Editorial: New Developments in the Psychology, Neuropsychology and Psychotherapy of Eating Disorders

PSYCHOLOGY

Repeated studies show that traits such as inflexibility/rigidity, resistance to change, obsessionality, perfectionism, inhibition, avoidance and anhedonia may occur to a greater extent in patients with anorexia nervosa (AN) vs. controls (1). These personality and behavioral traits may constitute an intermediate phenotype between genes and vulnerability to AN (2).

Patients with bulimia nervosa (BN) and purging disorder (PD) may show many of the obsessional/perfectionistic core traits characterizing AN. Nonetheless, they simultaneously show elevated rates of impulsivity and affective instability that are likely associated with their erratic binge/purge consummatory patterns (3). This may lead to continuous oscillations between over-control and under-control related behaviors against a background of perfectionistic-rigid strivings.

With respect to personality disorders, patients with AN may show elevated rates of DSM-5 cluster C personality disorders (avoidant, obsessive compulsive personality disorder), but also of narcissistic personality disorders (4). By contrast, patients with BN and PD are characterized with DSM-5 cluster B personality disorders, in particular borderline personality disorder (5). Nonetheless, although the rate of borderline personality disorder is higher in BN vs. control individuals, it is also higher in acutely-ill vs. recovered BN patients, with some recovered BN patients showing cluster C personality disorders akin to those of patients with AN. This suggests that at least in some BN patients, the borderline presentation may reflect biological vulnerability associated with the oscillation between over- and under-control (2). Last, the comorbid presence of personality disorders is associated with an overall worse outcome and less favorable response to treatment in any ED (6, 7), and with more intensive treatment required to achieve favorable changes (8).

As in any other psychopathology with putative psychodevelopmental origins, each psychological model relates to EDs according to its specific formulations. For example, classical psychoanalytic authors have conceptualized EDs to represent a regression from oedipal to pre-oedipal eating-related oral anxieties, resulting from the resurgence of sexuality-related fears during adolescence (9). Modern psychoanalytic theories associate the development of EDs with interpersonal factors, e.g., problems in attachment relationships (10) or in mentalization, i.e., lack of an ability to comprehend the internal world of oneself and others (11). These conditions may produce a profound sense of emptiness or disorganization (10). EDs are conceptualized, in this context, to compensate for these impairments and to impose a sense of psychic order (10).

According to self-psychology conceptualizations, patients with EDs may feel disappointed with others, or alternatively, that they do not deserve to have others to serve as selfobjects for them. Hence, they turn to food (BN and binge eating disorder [BED]), or to intentional refraining from eating (AN) as potential rewarding/reinforcing selfobjects to fulfill their psychological needs (12).

Bruch (13) has suggested that severe ED pathology and faulty cognitive mechanisms may underlie the development and maintenance of many of the core psychopathological features of EDs, alongside the ongoing influence of malnutrition. Somewhat similarly, cognitive behavioral conceptualizations associate the predisposition to an ED with dysfunctional inborn cognitions associated with control, perfectionism and dichotomizing, serving to correct a pervasive sense of vulnerability, worthlessness and ineffectiveness. These distorted cognitions, alongside other vulnerability factors, may increase the risk for the development and maintenance of complex interactions between extreme concern with weight and shape and relentless dieting behaviors, likely culminating in diverse ED presentations (14).

NEUROPSYCHOLOGY

Patients with AN may show a host of neuropsychological impairments such as weak central coherence, leading to adherence to details and lack of an ability to see the big-
Psychotherapy is still considered the core treatment for EDs. Despite the development of novel biological treatments for EDs, psychotherapy is still considered the core treatment for these disorders. 

Various remedies were prescribed, the preparations of cinchona, the bichloride of mercury, syrup of the iodide of iron, syrup of the phosphate of iron, citrate of quinine and iron and more, but no perceptible effect followed their administration.”

As early as 1873, in one of the first descriptions of treatment approaches to AN, William Gull described the inefficacy of somatic treatment in these patients (20). Nevertheless, it took several decades before it became clear that the core treatment of EDs is in the emotional/psychological realm. Thus, although it is necessary to address the malnutrition-related symptoms of the ED, it is impossible to change the course and outcome of the illness without addressing its mental and emotional roots.

Nonetheless, even when therapists agree that emotional therapy is necessary, there is a built-in difficulty to determine the treatment preferred for a particular ED. A comparison of different psychological approaches is difficult by nature, and there is inherent difficulty in creating uniformity in treatments that do not use precise protocols. Moreover, as treatment should take into consideration the therapist’s skills and personality, and the patient’s emotional, cognitive and psychological abilities, it is difficult to compare among treatments. Therefore, the treatment of choice is still uncertain in most EDs, and the combination of multimodal interventions is essential to a relative dearth of well-designed studies assessing psychodynamic therapies in EDs (2), as well as to the lack of untreated comparison conditions in the study of AN because of moral/ethical considerations (21).

Nonetheless, some randomized controlled studies (RCTs) in adult patients with AN comparing different psychodynamic psychotherapies with educational behavior therapy (22), and family therapy (23), found that both active therapies were superior to a control condition. Two recent RCTs comparing cognitive behavioral therapy (CBT) and dynamic psychotherapy showed somewhat contradicting results. Thus, Poulsen et al. (24) found that in a follow-up of two years, BN patients treated with either CBT or psychoanalytic psychotherapy were significantly improved. Improvement with CBT, however, was significantly greater and achieved more rapidly and with significantly less treatment sessions. In another study comparing psychodynamic psychotherapy and CBT in adolescent patients with BN, both treatments were equally effective at post-treatment and at one-year follow-up (25). One small study demonstrated that ED patients treated with self-psychology showed more inner psychological gains and greater symptomatic remission compared with patients treated with a specific cognitive therapy, and to a control/nutritional counseling only treatment (26).

Therapists in clinical practice (27), and several authorities in the field, point to the merit of combining psychodynamic therapy and CBT during the treatment of patients with BN (28), BED (29), and AN (10). According to Tobin (27), combined therapy should start with psychoeducational strategies, followed by CBT interventions for symptom reduction and cognitive changes, thereafter followed by psychodynamic interventions focused on core emotional and interpersonal issues. The order of the different modalities may be flexible in patients with BN and BED, and family interventions and pharmacotherapy can be added as required. Indeed, integrated treatment starting with the psychoeducational and behavioral phases of CBT and continuing with psychodynamic interventions, has been recently shown to as effective as the full CBT model in the treatment of BN (30).

TREATMENTS FOR SPECIFIC ED DIAGNOSES

BN, BED, PD

In his seminal work, Russell described BN, the younger sister of AN, as a separate ED, only in the end of the 1970s (31). At the same time, the psychotherapeutic pendulum tended toward targeted and focused therapies, and the...
The treatment of EDs, to “classic” ED-geared CBT. Third-wave behavioral therapies, increasingly used for 27 studies (13 RCTs, mostly in BED), compared with guided cognitive behavioral self-help, although Individual CBT was most effective in achieving remission with 1,828 participants, involving 12 different treatments.

Soon after the definition of BN by Russell, Fairburn published his first article presenting manual-based CBT for BN (33). Over the years, Fairburn and his colleagues published over 100 articles researching CBT in BN and BED, transforming it to be the leading treatment approaches for normal eight binge/purge EDs.

“Classic” EDS-related CBT is a short-term structured manualized treatment associated mainly with behavioral interventions including food monitoring, and with cognitive interventions focusing primarily on issues related to self-esteem alongside core-ED related cognitions. Unfortunately, a significant minority of patients fail to improve with this treatment (14).

This has led to the initiation of a modified “transdiagnostic” enhanced CBT (CBT-E), putatively tailored for any ED diagnosis. CBT-E is geared toward the management of relevant “personality-related” cognitions, e.g., core worthlessness perfectionism, mood intolerance and impaired interpersonal relationships, that interact with “specific” ED-related traits (e.g., body dissatisfaction) in the maintenance of the ED (34). CBT-E is longer in comparison to “classic” CBT (40 vs. 20 sessions). It emphasizes the importance of motivation for recovery, while being less concerned with food monitoring. Interestingly, a large-scale randomized control trial (RCT) has shown that whereas patients with mainly ED-related concerns improve better with short-term “classic” CBT, patients with disturbances in other core ED features improve better with CBT-E (35).

Slade et al. (36) published recently a meta-analysis seeking to identify the most effective treatment approach for adult BN. Twenty-one eligible RCTs were included with 1,828 participants, involving 12 different treatments. Individual CBT was most effective in achieving remission alongside guided cognitive behavioral self-help, although no definite conclusions could be reached because of limited evidence base.

Linardon et al. (37), in a recent meta-analysis including 27 studies (13 RCTs, mostly in BED), compared third-wave behavioral therapies, increasingly used for the treatment of EDs, to “classic” ED-geared CBT.

Third-wave treatments, including dialectical behavior therapy, schema therapy, acceptance and commitment therapy, mindfulness-based interventions, and compassion-focused therapy were not superior to CBT. Based on the authors’ qualitative synthesis, none of the third-wave therapies met established criteria for an empirically supported treatment for specific EDs. Accordingly, current available data suggest that CBT should retain its status as the recommended treatment for BN and BED, with interpersonal psychotherapy (IPT) considered a strong empirically supported alternative (10).

ANOREXIA NERVOSA

While psychotherapy is currently considered as the core treatment for AN, there is no agreement as to the treatment of choice. When AN become more common in the late 1960s and early 1970s, when the treatment of choice was psychodynamic psychotherapy, it was the first psychotherapy to be used. Limited success and the development of new techniques opened new horizons for other strategies.

At the start, it is usually accepted that CBT is less effective in AN in comparison to BN or BED (38). Nonetheless, Fairburn and colleagues (39) have shown that the provision of 40 sessions of outpatient CBT-E over 40 weeks with no other concurrent treatment, has led to substantial increase in weight and reduction in core ED features. Over a 60-week follow-up, there has been little deterioration despite minimal additional treatment. Other recent open studies have also shown some promising results with CBT-E in outpatients (40) and in adult (41) and adolescent (42) inpatients with AN. Last, one study comparing two different CBT-E strategies in adult patients with AN (43) has shown promising outcome in terms of increase in weight and decrease in ED-related concerns.

Focal psychodynamic therapy (FPT) assists patients in understanding how their disordered eating behaviors are related to what they think and feel about themselves and other people in their life. As emotional processing during psychotherapy is usually associated with symptom reduction, part of the process in FPT is to enhance the ability of the AN patient to express herself. In the recent ANTROP study, the FPT manual comprised of three treatment phases, lasting altogether for 40 sessions. The first phase focuses on therapeutic alliance and the handling of pro-anorectic behavior/beliefs and self-esteem; the second deals with emotional experiencing, interpersonal relationships, and their association with problematic eating behavior; the third focuses on transferring to
everyday life and treatment termination. Recently, FPT has not been found superior to CBT in the treatment of AN (2), although adequate emotional processing has been found to predict better outcome, independent of the treatment approach (44).

Whereas IPT is likely to be effective in BN, it is less effective in AN. McIntosh et al. (45) randomized AN patients to IPT, CBT and control specialist supportive clinical management (SSCM). IPT has been found the least effective, and the SSCM the most effective treatment. At an average of 6-7 years follow-up, on the other hand, no significant differences have emerged among the three psychotherapies, although SSCM has been associated with a more rapid response than IPT (46).

Two new treatment models for AN are mentioned in brief. The Maudsley Model for the Treatment of Anorexia Nervosa in Adults (MANTRA) is a structured cognitive intervention for ambulatory patients, geared toward increasing the motivation for recovery and externalizing the illness (47). Cognitive Remedial Therapy (CRT) aims to change core neuropsychological impairments such as weak central coherence, or rigid set shifting, including in severe and enduring AN (48). Both treatments have shown promising results.

**FAMILY THERAPY**

In the early 1970s, Minuchin and colleagues described a specific developmental model of psychosomatic illnesses, including AN (49). The main characteristics were family organization encouraging somatization, involvement of the child in parental conflict (enmeshment) and physiological vulnerability. Considering these characteristics, Minuchin developed a unique model to treat families of children with psychosomatic illnesses, which soon became pivotal in the multidimensional treatment of AN (50).

Minuchin’s model has been extensively criticized, as studies have repeatedly not found any specific “psychosomatic family” constellation, and because this approach has led to blaming the family for the child’s condition. Nonetheless, newer agnostic Family-Based Treatment (FBT) approaches include many of Minuchin’s ideas. FBT is geared toward empowering the parents to play an active and positive role to restore the weight of AN adolescents and to proceed with their developmental trajectory (51). In the first stage, the parents are responsible for the restoration of the adolescent’s weight. In the second stage, the adolescent gradually takes responsibility for maintaining adequate weight range. Relevant family-related issues are treated in the third stage. While repeated RCTs show FBT to be the treatment of choice in young adolescents with relatively brief AN (51), more recent studies have demonstrated its efficacy also in adolescents with BN (52). A newer Multi-Family-Treatment (MFT), employing FBT strategies in several families together has recently shown promising results (53).

**NOVEL DIRECTIONS**

The internet has opened new possibilities for reaching hard-to-get patients. Internet-based motivation programs are one mode to reach such ED patients. In this respect, although women with more severe ED pathology and less motivation have a higher likelihood of dropping out from a Web-based motivational enhancement program, such interventions may still address their specific needs and potentially offer them the required support to continue treatment (54).

**SUMMARY**

Despite the inherent difficulties in assessing the efficacy of psychotherapeutic modalities, a few meta-analyses recently compared different treatment approaches in AN. A major difficulty was to define the criteria for improvement. Zeeck et al. (21) assessed weight gain as the primary outcome criterion, and divided service level (inpatient vs. outpatient) and age group (adolescents vs. adults). While family-based approaches dominated interventions for adolescents, individual psychotherapy dominated in adults. No superiority of a specific psychotherapeutic approach was found. Weight gain was more rapid in adolescents and in inpatient treatment. Hartmann et al. (55) compared 57 studies of psychotherapeutic interventions in AN, again choosing weight gain as the primary outcome criterion. Different treatment settings, techniques or patient characteristics did not predict weight gain. Nonetheless, if treatment duration was taken into account, inpatient treatment produced faster weight gain than outpatient treatment.

**IN THE CURRENT ISSUE**

In the first article, Baumgarten-Katz and her associates conclude that recalled over-controlling maternal childhood feeding behaviors and insecure-anxious attachment, but not insecure-avoidant attachment, may predict pursuit
for thinness, body dissatisfaction and self-ideal disparity in physical attractiveness. Thus, in the presence of restrictive feeding practices in childhood, insecure attachment styles moderate adult women’s body dissatisfaction.

In the second article, Bachar concludes that self-psychology conceptualizes that high levels of selflessness may predict the development of eating disorders (EDs), whereas low levels of selflessness may predict remission in follow-up studies of patients with EDs. He further highlights the role of food/deliberate non-eating as selfobjects in patients with EDs who often give up on human selfobjects.

In the third article, Sarner-Levin and her associates have found that women with anorexia nervosa (AN) obtain lower masculinity and higher selflessness scores than control women. In addition, mothers of women with AN also score lower on masculinity and femininity measures than control mothers. The authors conclude that masculine traits may protect against the detrimental effects of selflessness on eating disorder symptoms.

In the fourth article, Rothschild-Yakar and her associates have found that women with EDs present with lower general mentalization ability, lower self-related mentalization ability and higher alexithymia. They have also found that greater general and self-related mentalization and attenuated alexithymia are correlated with attenuated ED symptoms, suggesting that higher mentalization may protect against the development of EDs.

In the fifth article, Hason Rozenstein and her associates have found that women with binge-purge EDs show subjective high levels of alexithymia but not an objective deficit in emotional understanding in comparison to control women. The authors have further found that alexithymia levels correlate in mother-daughter dyads in the control, but not the binge-purge group, suggesting that maternal alexithymia does not influence the alexithymia of girls with EDs.

In the sixth article, Sapuppo and his associates have found that metacognitive dimensions such as negative beliefs about worry, uncontrollability and danger, a need for control, and an inclination to worry may increase ED-related pathology above and beyond the detrimental influence of core ED traits such as perfectionism and low self-esteem. These metacognitive appraisals may reinforce the painful sense of low self-esteem in patients with EDs that in turn, may enhance their perfectionistic striving for excellence.

In the seventh article, Latzer and her associates have found a low level of disordered eating pathology (DEP) in Israeli adolescent boys. Younger adolescents (grade 8-9) show higher levels of DEP than older adolescents (grade 10-12). In addition, greater sense of coherence is negatively associated with DEP, suggesting it to potentially protect against disordered eating.

In the eighth article, Dori Frenkel and her associates have found no differences in the rate of eating-related pathology between ultra-Orthodox and National-Religious women. However, ultra-Orthodox women relate in self-drawings primarily to potentially exposed body parts, that are almost completely covered, whereas the National Religious women relate primarily to female sexuality signs, although all groups express similar bodily-related concerns.

We believe that all these papers contribute significantly to the literature on this important and often difficult to manage patient subpopulation.

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The aim of this editorial is to summarize up-to-date psychological, neuropsychological and psychotherapeutic data in eating disorder (EDs).

References


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