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Original article

Transdiagnostic vs. disorder-focused perspective in children and adolescents with eating disorders: Findings from a large multisite exploratory study

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ABSTRACT

Background: The transdiagnostic model of eating disorders (ED) proposes common cognitive mechanisms in patients with ED psychopathology. Little is known about their role in the maintenance of ED in children and adolescents. This study aimed to determine whether the relationships between key factors (low self-esteem, weight and shape control, clinical perfectionism, interpersonal problems, distress and mood instability) and core maintaining mechanisms (binge-eating and restraint) would support a transdiagnostic theory in young patients.
Methods: A total of 419 patients (mean age 14.7 ± 2.14 years; age range: 7–18 years; males 13.8%) diagnosed with an ED were assessed in six Italian clinical centers in 2013. Multiple comparisons between ED diagnosis, correlation analysis and principal component analysis (PCA) were performed.
Results: Of the entire collective, 51.5% of patients were diagnosed with Anorexia Nervosa (AN), 12.3% were diagnosed with Bulimia Nervosa (BN) and 36.2% with Eating Disorder Not Otherwise Specified (EDNOS). In PCA, the core ED mechanisms, dietary restraint and binge eating, acted as poles of attraction of the other variables. The AN group was particularly linked to restraint and the BN group was particularly related to "Bulimia". Considering the diagnostic subtypes, there were no significant differences between the anorexic binge-purging group, bulimic purging group and bulimic non-purging group, which constituted a unique cluster related to affective, interpersonal problems and to perfectionism, indicating a very homogeneous subgroup. Restricting anorexic group (AN-R), related to shape concern and anxious-depressed mood, was not linked to the other subtypes. EDNOS appeared to be opposed to the AN-R group; the binge eating disorder group appeared to be independent from others.
Conclusion: Our results suggest the presence of both specific and transdiagnostic mechanisms in ED subtypes, whose knowledge is of relevance for clinical practice.

1. Introduction

Fairburn and colleagues have proposed a model suggesting that common mechanisms operate across all eating disorder (ED) diagnostic categories [1,2]. This transdiagnostic conceptualization aims to identify processes that are common across ED, with the ultimate aim of improving their clinical treatment. Due to the life-threatening potential of these disorders, the importance of developing effective treatment is a priority. Fairburn's transdiagnostic approach, developed from traditional Cognitive Behavior Therapy, proceeds from the notion that all eating disorders have similar characteristics and underlying psychopathology reflected in analogous attitudes and behaviors [1]. In a number of clinical cases the diagnosis migrates from anorexia to bulimia or from bulimia to EDNOS [2]. The majority of eating disorder patients (over 50%) are originally diagnosed with EDNOS, which, before the development of the transdiagnostic model, was not covered in studies assessing the efficacy of eating disorder treatments. As a

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result, there were no specific recommendations for the management of people diagnosed with EDNOS [2].

Numerous interrelated factors have been implicated in the development of ED, and epidemiological studies have identified risk and protective factors common to these diseases [3,4]. A comparison to distinguish overlapping and specific factors between various types of ED can be difficult because of discrepancies across study designs and samples, as well as diagnostic procedures and measures. Some of these shortcomings could be tackled by assessing specific features of different ED-related conditions within the same study. Although over the years research efforts have led to some evidence for the validity of a transdiagnostic cognitive-behavioral model of ED, only a few studies have examined this model in children and adolescent patients [5–10].

EDs are increasing in prevalence with remarkable rapidity, affecting an ever larger part of the population. The age of onset of the disease is lower, with a worsening of the prognosis and the need for differential treatments; The male/female ratio has changed and the number of males is growing [11,12].

Although "binge-eating" behaviors and compensatory behaviors (e.g., purging, fasting, excessive exercise) have a low prevalence in young patients [13,14], a "continuum" between BN and AN exists, with a frequent transition from one disorder to another [15]. Some authors [16–18] agree in reporting an increased incidence among children exhibiting an ED of other psychiatric conditions such as depression, anxiety or obsessive-compulsive disorder in children with an ED [19–21].

Despite the presence of neuropsychological disturbances in people with ED being known (e.g., ruminations and obsessions about weight, shape and eating), and personality traits such as perfectionism and impulsivity [22,23], they are neglected/not included in the diagnostic criteria (e.g., fear of weight gain and a sense of lacking control) [24]. Most EDs emerge during adolescence, a period of brain reorganization [25]; malnutrition, during this crucial period, can negatively affect illness trajectories. The biological findings in ED can be best understood as the result of disturbed eating behaviors, but other factors could be causally linked as risk and maintaining factors. All dominant models of the ED implicate personality variables in the emergence of weight concerns and the development of specific symptoms such as binge-eating and purging [12].

In Fairburn's transdiagnostic model, eating disorders are understood as cognitive problems [26]. According to this approach, the underlying cause of all eating disorders is the same set of dysfunctional self-worth beliefs: the "core psychopathology" that involves the overestimation of body weight, appearance, and their control [1]. In eating disorder patients the sense of self-esteem is primarily determined by their weight, figure, and the ability to control them. Consequently, they engage in behaviors that reinforce core psychopathology [26]. Moreover Fairburn identified other mechanisms that maintain core psychopathology, such as shape- and weight-checking (weighing oneself on a daily basis, comparing oneself with others) and/or shape- and weight avoidance (avoiding mirrors, swimming pools, and trying on clothes; never weighing oneself), interpreting each sensation or discomfort as "a sense of being fat," marginalization of activity in other life domains (social withdrawal), as well as preoccupation with thoughts about food, weight, and appearance. In addition, some patients display maintenance mechanisms typical of general psychopathology. These are clinical perfectionism, low self-esteem, and interpersonal difficulties [1]. These mechanisms do not necessarily occur in every patient and they do not always coincide in time with core psychopathology. These mechanisms do not automatically lead to eating disorders. The fundamental condition is that the individual has a set of dysfunctional convictions regarding the significance of weight and shape, and the priority of having them under control. The transdiagnostic therapy protocol was developed based on 30 years of experience, observation, and revision of the traditional cognitive behavioral approach by trial and error. CBT-E (Cognitive Behavior Therapy-Enhanced) was designed as individualized intervention involving modules selected and ordered according to a specific problem conceptualization developed together with the patient [26]. The main goal of Cognitive Behavior Therapy in the transdiagnostic model is to improve patients' quality of life by achieving a resolution of symptoms. Thus, the primary objective can be achieved by modifying the convictions about the importance of weight and shape, and having them under control. Beliefs can be modified directly, by replacing an earlier way of thinking with a new, more adaptive one or indirectly, by disrupting the mechanisms that maintain maladaptive thinking. Maintenance mechanisms are disrupted through the achievement of specific objectives, such as normalization of eating habits, decreased dietary restraint, elimination of the number of binge-eating episodes and compensatory behavior, giving up on weight and shape checking/avoidance, learning to deal with emotions in other ways than by eating, and becoming more active in other areas of life. In sum, the cognitive-behavioral transdiagnostic model proposes that a system of dysfunctional self-evaluation is fundamental to the maintenance of ED. Self-worth is defined in terms of control over eating, weight or shape that maintains the effort of dietary restraint. Inflexible dietary rules are difficult to maintain, and "binge-eating" behavior occurs when cognitive control over eating is squandered. Several mechanisms are responsible for ED maintenance: 1) Low self-esteem is proposed to motivate individuals to pursue achievement in the valued domain of weight and shape control to increase feelings of self-worth; 2) Clinical perfectionism, i.e., evaluation of the self in terms of achievement in the valued domain of eating, weight and shape, thereby increasing efforts of dietary restraint; 3) Interpersonal problems may lead to increased efforts of dietary restraint in an effort to achieve the perceived socially valued ideal; 4) Mood intolerance may encourage binge-eating and purging as a way to cope with the experience of intense states of distress and severe mood instability. The aforementioned model of ED suggests that whereas maintaining mechanisms may differ at the individual level, they do not differ at the diagnostic level [2,26].

Standardized measures of personality traits generally confirm clinical descriptions of individuals with anorexia nervosa restrictive subtype (AN-R) as constricted, conforming, and obsessional individuals. Another picture suggesting affective instability and impulsivity has emerged from the assessment of subjects with BN. However, considerable heterogeneity exists within ED subtypes, and a number of special problems complicate the interpretation of data in this population. These include young age at onset, the influence of state variables such as depression and starvation sequelae, denial and distortion in self-report, and the instability of subtype diagnoses.

The present explorative research aimed to assess in a large multicenter transdiagnostic sample of patients with ED whether the cognitive behavioral transdiagnostic model would fit in young patients. The aim of the study was to determine the extent to which relationships within this model are equivalent between different ED diagnoses, testing the correlations between all the additional maintaining factors and core eating disorder maintaining mechanisms in AN, BN and EDNOS. Specifically, the descriptions of the behavioral and psychological traits are finalized to analyze a possible preliminary model of "spectrum" of ED in childhood and adolescence using the subtypes of the DSM-IV-TR diagnosis.