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THE RELATIONSHIP BETWEEN EMOTIONAL DISORDERS AND EATING BEHAVIOUR IN ADULTS UNDER MARTIAL LAW

АНОТАЦІЯ. Статтю присвячено комплексному теоретичному та емпіричному аналізу зв'язку емоційних порушень і харчової поведінки дорослих в умовах воєнного стану. Актуальність дослідження зумовлена тривалим впливом воєнного стресу на психоемоційний стан населення та зростанням ризиків дезадаптивних форм поведінки, зокрема у сфері харчування. У роботі здійснено аналіз наукових підходів до розуміння понять «емоційні порушення» та «харчова поведінка», окреслено їх основні види, психологічні механізми формування та специфіку проявів у дорослому віці за умов хронічного стресу та впливу травматичних подій.

Для реалізації завдань дослідження застосовано комплекс теоретичних методів (аналіз, узагальнення та систематизація сучасних психологічних джерел) і психодіагностичних методик, спрямованих на оцінку ключових емоційних станів та поведінкових змін. Використано шкалу тривоги Бека (BAI), анкету здоров'я пацієнта (PHQ-9), шкалу впливу подій (IES), а також авторський опитувальник, спрямований на виявлення особливостей харчової поведінки та змін маси тіла в умовах війни.

Емпіричні результати засвідчили, що значна частина респондентів має підвищені показники депресії та тривоги, що вказує на високий рівень емоційного дистресу, пов'язаного з переживанням воєнних подій. Водночас не встановлено прямого статистично значущого зв'язку між рівнем емоційних порушень і змінами маси тіла. Разом із тим виявлено, що особи зі схильністю до суїцидальної поведінки частіше демонструють коливання ваги та виражені зміни харчових звичок.

Отримані дані свідчать про складний, опосередкований характер взаємозв'язку між емоційними порушеннями, харчовою поведінкою та масою тіла. Перспективи подальших досліджень пов'язані з розширенням вибірки, застосуванням об'єктивних методів оцінювання та використанням лонгітюдного дизайну з метою розробки ефективних психопрофілактичних і корекційних програм.

Ключові слова: емоційні порушення, харчова поведінка, стрес, депресія, тривога.

The article is devoted to a comprehensive theoretical and empirical analysis of the relationship between emotional disturbances and eating behavior in adults under conditions of martial law. The relevance of the study is determined by the prolonged impact of war-related stress on the psycho-emotional state of the population and the increased risk of maladaptive behavioral patterns, particularly in the domain of eating behavior. The paper analyzes scientific approaches to the understanding of the concepts of emotional disturbances and eating behavior, outlines their main types, psychological mechanisms of formation, and specific features of manifestation in adulthood under conditions of chronic stress and traumatic events.

To achieve the research objectives, a combination of theoretical methods (analysis, generalization, and systematization of contemporary psychological literature) and psychodiagnostic tools aimed at assessing key emotional states and behavioral changes was employed. The study used

the Beck Anxiety Inventory (BAI), the Patient Health Questionnaire (PHQ-9), the Impact of Event Scale (D. Weiss, C. Marmar), as well as an author-designed questionnaire focused on identifying features of eating behavior and changes in body weight under wartime conditions.

The empirical findings indicate that a significant proportion of respondents demonstrate elevated levels of depression and anxiety, reflecting a high degree of emotional distress associated with exposure to war-related events. At the same time, no direct statistically significant relationship was found between the level of emotional disturbances and changes in body weight. However, respondents who exhibited a tendency toward suicidal behavior were more likely to experience weight fluctuations and pronounced changes in eating habits.

The obtained data suggest a complex and mediated relationship between emotional disturbances, eating behavior, and body weight. Further research with larger samples, the application of objective assessment methods, and a longitudinal design is required to deepen the understanding of these relationships and to develop effective psychopreventive and corrective interventions.

Keywords: emotional disorders, eating behaviour, stress, depression, anxiety.

Introduction. The full-scale invasion of Ukraine has been an event that has radically altered the socio-economic, cultural and psychological reality of Ukrainian society. Since the start of the full-scale invasion, a significant proportion of Ukraine's population has been exposed to numerous stressors that are having a negative impact on their physical and mental health. According to recent surveys, around 80% of citizens report increased nervousness and stress, 52% report symptoms of anxiety, and 47% of respondents note a decline in mood and sleep disturbances [1]. The prolonged impact of the conflict, forced displacement, the loss of loved ones, threats to life and the disruption of normal routines have become powerful stressors affecting not only the mental state of the population but also the overall pattern of behavioural responses, including eating habits. Eating behaviour is defined as the set of habits and practices relating to the consumption of food and drink that directly influence health and quality of life [2]. From a psychological perspective, it is viewed not merely as the satisfaction of physiological needs, but as a complex phenomenon that integrates not only the cognitive and social aspects of an individual's life, but also the emotional ones.

Theoretical foundations of the study. Emotions, as defined by K. Izard, encompass neurophysiological, phenomenological and motor-muscular aspects and perform an important adaptive function in the process of human interaction with the environment [3]. Basic emotions (joy, anger, fear, sadness, interest, etc.) are fundamental regulators of behaviour; they influence perception, thinking, decision-making and motivation. At the same time, emotional processes are closely interrelated: they can either enhance or, conversely, inhibit one another, which accounts for the complex structure of human affective responses. Disruptions in the functioning of this system lead to emotional maladjustment [4]. According to the classification of the American Psychological Association [5], emotional disorders are a group of mental disorders characterised by excessive or inappropriate emotional reactions to external events. These include depression, anxiety disorders, post-traumatic stress disorder (PTSD) and other conditions accompanied by emotional lability, aggression, feelings of helplessness and a loss of control over one's own emotions [6]. Domestic authors emphasise that emotional disturbances are the result of a disruption in the harmonious interaction of mental processes and manifest themselves both in the realm of internal experience and in behavioural reactions [7]. Their development is determined by a combination of social, biological and psychological factors, among which traumatic events experienced as a result of war are of particular significance.

An important aspect of emotional response is psychological defence, which is aimed at preserving the individual's inner equilibrium. However, in a state of prolonged stress or trauma, its mechanisms may take on a maladaptive character, manifesting through changes in behavioural strategies, in particular through disturbances in eating behaviour. Eating behaviour fulfils not only the biological function of satisfying the physiological need for food, but also a psychological one—it serves as a means of emotional regulation and compensation for internal tension [8]. Depression, anxiety and stress can alter eating habits and preferences, manifesting as changes in eating behaviour and potentially contributing to the development of disorders such as anorexia nervosa, bulimia or compulsive overeating [9].

The impact of war on the mental health of the adult population is complex and multifaceted. It encompasses not only traumatic events (losses, destruction, evacuation), but also secondary

consequences — social instability, economic crisis, and the breakdown of social ties — which create conditions for the development of long-term emotional disturbances and changes in behavioural patterns [10]. Thus, eating behaviour in wartime may reflect an individual's emotional state and serve as a kind of indicator of psychological and emotional health.

In view of the above, studying the relationship between emotional disturbances and eating behaviour is of great importance for the development of scientifically grounded recommendations and support programmes that contribute to the preservation of the population's physical and mental health in crisis situations and the prevention of maladaptive eating behaviour patterns.

With this in mind, the aim of our study was to identify the relationship between the level of emotional disturbances and the characteristics of eating behaviour in adults under martial law.

Experimental section. To investigate the relationship between emotional disturbances and eating behaviour in adults, we conducted an empirical study online using Google Forms. The study involved 34 participants aged 18 and over, of whom 26 were women (76.5%) and 8 were men (23.5%). The majority of study participants (97.1%) were civilians, with only one being an internally displaced person (IDP). Therefore, it can be said that this study concerns the situation of the civilian population of Ukraine specifically.

The following diagnostic tools were selected to investigate the link between emotional disturbances and eating behaviour in adults: the Beck Anxiety Inventory (BAI), the Patient Health Questionnaire (PHQ-9), the Impact of Events Scale (IES), and a self-designed questionnaire. Additionally, theoretical methods such as literature review and analysis were employed for the study.

The use of these methods allows for a comprehensive characterisation of the emotional state of the participants, in particular their levels of anxiety, depression and stress response, as well as tracing their influence on eating behaviour and weight fluctuations. This approach provides a deeper understanding of the mechanisms of emotional regulation and helps to identify individual differences in susceptibility to emotional or restrictive types of eating behaviour.

Emotional disorders encompass a range of psycho-emotional states, the most common of which are anxiety, depression and stress.

The issue of anxiety was first subjected to a thorough theoretical examination in the works of Sigmund Freud, particularly in his essay 'Inhibition, Symptom and Fear'. In this study, a clear distinction was made for the first time between the concepts of unease and anxiety. The founder of psychoanalysis defined anxiety as a specific emotional state characterised by feelings of helplessness, uncertainty and anticipation of danger [14]. According to Sigmund Freud, the primary function of anxiety lies in the psyche's protective role—in preventing the awareness of unwanted internal impulses and transforming them into socially acceptable forms of behaviour. The researcher emphasised that understanding the nature of anxiety could be the key to understanding the entire psychological structure of a person, as this phenomenon is central to the mechanisms of personality functioning. Theoretical concepts of anxiety were further developed in A. Beck's cognitive approach. According to his model of 'cognitive specificity', depressive and anxious states differ in the nature of their maladaptive thought processes. For individuals with depressive symptoms, thoughts of helplessness, failure, loss of perspective and self-blame are typical, whereas in anxiety, attitudes associated with the expectation of threat or danger predominate. Beck considered cognitive distortions to be the central factor in the onset of anxiety — a distorted perception of oneself and the surrounding world, which forms a 'vicious circle of anxiety', where emotional reactions reinforce negative beliefs, which in turn exacerbate the state of anxiety. To empirically measure this phenomenon, A. Beck developed the Beck Anxiety Inventory (BAI), which allows for a quantitative assessment of the severity of anxiety [12].

In scientific research, stress is viewed as a phenomenon with several aspects: as an external stimulus (stressor) that causes psychological and physiological tension; as a subjective psychological reaction manifested through emotional arousal and internal experiences; and as the body's physiological response to adverse factors [15]. Researcher H. Selye defined stress as a state of psychophysiological tension that arises under the influence of various factors and helps the body adapt to change. He identified three stages of stress—alarm, resistance and exhaustion—which demonstrate how adaptive resources are gradually depleted.

Results and discussion. Based on theoretical knowledge, we conducted an empirical study that analyzed the relationship between emotional disorders and eating behavior. In order to study the impact of a full-scale invasion on eating behavior and body weight, two additional items were included

in the questionnaire:

- Has your eating behavior changed since the beginning of the full-scale invasion?
- Has your weight changed since the beginning of the full-scale invasion?

The majority of respondents did not experience significant changes in their eating behavior. When asked “Has your eating behavior changed since the beginning of the full-scale invasion?” 64.7% of respondents indicated that their eating behavior had hardly changed, 20.6% indicated that it had not changed, and only 14.7% reported significant changes. Thus, the results indicate relative stability of eating habits among the participants in the study group. However, most respondents experienced a change in body weight. A detailed analysis showed that 41.2% of participants noted a slight increase in weight, 35.3% reported no change, 8.8% recorded a slight and significant decrease in weight, and 5.9% of respondents noted a significant increase in body weight. Thus, the data indicate the presence of moderate fluctuations in body weight among the participants of the study group.

To assess the emotional state of respondents within the study, the Beck Anxiety Inventory (BAI) was used. The results of the analysis showed that 8.8% of respondents demonstrated results within the normal range, another 8.8% had a mild level of anxiety, 38.2% of respondents demonstrated a medium level of anxiety, and 44.1% had a high level of anxiety. Thus, more than two-thirds of the study participants showed a medium or high level of anxiety, which indicates a significant level of emotional stress in the conditions of martial law.

The second tool for emotional diagnostics was the Patient Health Questionnaire (PHQ-9), which allows assessing the severity of depressive symptoms.

The results obtained indicate that the vast majority of respondents have a normal or mild depression. Also, the majority (83%) did not report having thoughts of self-harm. At the same time, 11% of participants indicated that they had such thoughts for several days, 8% — more than half the time, and 2.9% noted that such thoughts occurred almost every day. Additional analysis showed that among those who reported suicidal thoughts, respondents with a high level of anxiety on the Beck scale (No. 11, 19, 23, 24, 31) more often demonstrated changes in body weight — mostly in the direction of increase. In contrast, respondents with an average level of anxiety (No. 16, 21, 32) also reported changes in weight, but in a less pronounced form; one of them had a significant decrease in body weight.

We also conducted a correlation analysis, which revealed a statistically significant strong positive correlation between the level of depression (PHQ-9) and the level of anxiety (BAI) ($r = 0.625$, $p < 0.001$), which indicates a direct relationship: with increasing anxiety, symptoms of depression increase. In contrast, between the level of depression or anxiety and changes in eating behavior or body weight, very weak or weak negative correlations were observed (ρ from -0.03 to -0.16), which were not statistically significant ($p > 0.05$). This indicates the absence of a direct linear effect of emotional disorders on eating behavior and body weight in the studied sample.

The study also analyzed the relationships between psychological indicators (levels of depression and anxiety), changes in eating behavior and body weight, as well as the impact of stressful/traumatic events on the IES-R scale.

Statistically significant moderate and strong positive linear correlations were established between the level of depression and the total score of the impact of events ($r = 0.59$, $p < 0.001$), between the level of anxiety and the total score of the impact of events ($r = 0.66$, $p < 0.001$), as well as between depression and symptoms of hyperarousal ($r = 0.61$, $p < 0.001$) and intrusive memories ($r = 0.51$, $p = 0.002$). This indicates a direct relationship between the experienced stress and the severity of depressive symptoms, intrusive thoughts and hyperarousal in the respondents.

Conclusions. The study allowed us to outline key trends in the psychological state and eating behavior of the civilian population of Ukraine during wartime. Despite the fact that most respondents did not record significant changes in eating behavior, about half of the participants noted a change in body weight, mainly in the direction of its increase, which indicates a possible indirect effect of the emotional state on physical indicators through hidden coping mechanisms. Analysis of anxiety and depression levels showed that a significant part of the respondents is at an average or high level of anxiety. Statistically significant correlations were found between the level of depressive symptoms and anxiety, as well as between depression and subjectively experienced traumatic stress (according to the event impact scale). The relationship between manifestations of depression and intrusive memories, as

well as symptoms of hyperarousal, is especially pronounced. Prospects for further research include focusing on expanding the sample and using a comprehensive toolkit that allows considering various aspects of the emergence of eating disorders and emotional disorders. Among the changes in the study, one can single out the use of a longitudinal research method, the inclusion of BMI to increase its objectivity, and the addition of methods regarding the self-perception of the individual.

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