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**A STUDY OF THE COMPONENTS OF PROFESSIONAL BURNOUT AMONG
EMPLOYEES OF THE BODIES AND UNITS OF THE STATE EMERGENCY SERVICE OF
UKRAINE**

У часи військового протистояння в Україні, важливим питанням сучасної психології постає проблема професійного вигорання працівників органів і підрозділів Державної служби України (ДСНС) та його компонентів. Від ризиків виникнення професійного вигорання залежить психологічний стан працівників ДСНС, можливість виконання поставлених завдань та навіть фізичне самопочуття. На державному рівні активно впроваджуються програми профілактики професійного вигорання, так як в умовах підвищеної небезпеки ризики значно вищі. Емпіричне дослідження компонентів професійного вигорання сприятиме більш глибшого розуміння специфіки професійного вигорання та сприятиме можливості подальшого прогнозування та розробці програм профілактики та психокорекції.

Відповідно до наукових концепцій О.Вавринів, О.Мірошніченко, С.Джексона, Р.Лазаруса, Н. Оніщенко, синдром вигорання – це складний психофізіологічний процес, який містить емоційне, психологічне, розумове і фізичне виснаження з причин тривалого емоційного навантаження. Синдром професійного вигорання можна тлумачити як стресову реакцію, що виникає внаслідок довготривалих професійних стресів середньої інтенсивності.

Для дослідження компонентів професійного вигорання працівників органів і підрозділів Державної служби України з надзвичайних ситуацій було скомпоновано психодіагностичний комплекс методів дослідження до якого увійшли: Методика діагностики соціально-психологічної адаптації К.Роджерса і Р.Даймонда, Шкала темпераментів Л.Терстоуна, Методика "Q- Сортування" В. Стефансона. Діагностика провідних тенденцій поведінки в реальній групі та уявлень про себе, Діагностика ступеня готовності до ризику Г. Шуберта, Шкала самоефективності Р.Шварца та М.Єрусалема, Шкала оцінки рівня реактивної та особистісної тривожності Ч.С.Спілберга, Шкала депресії А.Т.Бека, Опитувальник А.Басса і А.Дарки, Дослідження Синдрому професійного вигорання Тест Дж. Гринберг, Шкала резильєнтності.

За результатами емпіричного дослідження виокремлено факторну структуру вимірюваних показників у працівників ДСНС. Виокремлено: рефлексивно-адаптивний компонент, що складається із показників «адаптації», «інтернальності», «самоприйняття», «емоційного комфорту» і «прийняття інших»; резильєнтно-самоефективний компонент складається з елементів «особистісної тривожності», «реактивної тривожності», «самоефективності» і «резильєнтності»; агресивно-вигоряючий компонент складається з показників «агресивності», «ворожості», «вигоряння», «врівноваженості» і «депресивності»; комунікативно-активний компонент складається з показників «товариськості», імпульсивності, «лідерства» і «фізичної активності». Тобто виокремлено чотирьохкомпонентну структуру вигорання, до якої увійшло 3 адаптивних компонента (рефлексивно-адаптивний, резильєнтно-самоефективний, комунікативно-активний) та один дезадаптивний компонент – агресивно-вигоряючий. Встановлено, що професійне вигорання пов’язане із переживанням негативних емоційних станів (агресивності, ворожості, неврівноваженості та депресивності), тобто психокорекційну програму можна спрямовувати на психокорекцію негативних емоційних станів та розвиток резильєнтності, рефлексивності, самоефективності та комунікативності.

Ключеві слова: професійне вигорання, працівників органів і підрозділів Державної служби України з надзвичайних ситуацій, професійне вигорання, резильєнтність, рефлексивно-адаптивний компонент, агресивно-вигоряючий компонент, резильєнтно-самоефективний компонент, комунікативно-активний компонент.

In the context of military confrontation in Ukraine, an important issue in contemporary psychology is the problem of professional burnout among employees of the State Emergency Service of Ukraine (SES) and its components. The psychological well-being of SES employees, their ability to perform their duties, and even their physical health depend on the risks of professional burnout. At the state level, programs for the prevention of professional burnout are being actively implemented, as the risks are significantly higher in conditions of increased danger. Empirical research into the components of professional burnout will contribute to a deeper understanding of the specifics of professional burnout and will facilitate the possibility of further forecasting and developing prevention and psychocorrection programs.

According to the scientific concepts of O. Vavrynov, O. Miroshnychenko, S. Jackson, R. Lazarus, and N. Onishchenko, burnout syndrome is a complex psychophysiological process that involves emotional, psychological, mental, and physical exhaustion due to prolonged emotional stress. Professional burnout syndrome can be interpreted as a stress reaction resulting from prolonged professional stress of moderate intensity.

To study the components of professional burnout among employees of the State Emergency Service of Ukraine, a psychodiagnostic complex of research methods was compiled, which included: K. Rogers and R. Diamond's method for diagnosing social and psychological adaptation, L. Thurstone's temperament scale, and V. Stephenson's "Q-Sorting" method. Diagnosis of leading behavioral trends in a real group and self-perceptions, G. Schubert's diagnosis of risk readiness, R. Schwarzer and M. Jerusalem's self-efficacy scale, C.S. Spielberger's scale for assessing reactive and personal anxiety, A. T. Beck, Questionnaire by A. Buss and A. Durkee, Research on Professional Burnout Syndrome Test by J. Greenberg, Resilience Scale.

Based on the results of empirical research, the factor structure of measurable indicators in SES employees has been identified. Identified: a reflexive-adaptive component consisting of indicators of "adaptation," "internality," "self-acceptance," "emotional comfort," and "acceptance of others"; a resilience and self-efficacy component consisting of the elements of "personal anxiety," "reactive anxiety," "self-efficacy," and "resilience"; aggressive-burnout component consisting of indicators of "aggressiveness," "hostility," "burnout," "balance," and "depressiveness"; the communicative-active component consists of indicators of "sociability," impulsiveness, "leadership," and "physical activity." In other words, a four-component structure of burnout has been identified, which includes three adaptive components (reflective-adaptive, resilience and self-efficacy, communicative-active) and one maladaptive component – aggressive-burnout. It has been established that professional burnout is associated with experiencing negative emotional states (aggression, hostility, imbalance, and depression), i.e., a psychocorrectional program can be directed at psychocorrection of negative emotional states and the development of resilience, reflexivity, self-efficacy, and communicativeness.

Keywords: professional burnout of employees of the State Emergency Service of Ukraine, professional burnout, resilience, reflective-adaptive component, aggressive-burnout component, resilient-self-efficacy component, communicative-active component.

Formulation of the problem. During times of military conflict in Ukraine, an important issue in contemporary psychology is the problem of professional burnout among employees of the State Emergency Service of Ukraine (SES) and its components. The psychological state of SES employees, their ability to perform their duties, and even their physical well-being depend on the risks of professional burnout. At the state level, programs for the prevention of professional burnout are being actively implemented, as the risks are significantly higher in conditions of increased danger. Empirical research on the components of professional burnout will contribute to a deeper understanding of the specifics of professional burnout and facilitate the possibility of further forecasting and developing prevention and psychocorrection programs.

Analysis of recent research and publications. In modern science, O. Vavrynov, S. Jackson, R. Lazarus, N. Onishchenko, V. Platonov, and others have devoted their work to the problem of professional burnout.

The purpose of the article is to conduct an empirical study of the components of professional burnout among employees of the State Emergency Service of Ukraine.

Outline of the main material. Burnout syndrome is a complex psychophysiological process that involves emotional, psychological, mental, and physical exhaustion due to prolonged emotional stress [3]. Professional burnout syndrome can be interpreted as a stress reaction resulting from prolonged professional stress of average intensity. Before professional burnout occurs, there is a period of increased activity when the specialist is completely immersed in work, forgetting about their own needs, followed by emotional exhaustion. Emotional exhaustion is emotional overload, a feeling of emptiness, a feeling of fatigue that does not go away after a night's sleep. After rest, the condition stabilizes, but when returning to work, the condition recurs [3].

Adaptive reactions of an employee lead to increased work efficiency, while maladaptive reactions lead to professional burnout [3].

Symptoms of professional burnout include:

Psychophysiological symptoms: feeling of constant fatigue, feeling of emotional and physical exhaustion, general asthenia, headaches, nausea, gastrointestinal disorders, sleep disorders, lethargy, and others.

Emotional symptoms: decreased sensitivity and reactivity to changes in the external environment, indifference, boredom, depression, lethargy, irritability, negative emotions, and others.

Behavioral symptoms: avoidance of professional activities, changes in work habits, indifference to work, getting stuck on minor details, etc.

Intellectual symptoms: feeling that work is difficult, decreased interest in new things, preference for standard patterns, cynicism toward innovations.

Social and psychological symptoms: uncontrolled outbursts of anger, feelings of unconscious anxiety, feelings of hyper-responsibility, loss of ideals, professional prospects, general negative attitude towards life prospects [3].

To overcome professional burnout, psychocorrective work should be directed toward developing resilience. Resilience is a person's ability to successfully build social connections under adverse conditions. Most approaches to understanding resilience, although they seem simple, actually have a more complex structure. Resilience is represented in the form of five interrelated aspects:

1. Positive, favorable social conditions and unconditional acceptance.
2. The search for meaning in life, which can be realized through religion.
3. The feeling that a person can control their destiny and develop their own skills and abilities.
4. Adequate self-esteem.
5. A sense of humor [4].

Resilience is an important prerequisite for successful adaptation and personal development. The development of resilience depends not on a person's living conditions, but on their perception of life's difficulties. When faced with difficult living conditions, as well as in the process of experiencing life's difficulties, a person is capable of post-traumatic growth and resilience [4].

To study the components of professional burnout among employees of the State Emergency Service of Ukraine, a psychodiagnostic complex of research methods was compiled, which included: the methodology for diagnosing socio-psychological adaptation by K. Rogers and R. Diamond, the temperament scale by L. Thurstone, V. Stephenson's "Q-Sorting" method. Diagnosis of leading behavioral trends in a real group and self-perceptions, G. Schubert's diagnosis of risk readiness, R. Schwarzer and M. Jerusalem's self-efficacy scale, C. S. Spielberger's scale for assessing reactive and personal anxiety, A. T. Beck, Questionnaire by A. Buss and A. Durkee, Research on Professional Burnout Syndrome Test by J. Greenberg, Resilience Scale.

According to the results of the study, the following results were obtained: based on the study using the methodology of C. Rogers and R. Diamond (Table 1), it was established that the average values of the indicators dominate among the subjects, according to the scales: adaptability (85.63%), maladjustment (82.18%), self-acceptance (66.09%), self-rejection (72.41%), acceptance of others (77.59%), rejection of others (70.69%), emotional comfort (79.89%), emotional discomfort (61.49%), internal control (84.48%), and external control (91.38%). That is, average values prevail for most indicators. Excessively low scores on the emotional discomfort scale (38.51%) may indicate either the absence of emotional discomfort or the suppression of emotional experiences. Also, 31.03% of respondents have excessively low subordination scores, which may indicate a problem area in this regard. It should be noted that the predominance of average values among the indicators indicates the predominance of adaptation processes.

Table 1

Methodology for diagnosing social and psychological adaptation by K. Rogers and R. Diamond

No.		Indicator	Average value		Excessively low		High	
			N	%	N	%	N	%
1	a	Adaptability	149	85.63	1	0.57	24	13.80
	b	Maladaptability	143	82.18	29	16.67	2	1.15
2	a	Untruthfulness –	19	10.92	154	88.51	1	0.57
	b	Untruthfulness +	18	10.34	156	89.66	0	-
3	a	Self-acceptance	115	66.09	39	22.41	20	11.50
	b	Self-rejection	126	72.41	20	11.50	28	16.09
4	a	Acceptance of others	135	77.59	0	-	39	22.41
	b	Rejection of others	123	70.69	48	27.59	3	1.72
5	a	Emotional comfort	139	79.89	6	3.44	29	16.67
	b	Emotional discomfort	107	61.49	67	38.51	0	-
6	a	Internal control	147	84.48	4	2.30	23	13.22
	b	External control	159	91.38	15	8.62	0	-
7	a	Dominance	134	77.01	38	21.84	2	1.15
	b	Subordination	118	67.82	54	31.03	2	1.15
8		Escapism (problem avoidance)	131	75.29	39	22.41	4	2.30

According to L. Thurstone's temperament scale (Table 2), the most pronounced values among the employees of the State Emergency Service bodies and units studied are the average values on the scales of activity (70%), physical activity (63%), impulsivity (72.41%), balance (55.17%), and sociability (48.85%). It was found that high levels of sociability (49.43%) and balance (36.21%) prevail. Low scores on the scales of reflectiveness (63.22%) and leadership (38.51%) should be considered in the development of psychocorrectional programs.

Table 2

L. Thurstone's "Temperament Scale"

No	Indicator	Not expressed		Low Level		Moderate Level		High Level	
		N	%	N	%	N	%	N	%
1	<i>Activity</i>	0	-	34	19,54	122	70,12	18	10,34
2	<i>Physical activity</i>	1	0,57	30	17,24	110	63,22	33	18,97
3	<i>Impulsiveness</i>	0	-	30	17,24	126	72,41	18	10,35
4	<i>Leadership</i>	2	1,15	67	38,51	65	37,35	40	22,99
5	<i>Balance</i>	1	0,57	14	8,05	96	55,17	63	36,21
6	<i>Sociability</i>	0	-	3	1,72	85	48,85	86	49,43
7	<i>Reflexivity</i>	21	12,07	110	63,22	42	24,14	1	0,57

According to the results of the study using R. Schwartz's self-efficacy scale (Table 3), M. Yerushalmi established that the majority of respondents have self-efficacy scores above the average (58.62%), 35.06% of respondents have high self-efficacy scores, and 6.32% of the subjects had average scores. The results of the study indicate high self-efficacy scores among the subjects, namely, a high level of belief in their own ability to successfully perform tasks, achieve goals, and cope with life challenges, which affects motivation, choice of actions, perseverance, and emotional states.

Table 3

“R. Schwarzer and M. Jerusalem's self-efficacy scale”

No	Indicator	Low		Below Average		Average		Above Average		High	
		N	%	N	%	N	%	N	%	N	%
1	Self-efficacy scale	0	-	0	-	11	6,32	102	58,62	61	35,06

According to the results obtained using the Buss–Durkee Aggression Questionnaire (Table 4), it was found that the majority of participants demonstrated aggression levels below the normative range (81.61%), while hostility indicators were below the norm in 37.36% of the respondents. These findings may indicate the repression or suppression of aggressive and hostile tendencies, or alternatively, their genuinely low levels. Hostility indicators within the normative range were observed in 59.77% of the participants. Only a small proportion of respondents demonstrated aggression and hostility levels above the norm. These research findings may suggest difficulties in experiencing or expressing aggression. In a previous assessment method, the results indicated average levels of activity, physical activity, and impulsivity. This may be explained by the participants' tendency to restrain aggressive impulses, or by the possibility that aggression is redirected into the performance of professional duties under extreme conditions.

Table 4

Buss–Durkee Aggression Questionnaire

No	Indicator	Below Norm		Norm		Above Norm	
		N	%	N	%	N	%
1	Aggressiveness	142	81,61	29	16,67	3	1,72
2	Hostility	65	37,36	104	59,77	5	2,87

According to the results obtained using V. Stephenson's Q-Sort Technique (Table 5), aimed at diagnosing leading behavioral tendencies in a real group and self-perceptions, the participants demonstrated a pronounced predominance of a stable tendency toward dependence (9.77%). This may indicate a strong need for approval, reflected in a positive attitude toward active leadership, a desire to be accepted by supervisors, a tendency to follow a leader's instructions, avoidance of conflicts within the group, and avoidance of open confrontation with colleagues.

Table 5

V. Stephenson's Q-Sort Method: Diagnosis of Dominant Behavioral Tendencies in a Real Group and Self-Perception

Indicator	A pronounced predominance of dependence		A pronounced predominance of sociability		A pronounced predominance of conflict avoidance	
	N	%	N	%	N	%
	17	9,77	9	5,17	12	6,90

According to the results of the study using G. Schubert's Risk Readiness Assessment (Table 1), it was found that the majority of participants demonstrated average levels of risk readiness (52%), which corresponds to the professional requirements of their specialization [1].

Based on the results of the anxiety assessment among employees of the bodies and units of the State Emergency Service of Ukraine using the Spielberger–Khanin methodology, low levels of both state anxiety (54.29%) and trait anxiety (51.43%) were found to predominate among the participants. Additionally, a relatively high percentage of respondents demonstrated moderate levels of both state and trait anxiety. These results indicate that anxiety is not a stable personality characteristic of the participants and is unlikely to arise even during the performance of professional duties.

According to the results of the assessment of depressive states using A. Beck's methodology, the majority of participants demonstrated a normal emotional state (75.43%); mild depression was identified in 13.14% of participants, moderate depression in 9.71%, and severe depression in 1.71%. Participants with indicators of depression may experience a lowered mood, difficulties with concentration, and may require psychological support and, possibly, medical assistance.

According to the results of the study of professional burnout characteristics among employees of the bodies and units of the State Emergency Service of Ukraine using J. Greenberg's test, all participants (100%) demonstrated low levels of professional burnout syndrome.

Based on the results of resilience assessment using the Connor–Davidson Resilience Scale, all participants (100%) demonstrated high levels of resilience, indicating psychological stability, the ability to adapt to emergency conditions, resistance to stress, traumatic events, and difficulties, as well as the capacity for rapid recovery and continued effective functioning.

At the next stage of empirical data processing, our objective was to obtain the factor structure of the measured indicators among employees of the State Emergency Service of Ukraine. The principal component analysis method with varimax rotation was applied. The number of structural components was determined using Cattell's scree test based on an eigenvalue equal to 1. The assumptions for the applicability of this method were verified using Bartlett's test of sphericity and the Kaiser–Meyer–Olkin measure of sampling adequacy.

During the data processing procedure, a four-component structure was identified from 24 measured indicators, accounting for 60.4% of the total variance.

The first component accounted for 21.3% of the total variance. It consists of indicators that can be unequivocally interpreted as positive and reflective-adaptive. In decreasing order of factor loadings, these include adaptation (0.944), internality (0.940), self-acceptance (0.902), emotional comfort (0.872), and acceptance of others (0.633). Therefore, this component can be defined as the "**Reflective-Adaptive**" component.

The second component explains 15.4% of the total variance and consists of the elements trait anxiety (-0.809), state anxiety (-0.735), self-efficacy (0.706), and resilience (0.680). Based on the content of these indicators, it can be interpreted as the "**Resilience-Self-Efficacy**" component.

The third component includes the indicators aggressiveness (0.859), hostility (0.823), burnout (0.637), emotional stability (-0.581), and depression (0.512). Based on its substantive characteristics, it can be interpreted as the "**Aggressive-Burnout**" component. This component accounted for 14.2% of the total variance.

The fourth component, the weakest, explains 13.9% of the total variance. It consists of the indicators sociability (0.763), impulsivity (0.737), leadership (0.735), and physical activity (0.585). Thus, it can be interpreted as the "**Communicative-Activity**" component, where the first aspect reflects leadership, impulsivity, and physical activity, while the second aspect reflects sociability and, again, leadership.

Conclusions and Prospects for Further Research. Based on the results of the empirical study, a factor structure of the measured indicators among employees of the State Emergency Service of Ukraine was identified. The following components were distinguished: the reflective-adaptive component, which includes the indicators of adaptation, internality, self-acceptance, emotional comfort, and acceptance of others; the resilience and self-efficacy component, which consists of the elements of trait anxiety, state anxiety, self-efficacy, and resilience; the aggressive-burnout component, which comprises the indicators of aggressiveness, hostility, burnout, emotional stability, and depression; and the communicative-activity component, which includes the indicators of sociability, impulsivity, leadership, and physical activity. Thus, a four-component structure of burnout was identified, including three adaptive components (reflective-adaptive, resilience and self-efficacy, communicative-activity) and one maladaptive component — the aggressive-burnout component. It was established that professional burnout is associated with the experience of negative emotional states (aggressiveness, hostility, emotional instability, and depression). Therefore, psychological correction programs may be aimed at reducing negative emotional states and fostering resilience, reflexivity, self-efficacy, and communicative competence.

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