely, had these soldiers been operating as a street gang or within an organised crime ring (rather than as an official and legitimate entity of the state, the military) they would be considered criminals and murderers. However, the fact that they are legitimately killing other humans and destroying property by order of the authorities does not prevent them from experiencing the normal human reactions to these abnormal and often horrific actions.

No training and no sensitisation can prepare soldiers for the actual experiences that await them once they engage in combat deployments. Hence, it should be expected that a certain percentage of soldiers may decompensate during combat deployments because this is the natural course of human behaviour to have emotional reactions during exposure to extreme circumstances. This decompensation of soldiers should not be considered a failure of psychological testing, training, selection, or personality, but should be accepted as the normal reactions to the abnormal circumstances that are completely contrary to the value system that had been instilled in soldiers before they were recruited to serve and to protect their country. However, there is a tendency to attribute these normal reactions to a lack of resilience and/or deficient resourcefulness. This of course, is a critical thinking error, because it does not properly identify the problem, viz. that normal people reacted normally to abnormal events, even though they may be trained soldiers deployed in combat operations.

Again: this is not a shortcoming in testing, selection, training, or personality; it is a manifestation of being a normal human. There is thus an obligation on governments to ensure that when they deploy perfectly normal human beings to engage in extreme actions, the rationale for the deployment should be beyond reproach. If not, this would add significantly to the psycho-emotional stressors soldiers have to manage post-deployment. This additional stress may well become the proverbial straw that breaks the camel's back and add significantly to the cost of care for returning soldiers.

## PSYCHOLOGICAL STRESS REACTIONS: TOWARDS A DEFINITION

An important component of being human is that people are seen as consisting of a distinct duality. The dichotomy *mind-body* that splits humans into physical and mental entities complicates the understanding of soldiers' stress reactions. By nature humans are both biological (from the Greek σῶμα [soma: physical body) and psychological (from the Greek ψυχή [psyche: soul, mind, spirit]) beings. It is therefore also necessary to pay attention to the

biological constitution that is altered by sustained high stress when deployed as much as to the complex interaction with the alterations in the psychological, moral, social, philosophical and spiritual constitution of a person. Hence, stress reactions in soldiers manifest both physiologically and psychologically. Therefore, recovery from psychological stress reactions, however minor, must involve both the biological and the mental spheres. Given the primary focus on psychological stress reactions, the biological component falls outside of the discussion parameters for this component of this chapter.

Military deployment is a *political* action by which *ordinary people* are ordered to engage in certain *abnormal actions* (i.e., killing others in combat) with no other aim but to achieve certain *political goals*. Against this background the following definition by this author of Psychological Stress Reactions (PSR) aims to address the core issues affecting soldiers during and after deployment:

> Psychological stress reactions involve all of the physical, emotional and psychological reactions experienced by an individual soldier during and in the aftermath of deployment. These reactions evolve with or without direct involvement in combat, but are inclusive of exposure to the rigours of modern warfare both in theatre and home-base. Psychological stress reactions cause alterations in the core values that comprise the psychological, social, philosophical, moral and spiritual constitution of an individual soldier. The vast majority of soldiers adjust to these constitutional alterations and continue to live essentially normal lives. In some individual soldiers these constitutional alterations become observable as emotional/psychological reactions, occurring solely because of physical injuries sustained, or in addition to the emotional reactions to physical injuries suffered, or in the absence of any observable physical injury. In some soldiers these constitutional alterations may cause serious physical and/or mental health disability. In some soldiers the sense of disillusion with the existing political, societal, and military systems that contributed to the alteration of their original constitution may bring about a conviction of systemic betrayal of the individual soldier and even the unit. Regardless of the manifestation thereof, psychological stress reactions can greatly undermine morale, combat readiness, and esprit de corps. Psychological stress reactions also have the potential to cause such panoptic alteration in the psychological, social,

> philosophical, moral, and spiritual constitution of a very small minority of individual soldiers that it may lead to the application of acquired military skills to engage in physical and even violent actions designed to redress the perceived betrayal of core values inherent to the individual soldier's constitution.

As the above definition indicates, psychological stress reactions comprise significantly more than purely soldiers' mental health conditions or moral orientation as conceptualised in the research and treatment literature. Psychological stress reactions arise from an extremely complex interaction of core values that make up the psychological, moral, social, philosophical, and spiritual constitution of a soldier. This constitution is altered during deployment, regardless of whether that soldier actively participated in combat or not.

Given the pathology involved in warfare, most, if not all soldiers who had been to war would experience some alteration, however minor, in their constitution's core domains. However, it is the nature and severity of the constitutional alteration that determine whether or not there would be recovery to relative normalcy following exposure to psychological stress reactions. In essence, all of the psychological stress reactions that an individual soldier may experience, whether diagnosable as a mental health condition or not, are included within this definition.

Another important component of being human is that people are seen as consisting of a distinct duality. The dichotomy *mind-body* that splits humans into physical and mental entities complicates the understanding of soldiers' stress reactions. By nature humans are both biological (from the Greek σῶμα [soma: physical body) and psychological (from the Greek ψυχή [psyche: soul, mind, spirit]) beings. It is therefore also necessary to pay attention to the biological constitution that is altered by sustained high stress when deployed as much as to the complex interaction with the alterations in the psychological, moral, social, philosophical and spiritual constitution of a person. Hence, stress reactions in soldiers manifest both physiologically and psychologically. Therefore, recovery from psychological stress reactions, however minor, must involve both the biological and the mental spheres. This component, however, is outside of the parameters for this chapter.

## RESILIENCE AND RESOURCEFULNESS

While government officials and the general population are armchair observers of the conflicts their country is engaged in, soldiers on the frontline gain first-hand experience of the reality of war operations. Soldiers' experience of war operations occurs at both the collective and individual levels within the military units they are deployed with. They are negatively affected by these experiences, hence the role of military psychologists has become more important over time as they aim to assist soldiers to deal with their reactions to these extreme challenges, and in particular to remain resilient throughout their deployment.

The term *resilience* as applied in the psychological sciences has its origins in research during the late 1960s and early 1970s by primarily developmental psychologists. The early studies focussed primarily on the factors that enabled approximately one third of the children studied in a given population to overcome otherwise very challenging life circumstances, whereas their peers were unable to do so. As this field evolved, the varying definitions and perspectives on what constitutes resilience have been hotly debated. Depending on what research one reads, resilience is something that is either inherited, a personality disposition, or an adaptive skill to cope with adversity. Regardless of whether the terminology applies or not, it appears as if across a number of disciplines *resilience* and *resiliency* have become keywords to describe people's capacity to adapt to challenging circumstances. A cursory review of military-focussed research suggests that these concepts have also become catchwords in especially military selection and training.

One of the oldest institutions in the world is the military organisation. Military history provides a significant database from which to assess the approaches taken in the military to motivate soldiers, maintain loyalty, and ensure successful military deployment. Military operations require soldiers to be resilient, i.e., they must have the capacity to adapt to challenging circumstances while maintaining psychological stability. This is not enough, however, because they also must demonstrate the capacity to find innovative and quick ways to overcome many of the obstacles faced in combat situations. This latter capacity is best described as *resourcefulness*.

Compared to what is generally reported in civilian research on resilience and resourcefulness, the two constructs *resilience* and *resourcefulness* differ significantly from some of the definitions offered in psychology text books and general dictionaries when applied to the military context. In military application these constructs are not descriptions of mere personality traits; instead they describe the problem-solving behavioural observations in individuals who face significant challenges outside of the

normal everyday challenges in civilian life. Within the military training milieu these constructs thus describe individuals' skills, manifested in behaviour, by which they continuously and creatively manage adversity both collectively and individually. Obviously, these constructs include the changes observed in exhibited personality characteristics by individuals during extreme challenge, a vital component in the assessment of military leadership qualities.

Resilience in the military should be broadly understood as the skill or motivation that enables soldiers to maintain stability and that enhances continuity regardless of the situation they are in. Resourcefulness, on the other hand, triggers the creative response to cope with novel and challenging situations. Potentially these two constructs can lead to opposite directions but optimally, during military operations they are mutually enhancing. (Gouws 2013, p. 270). These two constructs, *resilience* and *resourcefulness* are the building blocks that enable the military organism to function as a collective entity that draws on all of the individual and collective skills of its various parts during military operations.

It is this collective functioning, combined with acquired individual skills that serve to also develop strong unit cohesion amongst deployed soldiers. This combination of *cohesion, resilience* and *resourcefulness* enables the individual soldier to continue to serve valiantly with other members of the unit even in the most adverse conditions and situations. The optimal integration of *resilience* and *resourcefulness,* in addition to the role played by vertical and horizontal cohesion factors, stems from the *sense of coherence* soldiers experience when they function as a unit. Aaron Antonovsky (1987) defined the concept *"sense of coherence"* as:

> "…a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement." (p. 19.)

Antonovsky's work is of primary importance in the military context. The three components to this definition - comprehensibility, manageability, and meaningfulness - are what give soldiers the motivation and strength to face the incredible stressors of deployment and war while maintaining a sense of well-being instead of being overwhelmed by the stressors. Although important during the deployment, the third component of this definition, meaningfulness, is often even more important after the deployment had ended.

Meaningfulness, or the loss thereof over time, determines the mental health well-being of soldiers once they had returned to their families and communities. Also, *resourcefulness* is important during deployment, but it is imperative that soldiers, once they return to their society, are able to apply their *learned resourcefulness* skills from the deployment when adjusting back to society. As conceptualized by Michael Rosenbaum (1989):

> "Successful coping with stressful events involves self-regulation. We identified three kinds of self-regulatory process. The first occurs automatically and unconsciously in order to maintain the homeostasis of a person's physiological functions; the other two are under the person's cognitive and voluntary control. Redressive self-control is aimed at resuming normal functions that have been disrupted; reformative self-control is directed at breaking habits in order to adopt new and more effective behaviors. Coping with acute stress requires redressive self-control; the adoption of new behaviors such as health related behaviors requires reformative self-control. Learned resourcefulness refers to the behavioral repertoire necessary for both redressive self-control and reformative self-control. This repertoire includes self-regulating one's emotional and cognitive responses during stressful situations, using problem-solving skills, and delaying immediate gratification for the sake of more meaningful rewards in the future." (pp. 249–258.)

In the military, the manifestation of exceptional human behaviour particularly in adverse circumstances (sometimes described as heroism) is relatively common and much more expected than in the civilian setting. Even so, in both environments there are instances where there is a complete lack of concern and an absence of motivation to intervene on behalf of others. Many social psychology theories attribute exceptional human behaviour or the lack thereof to individual personality traits or characteristics. However, these contradictions in behaviours encompass more than just personality factors: they also stem from learned skills that have been collectively acquired and individually exercised. In the soldier's world these skills, combined with certain personality traits, are deemed the golden keys to success in operations.

Using these skills is equally important to adjust to life after deployment. Once back in society, however, the individual soldier can no longer rely on the unit and comrades as sources of cohesion factors, resilience, and learned resourcefulness. Unless returning soldiers make a transition that includes the transference of the collectively acquired resilience and

resourcefulness skills to life after deployment, they risk losing their *sense of coherence* - especially if society does not provide an environment supportive of the meaningfulness soldiers subjectively assigned to their deployment and combat experiences at the individual level.

The concepts *resilience* and *resourcefulness* have a brief history in the main stream of psychological research, yet their application in military forces operating around the world has a history of many centuries. Indeed, if one reads *The Art of War* by the Chinese general, military strategist, and philosopher, Sun Tzu, these same principles were espoused more than 2,500 years ago. Hence, there is no organisation more adept at developing resilience and resourcefulness in its people than the military. After all, there are no other comparable models by which human beings endure the most challenging of rigours, those of combat, and then, as expected of them, return to society and attempt to go on with their lives as if they had been unaffected by the carnage inflicted upon them, and the carnage they had inflicted on the enemy.

Military trainers, long before psychologists, psychiatrists, and sociologists came on stage, have known that, as long as a few crucial support and motivating factors are present, soldiers are able to withstand impossible odds and even in the eye of certain death will follow through to complete the allotted tasks. Terminology such as *resilience* and *resourcefulness* were coined much later, from an initial research focus on civilians, not soldiers. As so often happens though, at some point someone persuaded the military to pay attention to these skills in soldiers, as if they had never existed before. However, in the military these skills manifest very concretely:

> "The soldier keeps fighting for his comrades rather than against the enemy." (Noy 1991, p. 513.)

Obviously, in the military context the nexus *resilience – resourcefulness* always existed as a simple principle, expressed tersely in the DVD of the movie, *We were soldiers*, by Lieutenant Colonel Harold Moore after leading his battalion through the fierce battle of Ia Drang in November 1965:

> "American soldiers in battle don't fight for what some president says on T.V., they don't fight for mom, apple pie, the American flag... they fight for one another."

The foremost underlying motive for soldiers to endure, time and time again, the rigours of military life and the chaos and carnage of combat, is their dedication to each other. To do so, they apply their skills (in recent literature

referred to as *resilience and resourcefulness*) by what they do for each other and their immediate leaders. This point was very poignantly articulated by Specialist 4 Ray Tanner of Alpha Company, 1st Battalion, who had served under then Lt. Col. Hal Moore:

> "We stood in formation, with some units hardly having enough men to form up. Colonel Hal Moore spoke to us and he cried. At that moment he could have led us back into the Ia Drang. We were soldiers, we were fighting men, and those of us who were left had the utmost love and respect for our Colonel and for one another. As I reflect on those three days in November, I remember many heroes but no cowards. I learned what value life really had. We all lost friends but the bravery they showed on the battlefield will live for ever." (Moore & Galloway, 1992, p. 346.)

Countless individual accounts of combat over the centuries reflect a similar willingness to go back into the jaws of hell and repeat the same actions. This action is a manifestation of a very deep and profound relationship that exists among soldiers, which most outsiders find extremely difficult to comprehend. It is this relationship that carries them through when all seems lost, or when the odds appear overwhelming.

There is a significant loss of this bond once soldiers return back from deployment and re-enter society, including eventually civilian life. After deployment they must rely on their own devices to survive; this purely on the basis of the skills they had developed during the deployment. Relationships that exist among people in civilian life cannot substitute for the deployment bond, simply because the circumstances are markedly different from life during deployment. Also, once back in their society, soldiers often start to question why they had to endure the extreme deprivations of deployment and combat when it seems as if their society does not care about what they had done, at what price, and for what reason.

Field research data by Gouws (2011) supported that in individuals with the capacity of adaptability to challenging and ever changing operational circumstances, coping with adverse memories was less traumatic and disruptive than for those who lacked in particular the resourcefulness to assign positive rather than negative meaning to these experiences. Not surprisingly the data supported that when there was a disintegration of the personal belief system, in particular as it pertains to religious values and their collapse in the light of the extreme challenges brought to bear by sustained high intensity military operations, individuals who were otherwise seen as exceptionally

resilient and resourceful, would begin to question their very existence and eventually decompensate. (p. 275.)

## MEANINGFULNESS VERSUS DISILLUSION

As noted earlier: meaningfulness is the third component of a positive sense of coherence. It is also particularly vital for positive reintegration into society after deployment. Soldiers find it difficult to endure the memories of their experiences in theatre when society appears to deem their deployment meaningless or worse, criminal, as happened during the Vietnam War. As it is, soldiers are aware of the constitutional changes that have come about in themselves, even though they may not yet fully understand the complexity thereof. In this context the degree to which deployment psychological stress reactions in soldiers become exacerbated post-deployment, is determined by how these soldiers assess the reasons behind the decisions of politicians and military commanders to deploy them. They want to know that this deployment was necessary, because they were forced to engage in actions that were the exact opposite of the values they had been taught throughout their life.

Having been socialised to value the life and property of others prior to military service, their military training redirected these soldiers to allow them to destroy the life and property of others who are labelled as "the enemy" because the alternative is to be destroyed themselves by "the enemy." Yet, very soon into deployment soldiers recognise that the opposition forces are as human as they are, with both parties acting in the exact same manner towards each other, either offensively or defensively. At this point the first stage of the reassessment of "the reasons why" they were sent to war begins.

This reassessment also identifies a significant irony: young people join the military with positive expectations, are trained in the trade of war, and become excellent soldiers. During training they were taught an additional set of values, building on what they were taught earlier in life, except that now it there is a dichotomy: they are serving in defence of their nation and their country to promote security, freedom, justice, fairness, equality, and whatever other reason they are given. The enduring theme is that by defending their country's values they are making a positive difference in the world. However, in order to "adequately" defend these values they have to kill the opposition and destroy its infrastructure. For example: World War I veterans believed that they had fought the Great War as "the war to end all wars" because this war was so cruel, so fierce, and so devastating that they had to fight and many had to die so that it should never be repeated. Yet, two decades later the world was again devastated by an even crueller World War II that also gave birth to the atomic bomb and the Cold War. As a consequence, since then many war

veterans expressed their upset, their disappointment, and most importantly, their disillusion with the political systems that had send them to war based on presumed moral principles. Many of these veterans believe that in the end all they had fought for was an illusion. Their reality became that they were mere pawns in the hands of politicians who, by sending them to war, were furthering their own hidden agendas. This perception has not changed for a century, and the disillusion expressed by Afghanistan and Iraq war veterans is no different. Fortunately, in spite of their disillusion and anger many still say that they would not take up arms against the government, as expressed on the popular question and answer website, quora.com. The reason for this reluctance to take up the weapon against the government is partly due to the reprogramming of initial military training.

## SOLDIERS: PERPETRATORS AND VICTIMS

One of the most significant shortcomings in assessing and treating psychological stress reactions attributable to soldiers' exposure to traumatic events in deployment and combat or even to the moral aspects thereof, is the lack of acknowledgement of the construct: *"the soldier as perpetrator."* Many soldiers have inner struggles about the lives they had taken, the mutilation and injuries they had inflicted, atrocities they may have been involved in, and the property damage they had done. However, it is almost impossible for them to discuss this component of their experiences with others. When they do, they hear counter-arguments such as: *"that is what you were trained to do"* or *"you were only doing your job"* or *"you had to follow orders"* or *"it was either you or the other guy"* etc. These arguments signify a lack of recognition of soldiers' own feelings of being *"the bad guy while trying to be the good guy."*

Although the psychological impact of the horror of war is recognised in most interventions, the reluctance to face the reality that soldiers did terrible things that, outside of war, would be punishable as serious crimes, often adds significantly to soldiers' inner turmoil and contributes to the constitutional alterations in the social, psychological, philosophical, and spiritual core values. This reality was very well illustrated in field research conducted by this author in the early 1980s. Soldiers often did not understand these contradictory emotions within themselves, and many times neither did those who were attempting to help them deal with their emotional reactions. Ironically, this very important component of psychological stressors soldiers are exposed to is still unrecognised in many clinical settings. This *perpetrator-victim* dichotomy is difficult to resolve, because, regardless of how soldiers and others rationalise behaviour during deployment and combat operations, the reality remains that these soldiers were forced to perform actions completely contrary

to how they had been brought up and to how they had been socialised into the morality of the society they had come from. It is therefore not surprising that soldiers, when in combat, will denigrate enemy combatants by name-calling in a manner that dehumanises the opposing soldiers (or terrorists) sufficiently so that they can "take out the #@&." However, in the aftermath of combat, this objectification and dehumanisation lose their effectiveness when soldiers are emotionally confronted by what they had done and how they had executed their duties both on and off the battlefield.

For some returning soldiers the emotional reactions they experienced in the aftermath of deployment and combat may become more disruptive once they have returned home from their deployment and/or combat mission. Aside from having lost the cohesive bonds they had in theatre, what they experience most intensely when coming home is the change in the society that they are returning to. The nature and level of support they received from society when they left on deployment is not the same level of support and acknowledgment they came back to. This is because, while these soldiers were overseas, society had developed different perspectives from the original rationale for deployment and military conflict. Obviously because of their absence, deployed soldiers were not part of this change of heart. When the society they return to had become critical instead of being supportive of what they had done, these soldiers are gravely affected not only by the criticism, but also the increased sense of guilt, remorse, and horror at what they had experienced while performing their duty. In the end, this leads to a loss of meaningfulness which feeds into the disillusionment that in turn destroys what is left of the sense of coherence and learned resourcefulness that had carried soldiers through their deployment. At this point these soldiers also lose their resilience and fall victim to the pathology of war operations.

## CONCLUSION

This chapter covered only basic stress factors inherent to serving in the armed forces. Military psychologists have a role to prepare soldiers psychologically to cope with stressors prior to missions and to continuously evaluate the emotional toll of military missions on them so as to inform executive leadership on necessary remedies.

Centuries of warfare demonstrated soldiers' extraordinary resilience to cope with extreme stress– that makes them successful warriors. The meaning a soldier attaches to events experienced in theatre and during combat becomes fundamental to the core of his/her psychological stress reactions and the deployment and combat-related alterations in the psychological, social, moral,

philosophical, and spiritual spheres in which soldiers were habituated, first as citizens and second as the defenders of their country.

It is imperative to enhance soldiers' ability to manage psychological stress reactions by a coherent and honest rationale in the deployment message they receive from political and military leadership. There also has to be the political willingness and courage to carefully consider all options before committing armed forces to combat or peacekeeping deployments, including the cost to rehabilitate those soldiers who had fallen victim to the pathology of war operations.

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# STRESS AND PTSD MANAGEMENT AND TREATMENT IN THE MILITARY: A HOLISTIC APPROACH

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***Abstract*:** The nature of war has changed over time from conventional war to peacekeeping operations to 'new wars'. These different operations create different challenges, opportunities, stressors and traumatic experiences, which can contribute to post traumatic stress. The change in operations leads to two questions. The question in the first place is, are psychologists in the military aware of these challenges in the changing nature of operations? There is a practice in the military that psychologists operate, treat and manage stress and Post Traumatic Stress Disorder (PTSD) with a compartment approach like behaviour or cognitive, with the possibility that part of a patient's psychopathology has never been treated? The second question then is what will be the effect of such practice on the mental health and combat readiness levels of our soldiers?

This research advocates for a more holistic approach in the management and treatment of stress and PTSD in the military. The holistic approach aims to manage and treat soldiers through four phases. Firstly, with the preventative phase (i.e. proper job- fit selection), secondly, with the developmental psycho-education phase on how to develop the soldiers (i.e. potential, knowledge and skills) as a buffer in the prevention process to develop stress and PTSD. Thirdly to treat them on a conscious, personal subconscious and body therapeutic level with the occurrence of these conditions. Lastly, to end with a focus on post traumatic growth, which means that trauma treatment (PTSD) can lead to the development of soldiers for the next operation.

## INTRODUCTION

The military is a challenging career characterized with trauma, risks, conflicting emotions, high demand for soldiers under fire and complications to make proper decisions without the necessary information – for some soldiers an adventure and for others a disaster. Cossar (2010, p.85) writes "accepting the role as a combat soldier in war is a risk with life, limb and mind". Soldiers may be making sacrifices which may lead to death, physical injury and/or

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amputations, collapse of mental health and conditions such as anxiety, depression, stress and PTSD.

The nature of war has changed over a period of time from conventional war to peacekeeping operations to 'new wars' or 'irregular warfare'. These different operations create different challenges, opportunities, stressors and traumatic experiences which can contribute to high levels of stress and PTSD.

Conventional warfare manifests in various ways, such as state-on-state conflict, regional conventional warfare, continental conventional warfare and ultimately intercontinental conventional warfare, as it occurred during World Wars I and II (Bester, 2016). Conventional operations include high-intensity combat involving land, sea, air and electronic military services (an all-out effort) to destroy the enemy with a minimum of own casualties. Conventional warfare is characterized by harsh physical circumstances, including extremes of temperature, climate, noise, smoke, dust, primitive living and poor hygienic conditions, with inadequate diet and medical care, realistic fear for injuries or death – specific with artillery or air bombardments (Thompson & McCreary, 2006). Thus, conventional warfare or operations result in death, displacement, destruction, constant danger and uncertainty – meaning high risk stressors which contribute to stress and PTSD for soldiers and their families.

Traditional peacekeeping deployments were lightly armed and use of force was only limited to self-defense. Bruwer (2016) explained that a change in the nature of traditional peacekeeping since the end of the Cold War is visible in both views and activities. Examples of these changes are:

- A blur between peacekeeping operations and enforcement actions;
- Peacekeeping duties are no longer only performed by the United Nations;
- It became multi-task operations including aspects of war to fight rebels or to keep opposition groups from each other, humanitarian assistance and nation building executed by both military and civilian personnel;
- Personnel growth from a few thousand people to 80 000 worldwide;
- Peacekeeping was designed to deal with conflict between states, as opposed to internal conflict. In Africa, for example border disputes and internal conflicts (e.g. Sudan, DRC), passions will be running high, warlords and guerrilla groups may not wish to uphold agreements, virtually no matter what peacekeepers do, the area can end up in more of a war zone.

Thompson and McCreary (2006) explained modern peacekeeping operations are often characterized by intense ethnic violence in which

belligerents often abandon traditional laws of armed conflict (like DRC, Sudan, Central African Republic), shifting the rules of engagements, not obeying negotiated peace agreements, thus placing soldiers involved in a position of helplessness and it becomes frustrating seeing women and children suffering. This involvement results in complex stressors that put intense strain on soldiers with the potential to contribute to high levels of stress and PTSD in them.

The nature of peacekeeping operations put the 'war zone' or conflict in the face of soldiers in front of 'Al Jazeera and CNN cameras with the challenges and responsibilities to deal with it, manage it and make proper decisions with minimum information. Responsibilities are also delegated to junior leaders, and even soldiers, with the risk of ending up in the International Court in The Haque, after a possible risky mistake – stressful event! Thompson and McCreary (2006) further wrote that the nature of these peacekeeping missions require knowledge and skills beyond those of traditional/conventional war fighting. It requires an understanding of regional culture, history of the conflict, negotiation, conflict management and mediation skills, how to deal with inner conflict, fear, uncertainty and frustrations. It is the opposite of a 'parade ground personality disorder' or culture where the commander alone makes the decision, gives the command and without thinking/questioning all soldiers move left or right! Are these soldiers job-fit selected and prepared through training as these mentioned stressors reduce their mental fitness, subsequently influencing their decision making and combat readiness.

Kaldor (2007) describes 'new wars' as wars and battles taking place in areas where the disintegration of one or more states are a reality. The violent battles in these areas are often fought between groups that for some part, consist of people who have had no military training, the fighters wear no uniforms, the Geneva Conventions and humanitarian martial law are not seen as directives therefore there are high rates of killings, looting and raping. Gone is the distinction between combatant and non-combatant and legitimate violence and criminal behavior like in DRC, Sudan, Iraq and Syria to mention a few examples.

Johnson (2011) referred to the same nature of warfare as 'irregular warfare'. The author explained irregular warfare as characterized by an increased number of actors in the battle space who use a range of lethal and non-lethal means to complete military, political, economic, religious and social missions like the Islamic State of Iraq and Syria (ISIS) in Iraq. The complexity of irregular warfare requires 'those on the ground', junior leaders or even troops to decide whether and when to escalate force i.e. whether to kill a child suicide bomber at a roadblock on his/her way to school or a pregnant woman

in a black hijab, or al-khimar as a suicide bomber on her way to take children to school in front of international news cameras – meaning that soldiers and marines at lower levels are increasingly responsible for making sophisticated tactical judgments that carry complex military, cultural, political, personal and legal ramifications. This can be a very stressful scenario and the question is, do our psychological assessments, training and education programmes cater for it?

## Implications and challenges for psychologists in the changing nature of war

The changing nature of war or even changing nature of peacekeeping operations, as indicated, create new challenges and opportunities for military psychologists which ask for imperative attention. These challenges and opportunities include:

- Proper assessment of new challenges for soldiers in the different types of war. These need to be translated to job-descriptions of soldiers, with proper job-fit assessments to minimize stress and to prevent PTSD;
- Traditional military training characterized by a culture of a 'parade ground personality disorder'; meaning one commander gives a command and all soldiers 'without thinking', move on the parade ground, is not suitable to develop the correct mindset in soldiers and junior leaders for new wars;
- It is time to discuss if it is the 'best practice' to train the same soldier for all kinds of wars, possibly military psychologists can enrich this strategic process that the part in the brain responsible to kill and the part to build relations with the population may differ, meaning the practice on the ground creates high levels of intrapsychic stress;
- Panksepp (2009) explained possibly important insight on this challenge with the 'Seeking/Desire system'which is the mesolimbic dopamine system that arises from the ventral tegmental area (VTA) and projects through the lateral hypothalamus to the ventral striatal nuclei, especially the nucleus accumbens, olfactory tubercle and further up to medial cortical regions. This system energizes the many engagements with the world as soldiers seek interactions, meaning, reaching out to people and building relationships. Whilst the 'Rage/Anger system' with higher cortical processes, especially in the frontal lobes can provide inhibition, direction, yielding internalized irritability, hatred and resentment, many emotional problems result

from the inhibition of anger; meaning soldiers are trained to kill but operationally used to make peace;

- A leadership development programme that focus on conventional war and also on new wars, meaning developing first and then delegating authority to junior leaders is a demand. We can call it leadership on the edge, leadership for new wars or irregular wars, the current challenges for junior leaders are very stressful;
- Training philosophy, possibly military psychologists can become more involved in training and educating instructors on concepts such self-confidence, self-efficiency and conscientiousness with activities to develop and internalize it in soldiers as new wars demand it from them and
- Psychological first aid kit, meaning military psychologists can present a programme with knowledge and skills on themes like stress management, conflict management, psychological debriefing, negotiations to junior commanders and even selected themes to soldiers to prevent stress and PTSD.

In this regard, Thompson and McCreary (2006) wrote that training programmes that successfully prepare soldiers for physical and psychological rigors of operations are important for operational effectiveness and to protect health and psychological wellbeing of soldiers and their families.

## STRESS: STILL A CHALLENGE FOR MILITARIES

The nature of most, if not all operations, is stressful for soldiers with traumatic experiences. Heinecken and Ferreira (2012) explain that operating within complex environments and military operations is extremely stressful for soldiers who often experience fear, anxiety, stress, depression and sometimes PTSD.

Psychological distress, as explained by the DSM V (APA, 2013) following exposure to a traumatic or stressful event is quite variable. In some cases for soldiers, symptoms can be well understood within an anxiety or fear-based context, with sometimes the most prominent clinical characteristics as anhedonic and dysphoric, externalizing angry and aggressive or dissociative symptoms. Scaer (2007) added the brain's pathways for acute response to a threat i.e. stressors are handled by the right side of the brain. He explained that the process begins with sensory input from various organ systems of soldiers during war, attack or under fire by sensing (sight, smell, taste, hearing or

kinesthetic and pain sensations) to the thalamus. This information is then routed by the thalamus to appropriate areas of the cerebral cortex and then to the limbic system (emotional brain), specifically the amygdala. This means that unexplained chronic pain or symptoms in bodies of soldiers can be unresolved trauma and stress stored in their bodies and waiting for a proper discharge through body therapies – as will be discussed later in this chapter.

Colman (2009, p.735) defines stress as "psychological and physical strain or tension generated by physical, emotional, social, economic or occupational circumstances, events like war, or traumatic experiences that are difficult to manage, cope with or endure". Whereas Lazarus and Lazarus (1994) described 'stress' as the interplay between the demands of the environment (war) and the resources (personality, skills, experience, age, etc.) of the individual whereby any imbalance between the two creates more or less stress. The conceptualized content of these two definitions accommodates the stressful interaction between a soldier and his military work environment. The content also focusses on the interplay involved in the job-fit theory to prevent stress as later discussed in this chapter.

Rawat (2017) grouped typical military stressors which cause high levels of stress in soldiers in the following categories (see Fig. 1).

| | |
|---|---|
| Stressors prior to deployment. | Time pressure, not having enough time to prepare family for deployment. |
| Stressors in early deployment period. | Isolation, fatigue, lack of sleep, uncertainty about mission. |
| Stressors in mid-deployment period. | Feeling confined, lack of information, worry about family. |
| Psychological stressors in military operations. | Isolation, ambiguity, powerlessness, boredom and danger. |
| Stressors after deployment. | Adjustment at home, family, wife, routine, responsibilities, after deployment trauma. |

Figure 1. Stressors involved with deployment

These stressors cause different types of stress in the different dimensions of the soldiers. This is important for psychologists in the treatment process to select the best psychotherapeutic interventions for holistic treatment as explained later. Dimensions of stress in routine military life can be (Rawat, 2017):

- Cognitive stress: is described as information processing taking place in order to deal with challenges, information management, decision making, risk management and to take responsibility.
- Occupational stress: is characterized by demands and constraints in the total military work environment.
- Physical stress: is the result of physical pressure as a result of performing military duties.
- Emotional stress: is psychological and physiological arousal due to emotions triggered before, during or after operating in the military environment.
- Social stress: is due to the inability to meet social, military and family dimensions and expectations.
- Personal stress: is in relation to subjective internal responses in appraisal of the military environment.

Stress, as a subjective experience, is psychologically and physically, stored in soldiers (Van Dyk, 2016):

- Conscious dimension, which is the level where a soldier is informed through his/her senses by what is heard, seen, smelled, felt and experienced at a specific time, during a specific 'series' of incidents (stressors) during an operation or war, and afterwards re-experienced through symptoms like fear, anxiety, sleeplessness, eating problems; (and if the soldier is not receiving proper management and treatment some of these stressful experiences filter to the personal subconscious mind);
- Personal subconscious dimension – the term is derived from the psychoanalytic psychology of Carl Gustav Jung. Jung believed the personal subconscious mind consists of content which a person (soldier) stores from stressful (traumatic) experiences which overwhelm the conscious ability of a soldier. For example as a result of extreme exposure to a bomb explosion or an ambush attack, these overwhelming 'unfinished business' or feelings/experiences not consciously dealt with will be stored in the personal subconscious mind. It can become PTSD (as later discussed) and military psychologists will observe it in soldiers through symptoms like avoiding places, angry outbursts and problems with concentration.

- Body dimension refers to the neurological process that occurs in the brain of the soldier when his/her senses observe stressors (dangerous situations during an operation, war or snake for example). During this process the brain releases certain chemicals, such as adrenalin, nor-adrenalin, cortisol and opioids. These chemicals cause anatomical and muscular changes in the body, the body reacts by preparing for flight (worry, concern, anxiety) or fight (anger, rage, hate for enemy) or freeze (helplessness, numbness, dissociation in moment of overwhelming). These chemical reactions caused by flight, fight or freeze responses remain in the body as muscle contractions; the body therefore remembers traumatic events in the form of muscle memory (Scaer, 2007). Levine (2010) says post traumatic symptoms arise when residual energy from stressful/traumatic experience is not discharged from the body. Trauma or stress therefore exists in the nervous system in the body of the soldier. Meaning traditional cognitive or behavioral therapy (Corey, 2009), will not successfully heal a soldier with 'stored' stress or trauma in his body, but a holistic approach to manage or treat it will be more of an advantage to the soldier and the military.

**Diagnostic criteria for acute stress disorder**

In order for military psychologists to do proper management and treatment of soldiers and their families with acute stress disorders, they need to know the diagnostic criteria for proper diagnosis. Diagnostic criteria for acute stress disorder from the DSM V (APA, 2013, p. 280-281) is (fig. 2):

A. Exposure to actual or threatened death, serious injury, or sexual violation in one or more of the following ways:
   1. Directly experiencing the trauma event(s).
   2. Witnessing, in person, the event(s) as it occurred to others.
   3. Learning that the event(s) occurred to a close family member or close friend. **Note:** In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
   4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains, police officers repeatedly exposed to details of child abuse). **Note:** This does not apply to exposure through electronic media, television, movies, or pictures,

unless this exposure is work related.

B. Presence of nine (or more) of the following symptoms from any of the five categories of intrusion, negative mood, dissociation, avoidance, and arousal, beginning of worsening after the traumatic event(s) occurred:

Intrusion Symptoms

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). **Note:** In children, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.
2. Recurrent distressing dream dreams in which the content and/or affect of the dream are related to the event(s). **Note:** In children, there may be frightening dreams without recognizable content.
3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) **Note:** In children, trauma-specific reenactment may occur in play.
4. Intense or prolonged psychological distress or marked physiological reactions in response to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

Negative Mood

5. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

Dissociative Symptoms

6. An altered sense of the reality of one's surroundings or oneself (e.g., seeing oneself from another's perspective, being in a daze, time slowing).
7. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol or drugs).

Avoidance Symptoms

8. Efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
9. Efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

Arousal Symptoms

10. Sleep disturbance (e.g., difficulty falling or staying asleep, restless sleep).
11. Irritable behaviour and angry outbursts (with little or no

provocation), typically expressed as verbal or physical aggression towards people or objects.

12. Hypervigilance.
13. Problems with concentrations.
14. Exaggerated startle response.

C. Duration of the disturbance (symptoms in Criterion B) is 3 days to 1 month after trauma exposure. **Note:** Symptoms typically begin immediately after the trauma, but persistence for at least 3 days and up to a month is needed to meet disorder criteria.

D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

E. The disturbance is not attributable to the physiological effects of a substance (e.g., mediation or alcohol) or another medical condition (e.g., mild traumatic brain injury) and is not better explained by brief psychotic disorder.

Figure 2. Diagnostic criteria for acute stress disorder

Military psychologists need to be competent with knowledge and skills that will allow them to select the best psychotherapeutic modus or even modi in the holistic approach after diagnosing the client, as discussed later, for proper treatment of acute stress disorder.

## PTSD: STILL A CHALLENGE FOR MILITARIES

Soldiers all over the world, are among the most vulnerable to trauma and its related psychological effects, particularly because the nature of their work exposes them to various stressful and often traumatic activities and events. Even the changing nature of specific peacekeeping operations and 'new wars' predict higher levels of trauma and higher levels of cruel behaviour (acts of highly visible violence, public beheadings, children as human shields, suicide bombers, snipers) for example by ISIS (Stern & Berger, 2015). Warrick (2015) sensitised the world that the nature of 'new wars' can also include chemicals like pesticides, potassium, cyanide, hydrogen peroxide, glycerine, acetone, in Syria, Iraq, Nigeria, Somalia, Kenia, where 'new enemies' get involved in old power struggles between governments and rebels or different terrorist groups – meaning a higher possibility of cruel trauma and potential for PTSD in soldiers.

Sadock and Sadock (2007) describe PTSD as a condition that develops in persons who have experienced emotional or physical stress that would be

extremely traumatic to any person/soldier. The American Psychological Association (APA) (2013) describes PTSD as associated with the development of characteristic symptoms following exposure to an extremely traumatic stressor(s) for soldiers, normally in military operations, involving direct personal experience of an event that involves:

- Actual or threatened death or serious inquiry or other threat to one's physical integrity;
- Witnessing an event that involves death, injury or a threat to the physical integrity of another person; and/or
- Learning about the unexpected or violent death, serious harm or threat of death or injury experienced by a family member or any other close associate.

Scaer (2007) explained PTSD from the body therapy framework, and wrote that when people develop PTSD, the replaying of trauma leads to sensitization. With every replay of trauma there is an increasing level of distress. In those individuals (soldiers), the traumatic event develops secondary biological consequences that are hard to reverse once they become entrenched. Mentally, they split off or 'dissociate' from these feelings and physically their bodies tighten and brace against them. Scaer (2007) further explained that these soldiers live under the assumption that if they feel those sensations and feelings, such feelings will overwhelm them forever which is why they strongly rely on medications, drugs and alcohol to make these sensations and feelings go away for a moment. The aforementioned illustrates that a one dimensional treatment modus, like cognitive therapy, will possibly not heal the total effect of trauma on soldiers.

Risk factors, which cause or contribute in the development of PTSD may be classified into psychosocial, genetic and biological categories (Vogt, King & King, 2014). Fig. 3 illustrates a summary of most of the contributing factors or conditions in the development to PTSD (Dhladhla & Van Dyk 2016; Vogt et al., 2014):

| | |
|---|---|
| Psychosocial risk factors | Features of traumatic event like war zone, prior traumatic experiences of soldiers, post trauma circumstances like absence of social support and other life stressors. |
| Features of traumatic event | Once off or series of events like flood, disaster or war attacks for months, severity of traumatic experiences for soldiers, involved injury, interpersonal in nature, like loosing a friend, |

| | |
|---|---|
| | buddy or family member, was dissociation at the time of trauma necessary to survive, role of peritraumatic dissociations. |
| Personal and pre-existing attributes | To be female and involved in war as a soldier, younger age, minority, racially ethnic status, lower socioeconomic status, lower education, lower intelligence, prior psychiatric history and pre-existing mental disorders, the effects of childhood, sexual and physical abuse. |
| Military context | Traumatic combat experiences, violent personal assault during 'new wars', hostage taking, terrorist attacks, torture, prisoner of war etc. |
| Rescue operations | Failure as special force operators, navy divers, pilots not save lives or create trauma in the lives of children, pregnant woman and innocent civilians. |

Figure 3. Factors and conditions contributing to PTSD

Dhladhla and Van Dyk (2016) mention that soldiers experience symptoms from exposure to extreme trauma such as persistent re-experiencing of the traumatic event, persistent avoidance of stimuli associated with the trauma, numbing of general responsiveness and persistent symptoms of increased arousal. The authors further classify various symptoms into three categories, namely:

- Intrusive symptoms (nightmares, intrusive recollections, flashbacks, emotional distress and physiological reactivity);
- Avoidance symptoms (avoidance of thoughts/feelings, avoidance of places/activities, amnesia in terms of event, diminished interest, emotional detachment, numbing and sense of a foreshortened future) and
- Hyper-arousal symptoms (insomnia, irritability, anger outbursts, difficulty concentrating, hyper-vigilance and exaggerated startle).

Before military psychologists can do proper treatment of PTSD, they need to make a proper diagnosis.

**Diagnostic criteria for ptsd**

APA (2013, pp. 271-272) explains the diagnostic criteria for PTSD (DSM V) in the following manner (Fig. 4.) (**Note:** The following criteria apply only to adults):

A.Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
- -directly experiencing the traumatic event(s);
- -witnessing, in person, the event(s) as it occurred to others;
- -learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or close friend, the events must have been violent or accidental; and
- -experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g. first responders to collecting human remains; police officers repeatedly exposed to details of child abuse).
- -**Note:** Criterion A4 does not apply to exposure through electronic media, television, movies or pictures, unless this exposure is work-related.

B.Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
- -recurrent, involuntary and intrusive distressing memories of the traumatic event(s);
- -recurrent distressing dreams in which the content and/or effect of the dream are related to the traumatic event(s);
- -dissociative reactions (e.g. flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings);
- -intense or prolonged psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event(s); and
- -marked physiological reactions to internal or external cues that symbolise or resemble an aspect of the traumatic event(s).

C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

-avoidance of or efforts to avoid distressing memories, thoughts or feelings about or closely associated with the traumatic event(s); and
-avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts or feelings about or closely associated with the traumatic event(s).

D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
-inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol or drugs);
-persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g. "I am bad", "No one can be trusted", "The world is completely dangerous", "My whole nervous system is permanently ruined");
-persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others;
-persistent negative emotional state (e.g. fear, horror, anger, guilt or shame);
-markedly diminished interest or participation in significant activities;
-feelings of detachment or estrangement from others; and
-persistent inability to experience positive emotions (e.g. inability to experience happiness, satisfaction or loving feelings).

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
-irritable behaviour and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects;
-reckless or self-destructive behaviour;
-hyper-vigilance;
-exaggerated startle response;
-problems with concentration; and
-sleep disturbance (e.g. difficulty falling or staying asleep or restless sleep).

F. Duration of the disturbance (Criteria B, C, D, and E) is more than one month.

G. The disturbance causes clinically significant distress or impairment in social, occupational or other important areas of functioning.
H. The disturbance is not attributable to the physiological effects of a substance (e.g. medication, alcohol) or another medical condition.

Specify whether:

-With dissociative symptoms: The individuals meet the criteria for PTSD, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either the following:

-Depersonalisation: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of one's mental processes of body (e.g. feeling as though one were in a dream; feeling a sense of unreality of self or body or of time moving slowly).

- Derealisation: Persistent or recurrent experiences of unreality of surroundings (e.g. the world around the individual is experienced as unreal, dreamlike, distant or distorted).

Note: To use this subtype, the dissociative symptoms must not be attributable to the physiological effects of a substance (e.g. blackouts, behaviour during alcohol intoxication) or another medical condition (e.g. complex partial seizures).

Specify if:

–With delayed expression: If the full diagnostic criteria are not met until at last 6 months after the event (although the onset and expression of some symptoms may be immediate).

Figure 4. Diagnostic criteria for PTSD

Military psychologists, in their process to select a psychotherapeutic modus or even modi, need to know the affects of PTSD on the soldier's mental health and combat readiness levels.

## AFFECT OF PTSD AND STRESS ON MENTAL HEALTH AND COMBAT READINESS LEVELS

A model of Schnurr and Green (2004, p. 248) gave a proper indication of trauma and its contribution to PTSD in order to understand the affect of PTSD on the mental health of soldiers.

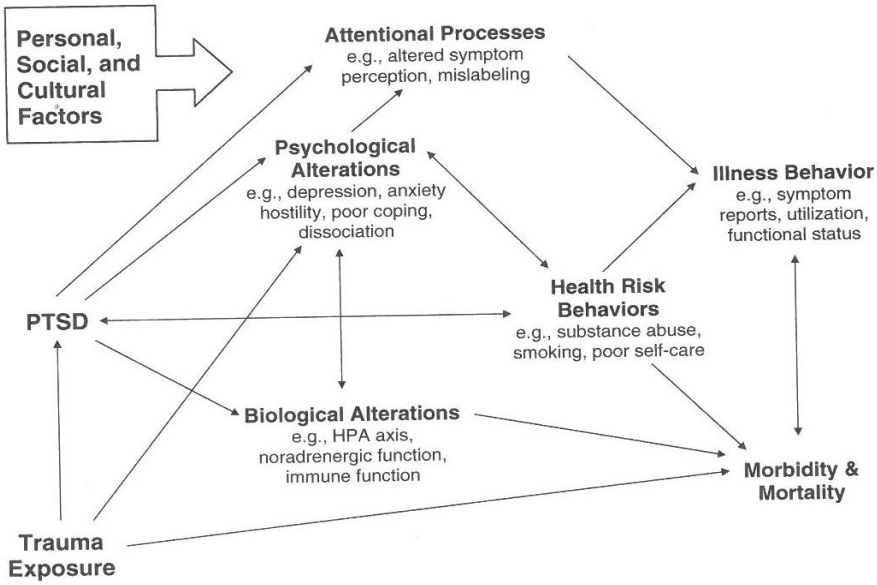


Figure 5. A model relating trauma exposure and PTSD with the affect on mental health of soldiers

Schnurr, Wachen, Green and Kaltman (2014) explained the model (Fig. 5) with two key assumptions. First, after trauma exposure (for soldiers) distress can develop in the form of PTSD or other psychological conditions like depression and anxiety. Secondly, the affects of PTSD and other psychological conditions are mediated through interacting biological/physiological or in the body, psychological, attentional and behavioural mechanisms:

- Biological or (in the body) include alterations of two primary systems of the stress response, the locus coeruleus/norepinephrine (LC/NE) sympathetic system and hypothalamic pituitary – adrenal (HPA) systems, with changes in the body and physical health of soldiers;
- Psychological can include depression, anxiety, hostility and poor coping to influence mental health and combat readiness of soldiers;
- Attentional factors where soldiers may use avoidance, may increase negative health perceptions whereby they withdraw from the operation and withdrawal will negatively influence their state of mind i.e. combat readiness;

- Behavioural mechanisms can include occurrence of vehicle/shooting accidents, misuse of alcohol and drugs for soldiers to cope;
- Morbidity and mortality where the soldier's coping and defence systems may collapse from internal vulnerability (psychological, body) and not in a state to manage the stressful/traumatic nature of war and take high option to flight through the process of suicidal behaviour.

On the psychological dimension the following consequences can be expected (Van Dyk, 2009):

- Subjective effects such as anxiety, aggression, depression, frustration, guilt, moodiness;
- Behavioural effects such as emotional outbursts, eating disorders, smoking, drugs and restlessness;
- Cognitive effects like irrational decisions and thoughts, self blaming, hypersensitive towards criticism, low level of concentration and memory;
- Organisational effects include destructive interpersonal relationships, vehicle and shooting accidents, sick reporting, low motivation and combat readiness and absence from work.

Meaning, the affect of trauma, stress and PTSD can meaningfully influence the soldier on an intrapsychic, interpersonal and behavioural level with a disastrous effect on his/her state of mind and combat readiness levels during operations.

## COMBAT READINESS

Combat readiness is described by different scholars from different disciplines (like military strategy, military history) with different content and focus areas. Shinga and Van Dyk (2015), from a military psychology framework, describe combat readiness as a psychological state of mind, supported and sustained by personal readiness, material readiness and unit readiness, to fight and win wars (Fig. 6).

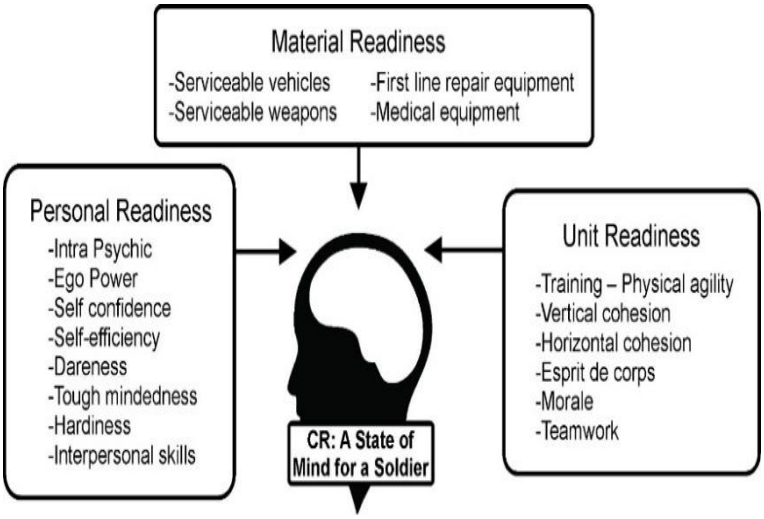


Figure 6. Combat readiness: A state of mind for a soldier

The above figure illustrates the different dimensions i.e. personal-, material- and unit readiness and various factors influencing each dimension. It is the challenge for each military psychologist to assess how stress and PTSD can negatively influence these dimensions, breaking down the state of mind of soldiers before, during and after the operation, with the end result being minimizing their combat readiness levels.

On a personal level, stress and PTSD can break down self-confidence, dareness, challenge hardiness and even create uncertainty on an intrapsychic or interpersonal level, with reactions of fear, anxiety, adjustment problems and depression. This can become very destructive pressure on the state of mind and combat readiness levels of soldiers.

Material readiness (functional, reliable, serviceable equipment, correct numbers of vehicles), military equipment and comparison to the enemy military ability, support and sustain combat readiness. The challenge is that stress and PTSD can influence soldiers' ability to service military equipment, influence their judgment for proper preparation of artillery and air fighters to mention a few. After the use of drugs (cannabis, crystal meth), soldiers cannot properly observe nor make good decisions due to clouded minds which can contribute to serviceability problems which contribute to accidents and a military without the necessary confidence in their fighting equipment – a disaster for the state of mind for every soldier.

Unit readiness, is the proper functioning on an interpersonal, horizontal, vertical and buddy level. The 'aorta' of the military body to apply

training, skills and knowledge, to operationalize the military plan and to outthink or destroy the enemy. Stress and PTSD can negatively influence the physical ability of soldiers to fight, contribute to toxic relationships which destroy esprit de corps, group cohesion, teamwork and effective leadership. This can make any military its 'own'enemy through the process of 'infighting' as a result of stored unfinished business at a conscious, personal subconscious or body dimension in soldiers. This can further paralyze the state of mind and combat readiness ability of a military force to fight.

## RISKS OF THE CURRENT PSYCHOLOGICAL TREATMENT MODEL OF STRESS AND PTSD

It is a well-known practice that Psychology Departments at universities all over the world specialize in a specific school of psychology like cognitive, behavioral, gestalt or reality (Corey, 2009). This means psychologists are becoming type of experts on cognitive and or behavior therapy, for example, a type of compartment treatment model, using one or two modus or modi for treatment and ignore the rest. The risks with such an approach can be the following:

- A soldier can be healed on a conscious level, but still store unfinished business of trauma on a personal subconscious level. When a trigger 'opens' the content at a personal subconscious level, the soldier might lose control shooting at his buddies or the population, who is legally responsible, the psychologist, soldier or the military?
- A soldier can be treated on a conscious or subconscious level, but still struggle with stored trauma in the body and present with symptoms like anxiety, anger, outbursts, headaches and lower back pain. After several medical evaluations involving high costs, the neurologist and or orthopedic surgeon will find nothing wrong because this is a psychological problem.
- Do military psychologists with current compartment treatment contribute to risks in soldiers like shooting accidents, negative state of mind and low level of personal, material and unit readiness? How ethical and legal is such a risky treatment approach?

Possibly a holistic approach to stress and PTSD management and treatment can make a contribution in the 21st century for militaries.

## HOLISTIC APPROACH TO STRESS AND PTSD MANAGEMENT AND TREATMENT

The holistic approach aims to manage and treat soldiers through three phases. Firstly, the preventative phase (proper job-fit selection). Secondly, with developmental psycho-education phase on how to develop the soldiers (potential, knowledge and skills) as a buffer in the prevention process to develop stress and PTSD and to treat them on a conscious, personal subconscious and body therapeutic level with the occurrence of these conditions. Lastly to end with a focus on post traumatic growth, meaning trauma treatment (PTSD) can lead to the development of soldiers for the next operation.

### The Preventative Phase: Proper Job-Fit Selection

Van Dyk and Ditsela (2013) indicate it is better to separate soldiers into two (even more) groups: a general profile group for soldiers conducting general military tasks in stores who are involved in infantry, amour and artillery. Secondly a specialist profile group for soldiers, who conduct special services such as divers, pilots or special force operators. It is time that militaries access and develop job descriptions, tasks and responsibilities – with even more different groups.

This approach is based on the Job Demands-Resources (JD-R) model of Bakker and Demerouti (2006). The JD-R model focusses on a proper fit to the demands of a job (job description) and the resources (personality, intellectual ability, energy, physical fitness, aptitude, hardiness, resilience and grit to mention a few) of the soldier. Delahaij, Kamphuis and Van den Berg (2016), found in their research it is not only challenges and trauma which are stressful to soldiers, the absence of stress, challenges and adventure is for a special force operator and pilot boredom and also very stressful.

### The Preventative Phase: Psycho Education

Military psychologists in the preventative phase can get involved through different methods to prevent stress and PTSD. To prevent these conditions is still the most effective way to 'treat' the soldiers and to protect their mental health and combat readiness. Firstly, they can influence training doctrine and philosophy that instructors either develop concepts like ego functioning, self-confidence and self-efficiency because the soldiers will need it in operations under fire. Secondly, they can train the instructors with a 'psychological first aid kit' to train soldiers more sophisticated with positive

reprimand, develop self-leadership, care for attachment needs for soldiers, be a first line of trauma care during operations, develop an approach to elicit naturally through training, hardiness, resilience and grit for example. Lastly, they can develop psycho education programmes (it will differ from country to country) to develop concepts, knowledge and skills in soldiers like (Fig. 7):

| Factor | Description |
|---|---|
| Hardiness | This concept includes the soldiers ability to commit in operations to make uncertainty a challenge with the drive to control the situation for his/her own advantage, to develop and sustain existential courage to experience meaning in life (Luzipo & Van Dyk, 2017) |
| Resilience | To develop the soldiers ability to become aware of own emotions and the emotions of others to bounce back into threatening or stressful situations, before it becomes traumatic, plus to look for interpersonal support resources (care with injury, advice in a crisis) and start to negotiate for it to ease his own stress and trauma during operations or under fire (Luzipo & Van Dyk, 2017) |
| Grit | Grit is rooted in hardiness and resilience to focus on long life goals and to stay 'on track' to show perseverance to satisfy need for existential courage. (Luzipo & Van Dyk, 2017). |
| Emotional intelligence | Grundlingh and Van Dyk (2012) found that for new wars, leader success and to prevent stress and PTSD will be influenced by leaders ability to deal through self management with own emotions, through awareness of others (troops or terrorists) to manage emotions or situations of others through self control. |
| Self efficiency | Is primary relevant in soldiers to manage the stressful nature of new wars through own ability to do personal judgment, show sense of control to deal with risks and uncertainty him/herself; mobilize own resources to master a stressful challenge – high level of self believe is necessary to develop (Grundling & Van Dyk, 2012). |
| Psychological wellbeing | Nkewu, (2013), indicates with his results that the level of self acceptance in soldiers, positive relations with others (group cohesion, high level of autonomy, with good feeling of purpose in life and ability to master his operational environment and ongoing personal growth) protect and support their combat readiness and mobilize their |

| | |
|---|---|
| | willingness to deploy and fight wars like peacekeeping operations. |
| Ethical and moral decision-making | Johnson (2011) indicates in their research to develop through education, training and scenario's planning the ability of soldiers to make proper military ethnical decisions, it contributes in the prevention of stress and PTSD in them. |
| Leadership development | As indicated, the nature of different wars, is busy to change. It is clear that primary and crucial decision making in new wars will be at junior level. Super-leadership shows good potential, with supported results, to develop self-leadership and shared leadership skills in corporals, lieutenants and even troops to empower them with such competency and skills (Grundling & Van Dyk, 2012). |

Figure 7. Psycho education factors to prevent stress and PTSD

**The Management Phase: Stress and PTSD**

Dhladhla and Van Dyk (2016) proposed the following model for proper management of stress and PTSD in militaries:

- Pre-employment screening: the most appealing strategy for stress and PTSD prevention is screening those soldiers at risk, before they are exposed to trauma, and develop their vulnerabilities through psycho-education.
- Pre-deployment screening: military psychologists screen the soldier with stress and PTSD questionnaires and clinical interviews before deployment, more specifically if it is part of rotation policy–one operation after the other.
- Pre-deployment awareness training: military psychologists train soldiers on prevention techniques, observation of symptoms of stress and PTSD for early identification and early referrals to clinical psychologists for holistic treatment. The implementation of a psychological first aid kit for the junior commanders, can help to deal with the first line treatment as soon as possible, to prevent stress and PTSD.
- Post incident counselling: where soldiers are being referred to the field hospital to a clinical psychologist for counseling.

- Post deployment stress and PTSD screening and debriefing: during the last week in the operational area, psychologists get involved with the mental health levels of soldiers, before reunion with their families.
- Follow up PTSD treatment: some of the soldiers will need ongoing treatment on different dimensions i.e. conscious, personal subconscious or at body level which will need more consultations for total healing.

## The Holistic Treatment Approach: Stress and PTSD

With the high occurrence of wars, the changing nature of wars and the increased cruelty of ISIS wars, it is imperative that soldiers receive holistic treatment in order to keep them mentally healthy and combat ready. In the past, PTSD in soldiers has been treated only in part, primarily at a conscious level with only 'talk treatment' or psychological debriefings, while some 'unfinished business' remained stored in the personal subconscious mind or stored in the bodies of soldiers never received treatment for the last two dimensions (Levine, 2010).

A holistic treatment approach for stress and PTSD comprising the following dimensions is proposed:

- Conscious dimension: military psychologists need to develop a psychological plan to do assessments of soldiers before, during and after operations on stressors involved, stress and motivation levels and occurrence of PTSD. Psychological education is necessary, on different themes, as a buffer to protect the soldier from stress and PTSD, but the soldier is still influenced during the operation by his senses what he/she heard, saw, smelled, felt and experienced at a specific time during a specific incident (Van Dyk, 2016). In the operation, as part of the psychological plan, military psychologists can do psychological debriefing to finish at a conscious level as soon as possible, the traumatic experiences in order to prevent 'unfinished business' in the personal subconscious minds of soldiers. The psychological debriefing can also be used as a psychological triage to screen members who are combat ready to go back to war and those who need more psychotherapy may be referred to clinical psychologists who will conduct for example cognitive behavior therapies on a more conscious dimension. Some content can already be moved to the personal subconscious mind as 'unfinished business' and ask at a later stage for other psycho therapeutic interventions.

- Personal subconscious dimension: the term is derived from the psychoanalytic psychology of Jung. Jung believed the personal subconscious mind consists of traumatic content ('unfinished business') which a person stores, after the content is filtered through from the conscious mind of a soldier. This 'unfinished business' in the personal subconscious mind can be triggered by a 'new' incident in the here and now, with risks such as shooting incidents, or experience through PTSD symptoms like nightmares, explosive mood reactions, temper outbursts, avoiding places and aggressiveness. The psychologists need to change the treatment modus/modi to hypnotherapy, eye movement desensitization and reprocessing (EMDR) or eye movement integration (EMI) (Loubser, 2016). These psychotherapeutic modi can work 'deeper' on a personal subconscious level to help the soldier to deal with the unfinished business in order to protect his mental health and sustain his combat readiness and positive state of mind.
- Body dimension: traumatic symptoms (stress and PTSD as well) are psychological as well as physiological. New research (Scaer, 2007; Levine, 2010) shows how trauma affects the brain and body, and it is clear that 'talk therapy' is not enough to heal the automatic neurological, physical and hormonal responses of the body, as reactions on trauma. The trauma reaction of soldiers for protection, the fight-flight-freeze response is primarily a subconscious instructive response caused by neurological, biological and anatomical changes in the body, without the conscious consent of a person (Loubser, 2016). Meaning, it demands different psychotherapeutic modus/modi to heal the soldier on his body level. Loubser (2016) proposed different body therapies and tools as possible psychotherapeutic modi to heal soldiers on their body level:
    - Somatic experiencing (SE **™**) is a psychological therapeutic approach that mainly focusses on the release and resolution of physical reactions that occur in the body when a soldier experiences or remembers a traumatic event. SE is a therapeutic technique that can heal trauma at body level. According to Levine (2010) soldiers become traumatized after experiencing perceived life-threatening situations, because they do not release the energy that results from high levels of cortisol and adrenalin that flood their bodies in preparation for the fight-or flight response when faced with threat. Energy gets trapped in the soldier's body and can lead to symptoms like stress, anxiety, depression and PTSD.

SE, by clinical experience, heals the soldier from the stored fight-flight-freeze reaction and releases the trapped energy to experience a balanced body again.

- Tension and trauma releasing exercises (TRE ™) was developed by David Berceli as a body-based therapeutic tool. The TRE stretching exercises activate a tremor response controlled by the back brain to release previously stored stress, tension and traumatic experiences in the body (Berceli, 2008). Berceli learned when the soldier senses or detects danger, a neurological process takes place in the brain. The middle and back brain generate a reflex fight-flight-freeze reaction in the body. Chemicals, like adrenalin are released, causing a cascade of reactions in the body, including an increased blood flow to the muscles and contractions of the muscles with a high energetic charge necessary for defense. The body posture tenses and braces for protection. The TRE exercises activate a tremor response controlled by the back brain to release this stored body stress, tension and trauma to heal the soldier and protect his mental health and combat readiness.

## Posttraumatic Growth

According to Tedeschi and Calhoun (2004) post traumatic growth refers to positive psychological change experienced as a result of the struggle with highly challenging life circumstances. In this regard, Dekel, Ein-Dor and Solomon contributed that trauma has a salutogenic effect, soldiers can experience growth and develop a positive outlook. The authors wrote that post traumatic growth can increase personal strength, relational intimacy, sense of spirituality, appreciation and purpose in life. Meaning, psychologists on conscious, personal, subconscious and body level, must not only psychotherapeutically treat stored 'unfinished business', but also focus on the post traumatic growth potential to empower soldiers for future operations and teach them through personal and spiritual growth to protect their mental health and combat readiness.

## CONCLUSION

The military is a challenging career, with the nature of war that has changed over the past couple of years. These challenges challenge soldiers and military psychologists with new problems and opportunities to manage and treat stress and PTSD.

In the past, military psychologists approached management and treatment of stress and PTSD with a compartment approach; meaning to treat for example only on a cognitive or conscious level. This chapter sensitizes readers on the risks of such an approach.

The chapter explained a holistic approach to manage and treat stress and PTSD. The focus is on a preventative and management level, with treatment on a conscious, personal subconscious and body level. The chapter also explained the need to focus on post traumatic growth in order to protect the mental health of soldiers and sustain their combat readiness for future operations.

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# SOCIO-PSYCHOLOGICAL CONTEXT OF WAR AND WARRIORS AFTER THE WAR

**Ion Xenofontov**[*]

***Abstract*:** The objective of the present work is emerging from obscurity of the actors of an important and current historical event of the 20th century and the incorporation of some authentic "living archives" of the lived and narrated memories into the scientific field. These observations – findings of the former combatants, although sometimes fragmentary and deeply subjective, regarded as a whole, enhance the image of the Soviet intervention in Afghanistan, that is the occurrence of the "big history", outlining as well the original contributions to the field of polemology, comprehension of the phenomenon of war and its consequences, promotion of its prevention in the social life and deliberate acceptance of a peaceful coexistence values. The theoretical and methodological support of the research lies on the basis of the current achievements in the scientific field of history, marking at the same time a coordination with the perspectives of postmodern historiography "which is directed towards a new paradigm of knowledge and which has already shown significant results under the favourable sign of pluridisciplinarity." From the theoretical point of view, the subject discussed here belongs to the field of immediate history, while from the methodological point of view it belongs to the oral history. The Afghan syndrome, a psychosomatic trauma caused by the alerting agent – the war – is something that has a major long-term affective impact on the participants' identity.

***Key words*:** Afghan syndrome, combatants, intervention, USSR, Afghanistan.

The Soviet-Afghan war (1979–1989), which lasted for nine years and seven weeks was the longest military conflict in the history of the Soviet Union. The allocation of substantial financial sums even more intensified the economic crisis of Soviets which finally marked the collapse of the Soviet Union. Some authors suggest that the war in the *Mountain Country* (80% of Afghanistan territory is covered with montains) was the main cause of the Soviet Union destruction[35]. Kremlin, being self-conceit, recognized in the last moment the failure in Afghanistan as ,,indisputably, the most serious mistake

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[35] O.A. Vestad, *Prior to the Soviet Troops Entry in Afgahanistan in 1978–1979*, in *New and Newest History*, No. 2, 1994, p. 19.

that Moscow made in its external policy during the entire Soviet period"[36]. However, the Soviet intervention in Afghanistan, according to experts, meant „crossing the Detente" and „re-orienting of an external policy of many countries concerning the USSR"[37], the fact that finally initiated the broad *East-West* confrontation.

To keep Afghanistan under its influence, the Kremlin, according to official data, had to involve about 90 000 people; the total number of Soviet troops which made a military stage in this zone reached 620 000 people, the number of deaths being 15 051, whereas the other losses (physical disabilities) were estimated to 469 685[38].

According to the Soviet historiographic construction, there were two phases which had the impact on the base of the historical review. The First stage (end 1979 – mid-1980ies), with the USSR intervention in Afghanistan as a direct starting point, was characterized by the military conflict approach focused by Soviet propaganda, whereas the second stage, marked out by the Gorbachov's Perestroika (mid-1980ies), through the highlighting the „open wound" symptomology with regard to Afghan problem[39], finalized with the Soviet troops withdrawal from Afghanistan (1989). It was marked by publication of some reflections distant from the official version concerning this war. The Soviet leaders and official publications, obedient to the command administrative system, were concealing the truth about the Soviet-Afghan war since the end 1979 and up to the USSR collapse in 1991.

From the Moldovan Soviet Socialist Republic (MSSR), at that time a part of the USSR, 12 500 military men have participated in this war, 304 of them were killed, 4 disappeared and 700 remained with disabilities.The number of women participating in the war disaster was 83, and 50 of them now live in Chisinau. Ludmila Vladimir Prisacari (1959–1987) was the only Moldovan woman who lost her life in this war[40] .

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[36] Martin McCauley, *Russia, America and Cold War*. 1949–1991, Iaşi, Polirom, 1999, p. 34.

[37] Ibidem, p. 37.

[38] See: Peter Calvacoressi, *World Policy after 1945*, Bucharest, Alfa, 2000, p. 522; *Russia and USSR in the Wars of XX century. Losses of Armed Forces. Statistical Research*, / Under the general redaction of G.F.Krivosheev, PhD in military sciences, AMS Professor, Colonel-General, Moscow, Olma-Press, 2001, p. 536; Military Encyclopaedic Dictionary', Moscow, 2007, p. 642.

[39] *Political Report of the Central Committee of KPSU for XXVIIth Congress of Communist Party of The Soviet Union*, Moscow, Politizdat, 1986.

[40] *According to data from the Archive of the Union of Afghanistan War Veterans from the Republic of Moldova*.

As far as the participants from MSSR are concerned as well as the entire Soviet space, the Afghanistan war meant the detachment from the Soviet society (a dimension that could be very difficult to realize under the totalitarian regime) and, for the first time, the interaction with other civilization, thus posing themselves within the perimeter of a *geographic and social mobility*[41], a consideration that put them, after return to the USSR, into the other category of community. In this way, stratification of a social segment with an inedited experience, nominated with the word „Afghani", has implied, on one hand, the communitary interest towards the former Soviet combatants, and on the other hand, a distinct identification of people who passed through the series of traumatizing events. Such identification of "Afghan veterans", often placed in dichotomy with the community, has generated a series of dimensions, tense situations, issues marked with the reciprocal unknowable considerations and lack of the constructive dialogue. With this regard, it is indispensable to perform a study and to analyse the causes that provoked these conflict situations.

A major challenge in reconstruction of a lived history is connected with the eyewitnesses, i.e. people who were the actors of a historial act and who, proceeding from these considerations, are empowered with the function of information, being the essential participants of the historical facts and events. In order to elaborate the historical demers towards the lived history, a scientific research was undertaken targeted to the pre-established scope, based on the communication mechanism. As a direct consequence, we have primarily appealed to the oral survey in form of an interview (questionnarie) which made it possible to establish the interaction between the researcher (operator, interviewer) and interviewed person (respondent), i.e. eyewitnesses or direct participants of Soviet-Afghan war. To this end, during April 10, 2001 – March 30, 2011, 125 interviews were made[42] with former "Afghan" combatants from Soviet Moldova (currently, The Republic of Moldova). The segment of direct respondents included 104 men and 5 women, the fact that reveals the reflection of a historical event with the eyes of both from men and women[43].

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[41] Igor Caşu, *„National Policy in Soviet Moldova" (1944–1989)*, Chisinau, Cartdidact, 2000, p. 109.

[42] *Interviews kept in the Audio Archive of the Oral History Institute of Cluj-Napoca*, Romania.

[43] See Ion Xenofontov, *Războiul din Afghanistan în memoria participanţilor din Republica Moldova (1979–1989). Realitate istorică şi imaginar social,* Iași, Editura Lumen, 2010, 544 p.; *Idem, Războiul sovieto-afghan. Studiu de istorie verbală. Percepţii*. *Documente*, Editura Lumen, 2011, 549 p.

The topic discussed in the present study, within the aspect of the historical theory, is placed within the area of immediate history, whereas from the methodological point of view it belongs to the oral history[44].

In continuation, we will deal with the subject of complex consequences of the Soviet-Afghan war in the life of former Moldovan compatants. For the „Afghan" veterans from the Republic of Moldova, as well as for all the other participants from the ex-Soviet state, an active alarming agent –Afghanistan war – provoked the long-term psycho-pathologic consequences, disorders of mental nature, distorsioned with tumults of somatic diseases, imbalances, rise in the mental tension, chronic depressive state, paralysis, nerve tics, appetite disorders, etc., whereas some physical symptoms actually do not show the signs of disease as it is, representing their psychosomatic character.

Another corollary problem related to military conflict is an identity crisis of former combatants. The heterogeneous conditions have generated the distortion of the old values system and caused appearance of the new life visions and concepts. There are two extreme situations – conjugated by spacial bipolarity (Afghanistan–URSS) and temporal one (civil and military period) – in which the former military men were debitors of the totally different personal representation and behavior. The state of discomfort, transition from the armed conflict conditions towards the peaceful public and private life, family and social reintegration were manifested through the perturbations of personality. This circumstance was also aggravated by the basic changes in the concepts of the Soviet community, socio-economic and political crisis in the USSR, featured with the direct impact on the spiritual condition and even the health of population[45].

The society which the military men belonged to, dissappeared in the whirlpool of the events' waves, and the values they fought for and sacrificed themselves, the military ethos became an illusion, utopia. The external political factors were added could be added to these conditions. Because of the substantial international transformations, „by the end of the total war epoch, the military man is an obsolete figure"[46]. The people with war experience, especially the ones participating in the lost wars, are repudiated in

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[44] *Idem*, *Recent History and Oral History. Perspectives of Approach*, in *History Journal of Moldovga*, nr. 2, Chisinau, 2008, pp. 108-113.

[45] Linda J. Jones, *Social Context of Health Work*, London, 1994, p. 32; Mariana Măşcăuţeanu, *Impact of the Socio-economic Transformations on the Population's Health State*, *Journal of Philosophy, Sociology and Political Sciences*, Chisinau, nr. 2, 2007, pp. 132-138.

[46] *Man of the XXth Century* /Book coordinated by Ute Frevert and Heinz-Gerhard Haupt, Iaşi, Polirom, 2002, p. 295.

peacetime. In that sense, the Soviet society considered them as elements of haos, destabilization, marginalization. There was also one more significant aspect: by the end 90s of XXth century, within the landscape of the Soviet Union, an alternative thinking appeared, alternative to the social-political system, a mentality change, considered with the profound impact on the participants of Soviet-Afghan war. The events were developing in a specific way. During the military conflict in Afghanistan, the Soviet citizens faced the substantial transformations: Gorbachev's restructuring (*Perestroika*) and transparency (*Glasnosti*), demilitarization, internal problems of the country, which made the social dynamics tense. The Soviet and post-Soviet community (unlike the American one) did not want to share the sinister consequences of Afghanistan war (according to the ideological statement confirming that the USSR newer fails, the other cause that can be taken in consideration is the reality of this event) with the actors of the actions (i.e. the former combatants), the fact finalized with the bifurcation: Soviet society, hostile to military conflict, and former Soviet combatants frustrated because of the repudiation attitude[47]. Referring to the socialization of the former Soviet participants in the Afghanistan war, Boris Gromov, the former commander of the 40th Army, has mentioned the main appropriate impediment: "The society which had expedited them to war, was not prepared to accept them upon return"[48]. Or, according to the statement suggested by the Russian psychologict D. Olshansky, a social segment appeared which was defined as *the ours among the foreigners and the foreigners among the ours*[49]. Applying the concepts proposed by J.W. Pannebaker and B.L. Banasik, the community is placed within the perimeter of a critical period, defined as a predispozition of a mature individual to percieve the most significant events during the age 15–25, thus establishing a psychological distance in order to avoid the public mentioning of a dramatic social event, „considering the idea of war commemoration as a delicate or inappropriate problem"[50].

The bipolar cleavage – established between the society and participants in the Soviet-Afghan war – marked a more dynamic informational rhythm that could be captured by former combatants, whereas the passing

[47] Vezi Pozdnikov A.I., *Anti-war Syndrome or Betrayed Army*, Moscow, Voenizdat, 1990.

[48] M. Kozhukhov, Komandarm, în *Komsomolskaya pravda*, 16.02.1989, p. 4.

[49] D.V. Olshansky, „Afghan syndrome", in *Literature Review*, nr. 3, 1990, p. 15.

[50] J.W. Pannebaker, B.L. Banasik, *On the Creation and Maintenance of Collective Memories: History as Social Psychology*, în *Collective Memory of Political Events*, Lawrence Erbaum Associates Publishers, SUA, 1997, Apud Ticu Constantin, History and Memory. A Psychological Approach, in Xenopoliana, XI, nr. 3-4, 2003, p. 43. See also: Paul Ricoeur, *La mèmoire l'histoire, l'oubli*, Ed. Du Seuil, 2000.

from the armed conflict towards the peaceful life reflected on community after the end of the military calamity. The psychological discomfort caused by the armed conflict had the meaning of a barrier to adapting to peaceful conditions. The experience gained by the combatants caused the identity crisis, forming a ,,condition of internal war"[51] or crisis of a spiritual state[52]. The war veterans confirm the inevitability of this fact in their post-war life: ,,The endless war"[53]. ,,So many years passed, but I still face the images of war"[54]. ,,It's Afghanistan again. Many years passed, but it comes back"[55]. ,,I think that so far I could adapt" (Sv. Andreeva). ,,It is so difficult to adapt" (V. Botnari). ,,I was accomodated to the civil life with more difficulties than to war"[56]. ,,Frankly speaking: the military troops retreat does not mean the termination of Afghanistan war (s.n.)"[57]. ,,In our memories there will always be a long and difficult battle with war scenes"[58]. Therefore, a persienent behaviour was established in the memory of former combatants – *a war after war*, or the so-called *new war*[59].

This phychosomatic trauma of former combatants, caused by an abnormal experience[60], was also defined as a direct hostility, a psychological barrier, with sympathetic valences exalted in the post-war period[61] and

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[51] N.V. Ikushin, *Psychological Assistance to the Warriors who were in Afghanistan in the Rehabilitation Center of Belarus Republic*, *Psychological Journal*, v. 17, nr. 5, 1996, p. 102.

[52] Victor Deaconu, *Political-moral Factor in Modern War, Studies of Miliary History and Theory (Historical Retrospective, Contemporary Analyses)*, Bucharest, Military Publ.House, 1980, pp. 165-178.

[53] A.A. Kotenev, *Unfinished War*, in *http://www.rsva.info/biblio/prose_af/index. shtml* (accessed on 31.03.2006).

[54] O. Istomina, *Will Never Forget..., Youth of Moldova*, 24.04.1990, p. 1.

[55] Arkadij Malysh, *There Were no Awards then*, *Evening Chisinau*, 29 January 1988, p. 3.

[56] *Interview by Serghey Romanov with Serghey Dubko, a soldier from the reserve stock of special destination airborne forces: ,,We were trained for deep intelligence service", or ,,who has seen the group will not live anymore",* in *http://www.hro.org/editions/karta/nrr24-25/ dubko.htm* (accesed on 2 August 2003).

[57] *Interview with Mikhail Leshinsky, former correspondent of Gosteleradio in Afghanistan*, in *The Journalist*, No. 2, 1991, p. 11.

[58] Alina Ciobanu, *In Honour of those who Demonstrated Sacrifice and Courage*, *Oastea Moldovei*, 14 February 2009, p. 9.

[59] Ion Xenofontov, *Afghan Terror or War after War in the Life of Moldovan Compatants,* in *Emergency. Journal of Literature, Arts and Attitude*, No. 15, 2009, p. 13.

[60] Violeta Vrabii, *Stress – A Reality of all Times*, *Actual Problems of Socio-humanitarian Sciences in Conditions of European Integration*, Chisinau, Central Typography, 2006, pp. 473-476.

[61] Russian Psychologist V.V. Znakov, believes that for some participants the transition from military context towards peaceful conditions lasted for about two days: V.V. Znakov, *Psychological Research of Stereotypes in Understanding of Personality of the Participants of*

generated consequences in relations with family and society, that was symptomized in specialized literature through the synthetic notion *syndrome* (from Greek *sỳndromos* – going together), for example, *Vietnam syndrome, Afghan syndrome*.

Some other definitions are also used in the specialized literature: *military overworking, fighting exhaustion, military neurosis, post-traumatic stress, frontist syndrome, military syndrome, post-traumatic syndrome,* etc.[62].

After returning to the Soviet Union, the former combatants of the Afghanistan war were facing the psychological imbalance: life in the army, conjugated with the footprints of various confusing images, was extended indelibly to the peaceful environment. This adaptation mechanism was marked by the sudden passing from peace to war. During the military service, the Soviet combatants were not prepared to face post-war life. The officers, being influenced by the war episodes, had different concepts, antagonistic to the civil ones and that is where the effacement from the military instruction of combatants training for the after-war period comes from. Other norms were taken during the war – soldiers training for military actions, therefore, after coming back home, became prisoners of the context established by the military conflict, manifested on the level of subconscious (dreams), or they were resurrecting some skills and abilities gained during the war. Delirium is a general feature of military men in all historical periods; this usually implies two types of circumscribed reprezentations of war theatre: the first category involves the direct, unchanged images of war scenes, whereas the second category represents a modified picture. This mental phenomenon may be obstructed by insomnia, a direct form to obstruct the nightmare dreams, considered as a major impact on the inmental and physical condition of a person provoking the irritability, depression, memory affections, overwork, fever, excessive sweating, etc.: „In the night in my dream I saw the enemies" (A. Oprea). „I was talking while sleeping, I was reconnoitring at night" (A. Bytca). „While sleeping I was hearing the rumbles. The Afghan nightmare

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*Afghanistan War*, in *Voprosy psihologii (Issues of psychology)*, nr. 4, 1990, p. 110, p. 110; V.V. Znakov, *A letter to Editor's Office (Comparative analysis of psychological consequences of participation in war for veterans of Vietnam and Afghanistan)*, in *Psychological Journal*, No. 5, t. 11, 1990, p. 164). Our studies made it possible to conclude that the socialization process of former participants in the Soviet-Afghan war is actual.

[62] *Popular Medical Encyclopaedia*, Chisinau, Principal editorial team of Soviet Moldovan Encyclopaedia, 1984, p. 457-458; M. Magomed-Iminov, *Syndrome of front-line soldier*. in *Pobratim*, nr. 4, 1990, p. 5; N.V. Tarabina, E.O. Lazabnaya, *Syndrome of Post-traumatic Stress Disorders: State of the Art and the Problems*, in *Psychological Journal*, v. 13, nr. 2, 1992, p. 15; E.S. Senivskaya, *War Psychology in XX century: Historical Experience of Russia*, Moscow, 1999, p. 101, etc.

tortures me" (Şt. Matei). „The first year I woke up with every noise. I was sleeping with dad's gun under my head" (V. Cucu). „Then, when I went back to the Soviet Union, many of us could not sleep. Why? Maybe because it was silence... I had to start a tape recorder or music to fall asleep" (S. Pleshu). „When I came back, everything went well by day, but in the evening the emotions appeared (usually connected with the experience of the military actions in Afghanistan – n.n.)" (A. Trofeev). „In my night dreams I sometimes see Afghanul and I am scared"[63]. „16 Years have passed, but I am still thinking of it" (S. Vladicescu). „I was trembling while sleeping, the dead people were in my eyes" (P. Cojocar). „Just when I returned home, I had a terrible dream. I jumped out of sleep, shouted, and when I slept even deeper (I usually do not sleep well), my wife told me at the next day: You were crying this night through dream, you were talking about something but I could not understand what about" (V. Doroshenco). „Still, I have not been used to this life. Within a year. There, I was never sleeping at night. I mainly had a rest during day. We were sleeping during day, not at night, until we finally accomodated to sleeping. In the night we were walking sleepless. Maybe that is why I cannot sleep at night" (Al. Minciuc). „Before and now I can see the scenes of nightmare" (N. Sergheevici). „It was hard. I was not sleeping for three months until I put a knife under the pillow. At night we were crying, shouting while sleeping. And now it also happens. There are memories" (O. Valean). „Sometimes I am fighting all the night. I have a dream that someone extirpates me, the enemies torture me. I cry while sleeping"[64]. „When I came back home, I could not asleep silently for three months, because of a twitched sleep, and I was crying because of the acute headaches"[65]. „Till now I see Afganistan in my night dreams" (Tatiana Akimova). „Twelve years have passed already (...) The footprint remained for a whole life. I am crying and fighting during night while sleeping" (Vl. Furtuna). „I did the military service in artillery and since I have come home, I have been having the nightmares, I do not know for how long, I have a feeling as if they were shooting at me" (V. Jomico). Some night dreams were marked with the imminent succumbing[66].

*Anxiety* is another aspect of war consequences which can appear on the basis of the fight reflections. Any situation, image, sound manifesting any connection with military conflict is extrapolated towards the peaceful life. As a direct consequence of this psychological incursion, a pre-conditioned reflex

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[63] *Correspondence of Vrabie Family, (Letters from Turkmenistan, 18 April 1988). Private archive.*

[64] O. Istomina, *op. cit*., p. 1.

[65] V.G. Rudenko, *„Afghan Syndrome"*, in *www.afgan.da.ru* (accesed on 12.07.2004).

[66] A. Igumnov, *In my Dreams I See Afghanistan*, *Red Star*, 13 August 1989, p. 2.

appeared, specific for the tense situations – heart palpitations, rising the adrenaline level which generate the stress symptomes: depression, irritability, aggressiveness, insomnia, etc.: „I feel the soldier's trouble today as well"[67]. „When I go somewhere to nature, I am attentive all the time so as not to be hit by a mine. I had the active senses, when I was going through the forest I was thinking that there were mines there..., all the time I was watching where I was going..." (V. Jomico). „I remember, (...) once my car was broken in a place surrounded by vineyards and I was scared (a place where the enemies could hide – n.n.). It was such a reaction. It lasted a month or two, then everything settled" (A. Trofeev). „It was hard for me. And from the psychological point of view, you know, you have seen the plane and all the thoughts changed. And your thoughts are in Afghanistan. If a car moves and you can hear a metal body scrumbling sound, you cannot forget it at once, this is not an incursion?" (N. Sergheevici). „It is difficult to be adapted to „civil life" (note the quotes, in the sense of a priori environment – n.n.)... It was difficult at first: I got out of the habit to silence, calmness, civil life"[68].

The psychological imbalance was established on the basis of *awareness* (or the awareness crisis) of lived transformations as a result of a war (based on comparison); if for some people it meant the process of maturizing, as compared to fellows, for the others an identity crisis exacerbated, the fact revealed in the communication: „It was difficult for me when I returned home. Everything was disgusting, I could not support distractions" (V. Slanina). „I returned being more scared, maybe more wild" (V. Jomico). „My speech has been changed" (V. Botnari). „You go there as a young guy, and come back as an elderly man (s.n.)" (F. Talpă). „They did not think I was 20 years old, but 24–25" (M. Slutu). „I came back being a man, not a child any more as I had been when I had left home. I have to remember" (A. Dubenco).

The Soviet-Afghan war had impact – *volens, nolens* – on the family members of the combatants as well: „My mother repeats many times: it is like I was in army with you (s.n.). So much she was plagged, poor thing"[69]. For some families, the military conflict in Afghanistan is associated with the succombing of dear persons – children, parents, wives, etc. Russian journalist Svetlana Aleksievici reports a tumultuous testimony about the impact of family tragedy: „My best friend, who was like a brother to me, was brought

[67] Ana Manole, *Coming Back. Confesssions of Alexei Murzacu, native from Cainar, participant in the events in Afghanistan*, in *Vocea Poporului*, 19.06.1990, p. 4; *Idem, Afghan Crucade*, Chisinau, Cartea Moldovenească, p. 134.

[68] Vadim Dudakov, *Some Interviews about Afghanistan*, in *Literaturnyj Kirgizstan*, nr. 9, 1988,p. 97.

[69] Ana Manole, *Coming Back...*, p. 4.

home from a raid in the plastic bag... the head was separated, hands and legs separated, the skin was peeled... like a naked animal, instead of a beautiful and strong young man... His mother spent to years in hospitals. One night she ran away to the cemetry and wanted to be buried with him[70].

The family sensibility is also circumscribed in reevaluation of the historic stage related to this event, analysed through the critical, negative prism. This aspect may cause the sufferings of family members of those fallen in Afghanistan: „My has been studying at the lyceum. Last year he had to write an essay. He tried to interpret the Soviet-Afghan war in accordance with the Voice of America. Although I could correct him, I didn't like to do so. But the fact that we were called conquerors... We just knew him in a different way (the talk is about her brother – Moroz, n.n.). This is our painful point (s.n.)" (G. Metodi). For the parents of former combatants the affection came to paroxism, due to obnubilation of the events repression, and consideration that „now everything about this war will be forgotten" (Iustina Gavrilovna Pirogov). From here comes the suffering augmentation, and passing away of the close people is marked by an illusion.

The former „Afghan" combatants try to protect their families from the war memories: „My children ask me what was happening there, but I do not tell them anything"[71].

However, the most difficult question concerns the relations of former combatants with the society. If at a moment the consensus with ego or with family has been established (although for some people this dimension persists), the reintegration in the society is regarded in a different way. Socialization of former participants in the Soviet-Afghan came to the level of exhortation and propaganda: „the militants of the Armed Forces performed their service in Afghanistan with honour and dignity"[72], or „the facts on their courage are our honour, their experience is our value"[73], althouth the same authors recognize the discrepancy between the former combatants and community[74]. The Romanian psychologict Catalin Stanciu describes the conflict between the former „Afghan" combatants and the society as follows : „In a post-soldierly period, many of them (veterans) become agressive, have a clastic behavior, impulsive, sometimes with regard to

[70] Svetlana Aleksievich, *Zinc boys*, in *Druzba narodov*, nr. 7, 1990, p. 10.

[71] Alexandru Vakulovski, *Afghan People*, Bucharest, Publ. House Tracus Arte, 2016, pp. 111-112.

[72] K. Cagalov, Harrison S., *Afghan War. A View from Today*, in *Vostok (East)*, nr. 2, 1991,p. 228.

[73] V. Novosadiuc, *Facts on Their Courage is Our Pride, Their Experience – a Good of All*, in *Socialist Moldova*, 12 March 1988, pp. 1, 3.

[74] *Ibidem*, p. 3.

their families as well. The conflicts with neighbours or on the streets are often happening. Despite the fact that they are great souls, the behavior is sometimes deeply vicios"[75]. *Grosso modo,* the differences between two polarities – a society and veterans of the Afghanistan war – were/are manifesting on the conceptual level. If the society believes that the former military men will be adapted to the common lifestyle through the behavior uniformization of thinking paradigm, etc., established on the basis of social adaptation, then the veterans consider themselved placed into the perimeter of exiles, in a contra-society, attributed with its own rules and experience, where the different codes and principles are acting. The cleavage of former combatants with society was/is expressed through the diverse forms, corroborated with the individual features of each former combatant: *opposition, isolationism, agressivness, violence, inferiority complex, bureaucracy*.

It should be mentioned that out of 11 veterans of Soviet-Afghan war interviewed in summer 2001 by journalist and writer Alexandru Vakulovski „no one regreted their participation in the Afghanistan war, mentioning that if the war repeated, they would not be evading to repeat the experience"[76].

A part of the former combatants tried/try to subdue their emotions inside with the so-called *palliative strategies*[77], such as: alcohol, sedative drugs, tranquilizers, etc.

In a broader sense, the *Afghan syndrome* has been reflected on the former Soviet advisers in the Afghanistan war as well. Ben Laden and his soldiers were also marked with this psychological complex. According to the analysis of Russian psychologist D.V. Olshansky, Ben Laden, the architect of the international terrorism, suffered from the so-called „Afghan syndrome" of the eternal combatant, which had catalysed his subversive activity[78]. *Afghan syndrome* represents an issue faced by the civil Afghan population as well. During his travel to Asia, the Americal correspondent Robert D. Kaplan met with Jimblatt, leader of Druze community. Talking about the fact that millions of Muslims had been killed in Afghanistan by communists, Jimblatt said: „But they also gave arms and assistance to my people..."[79].

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[75] Catalin Stanciu, *Homeland Treaty for Psychotraumatology*, *Military Journal. Studies of Security and Defence*, Chisinau, nr. 2 (16), 2016, p. 245.

[76] Vasile Haheu, *Sacrified Soldiers*, *Military Journal. Studies on Security and Defence. Research Publication*, Chisinău, nr. 2 (16), 2016, p. 243.

[77] Larisa Kobylyanskaya, *Psychological Determinants of the Behaviour Strategy Selection in the Difficult Life Situations*. Autoreferate of psychology doctor thesis, Chisinau, 2007, p. 8.

[78] D.V. Olshansky, *Psychology of Terrorism*, Spb., Piter, 2002, pp. 241-250;

[79] Robert D. Kaplan, *Towards the East from Tartaria. Trip to Balkans, Middle East and Caucasus*, Iaşi, Polirom, 2002, p. 212.

The reintegration of the former Moldovan combatants in Afghanistan into family and society was marked by the *Afghan syndrome*, a psychosomatic trauma caused by the alerting agent – the war – which had a major long-term affective impact on the participants' identity. The socialization was impeded by various disputes with the society occurring at conceptual level, and today the "Afghan" veterans are actually going through a phase of integration into society, after the estrangement determined by the respective event.

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# PSYCHOTHERAPY WITH SOLDIERS AND VETERANS: OBSTACLES TO OPENNESS IN SHARING THEIR EXPERIENCES

**Andreja Bubanj**[*]

**Abstract:** In clinical practice, it is more the rule than the exception that soldiers or veterans who access mental health services, including psychological intervention, do so with what appears to be a lack of openness and a rather cautious engagement in the therapeutic process. Soldiers and veterans' reluctance to share the details of the traumatic experiences in psychotherapy becomes an obstacle to both the establishment and maintenance of a therapeutic alliance and treatment progress.

Based on clinical observation and self-report from soldiers and veterans in a clinical setting, a number of field-based perspectives may serve to explain some of the reasons for this observed reluctance in soldiers and veterans who, following deployments, struggle to share the core traumatic events they had either witnessed or participated in during their deployment(s).

Based on these observations some suggestions are offered to enhance the establishment of a therapeutic alliance, the development of rapport, and improvement of therapy outcomes.

## INTRODUCTION

*"Those who can make you believe absurdities, can make you commit atrocities." Voltaire*

From a clinician's perspective, the therapeutic alliance process starts at the time of referral, when the clinician makes the decision to either accept or reject the new patient based on the clinician's comfort (or not) with the often meagre information provided with the referral. Not so for the patient, who often comes in to the first appointment with much uncertainty, anxiety and even trepidation. Whereas therapists are confident about their skills in dealing with the challenges posed in psychotherapy, soldiers and veterans enter a novel and unstructured environment for which their military training did not prepare them.

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The new admission arrives and, if the typical soldier or veteran, their clinical presentation suggests at best an awkward and at worst a rather hostile attitude. This is enough to trigger a cascade of hypothetical thinking in the mind of an experienced clinician, whereas for the inexperienced clinician it evokes tension, uncertainty, and even a sense of inadequacy. Regardless of the skill set of the clinician, these first reactions and thoughts on the presentation of the newly-arrived soldier or veteran may directly contribute to the potential barriers in establishing a therapeutic alliance and bringing about sharing of core trauma experiences that require therapeutic intervention. This in turn requires more time, greater effort, and additional skills and tools on the part of the clinician therapist to connect, establish rapport, build trust, and finally start therapy that may lead to an optimal outcome for the soldier or veteran. On the other hand, without such barriers these processes would be more streamlined and the turn-around would be much quicker. Hence, the first step in establishing a good therapeutic alliance (or not) appears to be the clinician's presentation as observed by the soldier or veteran. In simple English: does the soldier or veteran perceive a *potential match* with the clinician they have just met?

It has been known for decades that the therapeutic alliance is an important, if not the most important factor in ensuring a successful outcome in any treatment intervention. A meta-analysis by Horwath and Symonds (1991) indicated a moderate but reliable association between a good working alliance and a positive therapy outcome. This was confirmed by Martin et al. (2000) and their results also indicated that the quality of the therapeutic alliance was more predictive of a positive outcome than the type of intervention. Therefore, provided that a therapeutic alliance can be established, a trained, skilled, and experienced clinician should have no difficulty treating members of the military who seek help following deployment. Or, is it not so?

## EVIDENCE-BASED TREATMENT FOR PTSD

According to Youngner et. al. (2013) evidenced-based trauma-focussed psychotherapy options are exposure therapy, cognitive processing therapy, eye-movement desensitization and reprocessing, and stress inoculation training. Emerging treatment innovations appear to be medication-enhanced psychotherapy, virtual reality exposure therapy, psychotherapy delivered via telemedicine, and complementary and alternative medicine-based therapies. Various forms of trauma-focussed cognitive behavioural therapy appear to be equally efficacious. Because many patients fail to respond to these treatments, however, more research on the efficacy of alternative treatment approaches is necessary.

A review of randomized clinical trials performed by Steenkamp et al., (2015) found that, although CPT and prolonged exposure have shown clinically meaningful improvements for many soldiers and veterans struggling with PTSD, these patients continue to struggle with high non-response rates and ongoing clinically significant symptoms. Hence, trauma-focussed interventions showed marginally superior results compared with active control conditions. The researchers highlight a need for improvement in existing PTSD treatments and for the development and testing of new treatments that would be both trauma- and non-trauma-focussed.

Recently Gobin et al. (2017) reported an interesting finding: data from a recent randomized clinical trial found differences between women veterans and civilians in posttraumatic stress disorder treatment response, with civilians demonstrating greater improvement than did veterans. Despite having similar PTSD severity scores at baseline, veterans scored significantly higher than civilians did on a PTSD Scale post-treatment. One of the measures of change in therapy was the Posttraumatic Cognition Inventory, a measure that aims at identifying dysfunctional cognitions that play a key role in the development and persistence of trauma-related disorders. This measure taps into three factors: negative view of self, negative view of world, and self-blame. Although scores on the PTCI for veterans and civilians were similar at the baseline, at post-treatment civilians had significantly lower scores. The researchers opined that this mediation appeared to be at least in part explained by lower treatment expectancies by veterans compared to civilians. On the other hand, in this author's opinion it may also suggest that the veterans' cognitive distortions are either different or more resistant to change during the treatment. This poses the questions: If they are different, how so? and: If they are more treatment resistant, why is that? Is it possible that this difference is perhaps related to a another component more specific to soldiers and veterans, such as moral injury?

## WHAT IS MORAL INJURY?

The definition of moral injury, as cited by Jonathan Shay (2014), an American psychiatrist who worked with veterans within the US government as well as provided care in private practice, includes all three following components: 1) a betrayal of "what's right" either by 2) a person in legitimate authority or by one's self in 3) a high stakes situation. Betrayal represents a breach of trust, it constitutes the recognition that what was believed to be true or right, is not.

Carnes (1997) suggests that betrayal is "a form of abandonment". Fusion of these two definitions would suggests that in a high-risk situation,

either as a result of own actions or the (in)actions of others, particularly those in authority, soldiers can feel that either they or others betrayed and abandoned highly regarded moral values. According to Carnes (1997), "Abandonment creates deep shame." Burgo (2013) describes shame as "*the painful feeling arising from the consciousness of something dishonorable, improper, ridiculous, etc., done by oneself or another."*

It is through moral development that individuals form a sense of what is right and wrong, proper and improper? The notion of development includes progression and our moral thinking moves from simple and finite definitions of right and wrong to more complex ways of distinguishing right from wrong. While researching moral development, Kohlberg (1973, 1976) proposed a model that includes six stages over three levels: pre-conventional morality, conventional morality, and post-conventional morality. The post-conventional morality, which according to Kohlberg is not reached by all adults, postulates that an individual's own perspective may take precedence over society's view. Kohlberg postulated that during the first stage of post-conventional morality an individual acquires an understanding of social mutuality and genuine interest in the welfare of others, while the last stage is marked by adopting respect for universal principles and the demands of individual conscience.

The questions raised from Kohlberg's work for the purpose of this chapter are: What happens when the values of social mutuality, interest in the welfare of others, respect for universal principles and even individual conscience are shattered? Is that what happens to soldiers who witness the horror of war operations while deployed in theatre?

## CAN MORAL INJURY EXPLAIN THE DISCREPANCY IN TREATMENT OUTCOME?

Based on the notion explained earlier that soldiers are treatment resistant and that modalities that were proved to be efficient treatments for posttraumatic stress disorder with other populations do not demonstrate same level of efficiency with soldiers and veterans, it is worth exploring the postulate of moral injury and its impact on mental health.

For the past several years questions have been asked about differences and similarities between PTSD and moral injury. According to Maguen and Litz (Undated) more research is needed in order to determine the overlap or uniqueness of the two concepts. However, these authors reference a definition of moral injury as far back as 2009 as: "perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and expectations" (Maguen and Litz, 2012).

Prior to being exposed to combat situations soldiers train. The long and hard training focusses on physical and mental readiness for combat and also on adopting the standard and expected military values. For example, the Canadian Department of National Defence and the Canadian Forces Code of Values and Ethics (forces.gc.ca/code-of-values-and-ethics) include ethical principles that encompass respect for the dignity of all persons, serving Canada before self, and obeying and supporting lawful authority. The values include integrity, loyalty, courage, duty, stewardship, and excellence. Parts of the description of integrity state the following: "*Accordingly, being a person of integrity calls for honesty, the avoidance of deception and adherence to high ethical standards. Integrity insists that your actions be consistent with established codes of conduct and institutional values. It specifically requires transparency in actions, speaking and acting with honesty and candour, the pursuit of truth regardless of personal consequences, and a dedication to fairness and justice*." The courage definition includes the following statement: *"It enables making the right choice among difficult alternatives."*

The stark contrast between the ideal and the reality of the circumstances that vary from deployment to deployment, each with its own challenges, may create significant cognitive dissonance for soldiers. When deployed in the hostile environment that constitute the theatre of operations, is it always possible for a soldier to respect the dignity of all persons? Are all of the war operations allowing for honesty, candour, and avoidance of deception? What is the right choice and what is the truth? Is it possible that the discrepancy between the "idealistic" military training and the "harsh reality" of the deployment circumstances indeed is what may be causing significant cognitive dissonance for soldiers?

According to Festinger's cognitive dissonance theory as mentioned earlier, an individual experiences mental discomfort after taking an action that seems to be in conflict with his or her starting attitude. He postulates that, *"…in the presence of a dissonance, one will be able to observe the attempts to reduce it. If attempts to reduce dissonance fail, one should be able to observe symptoms of psychological discomfort…"* Is it possible that this discomfort that arises from actions that are in conflict with the starting attitude are at the core of the development of moral injury?

To complicate this even more: studies have shown that people with high self-esteem experience greater dissonance arousal than people with low self-esteem (Miller et. al., 2015). If it is accepted that soldiers are trained to achieve a high level of confidence in their capacity and ability to neutralize the enemy, supported by a strong belief in the moral righteousness of their mission and in the capacity of their leadership to *"do the right thing"* and *"make the right decision"* would that mean that potential disillusionment with the beliefs

and the task accomplishment may be affecting them on multiple levels related to morality, values, virtues, ethics, etc.?

Especially in combat the reality of the almost inhuman capacity to commit the most horrible atrocities would for at least some soldiers make it nigh impossible to resort to primary psychological defence mechanisms of denial that otherwise would allow one to ignore the facts and not accepting things one does not want to believe in. The truth in a theatre of war however, is undeniably clear, naked, and indisputable. It does not allow combatants to look away, to ignore, to pretend that it is not there, or to resort to any of the standard psychological mechanisms for coping with the dissonance of what is taking place. When the belief in the righteousness of what one is doing fails, the sudden awareness of the full reality of what a combat situation entails may indeed shatter one's existing beliefs about self, others, and the current world-view, in the process destroying completely what perception of morality had existed.

This loss cannot be restored, but it has to be re-built from the ground up. This means that a new reality has to be recreated, a way must be found to live with the events of the past while working towards a more balanced future. This, in spite of the chaos that had been inflicted on the otherwise moral beliefs that had pre-existed the combat and/or deployment experiences.

## COMING HOME WITH A STORY TO LIVE WITH

In a pamphlet, "10 Tough Facts About Combat" the study team described *"Tough Fact #10"* as follows: *"Combat poses moral and ethical challenges"*. Furthermore, it was stated that in combat soldiers are exposed to the reality of death and that combat tests the character of soldiers and leaders. It suggests that leaders need to discuss the moral implications of soldiers' behaviour in combat, and how individual sacrifice contributes to the enduring freedom of fighting for the country. It ends with the notion that, *"Every Soldier needs to come home with a story that he or she can live with."*

Unfortunately, due to a myriad of reasons not necessarily related to the exposure to death or the character strength, *soldiers come home with stories that they struggle to live with*. They are exposed to acts of violence and terror that do not follow the principles of right, proper or civilized rules of engagement or even the expected behaviours. Instead they sometimes find themselves in the role of being similar to the perpetrators and villains that they had believed they would be fighting against. This, in turn, forces them to recognize their own capacity to take lives and to engage in *"evil"* behaviours. In addition to questioning their individual motives and values they also question systemic motives and values. In this process they struggle to find the

same meaning in the human suffering, the evilness, the perceived futility of the mission and the resultant suffering they have experienced because of it, when compared to the idealism inherent in the morality and values with which they had deployed.

Based purely on clinical observation and the exploration of recurrent themes in therapy once soldiers and veterans open up during the therapeutic process, a rather simple reality surfaces. Soldiers enter combat with a clear image of the insurgent or enemy, believing in their own just cause for the fight and in their contribution to the greater good of society and humanity. This belief set is comparable to the social mutuality, interest in the welfare of others, respect for universal principles, and individual conscience described in Kohlberg's theory. However, the shattering of these values when experienced in specifically deployment and/or combat comes about from high levels of cognitive dissonance and disillusionment, causing emotional distress. The combination of the perceived loss of values, the cognitive confusion, and the emotional distress then creates a fertile ground for an existential struggle that affects the core issues of being, bringing about a loss of sense of self, the ability to trust others, and disconnectedness from humankind, the latter with perhaps the exception of those comrades who had shared these same experiences. However, even in discussing these events amongst themselves, most veterans and soldiers admit in therapy that the core issues are never touched upon for fear of loss of the last vestige of human connectedness they have had since their lives were changed by their deployment and/or combat experiences.

## CONCLUSION: A FEW FINAL THOUGHTS

A core problem in the treatment of mental health conditions in soldiers and veterans is the apparent lack of progress and recovery of these individuals when compared to civilians, using the same efficacious treatment approaches. While the reasons for this discrepancy are not clear, this author concluded during years of clinical practice that this difficulty faced by soldiers and veterans is perhaps because the right questions have not been asked, such as:

- What causes difficulties in establishing therapeutic alliance and rapport with a soldier or veteran?

- What prevents soldiers or veterans from trusting the therapist or the therapeutic process sufficiently to optimally benefit from it?

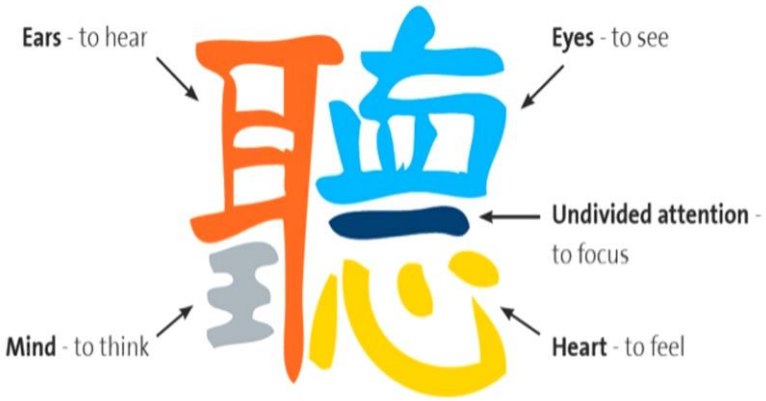
- What really prevents a soldier or veteran from telling his or her own story?

Some of the root causes were explored, starting with the reaction of the clinician to the presentation of the soldier or veteran. This reaction requires a paradigm shift towards an understanding of the experiences of the soldier or veteran who is now a totally different state of mind and out of depth due to the loss of structure the military had provided during the deployment. Faced with something they themselves do not understand, they believe that they cannot be understood by people who had not shared their experiences, hence they experience themselves as damaged beyond repair given how disconnected they feel from self and others.

Having no one to turn to who can understand and explain their cognitive dissonance, the sense of betrayal, the loss of a moral compass and the difference they feel in themselves once back from deployment, it is to be expected that soldiers and veterans would have difficulty with trusting essentially a stranger, the clinician, the process of therapy, and finding the safety they need to be able to open up about their experiences.

It may be worthwhile to consider a recent paradigm shift in psychotherapy, described as an "emotion revolution" in that there is a move away from conscious cognition to non-conscious processing of the affect, as proposed by Schore (2009). Most recently, Schore (2017) postulated that a shift away from the analytical left to the intuitive right brain allows listening *"beneath the words"* and so creates fertile ground for creativity. The creativity lies in approaching each individual separately, assessing and understanding his or her individual needs, and then aligning with their perception, thinking and feeling in the expression of the therapist's expertise and creation. This becomes "the art of psychotherapy" that results not only in symptom reduction and but also in growth promotion.

This means that the clinician is first of all a listener who identifies the pieces of the puzzle that will serve to integrate the combat experience into the existing sense of self while simultaneously transforming the story of an evil, life- and self-changing experience, which a soldier or veteran cannot live with, into a story the soldier can live with. This requires a non-judgmental and not-scared listener, who does not need to have experienced combat or, sometimes even have clinical experience. In this, the Japanese symbol for listening illustrates all the components of non-judgmental and active listening:




Only then the following statement makes sense for those clinicians who want to help those soldiers and veterans who had suffered so much:

*"What it takes is the humility and wisdom to realize that human beings have the capacity in the crucible of war, in the struggle for survival, to act in surprisingly noble and surprisingly ignoble ways. If you are able to accept your own shadow, then you can be a non-judgmental listener, and by being such a listener you could save a veteran's life."* (interfaithveteranworkgroup, 2016, understanding-treating-moral-injury)

*"One must have chaos in oneself in order to give birth to a dancing star." Nietzsche*

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Honores in Psychology (1983), Magister Artium in Psychology (1984), and Doctor Philosophae (Psychology) (1986) at the University of Pretoria, all through extra-mural studies. From June 1985 until August 1988, Dr. Gouws served as the Assistant Military, Air and Naval Attaché in Lisbon, Portugal, holding the military rank of major. The Portuguese Defence Force awarded him the much coveted Military Merit Decoration, Class 2 (Senior Officers) for meritorious service. This was the first time in the decades' long history of military ties between the two countries that a South African Assistant Military Attaché was thus honoured for his period of diplomatic representation. Dr. Gouws is also a recipient of the South African Military Merit Medal (with post-nominal title MMM), the Good Service Medal, Bronze, the General Service Medal, and the Unitas Medal. On January1, 1990, Dr. Gouws was appointed Head, Department of Industrial Psychology, Faculty of Military Science, University of Stellenbosch. Aside from holding an academic appointment as "functional associate professor" he also held the military rank of Lieutenant-Colonel at the Military Academy, the domicilium citandi of the Faculty of Military Science. During his tenure at the Faculty of Military Science, Dr. Gouws developed the Department of Industrial Psychology into one of the leading and most professional academic training institutions in South Africa. This included the development of an undergraduate and post-graduate academic training module in Military Psychology, a first in Africa at the time. Dr. Gouws left South Africa in July 1995, when he emigrated to Canada. In Canada Dr. Gouws has extensive experience working with injured civilians, as well as members of the police, military, veterans, and disaster response professions. He is a frequent speaker at conventions and workshops and is quoted in the national media in Canada on particular PTSD and how it manifests in soldiers. He has published several book chapters and papers on Military Psychology. Since 2012, he also presented some of his work at IMTA and IAMPS Conferences.

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He is a combat veteran with proven leadership skills in Siachen Glacier, which, at 21000 ft is the highest battlefield in the world where he commanded

an Infantry rifle company as a volunteer Officer. He was conferred a President's gallantry award for recapturing enemy held positions in Batalik sector during Kargil operations in 1999. An injury sustained during the war created a lateral shift as he channelized his energies from soldiering and new windows opened up for scholarly pursuits. With a PhD. in Psychology, Masters in Management and a M.Phil in Defence & Strategic Studies, Samir brings with him over three decades of experience in training and human resource optimization in the Armed forces. He has been a visiting faculty /guest speaker to many academic, corporate & military training institutions and is a regular consultant to senior Army leadership on matters pertaining to stress optimization, Soldier and Leader performance and psychological fitness. His efforts revolve around improving psychological fitness and well being of individuals working in diverse settings. Based on principles of Positive Psychology, he focuses on building and enriching of human strengths, their assessment, and evidence-based methods of enhancing emotional, social, family, and spiritual fitness of individuals. Samir was the first psychologist to be posted to the National Defence Academy, Khadakwasla, the cradle of military leadership in India. He was also Psychologist to the Army shooting team that won more than 10 gold medals in the 2010 Commonwealth games. He is a guest speaker at well known international think tanks and academic and military institutions; he has been a guest faculty for 6 years for every single course at Senior Command Course at the Army War College to speak on matters of personal and organizational resilience building in context of challenges to military leadership. Besides, Dr Samir Rawat has written, published as well as presented psychology and military papers in National as well as International conferences in India and abroad. He has contributed extensively to military and academic journals of repute as well as been cited in leading national newspapers; he has edited five books on military psychology in India and has contributed book chapters in over ten military psychology books published across three continents. He has taught a diverse group of population ranging from military recruits, cadets, Young Officers, Commanding officers of the Armed forces, Para Military Forces and friendly foreign countries. In his spare time, Col (Dr) Samir Rawat enjoys motorcycling and is a member of the Harley owners group (HOG). He is presently pursuing his doctoral research in management with an emphasis on self regulation at the Symbiosis International University in Pune, India

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