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SCREENING FOR EARLY DETECTION OF EATING DISORDERS

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ABSTRACT

Background: Eating Disorders (EDs) are characterized by a persistent disturbance of eating or eating-related behavior that significantly impairs physical health or psychosocial functioning. EDs are caused by a complex interaction of genetic, biological, behavioral, psychological, and social factors. Their epidemiology is rising for the past decades, and EDs affect all races, social levels and both genders. Due to the long and expensive treatment, chronic course, and the fact that most of the sufferers do not realize the need for therapy or do not seek treatment, the demand on developing prevention programs, early detection and assessment is essential. Despite the fact, that many new EDs screening tools were developed already, there is a great lack of validated screening instruments, adapted to the Bulgarian conditions.

Objects and methods: Our study aimed at eliciting a comprehensive battery for screening of not only specific ED pathology, but also some risk factors, such as negative body image, weight and depressive symptoms. The object of our study consisted of 201 females, aged 18 to 45 (mean 24.65). SCOOF- questionnaire, Eating Disorder Diagnostic Scale (EDDS-5), Body Image Questionnaire-34 and Beck Depression Inventory (BDI) were applied.

Results: Our preliminary results show that approximately 45% of the tested subjects show some of the: negative body image, eating disorders' clinical pathology, distorted eating patterns, subclinical eating disorders pathology, overweight/obesity, or depressive symptoms.

Conclusion: Our ongoing efforts in area of research also are aimed at developing and refining strategies for preventing and treating ED among adolescents and adults.

Key words: eating disorders, prevention, risk factors, screening tools,

INTRODUCTION

Eating disorders (EDs) are multifactorial and multilevel conditions, which affect persons' physical or mental health. They are highly influenced by prominent social predictors. Young females constitute the most vulnerable group. The biopsychosocial model of EDs shows impossibility for determining a single, concrete risk factor for their development. In a meta-analytic review of prospective and experimental studies E. Stice (2002) comments that several accepted risk factors for eating pathology have not received empirical support while there was consistent support for less-accepted risk factors (e.g. thin-ideal internalization). Maintenance factors (e.g. negative affect) and social support as a potential relief factor received preliminary support [1]. The eating pathology leads to subjective distress, functional distortions, hospitalization, suicide trials, mortality, depressive and anxiety disorders, increases the risk for future obesity, misuse of psychoactive substances and numerous health problems [2, 3, 4].

The path from normal eating to eating disorder starts with acceptance of food and body image, passes through obsession with food and body, then moves to subclinical eating disorders, till reaching the clinically diagnosed eating disorders [5]. Eating disorders on clinical and subclinical level are among the most often spread psychiatric disorders among women and girls and they are characterized by a chronic course and high percentage of relapses. EDs are characterized with constant distortion in eating or eating behavior, which leads to altered intake or absorption of food, combined with an intense preoccupation with body weight and shape that significantly impact physical, as well as, psychosocial functioning [6, 7].

Unofficial statistical data shows that people, affected by eating disorders in Bulgaria are more than 300 000. At the same time, results from a National research in Bulgaria within the period 2010/2011 show that 20% from the girls and 8% from the boys with age between10-19 are at risk of developing some type of distorted eating. Another Bulgarian National survey, done in the period 1998-2004, shows that there is high spread of underweight with growing tendency among the young women 19-29 aged [8].

Well recognized as a necessary public health goal is the prevention of eating disorders, due to these syndromes are serious conditions, with limited success of treatment and high morbidity and co-morbidity with other mental health conditions. Due to the fact, that less than one third from the sufferers with eating disorders are professionally treated and about 40-60% from the cases reach remission, the accent should be towards their prevention. Secondary or targeted prevention is focused on decreasing the effect of the supportive factors for these disorders, their early detection and treatment. The earlier the EDs are detected and addressed the greater are the chances for their full recovery. The pioneer in the eating disorders prevention field, E. Stice shoes in his numerous surveys during his several years of work with testing the Dissonance Based Eating Disorders Prevention Program that some of the early predictors to aim at prevention are the distorted body image, dieting behaviors (restricting the food intake in various ways), weight and depressive symptoms, and those are

the risk factors at focus on our scientific understanding and screening methodology, too [9, 10]. Taylor et al. (2006) discuss gender and weight/shape concerns to be consistently the most replicated and most potent factors for identifying students at risk of developing an ED [11].

Our research aimed at eliciting a comprehensive battery for screening not only of the specific ED pathology, but also of some risk factors, such as negative body image, weight and depressive symptoms. Another presumption is that the more prominent eating pathology the higher values for distorted body image are. Screens were classified by their purported screening function: identification of cases with (a) anorexia nervosa only; (b) bulimia nervosa only; (c) eating disorders in general; (d) partial syndrome, eating disorder not otherwise specified (EDNOS), or subclinical; (e) not a–d but at high risk.

A sequential procedure, in which subjects identified as being at risk during the first stage should be followed by more specific diagnostic tests during the second stage, might overcome some of the limitations of the one-stage screening approach as per Wiley Periodicals in 2004.

OBJECTS AND METHODS:

A thorough literature search was conducted to obtain studies of eating disorders concerning screening instruments for early detection of eating pathology in order to construct the appropriate battery of instruments. The study group of participants comprised of 201 females aged 18 to 45 (mean 24.65; SD= 6.91).

Statistical methods, implemented for analyzing the data included: descriptive statistic, student's t-test for discovering the differences among the mean values between variables in various measurements, correlation analysis, regression analysis. The statistical processing of the results is implemented with the Statistical programs SPSS – 19.0, 19.0 À – form for expert science; STATISTIÑA 8.0., AMOS-7, Lizrel – 8, 1.

RESULTS:

A battery of tools, including SCOFF Questionnaire (Sick, Control, One, Fat, and Food) (Morgan, 1999); Body Shape Questionnaire BSQ (BSQ; Cooper at al., 1987); Eating Disorder Diagnostic Scale (EDDS; DSM-5 Scale; Stice at al., 2013); BECK Questionnaire for depression (Beck Depression Inventory II- BDI; Beck et al., 1961; 1988) based on literature search, were determined to be most appropriate.

Eating Disorder Diagnostic Scale (EDDS) is developed and validated as a brief self-report scale for diagnosing anorexia nervosa, bulimia nervosa, and binge-eating disorder. Research has provided evidence of the reliability and validity of this scale in non-clinical populations [12]. The scale is reliable and valid in the investigation of these disorders and that it may be useful for clinical and research applications. The Dutch study of Krabbenborg et al. (2012) is the first to examine the psychometric features of the EDDS in a clinical population of eating disordered patients and was found to be an useful instrument in clinical settings and in aetiologic, prevention and treatment research [13].

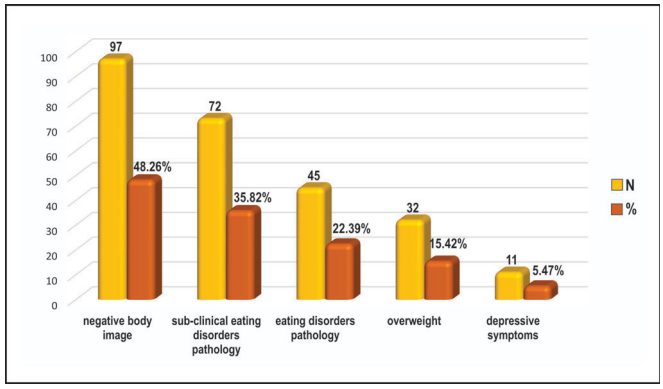
The **SCOFF questionnaire** demonstrates good validity compared with DSM-IV diagnosis on clinical interview. In the primary care setting it had a sensitivity of 84.6% and a specificity of 89.6%, detecting all true cases of anorexia nervosa and bulimia nervosa and seven of nine cases of EDNOS. Reliability between written and verbal versions of the SCOFF was high, with a kappa statistic of 0.82. The SCOFF, which has been adapted for use in diverse languages, appears highly effective as a screening instrument and has been widely adopted to raise the index of suspicion for an ED [14].

A self-report instrument **The Body Shape Questionnaire (BSQ)** is based on the notion that concerns of body image are common among young women and constitute a central feature of the eating disorders anorexia nervosa and bulimia nervosa. Although a number of assessment procedures have been developed that deal with various aspects of body image, the BSQ is one of the few measures that focus on concerns about body shape. The concurrent and discriminant validity of the measure have been shown to be good. The BSQ provides a means of investigating the role of concerns about body shape in the development, maintenance, and treatment of anorexia nervosa and bulimia nervosa [15].

Beck Depression Inventory (II- BDI; Beck et al., 1961; 1988). The BDI-II represents a highly successful revision of an acknowledged standard in the measurement of depressed mood and is widely used clinically instrument for the assessment of depression. The impact of indicated prevention and early intervention on co-morbid eating disorder and depressive symptoms has shown the preferences for its utilization in studies [16].

Over the course of the study 48.26% out of 201 participants represented negative body image, 35.82% subclinical eating disorders pathology, 22.39% eating disorders pathology, overweight 15.42% and depressive symptoms 5.47% (Fig.1).

Fig. 1. Spectrum of variables measured



Out of the participants, diagnosed with eating disorders pathology, the majority (91.1%) fulfilled the criteria for anorexia nervosa (AN), a small portion (8.8%) had bulimia nervosa (BN), and none completed the criteria for binge eating disorder (BED).

Among the participants displaying symptoms of eating disorders the most prominent symptoms of depression

were self-criticism, sleep disturbances, and mourning. Data on the co-morbidity rates of mood disorders and eating disorders pathology widely differs. According to J. Morris (2011) up to 75 % of suffers of ED will experience a depressive illness during the course of their lifetime [17]. Usually, different study results are due to the different study groups, settings, the methods of assessment, scales (clinician or self- report questionnaires, design (cross sectional or longitudinal) etc. The most informative risk factor studies for ED are longitudinal studies [18]. Nevertheless, depression influences ED severity, course, treatment response and outcome. In a study Herpertz-Dahlmann et al (2014) put an accent on the correlation of depressive symptoms and ED. Early symptoms of depression showed a significant relationship with extreme underweight in young adulthood and propose youth with depression should be monitored for the development of restrictive eating disorders [19].

DISCUSSION:

A number of studies validate that eating disorders are real, serious, life-threatening illnesses requiring prevention, early detection and treatment. Eating disorders can be characterized into four main types: anorexia, bulimia, binge eating disorder, and sub-threshold eating disorders. The discrepancy between the weight and perceived body image is a key to the diagnosis of anorexia nervosa. There are clinical discriminations between the two disorders. Patients with anorexia are delighted with weight loss and express fear of gaining it. Bulimic patients hide their binge eating and purging behavior and often have normal weight. There are other characteristics that differ, but they have one common feature – a high co-morbidity with depression and anxiety. One of the main difference between sub-threshold eating disorder pathology and eating disorders pathology, namely, the criterion of distress may be useful for defining clinically meaningful forms.

Several limitations of the study should be considered: only female participants, mainly students, a cross- sectional design, while the most informative risk factor studies, as we mentioned, are longitudinal studies. Nevertheless, it generates some proposals and puts an accent on the integrated approach to the prevention of these disorders.

CONCLUSION:

Our following efforts in terms of the research direction are oriented towards developing and improving strategies for prevention and early intervention for younger, as well as, middle aged people with distorted eating behaviors and ED.

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