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EATING DISORDERS IN ELDERLY: CLINICAL IMPLICATIONS

Mihaela FADGYAS STANCULETE [1], Dan L. DUMITRASCU [2], Adriana BABAN [3], Dinu I. DUMITRASCU [4], Catrinel CRACIUN [3], Aurel POPA-WAGNER [5]*

[1] Department Neurosciences, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania;
[2] 2nd Medical Department, Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania;
[3] Department Psychology, Babes-Bolyai University Cluj-Napoca, Romania;
[4] Department Anatomy and Embryology, Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania;
[5] Chair of Vascular Neurology, Dementia and Ageing Research, Department of Neurology, University of Duisburg-Essen, University Hospital Essen, Essen, Germany, Center of Clinical and Experimental Medicine, University of Medicine and Pharmacy, Craiova, Romania

Abstract
Eating disorders (EDs) are a challenging category of psychiatric disorders that often present a chronic evolution and are associated with significant functional impairment, with high rates of psychiatric and medical comorbidities and mortality. Although long-time described only in the young population, now eating disorders are increasingly diagnosed in elderly. The etiology of eating disorders is mostly unknown and, in elderly, appears to be multifactorial. The purpose of this review is to summarize data examining eating disorders in elderly. We argue for the use of the biopsychosocial model and paradigm by mental health practitioners in the approach of elderly with EDs.

Keywords: a eating disorders, elderly, psychotherapy, psychotropics

[*] Correspondence concerning this article should be addressed to:
Dan Lucian Dumitrascu, 2nd Medical Department, Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania
E-mail: ddumitrascu@umfcluj.ro

Introduction

EDs have the highest mortality rate among mental disorders (Arcelus et al., 2011). According to DSM-5, eating disorders are classified in pica, rumination disorder, avoidant/restrictive food intake disorder, anorexia nervosa, bulimia nervosa, and binge eating disorder. Only anorexia nervosa (AN), bulimia nervosa (BN) and binge eating disorder (BED) have specific criteria. The DSM-5 category of "other specified feeding or eating disorder" (OSFED) represents a miscellaneous category of clinically significant disorders that do not meet the specific diagnostic criteria for AN, BN, or BED (American Psychiatric Association, 2013). Clinical significance is defined as symptom intensity and impairment in social and vocational functioning due to eating problems. The disability-adjusted life year (DALY) represents a measure of the burden of disease combining morbidity and mortality indicators (Years Lost due to Disability and the Years of Life Lost due to premature mortality). DALYs are used for direct comparison of the impact of different medical conditions. Global Burden of Diseases, Injuries, and Risk Factors Study 2010 provided evidence that mental and substance use disorders accredited for 183-9 million DALYs. Eating disorders (anorexia and bulimia) accounted for 1-2% of DALYs caused by mental and substance use disorders (Lim et al., 2012).

Research concerning older men and women (>65 years old) is scarce (see Table 1).. A community study found that the prevalence of EDs increased over the decade 1998 -2008 at a faster rate in older subjects with consecutive impairments in their quality of life (Mitchison et al., 2014). Recently, studies provide evidence that eating disorders do not represent only a problem of younger women, but also of men (Jaworski et al., 2019) and older women (Maine et al., 2015; Midlarsky et al. 2018). Conceição et al. (2017) examined the point prevalence of eating disorders in 342 Portuguese women aged 65–94 years. BED was the most prevalent eating disorder (1.7%), followed by OSFED (1.5%), and BN (0.3%), while no cases of AN or night eating syndrome were discovered (see Table 1).

Table 1. Epidemiologic studies in older population: studies from 2011 through 2018.

Author	Sample	Prevalence of ED
Thompson & Bardone-Cone (2019)	97 women, ages 65–90	6% of participants met clinical cut-offs for a ED
Conceição et al. (2017)	342 Portuguese women 65-94 years	BED 1.7% OSFED 1.5% AN 0%
Mangweth-Matzek et al. (2014)	715 Austrian women 40–60 years	BN=10; BED=11; ED-NOS =12

Author	Sample	Prevalence of ED
Gagne et al. (2012)	1849 American women > 50 years	Binge eating: 3.5%; BMI ≤18.5: 0.1%; Binge & purge: 0.2%
Hilbert et al. (2012)	2520 individuals aged between 14 and 95 years	Eating disturbances 5.9% of the women as compared with 1.5% of the men

Note. AN = anorexia nervosa; BED = binge eating disorder; BMI = body mass index; BN = bulimia nervosa; ED = eating disorder; ED-NOS = eating disorder not otherwise specified.

Psychiatric aspects of eating disorders

Pica, according to DSM-5, is characterized by persistent eating of nonnutritive, nonfood substances for at least one month that is inappropriate to developmental level and not a part of a culturally supported or socially normative practice (American Psychiatric Association, 2013). The most common ingested substances are paper, hair, soil, cloth, chalk, paint, metal, ash, clay, starch, ice, fecal material, pebbles, and charcoal. Pica in the context of eating disorder has received little attention, and it is described in the literature mostly as case reports (Gowda, Patel, Preeti & Chandrasekar, 2014). Pica has been described in patients with schizophrenia, intellectual disability, and pervasive development disorder, as well as in healthy children and a pregnant woman. Moreover, there have been several case reports of pica in individuals with a degenerative disease and acquired brain injury (Hartmann, Becker, Hampton & Bryant-Waugh, 2012). The disorder is rarely observed in adults who are not disabled, even though there have been some reports of pica cases in elderly without psychiatric comorbidities. The real prevalence of this disease is difficult to assess due to the underreporting of these cases (Hartmann, 2019). Usually, this disorder comes to clinical attention due to its medical complications: mechanical bowel problems, intestinal obstruction or perforation, infections, or poisoning (Rogers, Kramer, Smith, Bird & Rosenberg, 2017).

The etiology of pica remains unknown, but it was demonstrated that the administration of neuropeptide Y determined pica in rats (Madden, Seeley & Woods, 1999). A metanalysis performed in 2015 underlined a relationship between pica and micronutrient deficiencies (Miao, Young & Golden, 2015). Pica is significantly associated with increased risk for low plasma Zn and decreased hemoglobin. Funayama et al. (2017) suggest that in patients with severe cognitive impairments after traumatic brain injuries, the neural basis for pica might involve the posterior part of the left middle temporal gyrus. The treatment of pica, in the absence of other psychiatric comorbidities, consists of education and informed behavioral interventions. The use of selective serotonin reuptake inhibitors and antipsychotics has also been reported, but case reports are limited in number, and the evidence for the drugs' efficacy is limited (Lerner, 2008; Bhatia & Gupta, 2009).

Anorexia nervosa (AN) is described by the DSM-5 as a restriction of energy intake about requirements, leading to a significantly low body weight in the context of age, sex, and physical health along with an intense fear of gaining weight or of becoming fat and a disturbance in the body image (American Psychiatric Association, 2013). The first case report of real anorexia in elderly was described in 1890, under the term "senile marasmus," at Guy's Hospital in the United Kingdom. AN is easily overlooked in elderly, especially in the presence of cognitive decline and chronic conditions. AN in elderly can be found in any settings (Meng & D'Arcy, 2015). It is a disorder found mostly in women, but also in men who experience anger and control issues, which are underlying conditions for anorexia (Mangweth-Matzek et al., 2006).

AN in elderly is particularly life-threatening due to alteration of somatic status. A variety of causes can lead to the development of AN in this age group: lower-income level due to retirement, loss of independence, death of the partner, a sense of lack of control over their lives (Mangweth-Matzek et al., 2006). It is critical to differentiate AN from other conditions characterized by loss of appetite. Depression is known as the most frequent cause of loss of appetite, but anorexia as a symptom is also common in dementia, schizophrenia, anxiety disorder and alcohol abuse disorders and it may appear secondary to medication for other conditions (Malafarina, Uriz-Otano, Gil-Guerrero & Iniesta, 2013).

Treatment of AN is a challenging field because the evidence-based treatment is still lacking (Hartmann et al., 2011; Meng & D'Arcy, 2015). Treatment goals include restoring the healthy weight, and treatment of somatic complication and psychiatric comorbidities. AN does not respond well to psychotropic drugs, although SSRIs are used as an adjunctive medication to psychotherapeutic interventions (Bhadoria, Webb & Morgan, 2010).

Bulimia nervosa is characterized according to DSM-5 by recurrent episodes of binge eating and recurrent inappropriate compensatory behavior to prevent weight gain, appearing at least three times a month (American Psychiatric Association, 2013). Due to a lack of research data, it is difficult to estimate the prevalence rates of bulimia in older adults. The lifetime prevalence of BN according to the criteria of DSM-5 among women might be up to 2% (Keel, 2010). Unlike AN treatment, studies have shown a benefit of antidepressant treatment in BN (Mitchell, Roerig & Steffen, 2013). Cognitive-behavioral therapies and interpersonal therapies are a well-established treatment for BN (Kass, Kolko & Wilfley, 2013).

Binge eating disorder (BED) was recognized in DSM-5 as an autonomous disorder, with an estimated lifetime prevalence in the general population around 1.4%. BED is characterized as recurring episodes of eating a significant amount of food in a short period of time. These episodes are marked by .a sense of lack of control, and are accompanied by marked distress, the absence of regular compensatory behaviors and occur, on average, at least once a week over three months (American Psychiatric Association, 2013). Another study that examined

the characteristics of BED in elderly found that concerning binge eating behavior, and the distress determined by the binge eating, the psychiatric comorbidity, weight worries, and obesity, elderly patients appeared to be similar like the younger adults with BED (Guerdjikova et al., 2012).

Until now, there is no established ideal treatment for BED. Tricyclic antidepressants, SSRIs, cognitive behavior therapy, interpersonal therapy, and dietary, behavioral treatment have all been shown to be effective in binge eating episodes (Ghaderi et al., 2018). No guidelines for the treatment of BED in elderly exist because elderly patients were excluded from BED pharmacotherapy trials. It must be noted that cognitive impairment present in elderly individuals may limit the utility of many behavioral therapies. Oral lisdexamfetamine dimesylate has been recently approved for treatment of BED in adults in USA. Until now, there are no data suggesting the limitation of its use in elderly, being a well-tolerated option for treating moderate to severe BED (Heo & Duggan, 2017). Research has pointed out a strong association between an eating disorder and other psychiatric disorders, among which major depression is the most prevalent comorbidity (O'Brien, Whelan, Sandler, Hall & Weinberg, 2017). The prevalence of anxiety disorders, especially obsessive-compulsive disorder (OCD) is much higher in patients with anorexia and bulimia nervosa than in general population, suggesting the possibility that those are vulnerability factors for eating disorders (Kaye et al., 2004).

Depression is the most common psychiatric comorbidity in elderly with EDs (Puccio, Fuller-Tyszkiewicz, Ong, & Krug, 2016). Multiple mechanisms interconnect depression and EDs. First, serotonin (5-HT) exerts a modulating effect on appetite (Feijó, Bertoluci & Reis, 2011). Imaging studies have shown a highly significant reduction in 5-HT availability in patients with depression (Nikolaus, Müller & Hautzel, 2016). Moreover, research revealed an important alteration of serotonin pathways in the EDs. Aging is associated with diminished ability to generate protective immunity (Potter, McQuoid & Steffens, 2015). Depression also was associated with increased levels of proinflammatory cytokines, which initiate inflammatory immune responses. Proinflammatory cytokines (interleukin and tumor necrosis factor) are involved in the induction of anorexia and anhedonia (Wager-Smith & Markou, 2011). Cytokines stimulate the release of leptin. Leptin has an anorexigenic effect on appetite in depressed patients. An interesting study suggests that prominent appetite loss during acute depression may be a marker for cognitive deficits, independent of the overall severity of the depression (Ravindran, Griffiths, Merali & Anisman, 1998).

The data mentioned above illustrate the multiple mechanisms involved in the regulation of appetite and the importance of impaired higher brain functions. The use of pharmacotherapy, especially SSRIs and TCA, and antipsychotics in elderly have been associated with adverse events, particularly falls and falls-related fractures and increased risk for mortality, due to changes in their pharmaco-dynamic and pharmacokinetic parameters (Vidal et al., 2016).

Psychological aspects of eating disorders in elderly

The psychological impact disordered eating patterns have on the patients is something all mental health practitioners should have in mind when evaluating a patient that exhibits a problematic eating behavior, for instance in patients diagnosed with an ED (Ricciardelli & McCabe, 2004) Although EDs used to be mainly considered a problem of youth, there is a growing awareness of their prevalence in the aging population (Maine et al., 2015). Health consequences of eating disorders in elderly can be severe and range from death to osteoporosis, stress-related bone fractures, and slower cognitive performance (Lewis & Cachelin, 2001). Thus, it becomes relevant to explore the causes that lead to EDs in old persons and a new challenge for psychotherapists to figure out interventions to help reduce morbidity and increase the quality of life in the affected elderly.

As highlighted above, there is an expanding body of evidence showing that ED is not just a problem for young women and do not represent a pathology that is outgrown in late adulthood (Maine et al., 2015; Midlarsky et al., 2018). Nevertheless, most studies on the etiology and treatment of EDs focus on adolescence or young women (Hockey & James, 2017). Furthermore, there is a gender bias concerning EDs, since they tend to be viewed as a problem of old women (Mangweth-Matzek et al., 2006; Midlarsky et al., 2018) even though epidemiological studies show EDs are also present in men (Jaworski et al., 2019) and symptoms do not differ by gender (Morgan & Marsh, 2006).

It has been reported that there are gender and race differences in EDs. Gender differences may result due to differences in the type of food craves (women generally crave sweets and carbohydrates), mood-regulatory neurotransmitters, and cultural influences (Chao, Grilo, & Sinha, 2016). A recent study suggests that the relationship between food cravings and ED is stronger in females than in males (Ng & Davis, 2013). Regarding race, some studies report that BED is associated more with specific ethnic groups (Hispanics) and racial groups (blacks), but the results are still controversial (Udo et al., 2016; Rodgers, Berry & Franko, 2018). It appears that the level of concerns and restraints regarding eating are associated with Hispanics. Moreover, racial differences are reported in blacks who are associated with increased BMI and binge eating (Lydecker & Grilo, 2016).

One of the main reasons why EDs sometimes go unnoticed in old age is that they are considered a problem of youth and, therefore, remain underdiagnosed in older women or men (Maine et al. 2015). Changes in weight and body appearance after the age of 50 or 60 are often considered a sign of aging and not as symptoms of eating disorders in this age group (Ackard, Richter, Frisch, Mangham, & Cronemeyer, 2013). However, it is now a known fact that EDs can have their onset after menopause in the case of women, or they constitute a

continuation of disorders that the person has had at a young age. Most often, women report a chronic course of illness, with onset occurring during the peak risk period of either adolescence or early adulthood (Cumella & Kally, 2008) and continuing into older age. Nevertheless, in approximately one-third of cases, onset happens during mid-life for women (Forman & Davis, 2005; Eddy et al., 2009) as well as for men (Morley, 1997).

Another reason for the underdiagnosis of EDs in older individuals is the incidence of regular changes in eating patterns and food regulation in aging individuals. For instance, it was shown that aging persons tend to be, on average, less hungry, and eat smaller portions compared to younger adults (Elsner, 2002). Reasons may be biological (e.g., a decline in taste sensitivity, loss of olfactory functions, oral and swallowing problems, poor dentition, decreased the efficiency of the gastrointestinal system), but mostly they can be described as social or psychological. While most changes in nutrition patterns are reflected in the number of portions old persons eat or the quality of foods and nutrients they consume, they also reflect in the way they think about food (Elsner, 2002). Several conflicts may occur and influence the motivation for making food choices, especially when having to make decisions on a tight pensioner's budget. Eating represents a social activity, and the food reflects the social relations within a family as well as attitudes of what is acceptable or dangerous to eat.

Although aging is sometimes associated with weight gain, old persons tend to suffer from a series of EDs that are related to severe weight loss or an unhealthy fluctuation in body weight (Elsner, 2002). The most common EDs in old age are AN and BN, but AN has been found to predominate. For example, a study on the prevalence of EDs in elderly showed that 81% suffered from AN and 10% from BN. Late-onset was more common than early onset in the cases examined and most experienced major depression as comorbidity (Lapid et al., 2010). The main problem with geriatric anorexia is represented not just by the decrease in ingestion of food, but also the comorbidity with other psychiatric conditions such as major depression or obsessive-compulsive disorder. Furthermore, old persons also take a higher number of medications (e.g., gastrointestinal drugs, psychotropic drugs) that can have as side effects loss of appetite and ultimately anorexia (Elsner, 2002).

The causality of EDs in elderly is complex. Moreover, it cannot be reduced to the causality present in young people with EDs as it encompasses more psychosocial factors than cognitions about body dissatisfaction or fear of being fat and unattractive, faulty emotional regulation abilities and strategies (Aldao et al., 2010; Prefit et al. 2019), irrational beliefs (Nolan & Jenkins, 2019) or cognitive factors such as self-criticism (Trottier & MacDonald, 2017). In the following, we discuss the major psychological and social factors specific for elderly population (see Table 2) and list some intervention solutions proposed in the literature.

Table 2. Psychosocial aspects of eating disorders in elderly.

Psychological factors	Body dissatisfaction related to aging Internalization of ideal body images Aging anxiety Self-objectification Negative affectivity Low self-esteem
Social factors	Poverty Social isolation Change in social networks Institutionalization Limitations in daily activities Elderly abuse

Psychological factors

The most relevant psychosocial factors described in the literature are presented in Table 2. Internalization of beauty ideals refers to the extent to which individuals adopt the existing socially defined ideals of attractiveness (Thompson, Heinberg, Altabe & Tantleff-Dunn, 1999). It is related to higher levels of body dissatisfaction since the desired standard female body ideals are usually very difficult to attain. Body dissatisfaction has been shown to be a predictor of eating disorders in older women (Share & Mintz, 2002; Matz, Foster, Faith, & Wadden, 2002; Forbes et al, 2005; Katz, 2005; McCabe, Ricciardelli & James, 2007) and to determine several actions targeted at losing weight (McLean, Paxton, & Wertheim, 2010; Puia, Fadgyas Stanculete, Hopulele-Petri, Muresan & Puia, 2017). The importance that a person places on appearance is also of high relevance. Some studies found a positive association between body dissatisfaction and appearance investment (Matz et al., 2002). The importance placed on physical appearance was shown to be a predictor for weight concerns and restrained eating (Lavin & Cash, 2001). However, other studies have shown that women place less importance on physical appearance with age, and this might protect them from body dissatisfaction and eating disorders (Augustus-Horvath & Tylka, 2009). The mixed results and lack of numerous studies show the importance of further investigation in this domain.

Self-objectification refers to adopting an observer perspective on the self and engaging in the habit of self-monitoring. This pattern was shown to lead to negative body perceptions and eating disorders in middle-aged women (Tiggemann & Lynch, 2001; McKinley, 2004; McKinley & Randa, 2005; McKinley & Lyon 2008; Grippo & Hill, 2008)

Anxiety about aging slowly settles in with the adding up of physical signs that characterize old age, such as weight gain or loss of muscle mass. These signs that remind one of the aging processes add to the belief that a thin body is beautiful and result in body dissatisfaction (Gupta & Schork, 1993) or body shame

(Bromberger & di Scalea, 2009) and consequently in unhealthy weight control behaviors (Donini, Savina & Cannella, 2003).

Negative affectivity includes depression, feeling stressed, anxiety, shame, inadequacy, or helplessness (Ricciardelli & McCabe, 2004). Negative emotions are not just a trigger of eating disorders in young women but can act as a trigger for old women as well since they are directly related to body dissatisfaction feelings (McKinley & Randa, 2005). Depression is one of the most common negative affect that leads to anorexia in old age in both women and men (Katz, 2005). Refusal to eat was interpreted as a self-destructive behavioral pattern that is characteristic of depression and anorexia in old age (Donini et al., 2003). Bereavement experienced after the loss of loved ones was also associated with loss of appetite and in some cases, the onset of ED. For the widowed person, mealtimes are a reminder of the loss of the loved one and thus may lead to a behavioral pattern of avoiding food (Matz et al., 2002).

Perfectionism and low self-esteem are known to predict eating disorders in young women (Tylka & Sabik, 2010). However, there is little evidence that they continue to play a role in determining unhealthy eating patterns in older women. One study on perfectionism and bulimic symptoms showed no relation between the two (Procopio, Holm-Denoma, Gordon & Joiner Jr, 2006). Nevertheless, more evidence is needed on the relationship between perfectionism or low self-esteem, body dissatisfaction, and eating disorders in older women.

Social factors

Most studies identified poverty in old age as an important cause of weight loss. For example, living on a small budget makes shopping for healthy food difficult. Other studies found that friendship networks played a significant role in the maintenance of healthy food intake and pointed social isolation and loneliness as one of the leading causes of weight loss and EDs in old age (Donini et al., 2003). Moreover, with age changes in social networks determine changes in ideas people hold about food.

Institutionalization was also shown to contribute to the onset of EDs in elderly. When they enter a long-term facility, senior citizens do not get to decide about the foods they eat. Loss of control over food choices determines a lack of appetite in many elderly individuals (Oakland & Speer, 1993). Also, the monotony of food choices in an institution leads to a decrease in food intake.

Limitations in daily activities such as needing help with shopping for food or assistance with cooking contribute to anorexia in older people (Guralnik et al., 1993).

Elderly abuse was shown to exist in 5% of the older population and contribute to anorexia through food deprivation from the caregiver or secondary to the experienced distress (Anetzberger, 2001). Psychological abuse, such as being

mocked for being dropping or spilling food at mealtime leads to feelings of shame and reduction in food consumption in elderly.

A series of social factors like social pressure, weight-related teasing as well as race and ethnicity are sometimes mentioned in the literature as separate predictors of eating disorders in older women (Menzel et al., 2010).

Interventions

Effective psychological treatment options exist for EDs and range from cognitive-behavioral therapy (CBT), used mainly for bulimia and anorexia, family-oriented interventions applied for adolescents with EDs to exposure therapy (Koskina, Campbell & Schmidt, 2013) and acceptance and commitment therapy (Pearson, Follette & Hayes, 2012). Literature reviews on the treatment of EDs in elderly point out that a combination of behavioral and pharmacological interventions proved most successful for a cure, although only 42% of the cases improved. In general, the research found that outcomes of the intervention are reduced, even if for single, specific cases behavioral modification proves useful (Cosford & Arnold, 1992). Nevertheless, up till now, there are no general guidelines for the treatment of EDs in elderly. Clinical efficacy trials are based mainly on single cases reports that present a series of methods (Lapid et al., 2010). Most strategies are based on those also used for interventions with young patients suffering from EDs. However, these require being adapted to the needs of aging individuals.

Furthermore, several challenges make the effectiveness of treatment more complicated like the fact that EDs in old persons are often associated with other diseases (e.g., hypertension, diabetes) or mental problems (e.g., dementia, depression, anxiety, food phobias, choking phobia, etc.) which require medical treatment (Gadalla, 2008). For instance, in the case of dementia, food refusal or rejection are common since the persons sometimes do not recognize eatable objects as food or forget their meal times or how to eat or because of other physiological symptoms associated for instance with Alzheimer (Berry & Marcus, 2000). Consequently, the treatment of EDs will be applied in addition to other existing medical or psychological interventions (Boisvert & Harrell, 2009).

The best outcomes have been observed for combined interventions such as integrated behavioral, pharmacology, and psychotherapy interventions (American Dietetic Association, 2006). These need to be carefully planned by interdisciplinary teams of doctors, psychotherapists, psychiatrists, and nutritionists (i.e., provide ongoing nutritional coaching).

The complexity of treating EDs in elderly explains to some extent, the reduced success rate of treatment interventions in this population. For instance, social support and the involvement of family members are even more essential for the effectiveness of interventions as in young people with EDs (Forman & Davis, 2005). In the case of elderly individuals with EDs, the primary sources of social

support are spouses or children, and they need to be trained in what concerns the treatment and engaged in the intervention itself. Close social networks such as friends can also be co-opted in the treatment since eating together with someone has been shown to enhance the enjoyment aspect and increase the quantity of consumed food in case of patients with anorexia (Katz, 2003).

Psychotherapy is an essential part of EDs treatment. Cognitive-behavioral therapy (CBT) with its short form of 15 to 20 sessions has been shown to offer a structured way to address the beliefs and emotions of patients with EDs. First, the patients with EDs need to be motivated for change by enhancing the values (e.g., health, well-being) and by demonstrating the impact of the eating disorders on the valued aspects of life (i.e., how does ED affect health, well-being or relations with significant others). These aspects may, of course, be different than for younger adults. Nevertheless, discussing such issues at the beginning of the therapeutic intervention is crucial since it lays the foundation for the whole treatment plan. The next step is constituted by nutritional rehabilitation where a nutritionist works in close collaboration with the patient to design a plan for healthy weight gain in case of anorexic patients and a nutritious diet plan for bulimic patients. For these patients, it is relevant to avoid the binge eating episodes as well as the unhealthy weight control methods (i.e., vomiting, laxatives). The CBT sessions will include the discussion of distorted thinking (i.e., body image biases, food phobias), replace unhealthy eating habits with healthier alternatives and reduce the frequency of unhealthy weight control patterns such as purging or use of laxatives.

Apart from CBT, also family therapy and psychoanalytic interventions are applied in practice. The first refers to teaching the family about EDs in elderly and how they can help the patient recover while they focus on unconscious factors that are linked to the EDs. CBT is also widely used in combination with medication for depressive or anxiety symptoms. However, age-related sensory deficits might make participation in group sessions (i.e., support groups) harder for older persons. Moreover, some EDs patients are institutionalized, and thus the CBT strategies and medicine need to be integrated into the general treatment plan which the patient needs to follow (Ackard et al., 2013) placing yet another challenge for the interdisciplinary collaboration in the treatment of EDs in elderly.

Conclusions

The eating disorders are encountered in elderly patients, not only in young people. The somatic and psychiatric complication of the eating disorders in elderly is essential and should be addressed by the managing team. There are no data about long-term recovery rates in older patients with eating disorders. The complete approach of the EDs in elderly should be based on the concept of the biopsychosocial model (Adler, 2009) and should always include the possible psychological and psychiatric disorders, as presented above.

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