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Identification of Factors for the Prevention and Elimination of Undesirable Forms of Impulsive Behavior in the Context of Solving Difficult Situations Under Conditions of Professional Activities of Military Leadership Students

Identifikace faktorů prevence a eliminace nežádoucích forem impulzivního chování v rámci řešení obtížných situací v podmínkách profesionální činnosti studenta vojenského leadershipu

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Abstract: The effective leadership and the effectiveness of a leader reflect, as the strongest factor, the degree of his transformational approach, which influences the objectively measured performance of the led group. The main goal of the pilot research study was to identify personality and psychophysiological factors that could be monitored in the prevention and elimination of undesirable forms of impulsive behavior in the context of solving difficult situations in real conditions for professional leadership students according to the Big Five theory. The chosen research design made it possible to effectively combine the advantages of a behavioral and personalized approach to the study of impulsivity.

Abstrakt: Efektivní leadership a efektivita lídra odráží jako nejsilnější faktor míru jeho transformačního přístupu, který ovlivňuje objektivně měřený výkon vedené skupiny. Hlavním cílem pilotní výzkumné studie bylo identifikovat osobnostní a psychofyziologické faktory, které by bylo možné sledovat při prevenci a eliminaci nežádoucích forem impulzivního chování v kontextu řešení obtížných situací v reálných podmínkách studentů profesionálního leadershipu podle teorie velké pětky. Zvolený design výzkumu umožnil efektivně spojit výhody behaviorálního a personalizovaného přístupu ke studiu impulzivity.

Key words: Impulsivity; Personality Characteristics; Attention; Stress; Military Leadership.

Klíčová slova: impulsivita; personální charaktaristiky; pozornost; stress; vojenský leadership.

INTRODUCTION

The effective leadership and the effectiveness of a leader reflect, as the strongest factor, the degree of his transformational approach, which influences the objectively measured performance of the led group. The transformational approach consists of using four tools - charismatic behavior (sometimes called idealized influence), inspiring followers (or inspiring motivation), intellectual stimulation, and a personal approach. Charismatic behavior includes moral, consistent behavior, as well as behavior that implies that the leader believes in himself [1]. Inspiration of followers is focused on energizing and motivating subordinates and includes setting an attractive vision and goals by which the leader dignifies future progress and makes sense for the further direction of the group. The inspiring leader shows his faith in the fulfillment of goals and vision and acts optimistically. An intellectually stimulating leader requires subordinates' ideas. He engages his followers, leads them to seek new ways, and encourages them to think unconventionally [2],[3],[4]. As part of a personal approach, the leader expresses interest in his followers, knows and takes into account their strengths, reserves, and needs, and thus creates in them a feeling that they are important [5],[6],[7].

The transformational approach of a leader is manifested by behavior that is observable, measurable, and can be developed. This makes the transformational approach a suitable criterion for evaluating leaders (e.g. through 360° feedback or a development center) and a suitable target for development programs. Although the transformational approach consists primarily of behavior that can be learned and developed, there are relatively lasting personality characteristics of leaders that have a partial influence on

1 BASS, B. M., AVOLIO, B. J., JUNG, D. I., & BERSON, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88(2): 207-218. 10.1037/0021-9010.88.2.207.

2 SALAHUDDIN, M. M. (2010). Generational differences impact on leadership style and organizational success. *Journal of Diversity Management*, 5(2), 1-6.

3 KIRKBRIDE, P. (2006). Developing transformational leaders: the full range leadership model in action. *Industrial and Commercial Training*, 38(1), 23-32.

4 LIEVENS, P. VAN GEIT, P. , & COETSIER, P. (1997). Identification of transformational leadership qualities: An examination of potential biases. *European Journal of Work and Organizational Psychology*, 6(4), 415-430. 10.1080/135943297399015

5 AVOLIO, B. J., & BASS, B. M. (2004). *Multifactor Leadership Questionnaire*. Redwood City: Mind Garden.

6 OXARART, R. A., & HOUGHTON, J. D. (2021). Spoonful of Sugar: Gamification as Means for Enhancing Employee Self-Leadership and Self Concordance at Work. *Administrative Sciences*, 11(2): 1-16. 10.3390/admsci11020035

7 KLJUČNIKOV, A., CIVELEK, M., POLÁCH, J., MIKOLÁŠ, Z., & BANOT, M. (2020). How do security and benefits instill trustworthiness of a digital local currency? *Oeconomia Copernicana*, 11(3), 433-465. 10.24136/oc.2020.018

whether and how much the leader will apply the transformational approach. These can be a suitable criterion for selecting new candidates for managerial positions [8,9].

In addition to the emphasis on the ability to act synergistically and synchronize the functions and activities of systems in a changing environment, the importance of capabilities related to the issue of asymmetric action is constantly growing. The asymmetric approach is related to proactivity, the symmetrical (linear) approach to reactivity, and is related to the effectiveness of action during the development of the conflict [10]. For the environment of contemporary military operations emphasizing proactivity, asymmetry, and the above-mentioned characteristics, it is not enough, just mental and physical resilience or condition or the will and motivation of the individual. In terms of training people, asymmetric action is related to the requirements for such qualities of military professionals and commanders, such as critical and creative thinking, mental condition, and other qualities [11,12]. One possible way to create and improve the ability of professionals and commanders to perform and manage asymmetric operations is the concept of "Janus" thinking or the concept of the Cognitive continuum for reasoning in stress [13,14,15].

1 RESEARCH OBJECTIVE, METHODOLOGY, AND DATA

1.1 Research objective

The primary research goal of the study was to map the degree of impulsivity and its relationship to personality characteristics according to the Big Five model and levels of attention concerning selected psychophysiological correlates of stress in training in simple blasting in military leadership students. This research plan is associated with the identification of personality and psychophysiological dispositions influencing the level of

8 PROCHÁZKA, J., VACULÍK, M., & SMUTNÝ, P. (2013). *Psychologie efektivního leadershipu*. Praha: Grada Publishing.

9 GŁÓD, W. (2018). Transformational leadership style in the relationship between innovation and efficiency of healthcare units in Poland. *Oeconomia Copernicana*, 9(4), 731-753. 10.24136/oc.2018.036

10 MAYKRANTZ, S. A., LANGLINAIS, L. A., HOUGHTON, J. D., & NECK, CH. P. (2021). Self-Leadership and Psychological Capital as Key Cognitive Resources for Shaping Health-Protective Behaviors during the COVID-19 Pandemic. *Administrative Sciences*, 11(2): 1-14. 10.3390/admsci11020041

11 SALIGER, R., POKORNÝ, V., & PINDEŠOVÁ, E. (2010). *Kognitivní management*. Brno: Univerzita obrany.

12 TOMKINS, L., HARTLEY, J. & BRISTOW, A. (2020). Asymmetries of leadership: Agency, response and reason. *Leadership*, 16(1): 87-106. 10.1177/1742715019885768

13 PAPARONE, CH. R. & CRUPI, J. A. (2002). Janusian Thinking and Acting. *Military Review*, (1), 38-47.

14 KOSTROŇ, L. (1997). *Psychologie usuzování – teorie a metodologie Egona Brunswika, K.R. Hammonda a jejich následovníků*. Brno: Masarykova univerzita.

15 HAMMOND, R. K. (2000). *Judgments under stress*. New York: Oxford University Press.

ability to concentrate attention and manage stress. The research goal was chosen about the need to prevent and eliminate undesirable forms of impulsive behavior in stressful situations in the context of decision-making and solving difficult situations in real conditions for professional leadership students, to minimize the risk of damage or injury.

1.2 Research design

To verify the set research goals, a mixed research design was used, including the implementation of an experiment supplemented by a one-time questionnaire survey, which allowed to effectively combine the benefits of both main approaches to the study of impulsivity - behavioral and personality. The behavioral approach focused on measuring the narrower aspects of impulsivity while allowing better control of variables, accurate measurement of performance, and subsequent comparison of results. Therefore, a natural experiment using measurements of psychophysiological correlates of stress in an explosive handling situation was chosen as the main method. The chosen personality approach works with impulsivity as a set of traits, assuming that the resulting level of these traits forms the overall level of impulsivity. Therefore, self-assessment questionnaire methods, administered online before the experiment, were chosen as the main method. Each of these two approaches maps a different aspect of impulsivity, thus complementing each other in a complementary manner [16],[17].

1.3 Research method

As part of the solution of the research plan, a personalized approach to measuring impulsivity was implemented through a one-time online questionnaire survey, which consisted of two self-assessment methods focused on mapping the overall rate and individual factors of impulsivity and personality characteristics according to the Big Five model. The experimental part of the research took place in natural conditions. It was implemented as part of training in simple blasting work, and according to the approved accreditation of the study program Economics and Management, all students of the University of Defense in Brno must complete this training in the second year of study during the course preparation in field II.

The training is divided into a theoretical and practical part, while in the theoretical part students are acquainted with valid military regulations for training and conducting

16 SHARMA, L., MARKON, K. E., & CLARK, L. A. (2014). Toward a theory of distinct types of "impulsive" behaviors: A meta-analysis of self-report and behavioral measures. *Psychological Bulletin*, 140(2): 374-408. 10.1037/a0034418

17 UM, M., HERSHBERGER, A. R., WHITT, Z. T., & CYDERS, M.A. 2018. Recommendations for applying a multi-dimensional model of impulsive personality to diagnosis and treatment. *Borderline Personality Disorder and Emotion Dysregulation*, 5(1): 1-17. 10.1186/s40479-018-0084-x

blasting and the use of blasting and subsequently with material and engineering ammunition, which are introduced in the Czech Army, and will be used in the practical part of the training. At the end of the theoretical part, there is an examination of students' knowledge of engineering ammunition, material, procedures, and safety measures during blasting work according to applicable military regulations [18],[19]. The practical part of the training is focused on two main areas: training with dummy engineer ammunition and training with live engineer ammunition. When training with dummy ammunition, training activities are performed for training with live engineer ammunition. The course of both main tasks, which were realized within the experiment, is therefore similar, and also differs only minimally in time (time allowance: approximately 90 minutes for each area). During the training, the following main tasks are performed: assembling a timed detonator and firing a TNT 75 g / 200 g charge freely in the field.

As part of the experiment, the participants realized an attention test in group administration, then the subjects were trained in simple blasting work for approximately 180 minutes, during which their selected psychophysiological responses to the current stressful situation were monitored using the Equivital™ Black Ghost device. Immediately after the end of the training, the subjects were again administered an attention test, and subsequently, with a time interval of approximately 60 minutes, the resting level of psychophysiological reactions was also measured utilizing the above-mentioned device. The study used a combination of self-assessment psychodiagnostic tools and measurements using the Equivital™ Black Ghost device.

1.3.1 Psychodiagnostic tool

The attention d2 test is a standardized method designed to assess the perceptual speed and (selective) attention. It is ranked among performance tests or tests of special abilities. It uses the impulse Behavior scale [20]. The questionnaire allows 59 items rated on the Likert scale from 1 to 4 (where 1 means "strongly disagree") to determine the overall degree of impulsivity and put them into individual factors. These factors is possible to divide into three higher-order factors as (1) Urgency, (2) Sensation seeking, (3) Conscientious Deficits, and four lower-order sub-factors such (1) positive urgency, (2) negative urgency, (3) lack of planning, (4) lack of perseverance (see Figure 1).

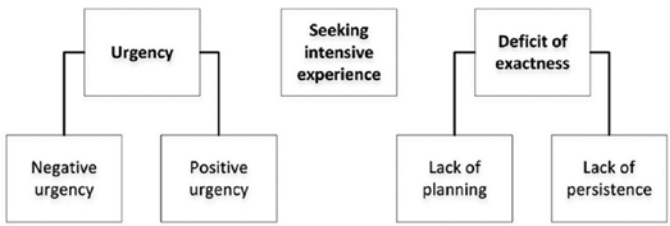

Figure 1: The factor structure of UPPS-P

18 ŽEN-2-6. (1982). *Trhaviny a ničení*. Praha: Ministerstvo národní obrany.

19 ŽEN-2-9. (1981). Ženijní *práce všech druhů vojsk*. Praha: Ministerstvo národ-ní obrany.

20 LINHARTOVÁ, P. , ŠIRŮČEK, J., BARTEČEK, R., THEINER, P. , JEŘÁBKOVÁ, B., RUDIŠINOVÁ, D., & KAŠPÁREK, T. (2017). České verze sebeposuzovacích modelů impulzivity Barrattovy škály a škály UPPS-P a jejich psychometrické charakteristiky. Česká *a slovenská Psychiatrie*, 113(4): 149-157.

The questionnaire captures the level of five Big Five personality factors using 60 items rated on a Likert scale from 1 to 5 (where 1 means "strongly disagree"), each of which consists of three sub-factors [21] (see Table 1).

Table 1: Big five inventory factors

BFI-2 Factors	Sub-factors		
extraversion	sociability	assertive	forcefulness
amiableness	compassion	civility	confidence
assiduity	organisebility	productivity	responsibility
negative emotionality	distress	depression	emotional instability
openness of mind	intellectual curiousness	aesthetic feeling	creative imagination

1.3.2 Equivital TM Black Ghost

Equivital is an advanced medical monitoring technology, enabling a clinical level to record and record several parameters that indicate the current and overall mental and physical condition of the individual. The following parameters were monitored in the exercise situation as well as in the rest situation with a sufficient distance employing a device intended for monitoring physiological parameters:

- ECG - heart rate (HR);
- heart rate variability (HRV);
- blood pressure (BP);
- blood oxygen saturation (SpO2);
- respiratory rate (RR, respiratory rate);
- skin temperature and galvanic reaction;
- physiological well-being indices and other parameters.

The device complies with standard EN62304: 2006 and ISO 13485: 2003/2012.

1.4 Research data collection

The collection of research data took place within the subject Preparation for Combat. Participation in the research was voluntary, each participant received an identification code, which ensured the anonymity of all participants. A trained person performed the data collection, participants were properly instructed on the course and ethics of the research, the methods and procedures used and the risks associated with them, and confirmed informed consent to voluntary participation in research in which no members of disadvantaged groups participated. The collection of research data took place in several phases of the project:

[21] HŘEBÍČKOVÁ, M., JELÍNEK, M., KVĚTON, P. , BENKOVIČ, A., BOTEK, M., SUDZINA, F., SOTO, CH. J., & JOHN, O. P. (2020). Big Five Inventory 2 (bfi-2): Hierarchický Model S 15 Subškálami. Československá *psychologie*, 64(4): 437-460.

1. Online collection of research data from self-assessment questionnaire methods took place in the week before the exposure of pro-bands training in simple blasting work, with an average time allowance of filling the test battery of 45 minutes.
2. Administration of the attention test (d2) in the form of a pencil-paper took place within the experimental phase of the project 2×, first in resting conditions, before the start of the exposure of pro-bands training in simple blasting work.
3. The exposition of training probands in simple blasting works took place on two consecutive days, the integrated part of the exposition was the measurement of the level and the administration of the stress test of stress resistance by the Equivital™ Black Ghost system.
4. Repeated administration of the attention test (d2) in the form of pencil paper took place after the most stressful situation of the entire exposure - the handling of explosives and the explosion itself. 120-150 minutes elapsed between the first and second administration of the attention test.
5. Administration of the resting stress resistance test, measured through the Equivital™ Black Ghost system, was carried out on the premises of the University of Defense in Brno, and the stress response in resting conditions was recorded.

For processing obtained data of defined psychodiagnostic methods, we use IBM SPSS Statistics 25. The evaluation base includes descriptive statistics and the application of Pearson's chi-square correlation coefficient.

1.5 Research sample specification

The research group consisted of students in the second year of the study program Economics and Management of the University of Defense in Brno, who are obliged to complete training in simple blasting work as part of the course through the study plan, within the subject Preparation in field II. The research set differed at different stages of research data collection, which was related to the voluntary participation of probands in the collection of research data.

The administration of self-assessment questionnaire methods UPPS-P and BFI-2 was attended by 66 persons, after data cleaning, 63 persons aged 21 to 26 years were included in further analyzes (r = 21.7 years; 34.9% women and 65.1% men). The repeated administrations of the d2 attention test were attended by 105 subjects on two consecutive days of measurement, and after data cleaning, complete data were obtained from repeated administrations from 99 subjects. 106 subjects participated in the Equivital 106 Black Ghost measurements, with 4 groups of probands in the morning on the first day of testing and 3 groups of probands in the afternoon (N = 28), and on the second day of testing, they were exposed in the morning. 3 groups of probands (N = 24) and in the afternoon also 3 groups of probands (N = 26) - a total of 103 persons were involved in this part of the research data collection and complete data from 102 persons were included in the subsequent analyzes.

2 THEORETICAL BACKGROUND

Military leadership is currently subject to high demands associated with the ability to handle both the maintenance and defense of peace, often in the context of long-term mentally demanding conditions. Professional soldiers are repeatedly and long-term exposure to situations that place high demands, both in preparation and later in a real deployment, especially on their resistance to stress, attention, and decision-making processes. In the context of recruitment, training, selection, and subsequent training of military leaders, the demands on the efficiency and quality of the decision-making process in the context of risk adequacy considerations increase [22], as military leadership inevitably includes the need to make quick or risky decisions that may have unnecessary negative consequences in the case of their impulsive basis. Of course, a certain degree of acceptable risk has a natural place within the military and is inevitably an essential part of dealing with the complex and uncertain situations that are typical of many military operations. However, the systematic effort of modern armies to minimize these risks and at the same time maximize security in the areas of leadership is significant. In this context, impulsive and ill-considered decisions should not have room in the military [23], and therefore the current goal of military efforts in the area is to prevent military impulsive behavior and decision-making from military leaders as much as possible in the process of their selection and training [24],[25].

For the above reasons, the mapping of the degree and possibly also the development trends of impulsivity and other relevant personality characteristics associated with possible risks, especially in decision-making and acting for students of military leadership is a key topic to understand because increased impulsivity is associated with risk, respectively, risky behavior and decision-making [26], and is considered an important diagnostic indicator associated with many other types of maladaptive behavior. As the decisions of military leaders have a major impact on the lives and safety of others, any impulsive and ill-considered decisions should not take place in the military [27] and therefore adequate procedures for identifying individuals should be developed and implemented in training military leaders as a precaution, which could be personally disposed of for this undesirable type of decision.

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22 LESCHER, W. K. (2008). Taking risks - An uncertain strategic environment demands thoughtful risk-taking. Armed Forces Journal, 27. Available from: http://armedforcesjournal.com/taking-risks/

23 BÖRJESSON, M., ÖSTERBERG, J., & ENANDER, A. (2015). Risk propensity within the military: A study of Swedish officers and soldiers. *Journal of Risk Research*, 18(1): 55-68. 10.1080/13669877.2013.879489

24 WONG, L., BLIESE, P. , & McGURK, D. (2003). Military leadership: A context specific review. *The Leadership Quarterly*, 14(6): 657-692. 10.1016/j.leaqua.2003.08.001

25 SCHWEIGER, S., MÜLLER, B., & GÜTTEL, W. H. (2020). Barriers to leadership development: Why is it so difficult to abandon the hero? *Leadership*, 16(4): 411-433. 10.1177/1742715020935742

26 BRESIN, K. (2019). Impulsivity and aggression: A meta-analysis using the UPPS model of impulsivity. *Aggression and Violent Behavior*, 48: 124-140. 10.1016/j.avb.2019.08.003

27 BÖRJESSON, M., ÖSTERBERG, J., & ENANDER, A. (2015). Risk propensity within the military: A study of Swedish officers and soldiers. *Journal of Risk Research*, 18(1): 55-68. 10.1080/13669877.2013.879489

Research studies, which are conducted in the field, show that an individual's willingness to take risks and risky behavior is related to several groups of significant intervening influences, which are primarily [28],[29],[30],[31]:

1. demographic factors (education, gender, age, etc.);
2. situational factors (influence of stress, social pressure, current emotional state, etc.)
3. personality factors

As the influence of demographic factors, it has already been satisfactorily documented by several studies, the present study focuses primarily on the mapping of key personality and situational factors. In the field of leadership, the military environment increases demands from personal characteristics, especially to higher attributes of conscientiousness and emotional stability. At the same time, it has been shown that people with higher conscientiousness perceive and assess their experience in the army as more valuable) and at the same time, they adapt their levels of conscientiousness better to the military environment [32]. Appropriate personality equipment, which predisposes an individual to become an effective leader, has been identified by a relatively large study, recently conducted in the US military [33]. Conscientiousness, extraversion, and emotional stability were assessed as the most important in this context. These qualities were associated with a high level of ability to manage stress and long-term stress, personal interest in leadership, and motivation for physical activities. Many other studies have described the effective characteristics of American officers, including Johnson & Hill's study [34], which compared the characteristics of two groups of officers - effective and ineffective leaders. Effective leaders showed significantly higher values in all personality characteristics according to the Big Five model except neuroticism, while effective leaders showed a statistically significantly lower level of neuroticism than ineffective leaders. In this context, the conclusions of another research study can be considered important, which concluded

28 BAUMANN, A. A. & ODUM, A. L. (2012). Impulsivity, risk taking, and timing. *Behavioural Processes*, 90(3): 408-414. 10.1016/j.beproc.2012.04.005

29 FLODEN, D., ALEXANDER, M. P. , KUBU, C. S., KATZ, D., & STUSS, D. T. (2008). Impulsivity and risk-taking behavior in focal frontal lobe lesions. *Neuropsychologia*, 46(1): 213-223. 10.1016/j.neuropsychologia.2007.07.020

30 KILLGORE, W. D. S., VO, A. H., CASTRO, C. A., & HOGE, CH. W. (2006). Assessing risk propensity in american soldiers: Preliminary reliability and validity of the evaluation of risks (EVAR) scale - English version. *Military Medicine*, 171(3): 233-239. 10.7205/MILMED.171.3.233

31 SICARD, B., JOUVE, E., & BLIN, O. (2001). Risk propensity assessment in military special operations. *Military Medicine*, 166(10): 871-874. 10.1093/milmed/166.10.871

32 KRISTOF-BROWN, A., & GUAY, R. P. (2011). Person-environment fit. In APA handbook of industrial and organizational psychology, 3: Maintaining, expanding, and contracting the organization (p. 3–50). *American Psychological Association*. 10.1037/12171-001

33 ALLEN, M. T., BYNUM, B. H., OLIVER, J. T., RUSSELL, T. L., YOUNG, M. C., & BABIN, N. E. (2014). Predicting Leadership Performance and Potential in the U.S. Army Officer Candidate School (OCS). *Military Psychology*, 26(4): 310-326. 10.1037/mil0000056

34 JOHNSON, J. L., & HILL, W. R. (2009). Personality traits and military leadership. *Individual Differences Research*, 7(1): 1-13.

that the higher the level of neuroticism in military academy students, the deeper they experience feelings of helplessness and at the same time show higher study failure [35].

At the same time, decision-making research shows, that risky behavior in this context is mainly linked to two important impulsivity factors, namely lack of planning and sensation seeking, both of which can be considered crucial in military leadership. Especially if it has been repeatedly shown that individuals with higher rates of sensation seeking are more likely to undergo risky activities regardless of positive or negative consequences [36]. At the same time, the ability to optimally and adaptively manage the effects of stress, both short-term and long-term, is a component in military leadership that is gaining in importance, because in periods of increased load or, for example, longer sleep deprivation, the tendency to impulsive behavior increases, especially in personally disposed of individuals [37].

Based on these facts, the present study maps the above context and at the same time draws attention to the fact that the ability to manage current stress and long-term stress and resist in these situations the urge to impulsive and abbreviated action or decision-making is a key competence of military leaders. Increased attention is paid to their selection, teaching, and training [38].

3 RESULTS

To perform these tasks, the trainees (students) will first receive from the ammunition dispenser a charge of TNT of a specified weight, controlling on the detonator section Ž, and they will move to the area of setting up the time detonator. Here, the fuse is first inspected, which consists of a visual inspection of the surface for damage and whether both ends are protected against moisture, usually by a protective sleeve, and for performing a functional test, i.e. checking the burning rate of one meter of a fuse. After testing, the fuse shall be cut to the specified length so that one end is perpendicular and the other is oblique. Subsequently, one detonator is removed from the box, and a visual inspection of the condition is performed. The inspected detonator is placed on the perpendicularly cut end of the fuse, while the detonator is not rotated or pressed to prevent the explosion from igniting. Next, on the other hand, the adjusted pliers for the detonators are gripped and the detonator with the fuse is inserted into the pliers from

35 GÖKTAN, B. & AKBAĞ, M. (2010). An investigation on Turkish military school students: Are there associations among big five personality factors, perceived family environment and hopelessness? *Procedia - Social and Behavioral Sciences*, 2(2): 5458-5462. 10.1016/j.sbspro.2010.03.890

36 ZUCKERMAN, M. (2007). Sensation seeking and risky behaviour. *American Psychological Association*. 10.1037/11555-000

37 KILLGORE, W. D. S., VO, A. H., CASTRO, C. A., & HOGE, CH. W. (2006). Assessing risk propensity in american soldiers: Preliminary reliability and validity of the evaluation of risks (EVAR) scale - English version. *Military Medicine*, 171(3): 233-239. 10.7205/MILMED.171.3.233

38 HANNAH, S. T., JENNINGS, P. L., & NOBEL, O. B.-Y. (2010). Tactical Military Leader Requisite Complexity: Toward a Referent Structure. *Military Psychology*, 22(4): 412-449. 10.1080/08995605.2010.513253

the side of the movable jaws. The pliers are placed in front of the body so that during the connection, in the event of an explosion, the person making the igniter or persons located 50 m on both sides in the axis of the pliers are not endangered. The hand holding the fuse by the detonator moves off the axis of the pliers and holds the fuse. The handles of the pliers are compressed and released, the lighter is slightly turned. The compression is repeated at least twice, more turns guarantee the water-tightness of the joint. The last press is made with both hands as far as it will go. The timed igniter made in this way is usually provided with a detonator screw [39]. After making a timed detonator, the trainers (students) move to a predetermined space at the command of the controller, where they are precisely determined where to place the charge. At the command of the controller, the timed igniter connects to the charge using a detonator screw and stores it in the specified place. At the command's "burn", they ignite the fuse using ordinary matches or windproof matches. After igniting all timed detonators, they move to a safe distance, which is set by the regulation Women-2-6 Explosives and Destruction for charges with a total weight of up to 1 kg 100 m and are waiting for explosions. If all charges have been shown to explode, a safe time of 10 minutes to approach the charges must be observed. After this time, the control room inspects the space to ensure that all charges have completely exploded and that the space is safe. Subsequently, at the command of the controller, trainers (students) are called to the given area, who inspect the place, the evaluation of the task is evaluated by the manager and the trainers clean the remnants of the time detonator (burned fuse). This ends the practical training.

The individual factors of the Czech version of the method show a good internal consistency, which ranges from 0.81 to 0.89 with an average of 0.85. The individual sub-factors also have a satisfactory internal consistency. These range between 0.56 and 0.83 with an average of 0.74. The average reliability of the tool is 0.85, which is a small difference compared to the original, which has 0.87 [40]. The Czech translation of the questionnaire also has good retest reliability. The translation also tested the concordance of the questionnaire model, which was at a very similar level to the original method. The advantage of the BFI-2 questionnaire is low and time-consuming in combination with good conceptual coherence, while the method also has a wide interpretive and predictive power [41].

Unlike other tools for measuring impulsivity, this method also affects the influence of emotions on impulsive behavior. A psychometric study devoted to the Czech version of the questionnaire [42] confirmed the functionality of the impulsivity model used and the

39 KYJOVSKÝ, J, & KROUPA, L. (2017). *Bojová* ženijní *podpora. Jednoduché trhací práce*. Brno: Univerzita obrany.

40 SOTO, C. J., & JOHN, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance band-width, fidelity, and predictive power. *Journal of Personality and Social Psychology*, 113(1): 117-143. 10.1037/pspp0000096

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high-quality psychometric properties of the Czech translation of the method. The overall validity of the Czech UPPS-P translation is α = 0.95 and is also high for all subscales of the method. The authors report good agreement of the model with the data (Chi2 = 160.00; df = 85; Chi2 / df = 1.85; CFI = 0.94; TLI = 0.93; RMSEA = 0.10; SRMR = 0.09) and the high internal consistency of the entire questionnaire as well as the individual subscales, while stating that the individual subscales are clearly defined in terms of content.

CONCLUSIONS

Preliminary results of a pilot study carried out at the University of Defense in Brno within the broader research project creation of model situations. That enables covering the spectrum of potential stress situations arising in modern operations to provide clear support for future challenges in selecting, teaching, and training future soldiers in military leadership, especially in the prevention of risky behavior and decision-making in the context of increased workload, or current and long-term stress. Based on these results, it will be possible to develop and subsequently implement in the training of military leaders adequate procedures for the identification of individuals who could be personally or physiologically predisposed to this undesirable type of actions and decisions.

The results of the study are currently being processed, however, it can already be stated that the degree of impulsivity in the level of conscientiousness is significantly related to students of military leadership. At the same time, the need to examine the factor sensation seeking in more depth in this group of probands was identified, which showed a significantly higher rate in the subjects compared to the general population. Preliminary results of the study also point to a significant effect of effect of social desirability, which appears to be more pronounced in the military than in the general population, and test subjects may not consciously commit it [43].

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