# DISPOSITIONAL MENTAL STATES OF INTERNALLY DISPLACED UNIVERSITY TEACHERS UNDER MARTIAL LAW: GENDER DIFFERENCES

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## **ABSTRACT**

**Aim.** The empirical study of gender differences in the dispositional mental states of university teachers who were internally displaced during martial law.

**Methods.** A combined research strategy was used, integrating the methods for comparing samples of female and male participants. The different types of dispositional mental states of the respondents were identified by the author's methodology for the study of dominant mental states.

**Results.** It was discovered that the respondents' psychological content parameters showed statistically significant gender-based differences. Group 1 prevailed in terms of anxiety (U = 855.0; p = .000). Group 2 prevailed in terms of self-control (U = 975.0; p = .001); awareness of events (U = 707.5; p = .000); expected attitude (U = 1074.0; p = .006); expected result (U = 1067.0; p = .006) and psychological wellbeing (U = 1113.5; p = .014). The dispositional mental states of a female sample of internally displaced university teachers were represented by five components with a total variation of  $\sum d = 74.527\%$ . The male sample had four factors with a total variation  $\sum d = 94.442\%$ . It was stated that there were significant differences between the dispositional mental states of female and male teachers in terms of formal characteristics and content loading of components.

**Conclusions.** The scientific value of empirical facts about the dispositional mental states of university teachers who were internally displaced as a result of wartime action is justified. The importance of incorporating the discovered results into scientific and educational processes is emphasised.

**Keywords:** educational process, educational and professional training, identity, depression, anxiety, coping strategies.

## INTRODUCTION

In the world, complex transformational processes are taking place that have a significant impact on a person's mental state. Indicators of managed and unmanaged geopolitical influences include socioeconomic instability, political conflicts, pandemics, and military conflicts. Even in the twenty-first century, political conflicts are resolved by force of arms rather than negotiation, endangering the rule of law, the force of law, and the democratic values of the entire world. The full-fledged aggression that Ukraine faced on February 24, 2022, resulted in the largest migration process of the current century. The number of internally displaced people exceeded 8.0 million as of May 11, 2022, according to the official website of the ). Ministerstvo z pytan' reintehratsii tymchasovo okupovanykh terytorii Ukrainy

[Ministry for Reintegration of the Temporarily Occupied Territories of Ukrainel (2023). Large-scale migratory flows of internally displaced people forced everyone (Blynova et al., 2022), even those who were safe outside the country, to reconsider the value of human life and the meaning of human existence. These upheavals had a significant impact on all those affected by the war's mental and psychological health. Subjects of the educational process of universities had to consider not only preserving education and training future specialists, but also their own salvation and the salvation of others through physical and material support, medical, psychological, and psychotherapeutic assistance. It is difficult to talk about a high-quality organisation when a large portion of the educational process's subjects are victims, are in shock, have deep depression, have post-traumatic stress disorder (PTSD), have negative memories, have lost relatives, or have suffered material losses. Intrusions and flashbacks frequently bring them back to what they witnessed. Outlined contours prompted us to consider the dispositional mental states of internally displaced university teachers under martial law. From a scientific standpoint, the gender differentiation of mental states appears intriguing, as the authors believe that male teachers will be more successful in overcoming the outlined challenges. This hypothesis necessitates statistically reliable argumentation.

A review of the scientific literature on mental states revealed a diverse range of experimental and empirical studies in various areas of human activity. Alexander Prokhorov et al., (2015) in their article "Cognitive States in the Process of Students' Intellectual Activity" hypothesised that students' cognitive states are accompanied by high activity of cognitive processes. Understanding the structure, functions, and mechanisms of cognitive states will be helpful in the management of cognitive process activity. Since educational and professional activity has a distinct role - a constant focus on solving an internal problem over a specific time period. The researchers were prompted by the specified arguments to investigate and describe the work of ten cognitive mental states of students in the context of educational and professional activities (Prokhorov et al., 2015). It has been demonstrated that the stable properties of a person's social expectations can be transformed into the content parameters of this phenomenon. The dominance of an individual's properties over time affects and can even significantly change the substantive parameters of the activity (Popovych, Blynova, Nass Álvarez et al., 2021; Popovych, Hoi et al., 2022). Emergency distance learning researchers identified the following key challenges as a result of the spread of the COVID-19 pandemic: changes in the educational process; finding a balance between work and personal life; personal space and communication; psychological, mental, and physical health (Colclasure et al., 2021). The outlined challenges drastically altered the dominant properties of the educational process's subjects.

As a result, the dominant mental states of the educational process's subjects can have a significant interpersonal influence, which will have a

decisive effect on the substantive features of future specialists' educational and professional training. As a result, the mental state of future specialists reflects that of teachers and university administration. The outlined subject of the research in altered conditions (the research participants were in the territory of the country where martial law was implemented) acquired a timely articulation and prompted the researchers to set the goal of obtaining reliable statistical data.

The substantive parameters of mental states are emphasised. The appropriate selection of the studied parameters is critical in the presentation of the research subject. The study of psycho-emotional states of educational process subjects, conducted using a comparative research strategy, is of scientific interest (Popovych, Machynska et al., 2022). The parameters used as a foundation reflected: education seekers' coping strategies in stressful situations; depression; nervous and mental stress; anxiety and psychological well-being. A comparison of the factor structures of respondents' mental states under lockdown and martial law was performed. A large number of factors in the investigated structures were discovered, as well as significant differences in similar psycho-emotional states. A number of states of the respondents presented by the factor loading (V) were dangerous during the war: uncontrollable passivity (V = 5.834); controlled passivity (V = 4.003); moderate helplessness (V = 2.950), and depression (V = 2.001). The positive ones included: constructive interaction (V = 1.758) and changing the current situation's values (V = 1.109). It should be noted that at the time of the survey, the respondents were both in Ukraine and abroad; some were in occupied territory, others in de-occupied territory, others in temporarily controlled territory in their homes, and the fourth were forced to leave their homes. In this context, our current study aimed to investigate a homogeneous sample population of internally displaced teachers from higher education institutions, all of whom are located in Ukraine but have been forced to leave their homes.

In the sports field of dominant mental states research, it was discovered that athletes' qualifications and level of emotional intelligence have a decisive influence on the mental state of risk readiness (Popovych, Borysiuk et al., 2022), are positively related to stress resistance, and protect athletes from mental burnout (Popovych, Halian et al., 2022).

It was discovered that distance education had a significant impact on the social expectations (Popovych, Chervinskyi et al., 2021) and activity (Hudimova et al., 2021) of the educational process's subjects. Another dimension of the defined social reality that should be the focus of researchers' attention is valuable revaluation (Hulias & Karpenko, 2022). Inesa A. Hulias and Ihor M. Hoian (2022) in their work "Explication of factors of the axiopsychological design of life achievements of modern youth" concluded that self-efficacy was identified as an important predictor, and respondents were encouraged to eliminate "problem points" on their path to creating their future. The pandemic's altered social conditions present new chal-

lenges to humanity. The fascinating cross-cultural study represented in the article "The significance of a pandemic in teaching foreign languages, with special regard to the teaching of seniors" by Aleksander Kobylarek, Emilia Alaverdov & Luba Jakubowska (2021) identified a number of educational problems that are similar and require immediate attention. Kobylarek, Peter Plavčan et al., (2021) emphasized post-pandemic education and science priorities in the article with colleagues named "Educational priorities in a post pandemic world".

We understood the dominant complex of properties that were actualised under martial law and were affected/were not affected by their educational and scientific activities through the dispositional mental states of internally displaced university teachers.

We hypothesize that the psychological content parameters of the respondents differ statistically based on gender. Our second hypothesis posits that the constructed factor structures of the male and female samples differ significantly in terms of formal features and factor content loading.

The purpose was to conduct an empirical study of gender differences in the dispositional mental states of internally displaced university teachers under martial law.

## **METHODS**

## Methodology

Mental states of professional activity were psychological characteristics that were associated with a higher level of organisation in an individual's mental activity (Prokhorov et al., 2015). Professional activity's social expectations were a disposition to the probable development of events (Popovych, 2017). Professional activity had a strong anticipatory component, it was a synthesis of the coherence process, expected duration, and temporal sequence of changes (Plokhikh et al., 2023; Plokhikh et al., 2021). A personal disposition to overcome stressful situations (Halian et al., 2021; Khraban & Silko, 2022) and difficult superhuman challenges (Nosov et al., 2020) was referred to as adaptation potential.

## **Participants**

The sample population was drawn at random from university teachers who left their homes as a result of full-scale military aggression, acquiring the legally recognised status of internally displaced persons. Participants presented higher education institutions that had been relocated to other parts of the country as well as those that had continued to work remotely in the front-line zone, but only the subjects of the educational process had been relocated partially. Such respondents also took part in our study. Informed consent was obtained from all subjects involved in the study. The following were the descriptive frequency characteristics of the respondents' age

component – M = 43.50; SD = 8.827; SE = .816; min = 27.00; max = 66.00; Mo = 46; Me = 44.0. Respondents presented socionomic, bionomic, and technonomic profiles. The sample size was n = 117 people. Group 1 was formed up of females (n = 75; 64.10%) and Group 2 was formed up of males (n = 42; 35.90%). The structure of respondents' relocation is displayed in Table 1.

Table 1 Structure of the Sample Population by Relocation of Group 1 and Group 2 Respondents (n = 117)

Region of Work	Dalaastian Danis	Gro	oup 1	Group 2		
Before the War	Relocation Region —	n	%	n	%	
Kherson	Ivano-Frankivsk	4	3.42	2	1.71	
Mykolayiv	Vinnytsia	1	.85		.0	
Kherson	Ternopil	3	2.56	2	1.71	
Odesa	Odesa	4	3.42	2	1.71	
Kherson	Odesa	6	5.15	3	2.56	
Dnipro	Dnipro	2	1.71	4	3.44	
Kherson	Kyiv	5	4.27	2	1.71	
Kherson	Kherson	4	3.42	3	2.56	
Luhansk	Kyiv	3	2.56	3	2.56	
Luhansk	Chernivtsi	2	1.71	2	1.71	
Kyiv	Kyiv	4	3.42	2	1.71	
Luhansk	Kirovohrad	3	2.56	1	.85	
Luhansk	Ivano-Frankivsk	5	4.27	2	1.71	
Luhansk	Odesa	2	1.71		.0	
Zaporizhzhia	Ivano-Frankivsk	2	1.71	3	2.56	
Luhansk	Poltava	4	3.42	2	1.71	
Zaporizhzhia	Ternopil	1	.85		.0	
Dnipro	Lviv		.0	1	.85	
Kherson	Lviv	4	3.42	2	1.71	
Zaporizhzhia	Kyiv	3	2.56	2	1.71	
Zaporizhzhia	Odesa	5	4.27		.0	
Kharkiv	Kyiv	4	3.42	2	1.71	
Kharkiv	Odesa	2	1.71	2	1.71	
Kharkiv	Lviv	2	1.71		.0	
	Total	75	64.10	42	35.90	

Source. Own research.

# Organization of Research

A combined research strategy that merged ascertainment and comparison strategies was implemented. An anonymous survey was carried out using standard forms created by Google Forms and distributed to the

community of social media platforms representing university teachers. There were statistically significant differences in psychological content parameters discovered. The results of Group 1 and Group 2 factor analysis were compared based on the purpose and hypotheses. In the months of February and March of the academic year 2022-2023, empirical data was collected and processed. Empirical research has complied with ethical requirements.

## Procedures and instruments

The variables that were relevant to the study's subject were substantive psychological parameters determined by psychodiagnostic methods. The Way of Coping Questionnaire (WCQ) (Lazarus & Folkman, 1984) was used in this study. The method adapted by Tatiana Kriukova and Yelena Kuftiak (2007) was used. The method's eight parameters were used, which reflected the relevant strategies of the respondents' behaviour in critical situations. A unipolar four-point semantic scale was used. The average homogeneity of  $\alpha$ -Cronbach ( $\alpha$  = .826) responses was determined.

The self-assessment scale "The Hospital Anxiety and Depression Scale" (HADS) by A. Zigmond and R. Phillip Snaith (1983) was used to identify actual mental states of depression and anxiety. The subscales "Anxiety" (A) and "Depression" (D) revealed the severity of the psycho-emotional disorder. HADS has shown promising results in the psychodiagnostic and medical fields. The  $\alpha$ -Cronbach responses had a high level of homogeneity ( $\alpha$  = .905).

The Level of Social Expectations (LSE) questionnaire (Popovych, 2017) revealed three psychological content parameters that attested to the respondents' dispositional expected readiness in the actual situation of their choice: "awareness of events" (AE), "expected attitude" (EA), and "expected result" (ER). The integral scale (LSE) was not used. The average level of homogeneity of  $\alpha$ -Cronbach ( $\alpha$  = .843) responses was obtained.

The integral scale Psychological Well-being (PW) is presented in the questionnaire of the same name The Scales of Psychological Well-being (SPW) (Ryff, 1989) was chosen as the final parameter that was important in the context of our study. The  $\alpha$ -Cronbach method was used to determine the average level of homogeneity ( $\alpha$  = .812) of responses.

## Statistical Analysis

The programme IBM SPSS Statistics version 29.0.0.0 (241) was used. The MS Word graphic editor was used to create the figures. ANOVA factor analysis was used, as well as reliability coefficients such as ranking (Rg), Mann-Whitney U-test, and Spearman correlation parameters ( $r_s$ ). Differences were statistically significant at the p≤.050 and p≤.010 levels.

## RESULTS

Table 2 presents empirical data on coping strategies using descriptive frequency characteristics of the median (Me), minimum (min), and maximum (max) values. The psychological content parameters of the Way of Coping Questionnaire (Lazarus & Folkman, 1984) in the Group 1 and Group 2 were compared using the Mann-Whitney U-test.

Table 2 Comparison of Psychological Content Parameters of WCQ in Group 1 and Group 2 by Mann-Whitney U-test

Crouns	FC	Psychodiagnostic scales							
Groups	гC	SC	CF	SSS	DT	PSP	AR	AD	PR
	Me	9.0	8.0	12.0	11.0	7.0	13.0	12.0	13.0
Group 1	min	5.0	2.0	8.0	4.0	2.0	4.0	7.0	6.0
-	max	15.0	15.0	19.0	14.0	12.0	18.0	18.0	20.0
	Me	12.0	9.0	12.0	8.5	6.0	11.0	14.0	17.0
Group 2	min	7.0	4.0	9.0	8.0	3.0	7.0	6.0	8.0
	max	14.0	9.0	19.0	16.0	12.0	16.0	15.0	17.0
Mann-	U	975.0	1464.0	1512.0	1317.5	1402.0	1196.5	1343.0	1214.5
Whitney U-test	p	.001	.656	.871	.195	.422	.046	.255	.059

Note. Group 1 – female sample; Group 2 – male sample; FC – frequency characteristics; Me – median; min – the minimum value of the distribution; max – the maximum value of the distribution; SC – Self-Control; CF – Confrontation; SSS – Seeking Social Support; DT – Distantiating; PSP – Planning to Solve a Problem; AR – Accepting Responsibility; AD – Avoidance; PR – Positive Reestimation.

A bold kegel indicated statistically significant factor loadings.

Source. Own research.

The empirical data's frequency characteristics for all parameters of coping strategies based on gender differences in Group 1 and Group 2 were clarified. In terms of the self-control strategy (SC) (U = 975.0; p = .001), the Mann-Whitney U-test revealed that Group 2 has a statistically significant advantage (p < .01) over Group 1.

Table 3 demonstrates the empirical data for the remaining studied parameters using the descriptive frequency characteristics of the median (Me), minimum (min), and maximum (max) values. The psychodiagnostic methods The Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), Level of Social Expectations (Popovych, 2017), and The Scales of Psychological Well-being (Ryff, 1989) were compared in Groups 1 and 2. The Mann-Whitney U-test was used to determine statistically significant differences.

Table 3 Comparison of Psychological Content Parameters HADS, LSE and SPW in Group 1 and Group 2 by Mann-Whitney U-test

Groups	FC	Psychodiagnostic scales							
		A	D	AE	EA	ER	PW		
	Me	9.0	7.0	23.0	15.0	41.0	332.0		
Group 1	min	3.0	3.0	17.0	11.0	28.0	305.0		
-	max	17.0	14.0	26.0	18.0	49.0	389.0		
	Me	6.0	9.0	25.0	16.0	43.0	347.0		
Group 2	min	0.0	4.0	21.0	13.0	39.0	312.0		
	max	19.0	11.0	26.0	18.0	44.0	389.0		
Mann-	U	855.0	1381.5	707.5	1074.0	1067.0	1113.5		
Whitney U-test	p	.000	.357	.000	.006	.006	.014		

Note. Group 1 – female sample; Group 2 – male sample; FC – frequency characteristics; Me – median; min – the minimum value of the distribution; max – the maximum value of the distribution; A – Anxiety; D – Depression; AE – Awareness of Events; EA – Expected Attitude; ER – Expected Result; PW – Psychological Well-being.

A bold kegel indicated statistically significant factor loadings.

Source. Own research.

The Mann-Whitney U-test revealed that Group 1 had a statistically significant advantage (p < .05; p < .01) over Group 2 in several parameters, including A (U = 855.0; p = .000); AE (U = 707.5; p = .000); EA (U = 1074.0; p = .006); ER (U = 1067.0; p = .006) and PW (U = 1113.5; p = .014).

The proportionality of the components, which comprised the content of the respondents' dispositional mental states, was decreased with the assistance of ANOVA factor analysis in accordance with the combined research approach. Table 4 displays the factor loadings for the groups under study.

Table 4
Factor Loadings of Group 1 and Group 2 by ANOVA Factor Analysis

	Gro	up 1		Group 2					
Factors	V d		∑d	Factors V		d	∑d		
1F <sub>1</sub>	3.363	24.019	24.019	2F <sub>1</sub>	6.936	49.542	49.542		
1F <sub>2</sub>	2.845	20.322	44.342	2F <sub>2</sub>	3.507	25.053	74.595		
1F <sub>3</sub>	1.577	11.267	55.609	$2F_3$	1.547	11.047	85.642		
$1F_4$	1.432	10.231	65.839	2F₄	1.232	8.800	94.442		
1F <sub>5</sub>	1.216	8.688	74.527						

Note. Group 1 – female sample; Group 2 – male sample; V – value; d – dispersion;  $\sum d$  – sum dispersion;  $1F_1$  – Social Support and Positive Reassessment;  $1F_2$  – Cognitive Activity;  $1F_3$  – Distant Responsibility;  $1F_4$  – Moderate Passivity;  $1F_5$  – Isolated Self-control;  $2F_1$  – Confrontation and Avoidance of Responsibility;  $2F_2$  – Social Support and Distancing;  $2F_3$  – Self-control and Moderate Passivity;  $2F_4$  – Responsible Activity.

Source. Own research.

We stated that five factors with a combined variance of  $\sum d = 74.527\%$  were found in Group 1, a sample of female university teachers who had been internally displaced. Four variables were found in the male sample of internally displaced university teachers in Group 2 with a total variance of  $\sum d = 94.442\%$ . Factors that have been explained have eigenvalues (V) greater than one. All the researched parameters' factor loadings are shown in order to identify the obtained factors. The factor loadings for Groups 1 and 2 are shown in a rotated matrix in Table 5.

Table 5	
Returned matrix of Group	o 1 and Group 2 factor loadings

Scale			Group 1		Group 2				
Scale	1F <sub>1</sub>	1F,	$1F_3$	$1F_4$	$1F_5$	2F <sub>1</sub>	2F <sub>2</sub>	$2F_3$	2F <sub>4</sub>
SC	075	.318	.140	.488	.706	.680	229	.583	097
CF	.338	<i>-</i> .555	.361	306	.400	.684	.445	.284	408
SSS	.709	.006	.211	317	.000	177	.861	.130	.415
DT	.282	.093	.675	.204	392	419	.840	039	250
PSP	.403	.368	.260	660	032	301	.620	656	.238
AR	210	318	.819	.142	.106	848	<i>-</i> .075	.067	.441
AD	.832	115	195	089	.012	.528	.804	.069	.103
PR	.698	362	047	.327	.076	.761	.627	.017	120
A	<i>-</i> .595	.340	.336	059	<i>-</i> .151	<b>-</b> .790	.123	.435	.195
D	768	.226	.083	326	.171	987	.068	.112	.009
AE	.437	.653	.161	.330	129	.812	.102	.434	.331
EA	209	638	.009	.267	530	.798	110	422	406
ER	.302	.741	.030	.279	.002	.549	<b>-</b> .579	233	.482
PW	.067	.706	053	147	191	.968	.065	215	.001

Note. Group 1 – female sample; Group 2 – male sample;  $1F_1$  – Social Support and Positive Reassessment;  $1F_2$  – Cognitive Interaction;  $1F_3$  – Distant Responsibility;  $1F_4$  – Moderate Passivity;  $1F_5$  – Isolated Self-control;  $2F_1$  – Confrontation and Avoidance of Responsibility;  $2F_2$  – Social Support and Distancing;  $2F_3$  – Self-control and Moderate Passivity;  $2F_4$  – Responsible Activity;  $2F_5$  – Self-Control;  $2F_5$  – Confrontation;  $2F_5$  – Seeking Social Support;  $2F_5$  – Distantiating;  $2F_5$  – Planning to Solve a Problem;  $2F_5$  – Accepting Responsibility;  $2F_5$  – Avoidance;  $2F_5$  – Positive Reestimation;  $2F_5$  – Anxiety;  $2F_5$  – Depression;  $2F_5$  – Awareness of Events;  $2F_5$  – Expected Attitude;  $2F_5$  – Expected Result;  $2F_5$  – Psychological Well-being;

A bold kegel indicated statistically significant factor loadings.

Source. Own research.

The respondents' dispositional mental states were interpreted from the content parameters of the factor loadings. The dispositional mental states of the female sample (Group 1) have been interpreted and discussed.

 $1F_1$  – Social Support and Positive Reassessment, loaded with SSS ( $r_s$  = .709), AD ( $r_s$  = .832), PR ( $r_s$  = .698), A ( $r_s$  = -.595), and D ( $r_s$  = -.768). This fundamental dispositional mental state indicated the sample's preponderant demand for social support. The need for social support resulted from

improved social reality assessments and altered social conditions. The responders also exhibited a tendency to avoid responsibility and a lack of initiative.

 $1F_2$  – Cognitive Interaction, loaded with CF ( $r_s$  = -.555), AE ( $r_s$  = .653), EA ( $r_s$  = -.638), ER ( $r_s$  = .741), and PW ( $r_s$  = .706). A positive dispositional mental state was one that was characterised by predominating social expectations, particularly the cognitive aspect of awareness of the prior course of events combined with openness to interaction and the desire for psychological well-being.

 $1F_3$  – Distant Responsibility, loaded with DT ( $r_s$  = .675) and AR ( $r_s$  = .819). This dispositional mental state was one of the crucial but also risky. Respondents' closedness and distancing, paired with their desire to solve their own problems, could occasionally have detrimental consequences.

 $1F_4$  – Moderate Passivity, loaded with PSP ( $r_s$  = -.660). We defined the dispositional mental state as moderate passivity, which was a reflection of changed circumstances and self-justification and self-satisfaction not to engage in active actions. This dispositional mental state was based on a reluctance to prepare a solution to the problem.

 $1F_5$  – Isolated Self-control, loaded with SC ( $r_s$  = .706) and EA ( $r_s$  = -.530). The expected attitude towards other people who were involved in interpersonal interaction was negatively loaded in this dispositional mental state. Evidently, the effects of martial law on these respondents led them to exercise greater self-control and changed their attitude towards the environment. This condition was dangerous and complex.

The interpretation of the male sample's dispositional mental states was also provided (Group 2).

 $2F_1$  – Confrontation and Avoidance of Responsibility, loaded with SC ( $r_s$  = .680), CF ( $r_s$  = .684), AR ( $r_s$  = .848), AD ( $r_s$  = .528), PR ( $r_s$  = .761), A ( $r_s$  = .790), D ( $r_s$  = .987), AE ( $r_s$  = .812), EA ( $r_s$  = .798), and ER ( $r_s$  = .549), PW ( $r_s$  = .968). This fundamental dispositional mental state exhibited confrontational self-control, a positive reassessment that was, unfortunately, coupled with an instinct to escape from problems. The high standards of societal expectations and the desire for psychological well-being were met by all of these activities. There was no useful algorithm of acts in the dimensions of the present, but such initiatives were accompanied by a desire to put everything back the way it was. This complex condition had the potential to evolve negatively, both qualitatively and quantitatively.

 $2F_2$  – Social Support and Distancing, SSS ( $r_s$  = .861), DT ( $r_s$  = .840), PSP ( $r_s$  = .620), AD ( $r_s$  = .804), PR ( $r_s$  = .627), and ER ( $r_s$  = -.579). The dominating parameters of social support, preparation for problem-solving, positive reassessment, and preparing for the expected result all showed symptoms of a constructive mental state and had a good tendency, but they were also accompanied by escape and a lack of motivation to accept responsibility.

 $2F_3$  – Self-control and Moderate Passivity, SC ( $r_s$  = .583) and PSP ( $r_s$  = -.656). This dispositional mental state was characterised by strong self-

control and a negatively charged plan for handling a challenging scenario. Lack of intentions to participate in active activities was indicated by an excessive focus on oneself, the need for self-justification, and the need for self-satisfaction.

 $2F_4$  – Responsible Activity, AR ( $r_s$  = .441) and ER ( $r_s$  = .482). The biggest parameters were taken into account and highlighted in italics since this dispositional mental state lacked statistically significant factor loadings. Instead, this mental state was still in its infancy. In addition to the activity's anticipated outcome, it demonstrated a willingness to assume responsibility for problem-solving. This dispositional mental state was constructive.

The differences between the obtained dispositional mental states in terms of formal and substantive aspects have been proven to be reliable. According to the predominant psychological content standards, there was no justification for expressing any similar mental state.

## DISCUSSION

Studies of the quality of life and psycho-emotional state of the elderly (Kobylarek, Błaszczyński et al., 2022), the traumatic experience of war and related mental states and consequences (Kuzikova et al., 2023), studies of the military professional state in combat circumstances (Khraban & Silko, 2022), sports (Popovych, Borysiuk et al., 2022; Popovych, Halian et al., 2022; Popovych, Koval et al., 2023), and educational professional activities (Prokhorov et al., 2015) are all covered in the scientific literature. At the same time, there has been no experimental research on the dispositional mental states of internally displaced teachers.

One advantage of the male sample participants (Group 2) in the coping strategy of self-control (SC) was noted in the comparison of descriptive frequency characteristics (see Table 2). Self-control as a coping mechanism entails making an effort to control one's moods, emotions, and actions. It was predicted that this method would be more prevalent in the male sample (Group 2) under martial law, and statistical analysis supported this assumption (U = 975.0; p = .001). No statistically significant differences were discovered for the remaining coping mechanisms, and all recorded parameters were at the trend level. A significantly higher number of statistically significant differences, which were primary, with reference to the self-control method were noted in the comparison of descriptive frequency characteristics (see Table 3). In in particular, the raw empirical data of Anxiety (A) of respondents from the male sample was examined, and twelve respondents (n = 12; 28.57%) showed the least amount of anxiety (A = .00 points) while also having the highest awareness of the prior course of events (AE ≥23.00 points). The statistically significant differences in gender that have been found are not limited to these few instances. For example, statistically significant differences in the structures and execu-

tion speed of emergency sensorimotor action according to gender differences were discovered in the study "Sex differentiation in the organization of emergency sensorimotor action" by Victor V. Plokhikh and Svitlana G. Yanovska (2022). Men outperform women in sensorimotor and choice response (Plokhikh & Yanovska, 2022). The differences in Anxiety and Awareness of Events that we found we explained by the fact that male university teachers had highly developed analytical and synthesis skills that enabled them to intellectualise current events. As a result, they were better able to handle challenging circumstances and cope with ambiguity, which resulted in an extremely low level of anxiety. However, no statistically significant differences were discovered for the depression parameter (D) (U = 1381.5; p = .357). There were no female responders in Group 1 who reported having an extremely low level of anxiety. According to our analysis, these criteria were crucial in defining differences in detected factor loadings and separating dispositional mental states. Another recent study discovered that anxiety levels significantly affect students' ability to work, productivity, and the management of social interaction (Godov et al., 2021). A comparison of the modified learning circumstances highlighted differences in anxiety levels (Pirrone et al., 2022). The findings of Plokhikh's (2022) research, entitled "Limitation of psychological defences on the formation of students' time perspective", were in line with the scientific facts that we have established. The researcher provided a timeline of students' academic and professional activity based on the psychological defences they had used (Plokhikh, 2022). Psychological defences prevented the latter's temporal perspective from developing fully and did not guarantee the achievement of the best possible outcome. Extroversion and openness to personal experience, which have a constructive effect on adaptive resources, were found to be predictors of psychological well-being under martial law by researchers Zinoviia Karpenko and Arsen Klympush (2023) in their compatible work "Future psychologists' dispositional predictors of psychological well-being under martial law". These processes are carried out under chronic stress, which confirms the scientific facts we discovered. It has been demonstrated, in particular, that the phenomenon of forgiveness, which was studied in the context of a military conflict, is also a predictor of mental health (Kravchuk & Khalanskyi, 2022).

Dispositional mental states (see Table 4) found by the two studied groups (Group 1 and Group 2) demonstrated that protection mechanisms and coping strategies of behaviour in the dimensions of martial law impacted the substantive and formal parameters. When we indicated to the content parameters, we were referring to levels of identified values that were statistically valid and had a loading of ≥.500 (see Table 5). All study participants required psychological assistance, which could range from one-time counselling to systematic work by psychoconsultants and psychotherapists to treat post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), intrusions, flashbacks, and other mental

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traumas brought on by the war. This was an important factor on which we concentrated our attention.

The purpose was achieved, and the suggested hypotheses were validated. Six of the psychological content indicators of the respondents showed statistically significant discrepancies based on gender differences: self-control (U = 975.0; p = .001); anxiety (U = 855.0; p = .000); awareness of events (U = 707.5; p = .000); expected attitude (U = 1074.0; p = .006); expected result (U = 1067.0; p = .006) and psychological well-being (U = 1113.5; p = .014). The formal characteristics and content loading of the factor structures of the male and female samples differed significantly.

## **CONCLUSIONS**

It is substantiated that the dispositional mental states of internally displaced university teachers were a dominant combination of qualities that were actualised during martial law and affected/did not affect their educational and scientific activities.

It has been established that the respondents' psychological content parameters showed statistically significant gender-based differences. In terms of anxiety (U = 855.0; p = .000), the Group 1 female sample prevailed. The male sample of Group 2 prevailed in terms of self-control (U = 975.0; p = .001); awareness of events (U = 707.5; p = .000); expected attitude (U = 1074.0; p = .006); expected result (U = 1067.0; p = .006) and psychological well-being (U = 1113.5; p = .014).

ANOVA factor analysis was used to create factorial structures for the dispositional mental states of Group 1 and Group 2. The dispositional mental states of a female sample of internally displaced university teachers were represented by five factors with a total variation of  $\sum d = 74.527\%$ . Four factors with a total variance of  $\sum d = 94.442\%$  were identified in the male sample.

As a result, there were significant differences in the formal characteristics and content load of the dispositional mental states.

The university administration should operationalize the acquired scientific data in the course of scientific and educational processes.

#### RESEARCH RESTRICTIONS

During a Google Forms survey, it is difficult to determine whether all respondents are internally displaced teachers. The reason for this is that there may be people outside of Ukraine in the network communities that participated in the empirical section. We assume that differences in the parameters affecting dominant mental states may occur in people who are in Ukraine's territory / not invaded territory / occupied territory / liberated territory / on the demarcation line. A limitation of the study could be

the time, respondents' experience, and level of emotional frustration. At the same time, the proposed author's method of determining the dominant mental states has scientific value and is relevant to the subject of the study.

## **COGNITIVE VALUE**

The cognitive value is the scientific novelty of the study of dominant mental states discovered in altered social conditions. The comparison of the study's content parameters between Group 1 and Group 2 and the construction of factor structures revealed differences in the gender differentiation of the subject of the study. This approach makes it easier to operationalize and implement the obtained results in practice, as well as develop psychological assistance and support programs.

### REFERENCES

- [1] Blynova, O., Derevianko, S., Ivanova, O., Popovych, I., & Estay Sepulveda, J. G. (2022). Professional relevance of potential labor emigrants. Revista Notas Históricas y Geográficas, 29, 88-106.
- [2] Colclasure, B. C., Marlier, A., Durham, M. F., Brooks, T. D., & Kerr, M. (2021). Identified challenges from faculty teaching at predominantly undergraduate institutions after abrupt transition to emergency remote teaching during the COVID-19 pandemic. Education Sciences, 11(9), Article 556. https://doi.org/10.3390/educsci11090556
- [3] Godoy, L. D., Falcoski, R., Incrocci, R. M., Versuti, F. M., & Padovan-Neto, F. E. (2021). The Psychological Impact of the COVID-19 pandemic in remote learning in higher education. Education Sciences, 11(9), Article 473. https://doi.org/10.3390/educsci11090473
- [4] Halian, A., Halian, I., Popovych, I., Zavatskyi, Y., Semenov, O., & Semenova, N. (2021). Stress resistance in the situation of uncertainty as a factor of development of adaptive ability of medical personnel. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(1), 251-264. https://doi.org/10.18662/brain/12.1/181
- [5] Hudimova, A., Popovych, I., Savchuk, O., Liashko, V., Pyslar, A., & Hrys, A. (2021). Research on the relationship between excessive use of social media and young athletes' physical activity. Journal of Physical Education and Sport, 21(6), 3364-3373. https://doi. org/10.7752/jpes.2021.06456
- [6] Hulias, I. A., & Hoian, I. M. (2022). Explication of factors of the axiopsychological design of life achievements of modern youth. Insight: The Psychological Dimensions of Society, 7, 41-57. https://doi.org/10.32999/2663-970X/2022-7-4
- [7] Hulias, I., & Karpenko, Z. (2022). Axiopsychological differences of men's and women's gender displays in modern Ukraine. Journal of Education Culture and Society, 13(1), 351-368. https://doi.org/10.15503/jecs2022.1.351.368
- [8] Karpenko, Z. S., & Klympush, A. R. (2023). Future psychologists' dispositional predictors of psychological well-being under martial law. Insight: The Psychological Dimensions of Society, 9, 11-32. https://doi.org/10.32999/KSU2663-970X/2023-9-2
- [9] Khraban, T. E., & Silko, O. V. (2022). Combat and military-professional stress: the influence of emotions and emotional states on the choice of coping strategies. Insight: The Psychological Dimensions of Society, 8, 71-87. https://doi.org/10.32999/2663-970X/2022-8-6
- [10] Kobylarek, A., Alaverdov, E., Jakubowska, L. (2021). The significance of a pandemic in teaching foreign languages, with special regard to the teaching of seniors. XLinguae European Scientific Language Review, 14(1), 73-80. https://doi.org/10.18355/XL.2021.14.01.06
- [11] Kobylarek, A., Błaszczyński, K., Ślósarz, L., Madej, M., Carmo, A., Hlad, L., Králik, R., Akimjak, A., Judák, V., Maturkanič, P., Biryukova, Y., Tokárová, B., Martin, J. G., &

Petrikovičová, L. (2022). The quality of life among university of the third age students in Poland, Ukraine and Belarus. *Sustainability*, 14(4), Article 2049. https://doi.org/10.3390/su14042049

- [12] Kobylarek, A., Plavčan, P., & Amini Golestani, T. (2021). Educational priorities in a post pandemic world. Journal of Education Culture and Society, 12(2), 5-11. https://doi.org/10.15503/jecs2021.2.5.11
- [13] Kravchuk, S., & Khalanskyi, V. (2022). Forgiveness as a predictor of mental health in citizens living in the military conflict zone (2019-2020). Journal of Education Culture and Society, 13(1), 67-76. https://doi.org/10.15503/jecs2022.1.67.76
- [14] Kriukova, T. L., & Kuftiak, Ye. V. (2007). Oprosnik sposobov sovladaniya (adaptatsiya metodiki WCQ) [The questionnaire of controlling (the adaptation of the methods WCQ)]. Zhurnal Prakticheskogo Psihologa, 3(93), 102-112. https://www.twirpx.com/file/1656062/
- [15] Kuzikova S. B., Zlyvkov V. L., & Lukomska S. O. (2023). Traumatic experience of residents of the de-occupied territories of Ukraine. Insight: The Psychological Dimensions of Society, 9, 228-243. https://doi.org/10.32999/KSU2663-970X/2023-9-13
- [16] Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. Springer Publishing Company.
- [17] Ministerstvo Z Pytan' Reintehratsii Tymchasovo Okupovanykh Terytorii Ukrainy. (2023). Kil'kist' vnutrishnio peremishchenykh osib (VPO) v Ukraini [The Number of Internally Displaced Persons (IDPs) in Ukraine]. https://minre.gov.ua/2022/05/11/kilkist-vnutrishno-peremishhenyh-osib-vpo-v-ukrayini-perevyshhyla-8-mln-lyudej-zvidky-j-kudyyihaly-najbilshe/
- [18] Nosov, P. S., Popovych, I. S., Cherniavskyi, V. V., Zinchenko, S. M., Prokopchuk Y. A., & Makarchuk D. V. (2020). Automated identification of an operator anticipation on marine transport. Radio Electronics, Computer Science, Control, 3, 158-172. https://doi. org/10.15588/1607-3274-2020-3-15
- [19] Pirrone, C., Di Corrado, D., Privitera, A., Castellano, S., & Varrasi, S. (2022). Students' mathematics anxiety at distance and in-person learning conditions during COVID-19 pandemic: Are there any differences? An exploratory study. Education Sciences, 12(6), Article 379. https://doi.org/10.3390/educsci12060379
- [20] Plokhikh, V. V. (2022). Limitation of psychological defenses on the formation of students' time perspective. Insight: The Psychological Dimensions of Society, 8, 39-55. https://doi. org/10.32999/2663-970X/2022-8-4
- [21] Plokhikh, V. V. (2023). Relationship between coping behavior and students' perceptions of the passage of time. Insight: The Psychological Dimensions of Society, 9, 72-93. https://doi.org/10.32999/KSU2663-970X/2023-9-5
- [22] Plokhikh, V. V., & Yanovska, S. G. (2022). Sex differentiation in the organization of emergency sensorimotor action. Insight: The Psychological Dimensions of Society, 7, 24-39. https://doi.org/10.32999/2663-970X/2022-7-3
- [23] Plokhikh, V. V., Popovych, I., Zavatska, N., Losiyevska, O., Zinchenko, S., Nosov, P., & Aleksieieva, M. (2021). Time synthesis in organization of sensorimotor action. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 12(4), 164-188. https://doi.org/10.18662/brain/12.4/243
- [24] Popovych, I. S. (2017). Psychology of social expectations of personality [Doctoral Dissertation's extended abstract, Volodymyr Dahl East-Ukrainian National University]. http://ekhsuir.kspu.edu/handle/123456789/6464
- [25] Popovych, I., Blynova, O., Nass Álvarez, J. L., Nosov, P., & Zinchenko, S. (2021). A historical dimension of the research on social expectations of an individual. Revista Notas Históricas y Geográficas, 27, 190-217.
- [26] Popovych, I., Borysiuk, A., Semenov, O., Semenova, N., Serbin, I., & Reznikova, O. (2022). Comparative analysis of the mental state of athletes for risk-taking in team sports. Journal of Physical Education and Sport, 22(4), 848-857. https://doi.org/10.7752/jpes.2022.04107
- [27] Popovych, I., Chervinskyi, A., Kazibekova, V., Chervinska, I., & Machynska, N. (2021). Empirical research of the typology of social expectations of the personality. Amazonia Investiga, 10(43), 112-122. https://doi.org/10.34069/AI/2021.43.07.11

- [28] Popovych, I., Halian, I., Pavliuk, M., Kononenko, A., Hrys, A., & Tkachuk, T. (2022). Emotional quotient in the structure of mental burnout of athletes. Journal of Physical Education and Sport, 22(2), 337-345. https://doi.org/10.7752/jpes.2022.02043
- [29] Popovych, I., Hoi, N., Koval, I., Vorobel, M., Semenov, O., Semenova, N., & Hrys, A. (2022). Strengthening of student youth's mental health using play sports. Journal of Physical Education and Sport, 22(6), 1384-1395. https://doi.org/10.7752/jpes.2022.06174
- [30] Popovych, I., Koval, I., Raievska, Ya., Piletskyi, V., Buryanovatiy, O., & Hrynchuk, O. (2023). Dominating mental states of the representatives of individual sports under lock-down and martial law: Comparative analysis. Journal of Physical Education and Sport, 23(1), 170-178. https://doi.org/10.7752/jpes.2023.01021
- [31] Popovych, I., Machynska, N., Yaremchuk, N., Korniat, V., & Kurinna, V. (2022). Psychoemotional states of future specialists in a socionomic area under lockdown and martial law: comparative analysis. Amazonia Investiga, 11(56), 150-158. https://doi.org/10.34069/AI/2022.56.08.16
- [32] Prokhorov, A. O., Yusupov, M. G., & Plokhikh, V. V. (2015). Cognitive states in the process of students' intellectual activity. The New Educational Review, 41(3), 263-274. https://doi. org/10.15804/tner.2015.41.3.21
- [33] Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 57, 1069-1081. https://doi.org/10.1037/0022-3514.57.6.1069
- [34] Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. Acta Psychiatrica Scandinavica, 67(6), 361-70. https://doi.org/10.1111/j.1600-0447.1983.tb09716.x