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PECULIARITIES OF THE ASSOCIATION BETWEEN EATING BEHAVIOR IN EATING DISORDER AND HIGH STRESS LEVEL AMONG GIRLS

ОСОБЛИВОСТІ ЗВ'ЯЗКУ МІЖ ПОРУШЕННЯМ ХАРЧОВОЇ ПОВЕДІНКИ ТА ВИСОКИМ РІВНЕМ СТРЕСУ СЕРЕД ДІВЧАТ

This article provides a brief overview of the phenomenon of eating disorder. Noted that eating behavior should be considered as a value-based attitude to food, the stereotype of nutrition under everyday conditions and in situations of stress and as the behavior focused on the formation of one's own body image. Considering eating disorders, attention focus is on the fact that the appearance of the disorder may indicate some changes in food attitude and strategies of need gratification, not only biological but also psychological and social, especially among young girls. According to the statistics, in this age category there is a ten-time higher probability (compared to the sample of boys) to occur eating disorders among girls. Besides, eating disorders usually begin in late childhood or early adulthood, which has its further impact on the formation of behavioral strategy of girls in the ambivalent vector: food choices under the influence of situational socio-cultural factors, basing on which they form the image of themselves and their bodies.

Elucidated that the emotional behavior type has strong links with both anxiety and stress levels among adolescent girls, which may indicate that a person's emotions, emotional reactions, the breadth and depth of emotional experiences are the certain psychological components in determining human eating behavior. Those are closely related to the peculiarities of self-awareness and the bodily image of themselves while the modality of emotional experiences will determine the overall strategy of human activity, including food consumption, its quantity and quality. Our sample did not find a correlation between restrictive and external eating behavior and levels of anxiety and stress, possibly because adolescent girls have not formed yet the constructive-adaptive mechanisms for overcoming psychologically difficult situations when they live through deeply difficult experiences. At the same time, restrictive eating behavior is more intended to the conscious level more, compared to the external one, i.e. a person has to make the decision about weight correction, and therefore use more strategies to cope with the demands of everyday life.

Key words: *emotional nutrition, overeating, anorexia, bulimia, overweight, hunger, satiety, behavior, disorders, adolescence.*

У статті наведений стислий огляд феномену порушення харчової поведінки. Зазначено, що харчову поведінку варто

розглядати як ціннісне ставлення до їжі, стереотип харчування за повсякденних умов і в ситуації стресу та як поведінку, орієнтовану на формування образу власного тіла. Розглядаючи порушення харчової поведінки, ми зосередили увагу на тому, що поява порушення може свідчити про зміни у ставленні до їжі та стратегії задоволення потреб, не лише біологічних, а й психологічних і соціальних, особливо серед дівчат юнацького віку. За статистикою, в цій віковій категорії у десять разів частіше (порівняно з вибіркою хлопців) зустрічаються порушення харчової поведінки серед дівчат, порушення харчування зазвичай починаються в пізньому дитинстві або на початку дорослого віку, що має своє подальше відбиття в формуванні поведінкової стратегії дівчат в амбівалентному векторі: харчові вибори під впливом ситуаційних соціокультурних факторів, на основі чого у них формується образ себе та свого тіла.

Було встановлено, що серед дівчат юнацького віку емоційний тип поведінки має виражені зв'язки як із рівнем тривожності, так і з рівнем стресу, а це може свідчити про те, що емоції, емоційні реакції, широта та глибина емоційних переживань людини виступають певними психологічними складовими в зумовленні харчової поведінки людини, які тісно пов'язані з особливостями самосвідомості, тілесним образом себе, модальністю емоційних переживань визначатиме загальну стратегію активності людини, в т. ч. і споживанні їжі, її кількості та якості. На нашій вибірці досліджуваних не було виявлено кореляційного зв'язку між обмежувальною й екстернальною типами поведінки та рівнем тривожності та стресу, можливо тому, що дівчата в юнацькому віці ще не сформували конструктивно-адаптивні механізми подолання психологічно важких ситуацій у проживанні глибинно тяжких переживань. Обмежувальна харчова поведінка більше стосується свідомого рівня порівняно з екстернальною, тобто людина має прийняти рішення щодо корекції ваги, а отже, задіяти більше стратегій, щоб впоратися із запитами буденного життя.

Ключові слова: *емоційне харчування, переїдання, анорексія, булімія, надмірна вага, голод, насичення, поведінка, розлади, юнацький вік.*

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Problem statement. One of the common socially important problems among adolescent and young girls is issue of weight as well as

proper nutrition. Modern requirements in the field of fashion, fitness, female attractiveness have a negative impact on both younger generation

and mature people who strive to reach modern standards. It should be noted the entire world intense transforming: modern people are accustomed to an almost automated way of life (in some sense, not of their own volition, but according to the global situation around the world), the current rhythm and lifestyle, on the one hand, requires less activity, but on the other hand, creates a completely different level of responsibility, which causes inevitable state of internal psychological stress, which is mostly overcome in the simplest, the most primitive way – with food, but this is not an effective pattern for living out difficult situations and experiences.

The study and research of the problem of eating behavior began in the 19th century as a mental disorder, which was determined by abnormal eating habits, which negatively affected the physical or mental health of a man [10]. To date this group of disorders includes overeating (a large amount of food is eaten in a short period of time), anorexia nervosa (people eat very little for fear of gaining weight and therefore have low body weight), bulimia nervosa (people eat a lot and then try get rid of food), Pica eating behavior (eating non-food items), rumination syndrome (people vomit food), avoidant / restrictive food intake disorders (ARFID) (people with reduced and selective eating for certain psychological reasons), and a group of other eating disorders [8; 14]. The causes of eating disorders can consist of biological, personal and social factors.

In the developed countries, there are about 0.4% of young women suffering from anorexia, and about 1.3% of women suffering from bulimia. Overeating affects approximately 1.6% of women and 0.8% of men [9]. At the same time, the level of eating disorders is lower in less developed countries [11]. Anorexia and bulimia are almost ten times more common among women than men [13]. Eating disorders usually begin in late childhood or early adulthood, but the frequency of other eating disorders is not diagnosed.

The aim of the article is to highlight the results of the correlation studying between eating disorders and the level of anxiety and stress among young girls.

Analysis of the recent researches and publications. There are the works devoted to studying the aspects of eating disorders, in particular, the researches of Kh.E. Doll, H.Sh. Ashurov, A.A. Markov, Zh. Terrens Uilson, K.M. Paik, I.I. Fedorov; N.Yu. Krasnoperov, V.D. Mendelevych, I.H. Malkin-Pikh, Yu.L. Savchykov, S. Dzh. Fraibern, V.Ya. Semke; T.H. Voznesenska A.V. Vakhmistrov P. Norman B.A. Devis etc. Despite the fact that extensive theoretical experience in studying the peculiarities of eating behavior has been already gained, this issue is still not sufficiently studied.

The term “eating behavior” was introduced to denote a set of actions carried out in process of nutrition, qualitative and quantitative characteristics of the nutrients of the ration [1].

I.H. Malkina-Pykh defines that person’s behavior in attitude to food is directed to satisfy not only biological and physiological requirements but also psychological and social needs. When analyzing the psychosocial aspects of overweight, she identifies the following functions of eating behavior: body balance controlling, relaxation, adhering to a ritual or a habit, rewarding, enjoying, communication, self-affirmation, cognition and aesthetic need gratification [5].

V.D. Mendelevych describes eating behavior as a value attitude to food, the stereotype of nutrition in everyday conditions and in stressful situations, as well as eating behavior is understood as one that focuses on one’s own body image and activities to form this very image [6].

According to V.A. Vakhmistrov, adequate eating behavior is the one in which consuming nutrients by their ingredients, quantity, form, method of cooking and eating meets the nutritional and energy needs of the body, in accordance with the state of enzyme system, energy expenditure, biorhythms, peculiarities of eating motivation, increasing motor activity; therefore the eating disorder is ought to be considered holistically from both psychological and physiological points of views.

Considering eating behavior as a process of food consumption, which consequences affect the physical condition of a man, it’s worthy noting that being overweight or underweight is the result of eating disorders [4]. Eating Disorder (ED) appears as the complexes of the symptoms caused by prolonged exposure to behavioral, emotional, psychological, and social factors.

T.H. Voznesenska describes possible deviations of eating behavior in the following way [2]. In her opinion, external eating behavior is associated with increased sensitivity to external stimuli of food consumption. People with such a behavior do not respond to internal stimuli (blood glucose level and the number of free fatty acids in, empty stomach, etc.), but to externals: the showcase of the grocery store, a well-set table, a look at a person eating, food advertisement, etc. [3]. The distinctive cue for emotional eating behavior is that the stimulus, which provokes to eat, is not hunger, but emotional discomfort. Food for people with emotional eating behavior is kind of medicine, because it really brings them not only satiety, but also calm, pleasure, relaxation, emotional stress relieving, mood improvement. Emotional eating behavior can manifest as compulsive overeating and as a nocturnal eating syndrome. Compulsive eating behavior manifests itself as short recurrent bouts of overeating lasting no more than two hours. During such an attack, a person eats much more and much faster than

usual. Nocturnal eating syndrome is less common and is seen in obese people. It comes with three symptoms: loss of appetite in the morning, increased appetite and overeating in the evening and at night, and sleep disturbances. Restrained eating behavior is self-restriction in food, adherence to a strict diet [3; 2].

L.M. Absaliyeva notes that “eating disorders” should be understood as eating disorders that lead to physical and psychological ill-being and which are a complex of medical and psychological problems. Eating disorders should include bulimia nervosa, anorexia nervosa, geophagia, sitophobia, bigorexia and others. In this case, “eating disorders” mean such the deviations in food intake, which are really not diseases, but interfere with the proper functioning of an individual. Eating disorders include external, emotional and restrained types of eating behavior. In some cases, compulsive overeating can also be attributed to eating disorders, when it is not a symptom of bulimia nervosa, and therefore, it means that not all eating disorders are really disorders [1].

Eating behavior and its disorders are the subject of a comprehensive study, and eating disorders are considered a serious problem of multifactorial etiology, threatening the health of the individual. Among the eating disorders, the most famous are bulimia nervosa and anorexia nervosa. Bulimia nervosa is the disorder characterized by overeating attacks and excessive weight control, which leads to applying extreme measures [8]. Decreased appetite until getting a complete body weight loss is called anorexia nervosa. Its causes are the activity of the food center and digestive system, also endocrine, neurogenic and psychogenic disorders and intoxication. Anorexia nervosa is a disorder characterized by the intentional weight loss [8].

For comparison, ICD-10 presents the diagnostic criteria for anorexia and bulimia nervosa (table 1).

Thus, the inadequate eating behavior can manifest itself in the form of health trouble and disorders, and it should be emphasized that the adequate eating behavior is the key to health, physical activity and harmonious psychosocial development of an individual.

Results. The pilot study involved 39 young girls aged 17 to 22 years old of various specialties. Empirical investigation in stress sensations in somatic, behavioral and emotional indicators was held by the methods of Lemur-Tese-Fillion’s “PSM-25 Psychological Stress Scale”; “Spielberger-Hanin Questionnaire” to determine the level of anxiety and “The Dutch Eating Behavior Questionnaire (DEBQ)” for assessment of restrained, emotional, and external eating behavior.

As the result of the study, it was found that there is a close positive correlation between the stress level and the emotional eating behavior (table 2).

Table 2

Correlations between stress levels and eating style

DEBQ	The level of the stress by “PSM-25 Psychological Stress Scale”
Emotional	0,602* <i>p=0,000</i>
Restrained	0,065
External	0,261

If so, such results may indicate that the peculiarity of girls, being prone to EDs, is hyperphagic reactions as the inability to mentally process traumatic experiences which are shifted to

Table 1

<i>Anorexia</i>		<i>Bulimia</i>	
A	Body weight loss or insufficient weight gain (children), which will result a 15% weight loss of normal or expected weight according to age and height.	A	Repeated episodes of overeating (at least 2 times a week during last 3 months), in which there is a large amount of food is consumed over short periods of time.
B	Weight loss is self-induced by restriction of food intake.	B	Constant anxiety about food and strong desire or uncontrolled craving for food.
C	Self-perception is described as “too fat”, excessive occupation with this “being fat”, which leads to self-torture and reaching the threshold weight.	C	The patient tries to counteract weight gain by initiating vomiting, inducing defecation, periodically fasting or using appetite suppressants (these may be thyroid drugs, diuretics, etc.).
D	Various endocrine disorders associated with the hypothalamic-pituitary-gonadal axis. In women, it usually manifests as amenorrhea, and in men – as a loss of sexual interest and potency.	D	Self-perception as being too fat, being busy with its correction (which often leads to underweight).
E	The criteria A and B are not fulfilled in bulimia.	E	–

Diagnostic criteria for anorexia and bulimia for ICD-10

the somatic level, thus, a person has a pathological urge to eat as a mitigating factor helping to live out psychological stress.

However, stress is not the only cause of ED. It was found that anxiety also manifests itself in increasing the level of ED, especially in cases when an individual feels internal weakness, helplessness in solving a problem situation what makes psychological tension increasing. As a result, it was established that there is a positive correlation between the levels of personal anxiety and stress ($r = 0.519$, $p = 0.001$) and reactive anxiety and stress ($r = 0.628$, $p = 0.000$). Therefore, there is a stress level increasing in anxious experiences, which means that the conditioned-reflex cycle regarding food consumption will be passed through again.

The next step was to establish a correlation between the level of anxiety and the type of eating behavior. What is more, the only type of behavior which has the close link is the emotional type, as well as in the situation with stress.

Table 3

Correlations between anxiety levels and eating habits

DEBQ	"Spielberger-Hanin Questionnaire"	
	Personal anxiety	Reactive anxiety
Emotional	0,711* <i>p=0,000</i>	0,536* <i>p=0,001</i>
Restrained	0,092	0,177
External	0,219	0,162

As can be seen from the table, the emotional type of behavior has the strong links with both the level of anxiety ($r=0.711$; $r=0.536$) and the level of stress ($r = 0.602$). And this may indicate that emotions, emotional reactions, the breadth and depth of a person's emotional experiences are psychological components of human eating behavior, which are closely related to the peculiarities of self-awareness and the bodily image of themselves. Besides, it should be understood, that is the modality of emotional experiences that will determine the overall strategy of human activity, including food consumption, its quantity and quality. Also, there was no correlation found in the sample between the restrained ($r = 0.092$; $r = 0.177$) and external ($r = 0.219$; $r = 0.162$) types of behavior and the level of anxiety. Probably, this can be explained in the following way: restrained eating behavior as keeping a diet is more related to the conscious level, meaning, a person have to make decisions about weight correction, and thus, use more constructive and adaptive patterns in overcoming psychologically difficult situations and living out deeply difficult experiences. At the same time, external eating behavior acts as a person's inability to resist good food, what may indicate that a person, who is prone to

ED, feels ashamed for uncontrolled cravings, so that when such a person is surrounded by people, he or she tries to avoid food intake, but then makes up for lost.

Conclusions. As a result of the theoretical and empirical research, the following was established:

1. The eating behavior should be considered as a value attitude to food, the stereotype of nutrition in everyday conditions and in situations of stress, as well as eating behavior is understood as one that focuses on one's own body image;

2. The eating disorders are a set of symptoms which occurs due to prolonged exposure of behavioral, emotional, psychological and social factors;

3. It was found that the peculiarity of girls, being prone to ED, is hyperphagic reactions as the inability to mentally process traumatic experiences which are shifted to the somatic level, thus, a person has a pathological urge to eat as a mitigating factor, helping to live out psychological stress;

4. It was established that the level of anxiety and stress has a close correlation to the emotional type of eating behavior, as the modality and depth of emotional experiences can determine the overall strategy of girls, including food consumption, its quantity and quality.

The scientific opportunities are seen in the further multifactor analysis of the perfectionism phenomena, the level of identity between real self and ideal self, the intrapersonal conflict existence, identifying gender and sociocultural differences in eating behavior so on.

REFERENCES:

1. Абсаямова Л. Розлади та порушення харчової поведінки особистості. *Проблеми сучасної психології*. 2014. Вип. 25. С. 19–33.
2. Вознесенская Т. Расстройства пищевого поведения при ожирении и их коррекция. *Фармак*. 2009. № 12. С. 91–94.
3. Вознесенская Т. Типология нарушений пищевого поведения и эмоционально-личностные расстройства при ожирении и их коррекция. *Ожирение / под. ред. И.И. Дедова, Г.А. Мельниченко*. Москва : МИА, 2004. С. 34–71.
4. Зінченко С. Медична психологія : навчальний посібник. Київ : КІСКЗ, 2009. 341 с.
5. Малкина-Пых И. Лишний вес. Освободиться и забыть. *Навсегда*. Москва : Эксмо, 2012. 256 с.
6. Менделевич В. Клиническая и медицинская психология. Москва : Мед Пресс-информ, 2005. 468 с.
7. Михайлов Б. Клиника, диагностика и принципы терапии неврогенных нарушений пищевого поведения. *Медична газета «Здоров'я України»*. 2008. Вип. 23/1. С. 69–71.
8. American Psychiatric Association. Diagnostic and Statistical Manual of mental disorders (DSM-V-TR) / American Psychiatric Association. *American Psychiatric Publishing*. 2013. Т. 5. 992 p.

9. Psychiatric comorbidity in patients with eating disorders / D.L. Braun, S.R. Sunday, K.A. Halmi. *Psychological Medicine*. 1994. Vol. 24, Issue 4. P. 859–867. <https://doi.org/10.1017/S0033291700028956>.
10. Eating disorders: recognition and treatment: National Institute for Health and Care Excellence. London, 2017. № 69. P. 139–147.
11. Stress, Hypothalamic-Pituitary-Adrenal Axis and Eating Disorders / S.C. Lo, C. Ravaldi, P.L. Cabras, C. Faravelli. *Neuropsychology*. 2008. Vol. 57. № 3. P. 95–115.
12. Polivy J., Herman C.P. Causes of eating disorders. *Annual Review of Psychology*. 2002. Vol. 3. P. 187–213.
13. Sassaroli S., Ruggiero G.M. The role of stress in the association between low self-esteem, perfectionism, and worry, and eating disorders. *International Journal of Eating Disorders*. 2005. № 37 (2). P. 135–141.
14. Predictive value of alexithymia in patients with eating disorders: a 3- year prospective study / M. Speranza, G. Loas, J. Wallier, M. Corcos. *Journal of Psychosomatic Research*. 2007. № 63 (4). P. 365–371.