



MBNA Publishing House Constanta 2021



Proceedings of the International Scientific Conference SEA-CONF

SEA-CONF PAPER • OPEN ACCESS

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To cite this article: Carmen Luminita COJOCARU, Cătălin POPA, Alecu TOMA, Scientific Bulletin of Naval Academy, Vol. XXIV 2021, pg. 392-399.

Available online at www.anmb.ro

ISSN: 2457-144X; ISSN-L: 2457-144X

doi: 10.21279/2457-144X-21-047

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METHODOLOGICAL ASPECTS IN ASSESSING THE PROFESSIONAL MILITARY STRESS PERCEPTION. STUDY CASE ON MILITARY CADETS

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Abstract. The study aims to describe theoretically and methodologically a genuine sequence from the succession of systemically articulated activities in the complex process of Counseling and Vocational Guidance, as developed within the Human Capital Operation Program Project 133334 “Advanced Cybersecurity”. The study is mainly focused on the assessment of the subjective perception of stress in case of military cadets through non-standard working tools, using as an investigation technique the questionnaire-based survey method. Subsequently, variables are illustrated that may influence, facilitating or inhibiting, the perception and evaluation of stress factors, depending on the specific conditions of life and activity at sea, as the specificity of military activities and missions. The study has been carried on military cadets, as main beneficiary and target group participants in the nominated project.

Key words: *military stress, subjective perception, operational stress, military operations, vocational counseling*

1. Introduction

Within the POCU 133334 Advanced Cybersecurity Project framework, with the general objective of “creating sustainable skills and jobs”, the counseling and career guidance activity focuses on the exemplary fulfillment of its main objective, namely “increasing the students’ motivation for the development of a professional career, toward a successful integration on the labor market”. From this perspective, the operationalization of the generous assertions proposed by the Project for counseling services, has been materialized in the development of beneficiary-centered solutions, directed on three directions of action as following:

a. Vocational counseling activities, consisting in: informing students about the specifics of the professions / specializations they can opt for after completing their studies; understanding the ways to access a profession, the options regarding the professional path to follow after graduation, the jobs they can access; awareness of the process of transition from school to the labor market; training the ability to define professional objectives, realistic and achievable; training skills to define and express professional interests, in relation to the personal expectations; training and/or practicing the skills of elaborating a CV in a professional format, connected with a letter of intent and a career plan; and learning and practicing personal presentation techniques.

b. Personal development activities, consisting in: stimulating self-confidence, openness and cognitive curiosity; stimulating skills and attitudes that contribute to effective learning; stimulating creativity and innovation in thinking; optimizing communication skills; stimulating a positive attitude

regarding the carrier perspectives; increasing the level of confidence in one's own abilities and skills; training skills to identify and implement proactive evolutionary strategies; stimulating the motivation for personal and professional success; teamwork, collaboration, involvement; and training proactive coping skills in solving critical situations.

c. Information and mentoring activities, consisting in: information on the counseling process and possible benefits; information and guidance regarding own professional potential; information on access to tools and sources of support for labor market integration in the field of ICT; advising students on the possible difficulties and psychological blockages they face in starting their own career; supporting students to follow the optimum career; capitalizing on the previous experiences of the beneficiaries in order to prepare them for new professional experiences; guiding the beneficiaries to clarify their own motivations, aspirations and interests; guiding towards the development of one's own skills and abilities, towards increasing the degree of motivation for the development of a professional career.

A short research in literature illustrates the close relationship between the choice of profession, respectively career performance and personality traits of the individual, self-image, axiological and professional interests and values and motivations, in perspective with the whole personological system "hypercomplex, probabilistic, dynamic and open", constantly adapted and readapted to the external sociocultural environment conditions. (Golu, apud. Zlate, 2007)

In this framework, our descriptive-methodological approach, in regard of the vocational counseling, has been based on the adapted development and of working tools that would facilitate better exploration and a more realistic self-knowledge for the students, by estimating some attributes of the personological types, interests, skills, abilities, values, beliefs, motivational determinants, considered to be indicators and predictors for career decision making process.

As the nominated project is mainly targeting the military cadets assessment, in order to increase the objectivity of empirical research and to understand more deeply the obtained results, the authors have considered that a particularly important aspect to be taken into account in guiding the explanatory hypotheses are as following: the specific conditions of specific military activities on board the ships or ashore, the characteristics of the military higher education organization of the navy - trainers of future naval officers, missions and combat exercises with NATO allied military forces.

Subsequently the authors have added some methodological guidelines illustrated by constructing non-standard questionnaires to assess psychologically the next variables: the impact of subjective perception of stress, time management ability and the presence of team spirit, which has been estimated to be correlated evaluations of behavioral predictors in a military context. A brief summary of the specific variables mentioned, with emphasis on assessing the subjective perception of stress factors in military cadets will be presented in the following chapters.

2. The concept of „stress” definition

The literature review illustrates the use, most often, in a non-discriminatory, heterogenous but ambiguous manner of the „stress” notion. Perhaps this is one of the reasons why there are a multitude of different approaches to the concept of stress, each of which emphasizes one or another of the studied aspects. We could therefore say that the notion of stress is a complex, multifaceted, polyvalent notion, which has not met over time a scientific consensus of unitary definition in the literature.

It is the merit of the Romanian psychologist M. Zlate (2007, p.568) to have developed a systematization of the theoretical meanings of the concept of stress, synthesizing the following paradigms of defining and explaining it[6]:

- the paradigm of stress as a stimulus (as a potentially harmful stressor);
- the paradigm of stress as a reaction (as a physiological / psychological response of the body);
- the stress paradigm as a relationship between stimulus and reaction (consequence of the relationship between stressful stimulus and stress response);
- the paradigm of stress as a transaction between the organism (person) and the environment (systemic, dynamic perspective, between the organism and the environment developed transactions that would generate adaptive reactions).

From the perspective of the first paradigm, stress is considered to be an external stimulus that aggresses the body, the empirical research being focused exclusively on the characteristics of the external situation generating stress. Johns (2002, p. 434) states that "stress factors are environmental events or conditions that have the potential to induce stress." [3] In this logic of practice, the human being cannot be considered a simple variable captive to the situational characteristics, without reacting and resignedly accepting an inexorable datum. Man, as a "bio-psycho-socio-cultural" entity, is a producer and a generator of situations, he is always able to react, to restructure, to build new aspects of a given stressful situation in order to control it, to master it and to transform it for his benefit in support of humanity progress.

The first paradigm considered by many researchers has been the reductionist paradigm, research on the issue of stress focused on the second paradigm, namely that in which the stress stimulus determines a physiological / psychological response of the body. In this framework, Selye elaborates several definitions of stress, among which we mention: "stress is the nonspecific response of the body to any request" (H. Selye, 1976) or stress is "the set of reactions of the human body to external action of causal agents (physical, chemical, biological and mental) consisting of morpho-functional changes, most often endocrine. If the stress factor has a long-lasting action, we are talking about the general adaptation syndrome which involves a gradual evolution." [5]

Therefore, H. Selye calls the body's reaction to stress "general adaptation syndrome" and describes the stages through which it takes place as the "alarm phase" in which the body meets the stimulus and makes physiological changes, the "resistance phase" experienced as a strong distress and performed somatically as a fight against the stressful aggressor, with an imperative tendency to adapt and the "exhaustion phase" in which the coping mechanisms were achieved in different degrees and rates, depending on certain physiological parameters. [5]

G. Johns (p. 435) considers that "reactions to stress are the behavioral, psychological and physiological consequences of stress" and makes an interesting correlation between type A and B personality, the locus of control and the action of stress factors. The author's conclusions shows that people with internal control locus better manage stressful situations by facing the stress factor, tending to control the situation, while people with external control locus live higher anxiety thresholds because they fully experience the inability to control what happens to them. Regarding the correlation between stress and personality type, the author concludes that "type A personality model that includes aggression, ambition, competition, hostility, impatience and the feeling that time is pressing imperiously" shows many more physiological reactions response to stress-generating sources compared to the type B personality model which expresses a higher rate of diminished manifestations. [3]

Approaching stress as an interactional relationship between the body and its work and life environment is illustrated by Lazarus and Folkman (p. 19) by the following definition: "Psychological stress is a certain relationship between person and environment that is assessed by the person as a burden or something that it exceeds resources and endangers its health." [4] This approach can be considered as a

premise for the more current and more applicable eclectic paradigm in empirical research, this time focusing on complex transactions between the stressful environment and the human psychological system.

From this perspective, we could say that the stress stimulus acquires personalized meanings, following the work of cognitive-emotional processing in the psychological sphere, which leads to fine adjustments and readjustments in order to restore the inner balance, thus elaborating in a gradual, effective and sophisticated way a coping mechanism.

3. SOURCES GENERATING STRESS IN THE MILITARY MARINE ENVIRONMENT

The military profession is as beautiful as it is challenging, its analysis from the perspective of potential sources of occupational stress involve an extremely difficult approach due to the multitude of aspects that describe the dynamics of life and activities with military specifics. The authors do not intend to make an exhaustive list by inventory, but are pursuing to identify, as much as possible, the stress factors responsible for occupational stress in the military environment because we should assume that there is a cause-effect relationship between nature, frequency, intensity aggressor stimulus and military response or this has not been empirically demonstrated. Reality has shown that the same stress factors can produce different effects on the personalities of the servicemen in the same operational situation and vice versa.

On the other hand, many scientists agree with the idea of aggregating a diverse number of stressful stimulus related to different aspects of life: professional, family, organizational, are acting cumulatively and systematically on the person in various work situations. In order to somehow systematize the inconsistent material offered by going through the specialized literature, the authors have set out to invoke a typology of occupational stress factors developed by Cooper, Dewe and O'Driscoll, since 2001[2]. The mentioned authors have classified stress factors in several categories, on which the authors have described in detail, the following relevant aspects to the naval military environment:

- stress factors relating exclusively to the characteristics of work on board military ships and ashore: ongoing changing hydrometeorological conditions (storm, fog), military activities carried out during the night, actual firing of weapons on board, dangerous factors such as the handling of ammunition, explosives, noise, vibration, noxious substances (especially in the Engine Department), temperature, lighting, humidity, atmospheric pressure, limitation of servicemen mobility on board, movement of the ship (roll and pitch) that can cause seasickness and psychological discomfort, routine activities, monotonous type, "hypnotic screens" requiring the maintenance of vigilance, shift work (guard and watchkeeping) with biorhythm disturbance, damage or failure on board, high level of risk and physical danger felt in combat missions, or training exercises;

- stress factors related with exercising the roles and statutes of the military organization: work tasks overloading that involve a larger number of tasks to be performed in a short time, subjective perception of the higher difficulty of tasks, roles related to representation of interface in relation to hierarchical superiors, allied forces, accurate communication in English using the correct technical language, taking responsibility for subordinates and for the fulfillment of the mission, decision making in conditions of risk, uncertainty, ambiguity, ambivalence and insecurity;

- stress factors related to work-specific interpersonal relationships (with superior, subordinated and similar positioning staff): diminished or lack of group cohesion, military camaraderie, post-traumatic stress, predominantly competitive interpersonal relationships with a high risk of degenerating into conflicts, mobbing, role conflict by demanding the execution of orders in disagreement with the

principles, values, beliefs of the subordinate, stereotypes, prejudices, discrimination in multicultural work teams;

- sources of stress regarding career development, access to senior command positions: diminished or lack of opportunities for promotion in the military career, perception of false meritocracy, promotion standards difficult to be achieved in relation to one's own potential, freedom of decision, career planning, intrinsic control;

- sources of stress that impact the structure, climate, organizational culture: the structure of the military authority and the specifics of the tasks, the type of norms, the pressure towards conformity and obedience, relatively unstable and generalized mental disposition at the level of group members, military morale to solve a certain tasks at the correct standard and problems they face to overcome the difficulties encountered, poor delegation of tasks, burnout, job dissatisfaction, distorted perception of self-efficacy or professional fulfillment;

- stress factors regarding the work and family relationships: personal dissatisfaction, inadvertences related to too short time left for the family, affected time management, role conflict or transposition of the role from the organizational military context in the family environment, discharge of professional stress in family privacy, apathy or indifference manifested in family relationships due to burnout.

In short, military activities generating stress can be formal, organized, structured by regulations, norms, military procedures or they can be just common, monotonous, banal activities. Also, the military environment met informal, unstructured situations, spontaneously produced by random variables or psychosocial elements, unforeseen situations involving risks and uncertainty, complex situations involving peacekeeping missions, humanitarian operations, participation in military combat operations in field of operations. In this sense, in the NATO document “*A Psychological Guide for Leaders Across the Deployment Cycle*” (2019), it is brought into the military specialists’ attention and not only, the fact that the active staff, in achieving modern operational objectives, is affected by the stress factors related to both the requirements of operational life and the perception of psychologically demanding experiences with high aggressive potential [7]. Even if the subjective perception of stress factors differs from one professional staff to another, being affected to varying degrees, the ability to concentrate, adjust, perform normal mental functionality. These sources of operational stress, lead to decreased individual and group performance.

4. ASSESSMENT OF STRESS PERCEPTION- QUESTIONNAIRE-BASED SURVEY METHOD

From the above, it is obvious the special and particular impact of the ubiquity of stressors on the military personnel involved in achieving the maximum and effective diversity of activities and objectives in military missions. After consulting the literature, the psychological premises arising from the specific context of life and activities in the naval military environment, require that the definition of the theoretical-conceptual framework for constructing an opinion questionnaire on the subjective assessment of stress response by military cadets to subsume the transactional paradigm of stress.

From the perspective of this paradigm as firstly conceptualized by Richard S. Lazarus, the psychological variables involved are: the stressor, respectively, the human personality, being considered methodological constructs in interrelation, mutually interdependent, describing a complex process permanently in dynamic development [3]. The author have identified this approach as being the most appropriate to the specificity of Navy psychological framework, in which the subjects of our research have

been selected in place the military cadets, because the transactional perspective of stress provides a systemic, holistic image, capturing adjustments and rebalancing among the personal resources and variables, assessing the aggressiveness of stress in developing customized coping strategies, in order to successfully cope with the given situation. We can also mention the fact that, within the Romanian Naval Academy "Mircea cel Bătrân", as a naval and maritime higher education institution, the instructive-educational process considers adaptively and effectively the personalities of the military cadets since the first year, offering them military and leadership models to refine, coping mechanisms to different stressors. In the permanent and complex process of maturity path and character formation traits congruent to the graduate profile, military students' practice, become aware and clearly adopt in behavior subtle mechanisms of adaptation to stress: acceptance (formal conformity), assimilation and integration into the system of norms, values, beliefs, tradition, specific to the culture of the military organization.

According to T. Constantin (p.70), the theoretical-conceptual variables essentially determine the construction and validation strategy of the opinion evaluation questionnaire, and further the operational definition of work [1]. From this perspective the stress can be considered "a particular relationship between person and environment, in which the person evaluates the environment as imposing demands that exceed their own resources and threatens their well-being, an evaluation that triggers coping processes, respectively cognitive, affective and behavioral responses to feedback received" [4]. Commenting on this paradigm, Zlate (p. 575) considers that "stimulus do not have the power to cause tensions, unless they are perceived by the individual as a threat to their well-being", the reactions produced by stress being both somatic or physiological and psychological and behavioral [6].

Starting from these theoretical-explanatory assertions, the dimension targeted by the authors, namely the impact assessment of stress, being already theoretically conceptualized, they have proceeded to the methodological construction of the opinion questionnaire to be applied. Thus the physiological, psychological and behavioral variables were operationalized, subsumed to the integrative dimension investigated, by formulating an intercorrelated set of items (questions). The items formulation has been initiated in compliance with the models offered by similar questionnaires that are used in practice to measure the subjective feelings and perceptions, not directly observable but reflected in the consciousness of the subjects and related to the objective reality.

In the interrogative stage, the practical reasons for constructing the questionnaire were to clarify what has to be evaluated, what is the meaning the variables should shape, in such manner that the aimed results to be adaptively useful for military cadets in the current process of counseling and vocational guidance (i.e. as carried out as experiment within the project POCU 133334 Advanced Cybersecurity).

For illustration, a set of 3 questions that interrogate the 3 investigated variables will be exemplified as following:

- for the physiological variable the next items have been applied:

- *Have you ever had trouble breathing without being subjected to sustained physical effort?
- *For a long time, your head hurts in such way you can't concentrate?
- *Your hands are shaking pretty hard and you can't control the situation no matter how hard you try?

- for the behavioral variable the next items have been applied:

- *Are you used to biting your nails or gnashing your teeth?
- * Do you often cry and complain because things don't go the way you want them to?
- *For some time, you noticed you have gained weight or lost several kilograms and you can't explain why?

- for the psychological variable the next items have been applied:

- * Do you think that you are less capable and valuable compared to other people?

* Did you have periods of time when your future seems uncertain and hopeless?

* Do you feel lonely, misunderstood, even if you are surrounded by friends?

The methodological construction approach aimed at creating a simple, non-standardized opinion-based questionnaire, partially validated by its experts' pre-testing, verifying the extent to which the questions addressed to investigate dimensions (stress), respectively the variables that define it paradigmatically. In this way, the authors were able to analyze the sets of 15 intercorrelated items related to the defined dimension of stress. In the theoretical modeling of the questionnaire, they aimed for the questions to be ordered logically and psychologically, for the proposed purpose, with a low degree of abstraction, being expressed briefly, simple and direct. Also, in this investigative technique, it more attention was paid to the way in which the wording of the questions didn't induce a certain answer or distort the individual answer of the military cadets.

The investigation carried out in the preamble of the questionnaire have underlined the sincere expression of the intensity of the agreement or disagreement with each statement, as it fits the assessment of the respondent. The authors have opted for a system for evaluating questions with multiple choice answers, on a 5-step scale with the possibility to nuance the answers as close as possible to the perception assessed individually, where 1 = never; 2 = rare; 3 = sometimes; 4 = often and 5 = very often.

In this approach, the authors have performed in a non-standard manner the recording of the military students' opinions of in order to collect the data to be interpreted. The recorded scores have been framed in three response intervals corresponding to the optimal stress level OSL (Optimum Stress Level) which facilitates performance with maximum efficiency in both personal, social and professional domain. Then an area "at the limit of normal" has been defined, by predisposition to reduce the ability to cope with stressful situations and, by the impairment of the ability to overcome stressful situations, consequently recording a serious discrepancy between the intensity of external demands and personal adaptability, which requires additional clarification and specialized recommendations.

As the authors are currently pursuing the vocational counseling activity at an early stage within the project POCU 133334 framework, and the sessions dedicated to the administration of the questionnaires are still undergoing, all the empirical data necessary to build the statistical model are not yet collected, as to be further interpreted in order to generate objective inferences related to which military cadets perceive the aggressiveness of stressful stimulus. The authors are aiming to continue the investigative approach in a future scientific paper and to be able to present new results that will support the process of exploration and authentic self-knowledge of military students and to provide for counseling experts, teachers, military instructors new effective tools adapted to the psychological needs identified in case of military cadets in the counseling process.

5. CONCLUSIONS

The study has sought to briefly capture the systemic, indissoluble relationship that is established between various factors, involved in two directions of theoretical and practical-applied approach. The first approach treats the stress as a pervasive phenomenon related to: the subjective evaluative perception of stressors that determine the development of coping mechanisms to objective reality and maintaining psychological balance, methodological ways of objectively evaluating variables subsumed by stress and efficient use of counseling results as the professional orientation of military cadets. The second perspective focuses on the general characteristics especially, the specific characteristics of military activities and missions, aligned to the cultural context of the military organization.

Analyzing under holistically manner these intercorrelated factors, it has been deduced the usefulness of the theoretical-methodological approach, facilitating the formulation of several subsequent practical-applicative and formative proposals as following:

- it is needed to further disseminate the results of the nominated research project in order to improve the vocational counseling activity within the Naval Academy Career Counseling and Guidance Center of (CCOC-ANMB), considering that the vocational and military career path is a continuous and flexible process that takes place throughout our carrier lifetime, offering various opportunities in the professional evolution and specializations on the labor market;

- it is essential to achieve effective training by conducting applied training in self-knowledge, awareness of positive values and limits of the cadets personality and practice underlying the concept of positive self-esteem, the prestigious feeling that they belong to an elite military organization, crystallization of professional identity, as forth facilitating the optimal decision making process regarding the vocational path;

- it is recommended to organize various workshops for military cadets in the topic of psychological training for combat, using structured assessments of scenic climate and positive morale, to increase the cohesion and camaraderie of the military personnel, integration, flexibility and adaptability in multicultural military activities and missions.

- it is valuable to include in modern operational training exercises various training scenarios to provide military leaders with information and practical guidance on developing realistic and personalized strategies for managing the effects of stress, coping and providing psychological support in developing stress designed management programs for military cadets.

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