THE ROLE OF IMPULSIVITY IN MILITARY LEADERSHIP - A LITERATURE REVIEW

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Abstract: This paper focuses on impulsivity as a significant predictor of risk-taking and decision-making in the context of military leadership. It examines the possible sources and implications of elevated levels of impulsivity in this specific leadership domain, looks at the approaches to studying this subject, as well as other key implications of this construct. Attention is also paid to the prevention and elimination of undesirable forms of impulsive behavior, especially in the context of dealing with challenging situations in the real conditions of professional activity of military leadership students and in the performance of military service of military leaders.

Keywords: military leadership, impulsivity, impulsive behavior, pathological impulsivity, prevention.

1 Introduction

In the context of the current global peacekeeping and defense situation, the broader socio-economic and socio-cultural context in which military leadership is currently being implemented is a very complex situation based on overwhelming volatility, uncertainty, complexity and ambiguity of changing strategic priorities (Laurence, 2011). However, in historical as well as present context, specific, extremely high demands have then and now been placed on military leadership. These demands are thus often implemented within the context of prolonged mentally and physically demanding or even extreme conditions (Morath et al., 2011; Ullrich et al., 2018).

Therefore, in the context of military leadership, both military students and professional soldiers are undoubtedly exposed repeatedly and long-term to situations that place high demands on them both in preparation for their future profession and in real deployment (Ullrich et al., 2018, 2020). This is reflected in the trend of increasing demands in the recruitment, training, selection and subsequent education of military leaders. In addition to professional expertise, the ever-increasing demands on these specific positions are placed on the effectiveness and quality of the decision-making process in the context of considering the appropriateness of risks. This approach is framed by a significant systematic effort by modern armies to minimize risk.

Closely related to risk minimization are the efforts of militaries to maximize security in all core aspects of leadership. From a psychological point of view, then, high demands are placed on the stress resilience, attention and decision-making processes of military leaders in particular, as any impulsive and ill-considered decisions should have no place in the military (Börjesson et al., 2015). Therefore, the military's efforts are aimed at not only averting, but more importantly, preventing as much as possible any impulsive behavior and decision-making of military leaders, which in the long run is reflected in their selection and training process (Wong et al., 2003).

Research studies conducted in this field have shown that an individual's risk appetite and risk-taking behavior are related to several groups of significant intervening influences, which are: 1) demographic factors (education, gender, age, etc.); situational factors (stress, social pressure, current emotional state, etc.); and personality factors, which include impulsivity (Baumann & Odum, 2012; Floden et al, 2008; Killgore et al., 2006; Sicard et al., 2001). Therefore, mapping the degree and possibly the developmental trends of impulsivity as a personality characteristic, tied to potential risks especially in the area of decision-making and action taking, is a key topic for military leadership students preparing for their future careers, as well as for military leaders. Indeed, elevated levels of impulsivity are not only associated with risk-taking or risky behavior and decision-making (Bresin, 2019), but they are also considered an important diagnostic indicator associated with many other types of maladaptive behavior (see below). Thus, in military settings, high levels of impulsivity have been associated with, for example, increased risk of exclusion from military training (Lubin et al., 1999), or with weapon-related risks (Glicksohn et al., 2004), illustrating the importance of examining it in military leadership.

At the same time, research focusing on decision-making has shown that two significant factors of impulsivity, namely lack of planning and sensation seeking, are two key factors related to risk-taking in this context, both of which can be considered pivotal in military leadership, especially since it has been repeatedly shown that individuals with higher levels of sensation seeking are more likely to engage in risk-taking activities regardless of the positive or negative consequences of their actions (Zuckerman, 2007). Since the decision-making of military leaders has a profound impact on the lives and safety of others, any impulsive and ill-considered decisions should have no place in the military (Börjesson et al., 2015).

Therefore, the ability to manage current stress and long-term pressure and resist the urge to act impulsively and take shortcuts or make decisions in these situations is a core competency of military leaders. It is of utmost importance that it be given increased attention in their selection, education, and training (Hannah et al., 2010). For this reason, adequate procedures for identifying individuals, who may be personally predisposed to impulsive decision-making and action, need to be developed and then appropriately implemented in the training of military leaders as part of prevention (Ambrozová et al., 2016).

2 Methods and results

The paper has been prepared in the form of a literature review, with the aim of presenting a selection of relevant sources, analyzing and synthesizing their content and presenting the main findings. The search of sources was carried out in English language through the international electronic research databases EBSCO, ProQuest, SCOPUS and Google Scholar, using the above-mentioned keywords based on the literature search. Publications from the year 2000 to the present were included in the review study, focusing on current knowledge on this research topic. The selection of the information sources was carried out in the following steps: literature search and definition of keywords, initial search of the set of publications, narrowing of the set based on the analysis of the basic data (elimination of duplicates, publications eliminated for title and abstract study), critical reading of the sources, analysis of the narrowed selection of publications and selection of high quality and relevant sources that were used in the review (N = 48), which was supplemented with contextual sources dating back to 2000 (N = 13). Based on the knowledge drawn from the sources used, we present the following results:

2.1 Impulsivity as a personality trait

Impulsivity is usually defined in the literature as a personality trait that conditions hasty action based on a current impulse, without considering the consequences that may befall the individual or his or her surroundings as a result of this action. Thus, impulsivity is also characterized by a tendency to act with a lower degree of forethought than most individuals with the same abilities and knowledge, or a predisposition to rapid, unplanned reactions to internal or external stimuli, regardless of

the negative consequences of these reactions (International Society for Research on Impulsivity, 2012).

As a result of this mechanism of acting without prior consideration, or the tendency to act with less forethought and consideration of risks, it is a very important personality variable in the context of military leadership which should be given increased attention (Börjesson, 2020). This is because individuals are largely predisposed for not engaging desirable volitional processes in the decision-making process, which translate into the choice of appropriate goals or the selection of the most appropriate strategy to achieve these goals. At the same time, the individual does not sufficiently consider the long-term effects of his or her behavior on him or herself and on his or her environment, which is totally unacceptable within the military.
The view of impulsivity, as a psychological construct, has undergone considerable historical development, or rather transformation from a unidimensional to a multidimensional view. The development of the construct of impulsivity as we know it today dates back to the mid-19th century. First, Esquirol, in Treatise on Insanity (1845), described symptoms for monomania that, according to the International Classification of Diseases (ICD 10), correspond to today's symptoms of compulsive and impulsive personality disorder. Subsequently, during the twentieth century, a number of other authors appeared who incorporated some form of impulsivity into their theories of personality (e.g., S. Freud in Three contributions to the theory of sex, 1920). The development of the study of impulsivity was influenced by other important authors in personality psychology, such as Eysenck and Guilford. Eysenck created the Manual of the Eysenck Personality Inventory (1964), in which he viewed impulsivity, along with sociability, as a lower factor of extraversion. Guilford (1975), who advocated a more traditional Jungian conception of extraversion, objected to this composition of extraversion. Not only because of his critique, but also because of the work of many other authors. Authors studying impulsivity have subsequently concluded that the unidimensional conceptualization of impulsivity does not work. This change in the approach to the study of impulsivity is well illustrated, for example, by Dickman, who in 1990 developed a unidimensional model of functional and dysfunctional impulsivity, and just three years later (1993) presented a three-dimensional elaboration of dysfunctional impulsivity, focusing on attentional problems, impulsivity in reasoning, and disinhibition.

Thus, in the current literature, impulsivity is understood exclusively as a multifactorial construct consisting of several lower-order factors. However, there is not complete agreement among authors working on this issue as to what these factors are. A number of authors have attempted to grasp impulsivity from a multidimensional perspective, but their efforts have resulted in a rather extensive confusion in the scientific models and theories associated with this construct. In fact, there has been quite a lot of diversity in thinking about this construct, which has been reflected in particular in the different approaches to what subscales impulsivity consists of. Subsequently, a considerable number of self-assessment instruments aimed at measuring impulsivity have been developed based on these different theoretical frameworks (Carver, & White, 1994; Gray, 1991; Farmer & Sundberg, 1986; Zevon & Tellegen, 1982). Moreover, the inconsistency in the approach to examining impulsivity has been exacerbated by considerable terminological inconsistency (particularly the naming of different subscales with the same name and the use of the same names for different constructs). However, this problem, termed jingle-jangle fallacies (Casper et al., 2018), is relatively common in psychology. The diversity in approaches to conceptualizing this construct is illustrated, for example, by the emergence of Zuckerman's (1971) sensation seeking model, which was subsequently elaborated in depth in Psychobiology of personality (Zuckerman, 1991), or Cloninger's (1991) model, which included novelty seeking, harm avoidance, and reward dependence. Barratt's three-factor model (1995) is also considered to be important. Impulsivity is also embedded in the Big Five model of personality traits (Costa & McCrae, 1990), which consists of 5 higher-order factors that the authors called domains (Neuroticism, Extraversion, Openness to experience, Agreeableness, and Conscientiousness). Each of these domains is then further composed of six more lower-order factors, with one of the five lower-order factors of Neuroticism being Impulsiveness (a high score on this domain is thought to indicate poor Self-Control). The Conscientiousness domain then contains the lower factor of Self-discipline. The authors of the model note that people with high Impulsivity cannot resist stimuli to which they do not want to respond, and people with low Self-Discipline cannot bring themselves to do what they would like to do. This model simultaneously included two additional subscales of extraversion referring to impulsivity.

A relatively large shift, or a considerable degree of consistency in fragmentation in the approach to the confounding of impulsivity, was brought about at the turn of the millennium by Whiteside and Lynam (2001). These authors began to examine existing instruments or personality questionnaires measuring impulsivity, comparing their factors using exploratory factor analysis. Based on their findings, they developed a four-dimensional model of impulsivity (Urgency, Lack of Premeditation, Lack of Perseverance, Sensation seeking). Here, urgency is understood as the tendency to act hastily in response to anxiety, lack of planning maps the tendency to act without forethought, lack of perseverance represents the inability to maintain focus on the task, and intense experience seeking represents the tendency to seek new and exciting experiences. To model impulsivity, the authors developed the Impulsive Behavior Scale (UPPS) questionnaire instrument. Their work was subsequently built upon by Cyders and Smith (2007), who extended the model to include a fifth dimension by dividing the Urgency factor, which is intended to represent emotional impulsivity in the questionnaire, into negative and positive urgency (positive urgency is understood as the tendency to act rashly under the influence of a good mood). Thus, based on their research findings, the authors postulated that the individual factors of impulsivity should have two levels. They subsequently modified the model to include three higher factors (Urgency, Deficits in Conscientiousness, and Seeking Intense Experiences) and four lower factors. Thus, as noted above, the higher Urgency factor is composed of two lower factors (Positive and Negative Urgency), as is the Deficits in Conscientiousness factor, which is also subdivided into two lower factors (Lack of Planning and Lack of Persistence). The only higher factor that remains undivided in their conception is the search for intense experiences. The authors' work resulted in the UPPS-P questionnaire, which reflects all the above changes in the concept of impulsivity. Both of these instruments (UPPS AND UPPS-P) have become widely used worldwide, yet both models AND the instruments derived from them are currently under constant criticism directed against their creation based on factor analysis alone. A number of authors have also argued whether the addition of additional dimensions detracts or adds to the explanatory value of the UPPS-P questionnaire (Gullo et al., 2014). A very good scholarly resource regarding the history of research on impulsivity is provided by Grant and Potenza in their comprehensive treatise, The Oxford Handbook of Impulse Control Disorders (2012).

2.2 Impulsive acts/behavior

The level of impulsivity plays a significant role in what is considered normal, normal actions and behaviors and what is already considered pathological actions and behaviors (Evenden, 1999). Everyone has some tendency to behave or act impulsively in certain situations or under certain conditions. Especially in more challenging situations when we find ourselves under some kind of pressure or threat, whether temporal, social, emotional, or physical (Floden et al., 2008). Impulsive behavior may not always be conscious, it is immediate and uninhibited, and can also be understood as a lack of ability to delay gratification, premature action, inappropriate activation of a particular type of behavior, or a lack of anticipation before acting, and may be only episodic rather than sustained (Whiteside & Lynam, 2001). Impulsive behavior occurs more stably in dispositional individuals and often leads to precipitous actions (rash-actions).

When impulsive actions have positive consequences, they are often perceived retrospectively by the individual and his or her social environment as courageous, intuitive, and sometimes even heroic, rather than impulsive, which poses a significant risk to military leadership. This effect is reinforced if the environment has a positive view of the individual prior to the act (Dickman, 1990), which is another reason for a preventive approach to mapping the level of impulsivity in the military environment and for developing adequate programs aimed not only at screening but especially at a systematic approach to the problem.

2.3 Pathological impulsivity

Increased levels of impulsivity are generally perceived by the professional and lay public as part of pathology. The Diagnostic and Statistical Manual of Mental Disorders (DSM) 5 covers Impulse control disorders (American Psychiatric Association & American Psychiatric Association, 2013). Impulse control disorders are characterized by symptomatic behaviors that have five successive phases: the first phase is the acting out of an irresistible urge or desire; the second phase is the inability to resist the urge; the third phase is an increased sense of arousal; the fourth phase is the giving in to the urge, which is associated with tension but apparent relief; and the fifth phase is associated with feelings of guilt and regret after the act is completed (Hollander & Stein, 2007). Increased impulsivity is included in the diagnosis of a number of other significant disorders, such as borderline personality disorder. This disorder has a ten percent comorbidity with impulse control disorders (Grant & Potenza, 2012). A study by Berlin H. and Rolls E. (2004) highlighted the fact that people with borderline personality disorder overestimate the length of time passing compared to the general population (they have a faster so-called internal clock). This dysfunction has been linked to their impaired ability to wait and delay gratification and thus behave significantly more impulsively than the general population. Moreover, borderline personality disorder very often coexists with posttraumatic stress disorder, which is more common in the military environment than in the general population, and this coexistence increases the risk of PTSD impact (Williams et al., 2017). Increased impulsivity is part of the clinical picture of many other disorders, such as Attention Deficit and Hyperactivity Disorder, pathological gambling, eating disorders, and manic disorders, to name a few. Central to distinguishing impulsivity from pathological affect is that the individual remembers his or her actions (Evenden, 1999).

3 Research approaches to the study of impulsivity

In the past, two main approaches to understanding and examining impulsivity have existed side by side. These were the behavioral, so-called laboratory approach, and the self-report, so-called personality approach. As the names of the two approaches based on different foundations suggest, the most significant difference between the two approaches lies in the way they measure and construct the factors that influence the resulting level of impulsivity. These approaches, based on different paradigms (personality and behavioral), coexist even today. However, while they were previously seen as competing with each other, it is now clear that each has its place in the study of impulsivity and the two approaches are very often complementary or combined in current research (Sharma et al., 2014).

3.1 A personal approach

The personality approach to the study of impulsivity is conceived as measuring rather the psychological manifestations of impulsivity in terms of personality traits (impulsive personality/personality traits). It works with impulsivity as a set of traits that are defined as innate or acquired ways of acting, behaving, or experiencing situations in a certain way (Blatný, 2010). The trait approach to personality is based on the thesis that these traits can be described, captured, and measured as a way to consistently predict an individual's future behavior. They believe that the resulting level of these traits together constitute the overall level of impulsivity. Knowing this level makes it possible to subsequently predict an individual's behavior.

This approach uses self-report, i.e. questionnaires or scales, as a method of investigation. An important component of this approach is highly sophisticated statistical analyses, in particular factor analysis, which assesses the individual factors that combine to produce the resulting impulsivity. The questionnaires used by the personality approach include, in addition to the aforementioned worldwide Impulsive Behavior Scale (UPPS-P; Cyders & Smith, 2007; Whiteside & Lynam, 2001), the Barratt Impulsivity Scale (BIS-11; Patton et al., 1995) as well.

The personality approach to investigating the level of impulsivity is widespread, especially in quantitative research and in applied psychological disciplines (e.g. in the field of work and organizational psychology, but more specifically in military psychology), as its implementation is relatively easy and involves lower financial costs. The methods can be easily and quickly administered to many people individually, and their administration is very often used in addition to research and to supplement the test battery for complex diagnostics in clinical psychology.

Disadvantages of this approach include the Social Desirability Effect, i.e., the tendency to respond to tests in such a way that the individual presents himself or herself in a positive light, whether to self, researcher, or psychologist. This effect is even more pronounced in military settings than it is for ordinary individuals, and it may not be a conscious process on the part of the subjects (Kaminski et al., 2019; Thunholm, 2001).

3.2 The behavioral approach

To begin with, the behavioral paradigm does not consider self-report methods as appropriate research tools due to measurement bias. Therefore, proponents of the behavioral approach to the study of impulsivity generally do not work with impulsivity as a multidimensional construct, but rather focus on impulsive behavior, or on examining one or more separate or interrelated manifestations of impulsivity. This is based on the assumption that the level of impulsivity is related to the quality of each individual's level of neurobiological function.

Within this approach, behavioral tests are preferred (Linhartová & Kašpárek, 2017), which allow for better control of variables, accurate measurement of performance and subsequent comparison of results. Thus, the laboratory approach uses methods such as the Go/NoGo task, Stop signal task, Stroop test, Delay discounting task, and many others (Reynolds et al., 2007). In current practice, several specially designed software solutions are used for this purpose. These software applications use, for example, the aforementioned GoNoGo impulsivity task, which is a "stopping task" designed to measure response inhibition. The primary response of interest here is the inability to inhibit a response when a "go" instruction is unexpectedly accompanied by a "stop" instruction. Dougherty et al. (2005) presented interesting results from a software application that includes four paradigms for measuring multiple unique aspects of impulsivity simultaneously or independently: the two-choice impulsivity paradigm; the one-key impulsivity paradigm; the GoStop impulsivity paradigm; and the time paradigm. These tasks measure processes related to the ability to tolerate delay for reward, to inhibit an already initiated response, and to estimate the passage of time, all of which are relevant to understanding impulsive behavior. The flexibility of this design allows the experimenter to manipulate a number of parameters related to delay and reward conditions, timing, feedback/reward for performance, etc.

This type of measurement has logically lower ecological validity and it is often more difficult to interpret its results or to predict the subsequent behavior of a particular individual. While these procedures are not well suited for comprehensive diagnosis for the reasons outlined above, they clearly provide valuable information for diagnosing unidimensional determinants of

impulsivity (Maxwell et al., 2020). For this reason, the behavioral approach has extensive applications, particularly in neuropsychology, cognitive psychology, genetics, and for general brain research. Another broad area in which the behavioral approach finds extensive use is the investigation of substance and non-substance addictions, which are often the result of risky behaviors.

3.3 Comparison of approaches to the study of impulsivity

The current research agrees that the results of the two approaches (laboratory and self-report) to examining impulsivity measure two different constructs, i.e., different impulsivity. (Dougherty et al., 2005; Sharma et al., 2014; Um et al., 2018). In two US meta-analyses by Cyders and Coskunpinar (2011) and Duckworth and Kern (2011), only very weak correlations between behavioral and psychological impulsivity were confirmed. Significant correlations were found only between several subscales of both constructs. Thus, the two approaches are very likely to measure different aspects of impulsivity, and ideally these approaches should be combined in research on impulsivity. However, it is also possible to find studies in the literature that claim that self-report survey scores correlate with behavioral test scores in healthy adults (Enticott et al., 2006). However, these results are not entirely conclusive as they can be interpreted in multiple ways. The following table summarizes the basic differences in the two approaches to examining impulsivity:

Table 1. Advantages of approaches to examining impulsivity

Behavioral approach	Personality approach
better predictive properties of specific behaviors	better predictive properties of broader behaviors
capturing a specific aspect of behavior	capturing complex behavior
less susceptible to emotional breakdown of the individua	less susceptible to cognitive fatigue
accurately measurable outcome	usually faster and cheaper to administer
test can be taken by illiterate individuals or younger children	does not require laboratory conditions
better controls for intervening variables	higher ecological validity
greater use in brain research	more suitable for clinical diagnosis and applied psychological disciplines

4 The importance of preventive mapping of impulsivity in the military and military leadership

The importance of monitoring the level of impulsivity both in the military environment in general and in military leadership is mainly due to the specific conditions of the profession. It is in many respects connected not only with professional knowledge, skills and competences, but also with high demands on resistance to stress of various kinds. For this reason, from the beginning of their careers, members of the armed forces and students in preparation for professional activities in the army are intensively shaped in a systematic way to meet the requirements placed on them. The central framework of all demands is then to demand total obedience to leadership (Bradley, 2006). From the above, it is clear that unique demands and expectations are placed on these individuals that fundamentally contribute to the differences in personality makeup between soldiers and civilians (Darr, 2011).

Both in the general population and in the military environment, increased levels of impulsivity manifest themselves especially by maladaptive or risky behaviors of various kinds. From the perspective of the military environment, any elevated level of impulsivity is undesirable. However, in this context, the association of impulsivity with aggression can arguably be considered the most significant. This interdependence is evidenced, for example, by a meta-analysis confirming a strong relationship between aggression and all subscales of impulsivity as defined by Cyders and Smith (2007), including both physical violence and verbal aggression (Bresin, 2019; Miller et al., 2012). Increased levels of impulsivity also increase an individual's susceptibility to substance abuse, which can have far more dangerous consequences in the military environment than in the general population. Indeed, drug addicts are highly likely to seek out behaviors that will provide immediate, often not very large, but very risky, rewards (Fattore & Melis, 2016). Several research studies have then documented a link between elevated levels of impulsivity and a wide range of other risky behaviours, such as criminality (Sharma et al., 2014), self-harm or eating disorders, and virtual world abuse (Grant & Potenza, 2012). Similarly, impulsivity can also be associated with risky sexual behavior, which is more likely to occur when an individual is under psychological strain or stress (Grant & Potenza, 2012), or unnecessarily risky behavior, which can be highly physically threatening to individuals and those around them (Floden et al., 2008; Holmes et al., 2009; Kreek et al., 2005).

The significance of the association of increased levels of impulsivity with the prevalence of maladaptive/risk behaviors in the military environment is even greater in the context of other research findings. These confirm that levels of Impulsivity are simultaneously influenced by levels of stress, both short and long term. Impulsive behavior is then more likely to occur during periods of heightened stress, or periods of prolonged sleep deprivation, for example (Killgore et al., 2006), conditions that are very common in the military environment and in their consequences also affect other important factors such as quality of postnatal care or decision-making. The ability to manage this stress and to resist tendencies towards impulsive behavior is an important characteristic of military leaders. This ability to self-regulate and make good choices of coping strategies should be emphasized and developed in military leadership studies and in military practice (Hannah et al., 2010).

At the same time, in the context of military leadership, it can be considered significant that the tendency of individuals in military environments to behave impulsively appears to vary over time. Individuals who have served longer in a military environment are less likely to succumb to impulsive behavior than new recruits. The Impulsivity factor in Kilgore et al.'s (2006) study addressing the issue was significantly negatively correlated with maturation factors in military service. This finding suggests that as individuals gain more years of military experience and higher rank, they are less likely to exhibit impulsive or risk-taking behaviors. These results are consistent with an earlier study conducted on a similar topic (Lee & Cho, 1999), with the changing nature of these individuals' activities and the conditions in which they perform them also likely playing a role here.

Moreover, the process of risk-taking behavior or decision-making based on an increased level of general impulsivity may not be the same for all individuals. Therefore, the behavior of individuals with elevated levels of impulsivity does not always have to result in negative consequences. Individuals who consciously choose to engage in risky behaviors while also exhibiting higher levels of deliberation or lack of premeditation within their level of impulsivity are more likely to have positive consequences of their behavior (Momen et al., 2010). Research shows that two factors of impulsivity, lack of planning and sensation seeking, are mainly related to risky behavior. Meanwhile, the elevated level of sensation seeking is evidenced by a number of research studies conducted in military settings. Individuals who have higher levels of sensation seeking are more likely to undertake risky activities regardless of positive or negative outcomes (Zuckerman, 2007). At the same time, however, a person's likelihood of engaging in activities with the risk of negative outcomes affects their level of discretion. Simply put, the more prudent an individual is, the lower their propensity to engage in risky activity (Fischer & Smith, 2004).

As mentioned above, soldiers and students preparing for a career in the military are often exposed to mentally and physically very demanding situations. Their effects can be essentially twofold -

either resilience and adaptive forms of responses and behaviors are built through coping with extremely stressful situations, or the effect can be the opposite and bring negative impacts on mental health and psychological well-being (Maheshwari & Kumar, 2016). In the context of Impulsivity in the military, Post Traumatic Stress Disorder (PTSD) in particular plays a significant role in this area, the prevalence of which is elevated here compared to the general population. Individuals suffering from PTSP are significantly more aggressive, often have significantly elevated levels of urgency and a higher tendency to engage in risky behaviors than soldiers who do not suffer from it (James et al., 2014), which only illustrates the necessity of applying a comprehensive, systematic approach to screening for impulsivity as a means of preventing risky forms of behaviors and decision-making.

All the above contexts can be considered particularly serious in a military environment - especially with regard to the possible consequences. Therefore, one of the tasks of military leadership is to apply appropriate preventive measures before the emergence and development of any form of risky/maladaptive behavior, to be alert to signals indicating the possible occurrence of these risks and to apply appropriate corrective measures in a timely manner.

5 Conclusions

Since every modern army is nowadays particularly focused on systematic minimization of any risks, high demands are also placed on the prediction of desirable forms of behavior and decision-making of military leaders, since their decisions or actions can have a major impact on the lives and safety of others and military equipment as well. As professional soldiers are frequently exposed not only to real combat, but also to a variety of other challenging situations in both training and actual deployment, questions regarding the unnecessary acceptance of avoidable risks become increasingly important when considering recruitment, training, and selection of leaders (Lescher, 2008).

However, as some degree of acceptable risk has a natural place within the military and is inevitably a necessary part of dealing with the complex and uncertain situations that characterize many military operations, it is imperative to systematically seek to minimize these risks as much as possible (Börjesson et al., 2015). Military leaders absolutely must possess the ability to assess and select acceptable risks while avoiding unnecessarily risky behavior.

The U.S. Army conducted one of the most extensive research studies to map the best personality makeup to become an effective military leader. The most important personality characteristics in this context included emotional stability, conscientiousness and extraversion, which also included a high level of stress management skills (Allen et al., 2014). It is undoubtedly impulsivity that features prominently in all of these characteristics, underscoring the importance of this personality predisposition to rapid, unplanned reactions to internal or external stimuli, regardless of the negative effects of these reactions on the individual and on the environment (see above). In general, heightened impulsivity is considered an important diagnostic marker that is related to inadequate perception and appraisal of situations, reactive aggression, reduced quality of attention and decision-making, and many types of risky/maladaptive behaviors of various etiologies (Bresin, 2019; Fattore & Melis, 2016; Floden et al., 2008).

The nature of current military operations provides a clear underpinning for future challenges in selecting, teaching, and training future soldiers in the area of military leadership, particularly in the prevention of risky forms of behaviors and decision-making in the context of increased stress, or current and long-term stress. On the basis of these results, it will be possible to develop and eventually implement in the training of military leaders adequate procedures for the identification of individuals who may be personally or physiologically predisposed to this undesirable type of behavior and decision-making.

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