



## PSYCHOLOGICAL RESOURCES FOR COPING WITH THE STRESS EXPERIENCED BY SOLDIERS PARTICIPATING IN MISSIONS

Zasoby psychologiczne w radzeniu sobie ze stresem doświadczanym przez żołnierzy biorących udział w misjach



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### Abstract

**Introduction and objective:** The aim of this study was to assess the level of the sense of coherence and stress coping strategies among the homecoming participants of foreign military missions. Due to the nature of peacekeeping and stabilising missions and the tasks performed by their participants, the ability to cope with a stressful situation in the face of danger is crucial, not only for the sake of their health, but most of all due to its significant impact on collective security. **Materials and methods:** Converted values of the scores obtained in the Polish adaptation of Coping Inventory for Stressful Situations by Szczepanik, Strelau and Wrześniewski were used as indicators for stress coping styles (a dependent variable). The results received in Antonovsky's Orientation to Life Questionnaire (Sense of Coherence Scale, SOC-29) were employed as indicators for the sense of coherence (an independent variable). **Results:** The stronger the sense of coherence, the more likely the respondent to choose the task-oriented coping style. Owing to cognitive transformations, a difficult situation is interpreted as a challenge that can be coped with by a given person, who then makes efforts to solve the problem. **Conclusions:** The research clearly shows that: (1) a strong sense of coherence significantly reduces the level of perceived stress and has a decisive impact on the choice of the preferred coping style; (2) the sense of coherence determines the choice of the preferred stress coping style; (3) individuals with a strong sense of coherence perceive stressors as challenges rather than threats; (4) individuals with a low sense of coherence tend to focus their energy on negative emotions and engage in activities of a definitely unhealthy nature (smoking, alcohol consumption).

### Streszczenie

**Wstęp i cel:** Autorzy niniejszego badania postawili sobie za cel analizę poziomu poczucia koherencji i sposobów radzenia sobie ze stresem wśród powracających do kraju uczestników wojskowych misji zagranicznych. Ze względu na charakter misji pokojowych i stabilizacyjnych oraz charakter zadań realizowanych przez ich uczestników, umiejętność poradzenia sobie z sytuacją w obliczu zagrożenia jest kluczowa nie tylko ze względu na ich zdrowie, ale przede wszystkim ze względu na znaczący wpływ stresu na bezpieczeństwo. **Materiał i metody:** Wskaźnikami zmiennej zależnej stylu radzenia sobie ze stresem są przeliczone wartości wyników uzyskanych w Kwestionariuszu Radzenia Sobie w Sytuacjach Stresowych w polskiej adaptacji Szczepanika, Strelaua i Wrześniewskiego. Wskaźnikami zmiennej niezależnej poczucia koherencji są wyniki uzyskane w Kwestionariuszu Orientacji Życiowej Antonowsky'ego (Sense of Coherence Scale, SOC-29). **Wyniki:** Im wyższe poczucie koherencji, tym częściej respondent preferuje skoncentrowany na zadaniu styl radzenia sobie ze stresem. Dzięki przekształceniom poznawczym sytuacja trudna jest interpretowana jako wyzwanie, z którym jednostka jest w stanie sobie poradzić, a następnie podejmuje wysiłki w celu rozwiązania problemu. **Wnioski:** Przeprowadzone badania jednoznacznie wskazują, że: (1) wysokie poczucie koherencji znacząco obniża poziom odczuwanego stresu i ma decydujący wpływ na wybór preferowanego sposobu radzenia sobie ze stresem; (2) poczucie koherencji determinuje wybór preferowanego stylu radzenia sobie ze stresem; (3) stresory będą traktowane przez osoby o wysokim poczuciu koherencji jako wyzwania, którym należy sprostać, a nie zagrożenia; (4) osoby o niskim poczuciu koherencji będą raczej skupiać swoją energię na negatywnych emocjach i podejmować działania o zdecydowanie niezdrowym charakterze (palenie, spożywanie alkoholu).

**Keywords:** stress, soldiers, psychological resources, health

**Słowa kluczowe:** stres, żołnierze, zasoby psychologiczne, zdrowie

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## Introduction

Stress arising from the potential for combat, or from combat itself, is an inherent component of foreign military expeditions. An analysis of factors underlying stress experienced during a military mission leads to the conclusion that exposure to the risk of death during warfare serves as a natural catalyst of stress, and that this is amplified by the technologically advanced nature of modern wars, their dynamics and unpredictability. Anthropogenic factors, being an inseparable element of conflicts and wars, remain in the background, regardless of the era in which they are set. Stress is stimulated by the awareness of the existing threats to health and life of an individual, built on the knowledge about conflicts and socio-cultural environment in which they occur. A lack of such knowledge contributes to the difficulty in coping with stress.

Therefore, the aim of this study was to determine the relationship between the personal resources of soldiers, such as sense of coherence and coping styles. Two concepts serve as the theoretical basis of the research: the transactional theory of stress by Richard Lazarus [1] and the salutogenic theory by Aaron Antonovsky [2].

The basic statement of Lazarus' transactional theory of stress, describing psychological stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" [3] is undoubtedly the most popular and most frequently cited theory of stress. It is a manifestation of a cognitive-phenomenological approach to the issue. This approach places special emphasis on the capacity to predict future events. It is assumed that stress is not generated by a given situation and its nature, but by the way it is perceived by the person. The relationship between an individual and environment can be classified as positive, neutral or stressful [4]. The process of assessing the situation is broken up by Lazarus into primary appraisal and secondary appraisal.

A theoretical foundation for research on stress coping styles has been proposed by Norman Endler and James Parker [5]. Their theory distinguishes between coping styles based on two criteria. These are confrontation and person-orientation. Based on these particular criteria, Endler and Parker distinguished four styles: confrontational task-oriented, confrontational person-oriented, evasive task-oriented and evasive emotion-oriented – typical of individuals who avoid making any decisions or taking any actions with regards to a stressful situation. This style may manifest itself in two ways: by engaging in substitute activities (watching TV, the Internet, overeating) or by seeking interactions with other people and undertaking other tasks to develop social contacts.

The ability of individual persons to cope with stress depends on multiple factors, such as intelligence, talents, knowledge, personality traits, temper, physical appearance, experience in coping with stressful situations, as well as the current condition of an individual (both mental and physical).

## Fundamental theses of Antonovsky's salutogenic theory

In contrast to the pathogenetic approach based on the dichotomic division into health and disease, the salutogenic approach developed by Aaron Antonovsky is based on perceiving health and disease as a continuum. This allows for not only treating health as a process, but also for determining its individual levels [6].

Antonovsky holds an opinion that when facing a stressful situation, an individual can not only protect their health, but also develop themselves and choose their actions. In such a case, a stressful situation is perceived as a disruption of the balance in the individual-environment system and only the efforts of the individual may restore the balance of this system [7]. Antonovsky's salutogenic model assumes that the type and level of stress, as well as the resistance resources and the sense of coherence of an individual are decisive in the process of coping with stress. The two latter factors are of particular importance in this theory.

The concept of generalised resistance resources (GRR), the essence of which is effective prevention and eradication of stress, is understood as comprising the features and characteristics of both an individual and a group, along with cultural and environmental elements. These resources can be divided into different categories, such as material resources (GRR), such as money or physical strength; cognitive and emotional GRR (intellect, knowledge, or sense of identity); assessment and attitude resources (rationality, predicting and planning skills); interpersonal and relationship GRR (social support and commitment); as well as macro-socio-cultural resources, i.e. reactions which are determined for the individual by culture.

The sense of coherence is another concept that, according to Antonovsky, plays an extremely important role in explaining the mechanisms of coping with stress. He defines this concept as "(...) a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that 1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable, 2) the resources are available to one to meet the demands posed by these stimuli; and 3) these demands are challenges, worthy of investment and engagement" [8].

Based on this definition, three relatively autonomous components of the concept can be distinguished. Despite their independence, they still remain constructive constituent parts of the aforementioned sense of coherence. Antonovsky describes these components of the sense of coherence as comprehensibility, manageability, and meaningfulness.

On the other hand, according to Antonovsky, patterns of life experiences have the greatest impact on the formation and individual level of the sense of coherence of each individual, apart from generalised resistance resources.

Coherence is shaped by, and its level increases chiefly due to, socialisation. The formation and consolidation of

basic elements of the global sense of coherence are primarily due to three fundamental life experience patterns. According to Antonovsky, these are: consistency (stability), balance between overburdening and underburdening, and participation in decision making.

### The relationship between the sense of coherence and stress coping styles

The fundamental claim of Antonovsky's salutogenic concept is the assumption that the state of dynamic heterostatic lack of balance is part of human nature. Regardless of whether the stressors will be internal or external by nature, a human being continually experiences stimuli during their life to which they are forced to react, even though they have neither a ready solution nor an adaptive response. In his concept, among the factors of effective coping with stress, Antonovsky names the sense of coherence, understood as a global, complex orientation of a human being which makes them perceive the surrounding world (both internal and external) as predictable, and the processes and events unfolding in it as conforming to their own expectations [9].

Individuals with a strong sense of coherence are distinctly more likely to perceive stressogenic factors as challenges which they can, in their own estimation, cope with, rather than as threats. They decide to undertake pro-health activities more readily, and are less likely to engage in harmful activities than those with low coherence.

The aim of this study was to assess the level of the sense of coherence (SOC) and stress coping strategies among the homecoming participants of foreign military missions. Due to the nature of peacekeeping and stabilising missions, and the tasks performed by their participants, the ability to cope with the situation in the face of danger is crucial, not only for the sake of their health, but most of all due to its significant impact on the collective security level [10]. Regions in which peacekeeping, stabilising and peace enforcement operations are conducted are frequently locations of intense hostilities, which is in turn associated with situations that pose a threat to mission participants and very often force them to make morally controversial decisions.

The aim of research was to demonstrate and describe the relationships between the sense of coherence exhibited by soldiers deployed on foreign missions and their preferred stress coping styles.

The fundamental research question posed by this study is: **What is level of the sense of coherence and what stress coping styles are used among soldiers deployed on missions?**

In order to ensure an in-depth and comprehensive analysis of the posed research question, the following more specific questions were isolated and formulated in the cognitive process:

- What is the relationship between the sense of coherence and stress coping styles in the personnel deployed on a military mission?
- What is the structure of a team deployed on a military mission? This question concerns the diversity among

team members sent for peacekeeping missions in terms of the sense of coherence, i.e., whether the study subjects form a homogeneous group, or whether it is possible to distinguish subgroups differing in their level of the sense of coherence?

### Description of variables

Given the aim of the study and the proposed research questions, the following dependent and independent variables were adopted.

Dependent variables: preferred stress coping styles among soldiers deployed on foreign missions.

Independent variables: the sense of coherence among soldiers deployed on military missions abroad, as well as secondary independent variables: age, marital status, children, education. Independent confounding variables: events that occurred during service on the mission.

### Methods

A nomothetic approach was employed to verify the theoretical claims. It is based on the strategy of quantitative research in which survey results allow for identifying any emerging regularities, which can be projected onto a specific population. For this reason, in this case, the applied set of research and cognitive techniques, i.e. the research method, is quantitative in nature. Only such a method will ensure a fully objective response to the questions formulated in this study. The type of theoretical research undertaken here is of a verification nature, intended to confirm the relationship between the sense of coherence and stress management styles which the theory posits. The theoretical foundations and the aforementioned correlation were presented in the introduction to methodology. The nature of both the subject of research and the formulated questions required the use of the following cognitive techniques in the research process: the Orientation to Life Questionnaire (SOC-29), the Coping Inventory for Stressful Situations (CISS) Questionnaire.

The converted values of the scores obtained in the Polish adaptation of CISS by Szczepaniak, Strelau and Wrześniewski were used as indicators for the dependent variable of stress coping style.

The scores obtained in Antonovsky's Orientation to Life Questionnaire (SOC-29) were used as indicators for the sense of coherence (independent variable). Interview data were utilised as indicators for secondary independent variables. The indicators for independent confounding variables are data items acquired from the interview.

### Description of the study group and the course of the survey

The research was conducted between 2020 and 2022 on the premises of the General Tadeusz Kościuszko Military University of Land Forces in Wrocław, among the participants of the qualification, development and language courses conducted by the University. Participation in the study was voluntary. Every surveyed person received a set including the CISS and the Orientation to Life Ques-

tionnaire (SOC-29). The research session lasted about 20 minutes. A total of 182 soldiers who had participated in military missions at least once in their life took part in the study. All respondents were male. Soldiers of the Land Forces accounted for the majority of the study group (91%), while the members of Special Forces accounted for only a small percentage (9%).

The questionnaires were used to assess soldiers in individual corps of the Armed Forces of the Republic of Poland, including the corps of officers, non-commissioned officers, and career privates. This is the basic division into corps within the Polish Army, and consequently, there is a distinct recruitment and selection of persons for each corps. Since the military is still dominated by an autocratic leadership style, the tasks and duties of soldiers in individual corps also vary.

Non-commissioned officers prevailed among the respondents (44%), officers formed a smaller group (32%), followed by career privates (24%). Figure 1 shows a detailed breakdown of the respondents by military rank. The majority of respondents had higher education (59%), with the remaining soldiers having secondary education (41%). The age of the surveyed soldiers ranged from 26 to 43 years, with the mean age for the total group of 33.866 years.

Family situation was an important element in the description of the surveyed soldiers. This aspect is particularly important in the context of deployment on missions abroad, which is taken into consideration in this profession. When analysing the demographic data cards, the focus was placed on the marital status and the number of children. Over two-thirds of respondents (69%) had families and at least one child (37%).

A family left behind in home country can be a source of stress and a distraction for a soldier, preventing them from focusing their full attention on their assigned tasks. It is possible that a soldier on a mission abroad may receive information about problems or unfortunate events affecting their loved ones left behind in their country. For a soldier serving on a mission, the safety of their family is of paramount importance. Knowing that their family is safe positively contributes to their motivation to perform duties effectively and efficiently. A threat to this stability may pose a threat not only to the soldier themselves, but also to the members of their unit.

A statistical analysis of the questionnaire data was performed to answer the study questions. The calculations were performed using STATISTICA 13. Descriptive statistics were used to provide detailed descriptions of the variables. The analyses employed various statistical methods and tests, including: the Pearson correlation coefficient, Ward's method, histograms, the Shapiro-Wilk test, cluster analysis, the F-test, and the Student's t-test for independent samples. The analyses were performed at a statistical significance level of  $\alpha = 0.05$ .

The presentation of the research findings began with the preparation of descriptive statistics for each variable. Table 1 provides a description of the variables associated with coping styles.

The mean score for the task-oriented style (TOS) was 65.40. The minimum and maximum TOS score is 38 and 80, respectively. The standard deviation (SD) for TOS is 7.9. There was little variation in TOS among the respondents.

For the emotion-oriented style (EOS), the mean score was 34.62, with a standard deviation of 10.41. The minimum and maximum score was 16 and 67, respectively. A standard deviation of the mean  $>30\%$  indicates a significant EOS variation.

The avoidance-oriented style (AOS) also significantly differentiated the soldiers surveyed. The mean score was 36.63; the minimum and maximum AOS score was 18 and 64, respectively, with SD of 10.43. The avoidance-oriented style is divided into two subscales: engaging in substitute activities (ESA) or seeking social contacts (SSC).

The first subscale is characterised by a large span between the minimum (8) and the maximum score (32). With an average of 14.82, the SD was 5.88, which is approximately 39% of the mean value. This result allows for a clear determination of the diversity among the respondents for this variable. In the case of SSC, the respondents also differed markedly in their use of this method to combat stress. The mean score was at the level of 14.24. The minimum and maximum scores obtained in the survey were 7 and 22, respectively (SD = 3.92).

The respondents showed no significant differences for the task-oriented style, which is not the case with regard to the other two coping styles. Particularly large diversity was evident for the ESA subscale.

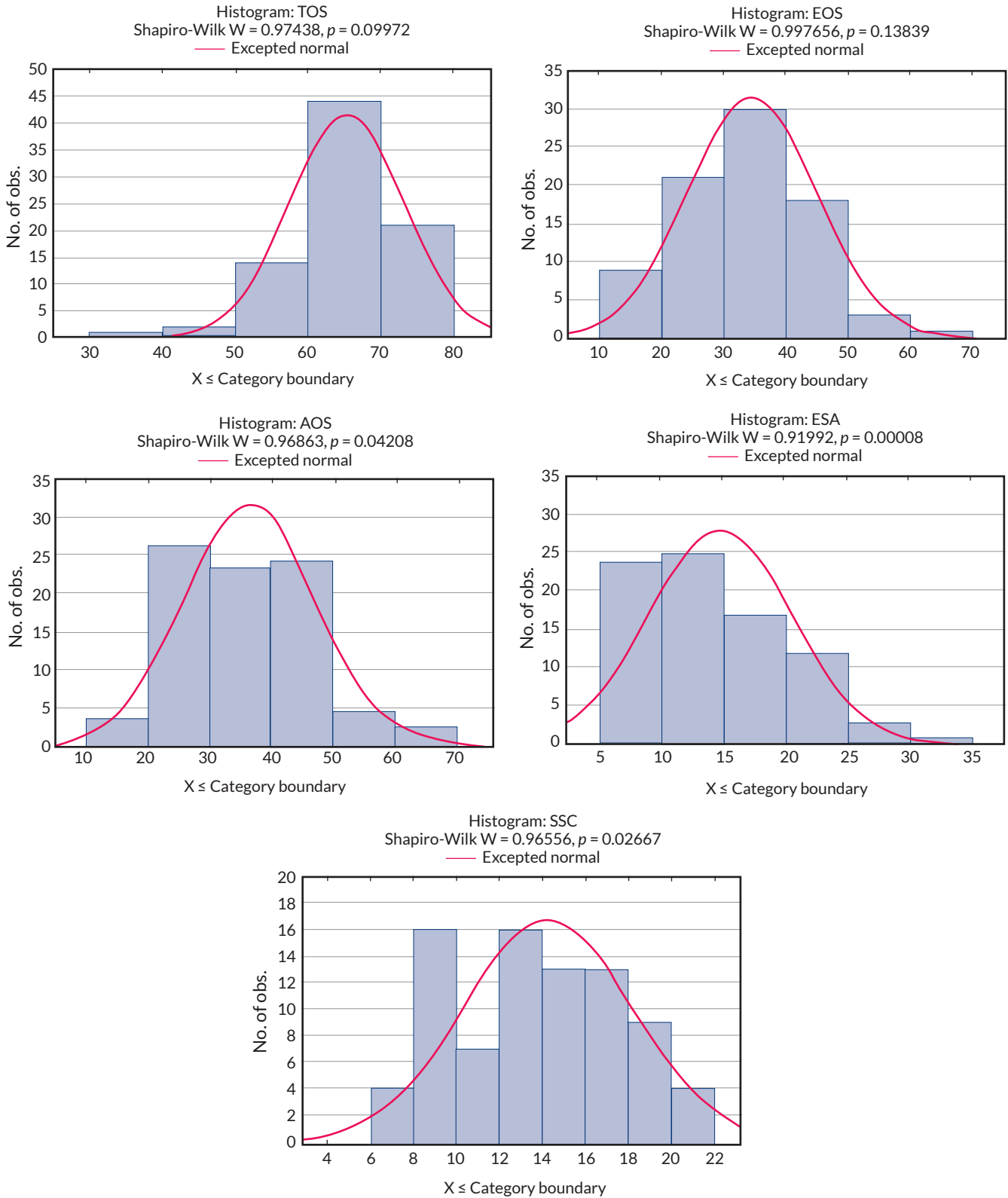
The same analysis was performed for variables related to the sense of coherence. Descriptive statistics for this variable are shown in table 2.

On the intelligibility scale, the maximum obtainable score is 77. For the respondents, the mean was 46.73 (SD = 13.58). The lowest and the highest score obtained by respondents was 24 and 71, respectively. This indicates significant diversity among the respondents.

The minimum and maximum scores for manageability were 23 and 68, respectively, out of a possible score of 70. The mean score was 48.62 (CD = 13.35). It exceeded 15% of the mean value, indicating that the results on the manageability scale varied significantly among the respondents.

The mean score obtained by soldiers in the meaningfulness scale was 41.89. The minimum and the maximum scores were 25 and 55, respectively. Considering the standard deviation at the level of 9.46, it can be concluded that the respondents differed in this sense of coherence subscale.

The mean score in the global level of the sense of coherence was 137.24, with the minimum of 76 and the maximum of 190. The ratio of the standard deviation (35.98) to the mean exceeded 21% of the mean value, indicating that the group was heterogeneous in terms of the global sense of coherence.



Source: Statistica 13, the author's own the author's own research

**Figure 1.** Histograms of individual scales of coping styles

To check the correlations between the level of the sense of coherence and coping styles, the r-Pearson correlation analysis included in table 3 was performed.

The analysis carried out at  $p < 0.05$  showed statistically significant relationships between TOS and all components of the sense of coherence and the global sense

of coherence among the surveyed soldiers. The coherence was in the range of 0.56 to 0.59. The strong link between these variables indicates a simultaneous increase in both aspects, i.e., individuals achieving high scores in the SOC-29 Orientation to Life Questionnaire, also have high scores on the TFS scale in the CISS Questionnaire. The higher the sense of coherence, the

**Table 1.** Statistical description of variables associated with coping styles used in stressful situations

Variable	Descriptive statistics							
	N valid ones	Mean	CI -95.000%	CI 95.000%	Min	Max	SD	SE
TOS	182	65.402439	63.6668746	67.1380035	38	80	7.89883529	0.872280435
EOS	182	34.6219512	32.3339115	36.9099909	16	67	10.4132397	1.14994995
AOS	182	36.6341463	34.3419757	38.926317	18	64	10.4320401	1.15202611
ESA	182	14.8170732	13.5242354	16.1099109	8	32	5.88391414	0.649769618
SSC	182	14.2439024	13.3824305	15.1053744	7	22	3.9206984	0.432968708

Source: Statistica 13, the author's own research

SD - standard deviation; SE - standard error; Max - maximum; Min - minimum; CI - confidence interval

**Table 2.** Descriptive statistics of the analysed variables for the sense of coherence

Variable	Descriptive statistics							
	N valid ones	Mean	CI -95.000%	CI 95.000%	Min	Max	SD	SE
Comprehensibility	182	46.7317073	43.7476175	49.7157972	24	71	13.5810769	1.49977904
Manageability	182	48.6219512	45.6876941	51.5562084	23	68	13.3542801	1.47473353
Meaningfulness	182	41.8902439	39.8109096	43.9695782	25	55	9.46338767	1.04505634
Total	182	137.243902	129.337787	145.150018	76	190	35.9820123	3.97354853

Source: Statistica 13, the author's own research

SD - standard deviation; SE - standard error; Max - maximum; Min - minimum; CI - confidence interval

**Table 3.** The r-Pearson correlation between the level of sense of coherence and coping styles

Variable	Correlation			
	The determined correlation coefficients are significant with $p < 0.05000$			
	N = 82			
	Comprehensibility	Manageability	Meaningfulness	TOTAL
TOS	0.5888	0.5802	0.5621	0.5854
	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$
EOS	-0.6341	-0.6527	-0.6460	-0.6515
	$p = 0.000$	$p = 0.000$	$p = 0.000$	$p = 0.000$
AOS	-0.2386	-0.2128	-0.2156	-0.2257
	$p = 0.031$	$p = 0.055$	$p = 0.052$	$p = 0.041$
ESA	-0.3209	-0.3134	-0.3168	-0.3207
	$p = 0.003$	$p = 0.004$	$p = 0.004$	$p = 0.003$
SSC	-0.0556	-0.0091	-0.0149	-0.0283
	$p = 0.620$	$p = 0.936$	$p = 0.894$	$p = 0.801$

Source: Statistica 13, the author's own research

SD - standard deviation; SE - standard error; Max - maximum; Min - minimum; CI - confidence interval

more likely the respondent to choose the task-oriented style. Cognitive transformations allow for interpreting a difficult situation as a challenge that can be coped with by an individual, who then makes efforts to solve the problem.

When looking at the emotion-oriented style, strong negative correlations may be observed between this variable and the global sense of coherence and its individual scales. These fell into a range from -0.63 to -0.65. The lower the sense of coherence in a given soldier, the more likely they are to focus on themselves, and the emotions experienced, using the emotion-oriented style. At the same time, they may often think wishfully, feel anger, irritability, guilt and constant tension.

A negative relationship between comprehensibility and the global sense of coherence and AOS could be also observed in the study group. A lower sense of coherence also occurs between the ESA subscale—and all components of the sense of coherence. This indicates that the lower the sense of coherence, the more likely the person to avoid a stressful situation, especially by engaging in other activities, most often destructive, such as any types of stimulant abuse and addictions.

In order to determine the structure of the group of soldiers and to check the homogeneity of the respondents in terms of their sense of coherence, the analysis of clustering using the k-means method was used. First, however, the scales were standardised for further analysis.

**Table 4.** Mean values of variables in isolated clusters

Variable	Cluster 1	Cluster 2
Comprehensibility	-1.125747	0.7607275
Manageability	-1.150876	0.772999
Meaningfulness	-1.134825	0.7597756

Source: Statistica 13, the author's own research

**Table 5.** Analysis of variance in clusters

Standardised variable	Between clusters	Df	Inside clusters	df	F	Significance P
Comprehensibility	70.17754	1	12.806	80	438.4042	0.000000
Manageability	72.98775	1	10.00146	80	583.8165	0.000000
Meaningfulness	70.78344	1	12.16627	80	465.4406	0.000000

Source: Statistica 13, the author's own research

**Table 6.** Focus level vs. stress coping styles in the study group

Variable	Focus level	Mean	Standard deviation	Z test result	Significance level
Task-oriented style (TOS)	Cluster 1	60.85	8.17	4.84	<0.000
	Cluster 2	68.47	6.08		
Emotion-oriented style (EOS)	Cluster 1	42.06	10.03	6.53	<0.000
	Cluster 2	29.61	7.23		
Avoidance-oriented style (AOS)	Cluster 1	37.76	10.50	0.80	0.427
	Cluster 2	35.88	10.42		

Source: Statistica 13, the author's own research

A tree diagram (Ward's method) was used to determine the number of clusters. Individual cases were separated into two groups, hence the adoption of the twin-cluster solution. Then, clusters were isolated using the k-means method. Finally, two clusters were formed. There were 54 and 128 respondents in the first and the second group, respectively. The mean values of variables in the isolated clusters are presented in table 4.

Those scoring high in each dimension of the sense of coherence formed Cluster 2, while respondents with a low sense of coherence were included in Cluster 1. According to Antonovsky's theory, the sense of coherence is a relatively permanent disposition of an individual shaped in the course of experiences, and people belonging to individual clusters already have a fixed level of the sense of coherence.

It was also necessary to verify how well a given dimension determines clusters. For this purpose, an analysis of variance in each dimension was performed. The results are presented in table 5.

The analysis of variance indicated that all components of the sense of coherence differentiated the isolated groups in a similar manner. There were 182 study participants. Among the respondents, low scores on the scales of comprehensibility, manageability and meaningfulness (Cluster 1) were obtained by 54 respondents, while 128 respondents scored high in these scales (Cluster 2). In order to check the normal distribution for the coping scales, histograms were created and the Shapiro-Wilk test was performed.

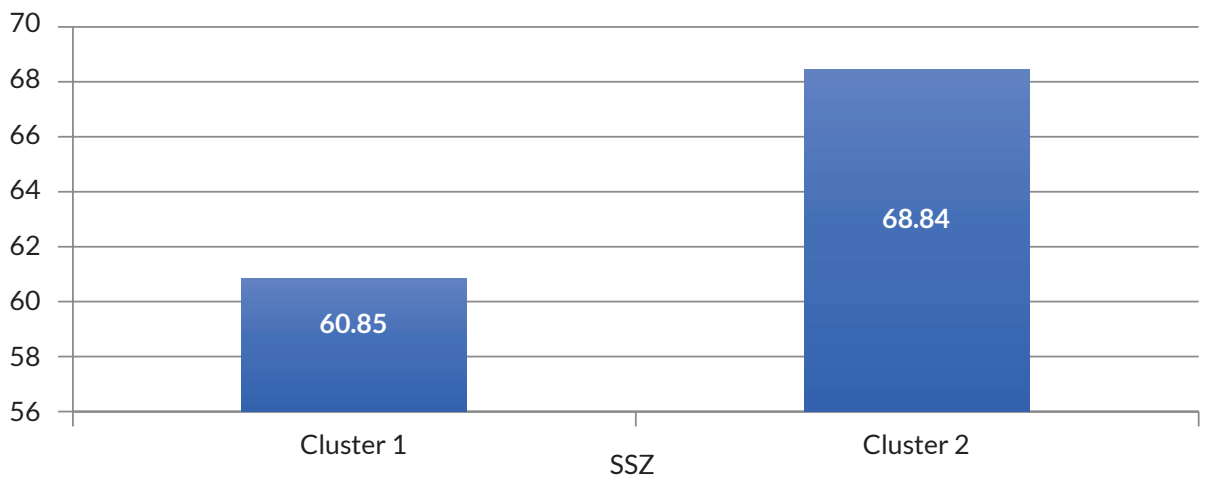
Shapiro-Wilk analysis and histograms indicated that the TOS, EOS and AOS variables had a normal distribution, which suggested the use of parametric tests.

In order to check whether those who scored low for comprehensibility, manageability and meaningfulness (Cluster 1) differed from respondents with high scores in the above-mentioned scales (Cluster 2) in terms of employed coping styles, the Student's t-test for independent trials was used. The results are shown in table 6.

The analysis with the Student's t-test for independent samples showed statistically significant differences in the frequency of using TOS and EOS. The mean results establishing differences between the isolated clusters due to given coping styles are presented in figure 2 (TOS) and figure 3 (EOS).

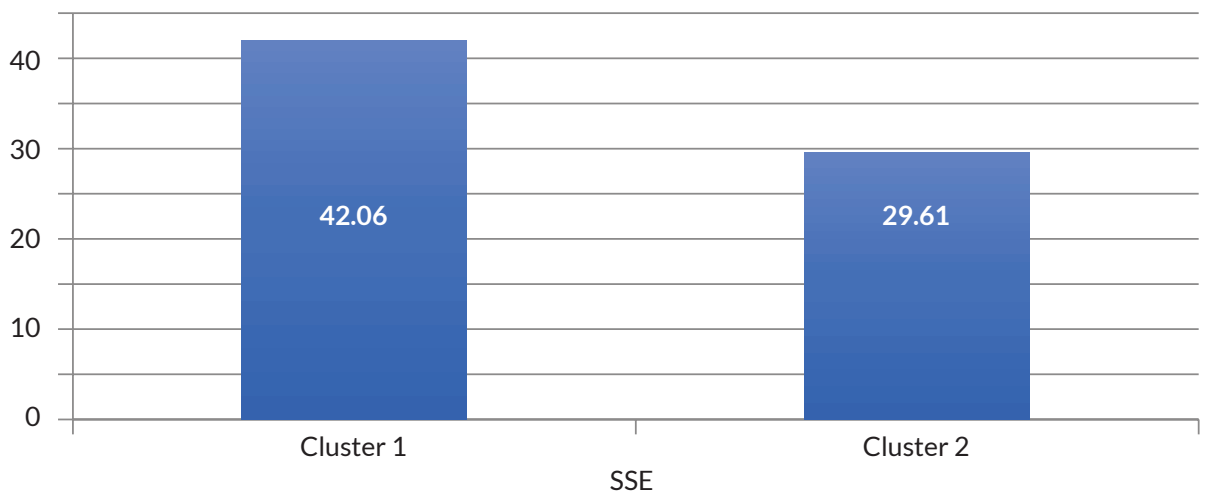
Such differences were not observed for the avoidance-oriented style. Respondents with a high sense of coherence were more likely to cope with a difficult situation using the task-oriented style, while those from Cluster 1 (with a low sense of coherence) preferred the emotion-oriented style.

When performing the Shapiro-Wilk test, it could be noticed that the variables of engaging in substitute activities and seeking social contacts did not have a normal distribution. Therefore, nonparametric tests were used. An analysis was performed using the Mann-Whitney U test to check whether persons with low scores for comprehensibility, resourcefulness and rationality (Cluster 1) differed from high-scoring individuals (Cluster 2) in terms



Source: Statistica 13, the author's own the author's own research

Figure 2. Average frequency of using task-focused style for isolated clusters



Source: Statistica 13, the author's own the author's own research

Figure 3. Average frequency of using task-focused style in the case of isolated clusters

of the frequency of AOS subscales, i.e., ESA and SSC. The results are shown in table 7.

The analysis with Mann-Whitney U test showed no statistically significant differences in the use of individual subscales of the avoidance style. Respondents from the isolated clusters did not differ in the frequency of engaging in substitute activities or seeking social contacts.

### Interpretation of results

The empirical research presented here aimed at providing information on the level of sense of coherence and stress coping styles in soldiers deployed on missions abroad. The analysis of the results obtained with the questionnaire methods was intended to help provide answers to three research questions. The main question that was asked in developing the research methodology was: "What are the sense of coherence and stress coping styles of soldiers deployed on missions?". The need to perform an in-depth and comprehensive analysis of the research problem required the

isolation and formulation of two specific issues in the cognitive process:

What is the relationship between the sense of coherence and coping strategy in soldiers deployed on a mission?

What is the structure of the team deployed on a foreign mission? This question concerned the diversity among team members sent on peacekeeping missions in terms of the sense of coherence, i.e., whether this was a homogeneous group or whether groups differing in the intensity of the sense of coherence could be distinguished.

After tests were carried out and the raw results were entered into the spreadsheet and then recalculated, descriptive statistics of variables were constructed. Then it was decided to determine to what extent the study group of soldiers was a homogeneous group due to the scale of the sense of coherence. For this purpose, two clusters with different levels of coherence were distinguished. The first cluster included respondents with low scores on all three scales of the sense of coherence. These respondents were



**Table 7.** Cluster level and stress coping styles in the study group

Variable	Cluster level	Mean	Standard deviation	Z test result	Significance level
Engagement in substitute activities (ESA)	Cluster 1	13.90	5.60	1.74	0.085
	Cluster 2	16.18	6.12		
Seeking social contacts (SSC)	Cluster 1	14.43	3.97	0.52	0.606
	Cluster 2	13.97	3.88		

*Source: Statistica 13, the author's own research*

then compared in terms of preferred stress coping styles with the second cluster, which included individuals with a high sense of coherence. Both external and internal factors are predictable, explainable and orderly for these individuals. They also have the means and resources that enable them to meet the requirements that these factors may set for them. They perceive these requirements as specific challenges, the overcoming of which, in their opinion, is worth their commitment and effort. The comparative analysis showed that only in the case of two coping styles, i.e. TOS and EOS, differences were found between respondents included in both clusters [11].

Respondents with a high level of coherence (the second cluster), were significantly more likely to use the task-oriented style than those with a low sense of coherence. Respondents from the second cluster were significantly more likely to take efforts and actions to solve a given problem or to change the stress-generating situation. Just as the task-oriented style turned out to be characteristic for those with a high level of sense of coherence, the emotion-oriented style dominated in the first cluster with a low sense of coherence. Therefore, it seems that individuals with a low sense of coherence are characterised by behaviours such as focusing on their own emotions; guilt and emotional tension; anger; tendency to fantasise; and wishful thinking.

## Conclusions

The research has clearly shown that a high sense of coherence significantly reduces the level of perceived stress and has a decisive impact on the choice of the preferred stress coping strategy. Furthermore, it strongly positively correlates with measures of mental health, while the correlation with somatic ailments is definitely negative. The research has also shown that there is a clear relationship between the level of sense of coherence and the choice of stress coping style.

Therefore, it can be concluded that the sense of coherence determines the choice of the preferred stress coping style. The research confirmed a measurable relationship between the level of sense of coherence and the choice of coping style. The more coherent a person is, the more likely they are to choose the task-oriented style as a way of coping with stress. On the other hand, as the level of sense of coherence decreases, the chance to focus on emotions as the preferred method of dealing with stress increases.

The results of the analyses have led to a conclusion that stressors will be treated by people with a high sense of

coherence as challenges to be met rather than threats. The fact that the tension arising from potentially stress-inducing situations does not cause severe, chronic stress in these individuals, but rather motivates them to take intensive actions to solve the problem or change the stressful situation, probably results from their preferred task-oriented style. At the same time, the research shows beyond any doubt that individuals with a low sense of coherence will rather focus their energy on negative emotions and engage in activities of a definitely unhealthy nature (smoking, alcohol consumption). The focus on oneself and one's own negative experiences preferred by such people may lead to the consolidation of the tension they experience, and, as a consequence, long-term stress resulting in occupational burnout and physiological changes.

While the world may usually seem poorly understood and often meaningless for those who lack stress coping resources, which is determined by their far-reaching focus on efforts to eliminate only the negative consequences of events, individuals with a high sense of coherence focus primarily on the use of behavioural and cognitive strategies targeting a given problem.

A feature that seems to be common for all persons with a high sense of coherence is their effectiveness in taking action when facing challenges and problems. This encompasses not only the very process of coping with difficulties, but also the outcomes of these activities, and may include only one or many spheres of human activity. An example may be a person competent in social interactions, who will not necessarily be psychologically effective. Before starting a specific stress transaction, it seems logical to establish the baseline level of effectiveness. When assessing the coping styles among soldiers serving on missions abroad, an attempt should be made to determine the level of their effectiveness. At this point, it should be considered to what extent and in what specific situations soldiers serving on foreign missions could prove effective in action. The answer to this question could help determine to what extent a given coping style can be shaped and promoted. For example, soldiers of a motorised infantry brigade occupying the troop compartment of an armoured personnel carrier have neither the ability to operate the vehicle's onboard weapons (cannon) or control the vehicle. Therefore, they have no real impact on the movement of the vehicle, the use of evasion or its ability to fire heavy weapons. Therefore, it is difficult to speak of their ability to undertake meaningful and effective actions in the event of being attacked with anti-tank weapons or improvised explosive devices. The inability to take action in such cases will promote

the emotion-oriented style. Precise determination of the tasks and responsibilities of each crew member and what each of them can realistically do in such a situation may promote a more healthy coping style (TOS).

Based on the research by Pasikowski, it can be concluded that the level of the sense of coherence not only has a significant impact on the individual elements of the stress management process, but above all modifies the primary assessment [12]. At this stage, the significance of a given stress transaction is estimated. As part of the initial assessment, an individual considers a given situation in terms of harm (loss), threat (anticipation of future losses), or challenge. Preferring the task-oriented style, individuals with a higher sense of coherence will largely perceive stressful situations as challenges, which will significantly reduce their level of anxiety and negative emotions related to stress. Reducing the level of anxiety or its complete elimination will result in the belief of such individuals that they have free access to resources and means to cope with a given stressful situation.

It is extremely important that the person exposed to stressors is convinced that the situation in which they find themselves is cognitively manageable. This significantly reduces the risk of anxiety and depressive states. The research conducted by Pasikowski showed that success in action is influenced not so much by the number of strategies used as by their configuration. In these studies, active strategies, both cognitive and behavioural ones, were the most effective, and their opposite turned out to be avoidance actions, which only aimed to change the mood and well-being. The only way for emotion-oriented coping strategies to be effective is to skilfully integrate them into cognitive and behavioural activities.

Individuals characterised by a high level of the sense of coherence, by treating a stressful situation as a challenge, build their own dynamics of functioning under stress. This relationship has been confirmed in the present study. It has been demonstrated beyond any doubt that individuals who prefer the task-oriented style as a method of coping with stress show a high level of the sense of coherence [13].

The results of our cognitive study allowed for a closer look at the level of dependence between the level of coherence and preferred method of coping with stress. Due

to the complexity of the issue being studied, the remaining elements of the stress transaction model were not investigated in this study. Therefore, this research can only be seen as a starting point for a deeper analysis of the specificity of soldiers' service on foreign missions and the associated stress.

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