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Men's eating disorders – A literature review

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ABSTRACT

Introduction and purpose: Eating disorders belong to the group of mental diseases characterized by significant somatic complications and high mortality. There is a common opinion that these disorders mainly affect women. Such assumptions may result in limited knowledge of the diagnosis and treatment of an eating disorder in the male population. The aim of this study is to summarize the current knowledge about eating disorders among men, including binge eating disorder (BED), anorexia nervosa (AN) and bulimia nervosa (BN).

Description of the state of knowledge: It turns out that the problem of eating disorders among the male sex is not so rare- it is estimated that approximately 10 million US men will experience an eating disorder at some point in their lives. The most common eating disorder among men appears to be binge eating disorder (BED). Men are also more likely to report binge eating than women. AN and BN occur much less frequently than BED in the male population. The symptoms of anorexia nervosa and bulimia nervosa may differ between men and women. More and more often we observe a development of a certain type of muscle dysmorphia among men, the so-called "reverse anorexia". Eating disorders carry a number of medical complications such as cardiac disorders, electrolyte disturbances, digestive problems and skeletal disturbances. Therapeutic interventions in the treatment of male eating disorders should take into account gender-specific problems.

Conclusions: The real number of men suffering from eating disorders may be underestimated due to the neglect of the problem in the context of the male gender. It also results in poorly developed diagnostic and support schemes for men struggling with this problem. More research is needed on the topic of eating disorders in this group of patients as it will help to develop better diagnostic and therapeutic regimens adapted to the male gender.

Key words: eating disorders, males, binge eating disorder, anorexia nervosa, bulimia nervosa

INTRODUCTION AND PURPOSE:

Eating disorders belong to the group of mental diseases characterized by significant somatic complications and high mortality. People suffering from eating disorders feel the consequences of the disease not only in the personal field, but also in the family and society life. There is a common opinion that these disorders mainly affect women, and most scientific publications develop this topic mainly in the context of the female gender. Only almost a hundred years after the first clinical description of anorexia nervosa (AN), the concept of eating

disorders in relation to the male sex appeared in the literature [1, 6, 7]. The misapprehension of eating disorders as a predominantly female problem may result in limited knowledge of how to diagnose and treat them in the male population. The efforts to remedy this are particularly important in the light of the results of epidemiological studies emphasizing that doctors will increasingly treat men with eating disorders in their practices [5], because the incidence of eating disorders in men is growing [4], even faster than in women [1]. Thus, greater public and health care is required to prevent potentially life-threatening complications.

The aim of this study is to summarize the current knowledge about eating disorders among men, such as binge eating disorder (BED), anorexia nervosa (AN) and bulimia nervosa (BN), including the epidemiology, characteristics of these disorders in this group of patients, as well as complications and therapeutic interventions.

DESCRIPTION OF THE STATE OF KNOWLEDGE:

Eating disorders among men are a marginalized topic. We are socially used to the idea that this is a problem that mainly affects women. Evidence of the lack of consideration of the male gender in the context of eating disorders is, *inter alia*, the fact that for decades in the DSM classification of eating disorders, amenorrhea was one of the criteria for anorexia nervosa. Only in 2013 this point was removed with the male sex in mind [4, 9, 10]. Nevertheless, the historical treatment of eating disorders as a female condition, and the matching of classification schemas and assessment methods based on this assumption, make research into the epidemiology of eating disorders in the group of male patients significantly difficult. Such stereotypical treatment of the problem as female is also associated with the feeling of shame and isolation of the affected men, which leads to reluctance to seek help [17, 18, 19, 20, 21].

It turns out that the problem of eating disorders among the male sex is not so rare. Based on data from population studies, it is estimated that approximately 10 million US boys and men will experience an eating disorder at some point in their lives [61, 62]. It is reported that even every fourth person with eating disorders is a man [4]. Almost 20% of the eating disorder cases in the Canadian population are men [4]. Studies conducted on the UK population show similar data - the percentage of men suffering from eating disorders is approx. 20-25% [4, 11]. Pre-pubertal male eating disorders account for more than 1 in 4 cases in specialized clinics in Australia [1, 12].

The most common eating disorder among men appears to be binge eating disorder (BED). According to the current DSM-5 diagnostic criteria, we can diagnose BED when objective binge eating episodes occurred with a minimum frequency of once a week for a period of 3 months. This disorder in men was much more frequent than anorexia nervosa or bulimia nervosa [4]. According to some data, its prevalence is almost equal to that of women [22]. In fact, in one publication, scientists report that men account for 40% of all BED cases [14, 15]. Estimated lifetime prevalence of BED was 0.78% [38], 1.55% [39, 40] and 2.0% [41, 42]. A study conducted in Germany noted that the prevalence of any binge eating disorder was 4.2% for both men and women [59]. A study from the United States indicated values of 7.5% for men, compared to 11.2% for women [60]. One study showed that the incidence ratio of BED between men and women was 3: 1 [13]. On the other hand, in the sample assessing the prevalence of binge eating twice a week for 3 months a year, the result for men was 1.7% and it was not significantly lower than for women (2.5%) [16]. Regardless of comparisons in the frequency of the disorder among the sexes, studies agree that binge eating appears to be the most common eating disorder in the male population. Men also appear to be more likely to report binge eating than women [22].

AN and BN occur much less frequently than BED in the male population. According to a study by Raevuori, Keski-Rahkonen, and Hoek, the lifetime prevalence of anorexia among men is 0.2% -0.3%. [8]. Another publication confirms similar values: 0.1-0.3% [1, 16, 23-26]. In the years 2010-2017 in the Polish population, anorexia nervosa affected about 100 men in each year of observation [5]. While it has historically been assumed that excess weight control behaviors are characteristic of women, many studies confirm that this is by no means a phenomenon that does not apply to men. A German study showed that 7.7% of men (in the case of women - 11.9%) maintained an extreme caloric restriction at least once in the last month [22, 32]. Another study assessed the high school student population for their tendency to restrict their diets and to engage in compulsive exercise. It was estimated that the frequency of eating restriction episodes at least three times a week was around 2.3% in the group of young men (significantly lower than in women, where it was 11.5%). On the other hand, regular excessive exercise in order to achieve thinness, a symptom characteristic of AN, was reported by approximately 5.3% of men, which turned out to be similar in both sexes (women - 5.4%) [24, 29, 30]. The symptoms of anorexia nervosa may differ between men and women. Instead of the typical women's striving for thinness and a "flat stomach", here we can observe focusing on thinness in order to emphasize and strengthen the muscles [1]. This is due to the desire among adolescents and young men to be stronger and muscular [5]. However, we cannot generalize the symptoms of anorexia in men in this way, because there are also groups of patients who focus more on thinness than muscle [27]. Men with eating disorders after normalizing their body weight may still misjudge the level of adipose tissue and feel serious anxiety due to the disturbed body image [28]. Overriding the fact that men may also aim at being too skinny may contribute to the formation of even greater barriers and problems with the assessment of disorders, as well as difficulties in admitting the disease.

The prevalence of bulimia nervosa among men during lifetime ranges from 0.1% to 1.6% [1, 16, 23, 24, 25]. It is believed that men account for 1/3 of all BN cases [1, 16, 31]. Like AN, BN may also manifest in a different way

in males than in females. Men with symptoms of bulimic syndrome have fewer problems with eating and loss of control over it [1]. Less frequently, they also report a tendency to induce vomiting and use laxatives [5, 33, 34]. The differences in the symptoms of BN in the male sex may have an impact on a reduced number of diagnoses, as induced vomiting or improperly used laxatives are diagnostic criteria for the disease, and they appear less frequently in the male population [5]. One study looking at eating disorder behavior showed that 0.4% of men experienced vomiting in the last month, and 0.8% of men used laxatives; for comparison, these behaviors occurred in women with the frequency of 1.3% and 2.4%, respectively [22, 32]. In the Health Omnibus Surveys behaviors such as induction of vomiting, the use of laxatives and diuretics once a week in 2005 were shown in 1.0% of men, and in 2008 in 0.5% [35, 36]. An extremely restrictive diet and "purging" behaviors were more common in women, but after comparing the results from 2008 with those shown in 1998, it was concluded that this type of behavior increased faster in men over a 10-year period - in 2008 they used both dietary restrictions and purging five times more often [37].

As mentioned earlier, the hallmark of male eating disorders may be to focus on a twofold goal - achieving leanness and sculpting muscles at the same time. This shapes the characteristic patterns of behavior in men struggling with these diseases. At this point, it is necessary to mention the phenomenon of the development of a certain type of muscle dysmorphia among men, the so-called "reverse anorexia" [1], noticed not so long ago. Although this unit in DSM-5 is currently classified as a subtype of body dysmorphism disorder, some scientists emphasize that it would be better qualified to include it in the eating disorder group [48, 49]. The problem of "reverse anorexia" was analyzed on the basis of a study by a group of bodybuilders [45]. The subjects showed similarity to patients with anorexia nervosa through the presented deep distortion of their own body image. We are talking about "reverse anorexia" because many of the participants, despite their body shape, in fact considered themselves thin and small. Men experiencing this muscle dysmorphia may have obsessive thoughts about lack of muscle tone, which can result in excessive weight lifting, increasing exercise intensity, stiffness in adherence to dietary regimen, and the use of anabolic steroids. All these activities are aimed at even greater development of muscles [1, 46, 47].

When analyzing the data on the age of onset of eating disorders in men, it can be concluded that they are quite inconsistent. Some studies show that there is no gender difference in the age of eating disorders, including early onset (<14 years) [23, 43]. Other studies claim that the rates reported in adolescents are lower than in adult men, which may suggest a later onset of eating disorders in men compared to women, whose incidence peak is before the age of 25 [1, 2]. This is confirmed by a study which found that in men hospitalized with AN, the onset of the disease was later than in women [44]. Some data say that the later onset may be more specific for AN than for other male eating disorders [44]. However, given the contradictory evidence about the age of onset of eating disorders among men, and the evidence of a significant undercutting of male eating disorder prevalence rates, it is important to bear in mind the need for further research on this topic.

Eating disorders have a number of medical complications and can affect any system in the human body. A clinical trial evaluating a group of adolescent boys with eating disorders showed that more than half of them presented unstable life parameters indicating admission to hospital [50]. Bradycardia was present in 39% of cases, and orthostatic heart rate changes in 12%. Electrolyte disturbances are very common in this group of patients. One of the trials showed that in the case of boys with eating disorders, a quarter of the respondents had a reduced level of potassium, 5% had a low level of phosphorus, and 10% had a low level of calcium [52]. Abnormalities were also observed in the scope of blood counts - anemia was present in 1/3 of cases, leukopenia in 24%, thrombocytopenia in 19%, and neutropenia in 10% [52]. In terms of the digestive system, complications such as elevated liver enzymes [53] or impaired gastric emptying [54] have been observed. Binge eating resulted in the development of hyperlipidemia in men [51]. In 40% of adolescents with eating disorders, abnormal levels of total cholesterol have been observed [52]. Disturbances in the area of the bone skeleton were also noticed. Significant deficiencies in bone mineral density were found in adolescent boys with anorexia nervosa [55]. In adult men with anorexia nervosa, a low bone mineral density Z-score has been documented (<-2 in ≥1 place) [56]. In men over 40 with anorexia nervosa, the risk of fractures was higher than in healthy subjects of the same age [57].

Therapeutic interventions in cases of male eating disorders should take into account the standard regimens used so far in the treatment of these diseases, including an additional approach for male-specific problems [34]. As we know, a point of particular importance for men may be the desire to be as muscular as possible. It may be helpful to work on trying to create a new definition of masculinity, and to attach more importance to personal characteristics than just external appearance [34]. A big difficulty for men with eating disorders is admitting to the disease, because it is associated with a great sense of shame, which is additionally exacerbated by the common belief that eating disorders are a typically female problem. During the treatment of eating disorders, men reported a desire to obtain information about eating disorders in the context of their gender [58]. Health information focused on women about the side effects of weight loss, including amenorrhea and female infertility, left men embarrassed and frustrated (58). Therefore, it is recommended to create only male therapeutic groups, in which, through empathy found in the group, it will be easier to become sensitive to your own problems and

gain a sense of security. This may encourage the disclosure of difficulties and make men realize that the problem they are struggling with is not only a female ailment [34]. Therefore, it is necessary to focus on the points of interest characteristic of men: body image, overuse of exercise, media pressure, and combine it with therapeutic techniques used so far in the case of women. Among psychotherapeutic interventions, cognitive-behavioral therapy and dialectical-behavioral therapy seem to be effective [34].

CONCLUSIONS:

While eating disorders have so far been considered a female problem, there is evidence that it is an increasingly common phenomenon among the male sex. The most common eating disorder in men appears to be binge eating, with anorexia and bulimia being less common. Men may manifest eating disorders in a slightly different way than women, placing more emphasis on muscularity than thinness itself. However, we cannot apply this assumption to the whole gender, because there are also cases where the goal for the patient is to become as thin as possible. An interesting problem observed among men is also the so-called "reverse anorexia", in the case of which we deal with muscle dysmorphia - sick men consider themselves too thin and small, while in fact they are very muscular - this leads to excessive compulsive exercise, dietary regime and use of steroids. Eating disorders have serious health, professional and social consequences. The real number of men suffering from eating disorders may be underestimated due to the neglect of the problem in the context of the male gender so far. It also results in poorly developed diagnostic and support schemes for men struggling with this problem. More research is needed on the topic of eating disorders in this group of patients as it will help to develop better diagnostic and therapeutic regimens adapted to the male gender.

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