

Diagnostic Approaches for Eating Disorders in Children in Primary Care: Review

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Abstract: This article provides an update of the current ED literature in children and adolescents. Anorexia nervosa (AN), bulimia nervosa (BN) are presented. The epidemiology, implications, and diagnosis of EDs are reviewed and evidence-based treatment in the primary care are highlighted. A comprehensive search was conducted through major databases; Ovid MEDLINE, Ovid EMBASE, Ovid Cochrane Central Register of Controlled Trials, through November, 2017. The search strategy used Mesh terms; eating disorders, pediatrics, children, AND primary care. Despite their high prevalence, associated morbidity and mortality, and available treatment options, eating disorders (EDs) continue to be underdiagnosed by pediatric professionals. The efficient management of anorexia nervosa and other ED problems depends upon a complete analysis of physical status, psychological functions, risk and treatment by primary care providers. The rate of weight loss is also an essential indication. In kids and younger teenagers, reference to BMI standards is needed, but it is additionally of note that children have relatively small fat stores comparing to the adults. Psychosocial assessment should be taken into account as a treatment option.

Keywords: eating disorders (EDs), Anorexia nervosa (AN), bulimia nervosa (BN).

1. INTRODUCTION

Kids and teenagers with eating disorders develop acute and chronic clinical complications impacting several organ systems. Starvation and dehydration lead to medical difficulties more swiftly in kids and teenagers compared to in grownups [1]. Extensive and disabling problems are possible when malnutrition occurs during normative durations of bone development and body organ growth [2]. Eating disorders are connected with significant biological, emotional, and social morbidities in this age group and are the 3rd leading root cause of chronic disease in teenage women [3]. Despite this, patients with consuming disorders consult more often prior to diagnosis with a variety of symptoms, mental, gynaecological and gastroenterological [4]. The difficulties facing health care clinicians in medical diagnosis obtain partially from illness-related elements, such as ambivalence, denial, secrecy and shame, which make it difficult for victims to be open with their physicians. GPs might have little experience with eating disorders, and feel nervous about their management or unsympathetic towards a health problem that could appear partly self-inflicted. Patients could report that the issue is not always taken seriously enough if provided at a beginning. Specialists risk failing to determine eating disorders if they do not consider the fact that these illnesses also occur in teams not commonly thought about to be in danger, such as kids, males and those from ethnic minority teams, and reduced social classes.

This article provides an update of the current ED literature in children and adolescents. Anorexia nervosa (AN), bulimia nervosa (BN) are presented. The epidemiology, implications, and diagnosis of EDs are reviewed and evidence-based treatment in the primary care are highlighted.

2. METHODOLOGY

A comprehensive search was conducted through major databases; Ovid MEDLINE, Ovid EMBASE, Ovid Cochrane Central Register of Controlled Trials, through November, 2017. The search strategy used Mesh terms; eating disorders, pediatrics, children, AND primary care. Conference proceedings of major neurology, neurosurgery, and stroke organizations were searched manually to identify relevant abstracts and potential articles. we also searched references of

potentially eligible articles were reviewed to identify all potentially eligible articles. and we limited our search in English language, and human trials only.

3. DISCUSSION

- **Epidemiology:**

Pediatric EDs are more usual compared to type 2 diabetes, and the epidemiology is transforming, with greater rates of EDs in more youthful children, boys, and minority groups [6]. The life time prevalence of AN is in between 0.5% to 2%, with a peak age of beginning of 13 to 18 years [5]. AN has a mortality rate of a minimum of 5% to 6%, the highest possible mortality rate of any psychiatric disease. The life time prevalence of BN is higher at in between 0.9% and 3%, with an older age of onset of 16 to 17 years. Although death rates in BN are approximated to be ~ 2% [7], the risk of life time suicidality and suicide attempts in BN are a lot higher. On the basis of the criteria from the 4th edition of the DSM, the majority of teenagers were detected with EDs not otherwise specified (EDNOS), a team of heterogeneous disorders composed mainly of subthreshold AN or BN [8]. The approximated life time prevalence of EDNOS in teens is 4.8% [9]. Rates of clinical complications in EDNOS resemble full-threshold disorders. Although female patients represent many ED medical diagnoses, males have accounted for 10% of ED situations over the past years, with some research studies reporting as much as 25% of instances being male. Furthermore, more youthful patients identified with EDs are more probable to be boys, with a women to male proportion of 6 to 1, compared with a 10 to 1 proportion in adults [10]. Dieting habits are a danger factor for creating an ED and are highly prevalent; ~ 50% of ladies and 25% of boys report dieting throughout the past year [11]. Furthermore, 30% of girls and 15% of boys had disordered eating habits serious adequate to warrant medical evaluation, and 9% of women and 4% of boys reported everyday self-induced throwing up [12].

- **Anorexia Nervosa:**

The majority (95%) of patients with anorexia nervosa are female. The occurrence of anorexia nervosa has been estimated to be regarding 1% in adolescent girls, although it could be subclinical in as much as 10% of girls aged 16 to 25. Although anorexia nervosa is usually thought about an illness of Caucasians, consuming disorders and body dissatisfaction appear to be typical in African-American, Asian, and Hispanic populaces as well [13]. Various other danger elements for anorexia include being a middle- to upper-class woman, involvement in activities valuing slimness (e.g., ballet, acrobatics, modeling), and a family history of an eating disorder. An episode of anorexia nervosa is commonly precipitated by a demanding situation [14]. Anorexia nervosa could be related to various other psychiatric medical diagnoses, consisting of an approximated 25% life time prevalence of obsessive uncontrollable condition and a 50% to 75% frequency of dysthymia [15]. Concerning 40% to 45% of anorexics recover entirely, 30% improve, and 25% have a chronic course. The death rate has to do with 10% to 15%, the greatest of any kind of psychiatric disorder. Causes of death include hunger, suicide, and clinical complications. Mortality is enhanced in those with a late age of beginning, long duration of disease, and severe weight loss [14]. On the whole, a poorer prognosis is related to lower preliminary weight, disrupted family relationships, being male, the existence of throwing up, longer duration of symptoms or failing to respond to earlier therapy.

- **Bulimia Nervosa:**

The estimated frequency of bulimia nervosa is 3% to 10% of adolescent and university age females in the US; however, since bulimics look healthier, the disease can be more difficult to detect. Bulimia typically starts after an unsuccessful attempt at weight loss or when the patient discovers that removing, fasting, and exercise could compensate for bingeing. Factors associated with establishing bulimia consist of a background of childhood or sexual abuse, a history of psychoactive substance abuse or dependence, and a family history of alcoholism or depression [14]. Anxiety and mood disorders are common in bulimics. The diagnosis in bulimia is usually far better compared to with anorexia nervosa: greater than 50% recuperate, and few become anorectic. Regarding 30% maintain a "nonspecified eating disorder." Of those that recuperate, 25% keep some abnormal eating routines. Factors associated with a raised mortality rate in bulimia consist of both premorbid and paternal obesity [16]

Lots of patients identified by the primary care medical professional may not meet full DSM standards for a medical diagnosis of anorexia or bulimia nervosa, yet will show dramatically disordered eating and workout patterns, consisting of either limiting and/or binge consuming with or without purging actions (eating disorder not or else defined). When identified in the younger patient, this may stand for milder illness, which is more difficult to spot, however where the outcome is likely to be better; alternatively, in the older patient, it may represent the chronic sequelae of partial

recuperation from a full-on eating disorder. In this last group, psychological and nutritional treatment choices may have been worn down, and the primary care physician will be responsible for checking the program of a chronic health problem. The specific etiology of EDs is unknown; there is thought to be an interface in between hereditary and organic predispositions, ecological and sociocultural influences, and psychological traits. Proof continues to increase that EDs are heritable, with family members of ED patients having 7 to 12 times greater danger of creating an ED [17]. Twin researches have estimated heritability of AN in between 33% and 84% and BN between 28% and 83% [17]. Study is recurring to identify particular chromosomes, genetics, and proteins that might contribute in the growth of AN and BN. There are also neurobiological factors being examined in EDs, however it is uncertain whether they add to the advancement of EDs or result from the physiologic alterations caused by EDs [18].

- **Diagnosis:**

New diagnostic requirements for EDs are published in the DSM-5, released in 2013 [19]. Substantial changes were made in an effort to enhance the accuracy and accuracy of ED diagnoses, which will possibly allow for even more targeted treatment. One major limitation of the 4th version of the DSM was the diagnostic category of EDNOS, which accounted for the majority of ED diagnoses in the majority of pediatric series. EDNOS was a nonspecific analysis category that encompassed a wide spectrum of EDs, including subthreshold AN, subthreshold BN, and binge ED (BED). This ambiguity resulted in misunderstandings of the medical significance of the problem and difficulty selecting one of the most efficient therapy. To deal with these concerns, the DSM-5 expands the inclusion standards for both AN and BN, BED is currently an official diagnosis, and other EDs have been more cleared up [20].

Teenagers with AN usually existing with dramatic weight-loss or poor development and could be preoccupied with food and weight. Restriction of whole food groups (ie, new-onset vegetarianism) or calories, and the advancement of food rituals are commonplace. They typically choose not to eat foods they once enjoyed, avoid meals with family and friends, and overexercise in a rigid manner. Pubertal milestones such as straight development or menstrual cycles are usually influenced. DSM-5 requirements for AN take into consideration estimated weight and development [21] in kids and adolescents versus comparisons to populace standards. They explain a limitation of power consumption relative to demands, leading to a below anticipated body weight. Additionally, behavioral criteria are taken into consideration equivalent to cognitive requirements, relating fear of weight gain to failure to put on weight when faced with low body weight or growth stunting. Amenorrhea has been removed as a requirement due to the fact that its use was never validated [21] and omitted males, premenarchal females, and teens that remain eumenorrheic regardless of low body weight. Finally, body photo distortion or an uncommon focus on weight or shape are still consisted of as requirements but are not required if the patient persistently fails to identify the seriousness of his/her low body weight.

The characteristic of BN is recurring episodes of binge eating accompanied by unacceptable offsetting habits. An unbiased binge episode includes eating more food in a discrete amount of time than many people would certainly eat, coupled with really feeling a loss of control. DSM-5 requirements for BN require objective binge episodes and succeeding offsetting habits at least when per week for 3 months. Patients with BN may be of any kind of weight and frequently have frequent weight fluctuations from liquid shifts. Caregivers or peers could notice the advancement of mood swings, surreptitious habits (ie, raised time in the bathroom after dishes, hiding food), or durations of fasting or extreme exercise [19].

The differentiating function between BED and BN is that episodes of binge eating are not connected with unacceptable offsetting actions. Patients with BED and BN show marked distress regarding binge eating and will certainly usually binge in secret. The regularity of recurrent episodes of binge consuming was decreased in the DSM-5 similar to BN [19].

Added brand-new classifications in the DSM-5 with most likely effect are avoidant limiting food intake disorder, various other defined feeding and EDs, and unspecified feeding and ED. "Avoidant restrictive food intake problem is not unusual in youngsters [20] and comprises a variety of restrictive eating habits (ie, swallowing phobias, textural aversions) that do not include a concern of weight gain or distorted cognitions however lead to considerable physical and emotional impairment. Various other defined feeding and EDs refers to atypical AN (normal-weight AN), subthreshold BN, removing problem, and night eating syndrome. Unspecified feeding and ED consists of other medically significant EDs that do not fit the abovementioned groups [19].

- **Treatment:**

It has been established and approved that behavior-based family members therapy utilizing a team technique is presently taken into consideration best practice in the treatment of ED in children and teenagers. Nevertheless, according to the results of this research study, only a 3rd of the participants reported always involving households in therapy, and of these, it is vague exactly how this involvement equates into practice. For example, although psychologists reported inclusion of

families in their treatment regularly than did family doctor, the majority of them reported providing private therapy rather than family members treatment as a primary service rendered. While this approach may be useful with grown-up populaces, it is ruled out best method when working with kids and teenagers. Therefore, when the small percentage of clinicians does report consisting of family members in treatment, it may be in a less direct, more consultatory role, as opposed to being straight energetic in the treatment. It is assuring, nevertheless, that a large number of clinicians, medical professionals and psycho therapists alike, list references to experts as an usual service path.

• **Implications:**

In pediatric ED, the earlier the clinical diagnosis and therapy, the better the outcome. Undoubtedly, this research study recommends that in Ontario, Canada, there appears to be a should enhance the training of, and assistance for primary care medical professionals to which patients with ED might offer. Specifically, doctors and psycho therapists could gain from additional training around screening, multi-informant assessment techniques, in addition to evidence-based treatments. Boosted screening, assessment and therapy methods might improve the quality of life of children with ED and their family members, produce shorter dimensions of stays in specialized therapy centers, and, subsequently, reduce complete health-care expenses. With respect to testing and evaluation specifically, it could in addition be worthwhile to promote inter-disciplinary collaborations to increase exploration rates by both disciplines, by utilizing their matching strengths. Ultimately, the results of the existing research study have implications for therapy facilities that just accept referrals from a scientific physician (family doctor, pediatrician, etc.) prior to doing a multi-disciplinary analysis. It could be that, for eating conditions, as long as a clinical examination is performed, references from caregivers, school personnel, and more, could also be taken into account.

4. CONCLUSION

Despite their high prevalence, associated morbidity and mortality, and available treatment options, eating disorders (EDs) continue to be underdiagnosed by pediatric professionals. The efficient management of anorexia nervosa and other ED problems depends upon a complete analysis of physical status, psychological functions, risk and treatment by primary care providers. The rate of weight loss is also an essential indication. In kids and younger teenagers, reference to BMI standards is needed, but it is additionally of note that children has relatively small fat stores comparing to the adults. Psychosocial assessment should be taken into account as a treatment option.

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