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# **Anxiety and Eating Disorders in Adult Women**

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## **Abstract**

Anxiety disorders are frequently reported by women diagnosed with eating disorders (EDs). Although this association is long established and rather frequent, the role of anxiety in the onset and maintenance of eating disorders still has to be better understood. By doing so, engagement in treatment and efficacy of the interventions used will be improved. Thus, the present book chapter aims at investigating anxiety comorbidity in women diagnosed with an ED. First, the prevalence rates of anxiety disorders (AD) in ED samples and similarities and differences between both disorders are presented. Then, the chronology of onset of both disorders and possible explanations of their mechanisms of association are discussed. Finally, treatment considerations are covered.

**Keywords:** anxiety, eating disorders, anxiety disorders, comorbidity, prevalence rates, chronology, treatment

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## **1. Introduction**

Comorbidity with other mental health disorders is frequently found in individuals with eating disorders (EDs), mood, and anxiety disorders (ADs) being the most commonly reported [1, 2]. In ED patients, anxiety and stress have been linked to binge and restrictive eating, as well as vomiting and laxative abuse [3, 4]. ED women report high levels of anxiety in a wide variety of eating situations and tend to resort to numerous behaviours aiming at reducing or managing anxiety [5]. Available past research interested in the relationship between anxiety and ED has mainly focused on prevalence rates of ADs in EDs [6]. However, there is still a need to better understand the nature of this frequent association [5].

Additionally, the comorbidity of AD has been shown to negatively impact ED treatment as the presence of AD accentuates the severity of the symptomatology, which can complicate

treatment formulation [2], maintain ED, and represent a barrier for help-seeking, engagement, and compliance in therapy [2, 3]. For instance, as a trait present in many women with ED, anxiety has been associated with higher ED psychopathology and has shown to affect the course of the ED through a longer duration of the illness, a higher number of hospitalizations, and premature treatment termination [2, 7]. Given the potential treatment complications related to a dual diagnosis of AD and ED, treatment strategies taking this comorbidity into account and aiming to provide adequate care for women having to deal with such dual diagnoses must be underscored. Thus, this chapter first yields a review of the estimated prevalence rates of ADs in EDs and of their chronology of onset. Second, it provides insights on the nature of the association between ADs and EDs, and lastly it highlights treatment considerations.

## 2. Strength of the association

The link between anxiety and ED is observable in the relatively high prevalence of comorbid AD in people with ED. According to the few reviews interested in the comorbidity of both disorders [2, 8, 9], there is substantial variation in the estimated prevalence rates of anxiety in adults with EDs and these rates mostly focus on women. The variations in the strength of the association between ADs and EDs are mostly due to sampling (e.g. small number of participants, participants from the community or from specialized treatment centers) and methodological issues (e.g. use of nonstructured or standardized instruments, interviews or questionnaires, number of ADs considered, lack of statistical power, varied inclusion and exclusion criteria, no control group, and retrospective study design) [2, 8–11]. They are also attributable to diagnostic particularities such as overlaps in symptoms between disorders and changes in the nosography from one version of the *Diagnostic and Statistical Manual of Mental Disorders* (DSMs) to the other [1]. Finally, estimates of prevalence rates are further complicated by the fact that, when medication is prescribed to reduce anxiety symptoms in patients with ED, AD may be underdiagnosed [12].

### 2.1. Prevalence rates of ADs in EDs

According to Swinbourne and her colleagues [9, 12], lifetime prevalence rates of at least one comorbid anxiety disorder ranges from 23 to 75% in participants with anorexia nervosa and from 25 to 75% in those with bulimia nervosa [9, 12]. Lifetime diagnoses of AD are significantly more frequent in AN and BN samples than in control groups [11]. Although less often assessed, ADs have also been reported in obese individuals who binge eat, with a prevalence rate of about 36% for both generalized anxiety disorder [13] and social anxiety disorder [14].

Available prevalence rates should be taken with caution given that they were obtained by using older versions of the DSM (e.g. DSM-III, III-R, IV, and IV-R) and that they rely on various sources of patients. Consequently, while considering prevalence comorbidity rates between ADs and EDs, one must keep in mind that (1) estimates based on the DSM-5 are still lacking; (2) they include obsessive compulsive disorders, a particularly highly correlated disorder in

AN, which is not considered as an AD anymore [15]; and (3) higher rates of comorbidity are usually found in samples issued from clinical settings (e.g. inpatient and outpatient eating disorders samples), in which higher psychological distress and multiple diagnoses are more prevalent [8, 12].

Among the DSM-5 AD diagnoses, social anxiety disorder (SAD) and generalized anxiety disorder (GAD) have been the most frequently and systematically associated with ED across studies, any ED type confounded [12]. In AN samples, GAD is the most frequent AD diagnosis reported, followed by SAD and agoraphobia [2, 11]. In BN patients, SAD is the most frequent AD in BN patients, and GAD follows while agoraphobia remains the third most frequently reported AD [11]. Compared to women without ED, those with AN and BN, respectively, have a 6.1 and 2.6 times greater risk of being diagnosed with GAD [8]. SAD is also significantly more frequent in women with AN and BN than in control groups and has been particularly linked to an increased risk of binge eating [2, 9, 16]. Agoraphobia for its part appears to be more likely to be reported by women with binge-purge AN and BN than by controls [9].

## **2.2. Similarities between ADs and EDs**

Some diagnostic criteria found in the DSM-5 for ED [15] refer to anxiety. For instance, an “intense fear of gaining weight” or “of becoming fat” has to be present in patients with AN, and “a sense of lack of control over eating” has to be reported by patients with BN and binge-eating disorder [15]. This criterion resembles those of ADs, for example, “fear or anxiety of social settings” found as the primary requirement for SAD. Furthermore, as stated by Webb and colleagues [5], items referring to anxious dimensions of eating such as a fear of losing control, a fear of gaining weight and intense concerns over shape and weight are also used in well-known measures of disordered eating like the Eating Disorder Examination [5].

Additionally, it has been showed that women with BN present similar anxiety symptoms than patients with GAD, with worrying, tension pains, tiredness, restlessness, avoidance of anxiety, social withdrawal, and lack of confidence being equally frequent in both groups [4].

## **2.3. Differences between ADs and EDs**

On the contrary, some differences have been highlighted between EDs and ADs. As an example, Steere et al. [4] showed that panic attacks, muscular and nervous tensions, as well as free-floating anxiety and anxious foreboding were significantly more prevalent in participants with GAD than in BN women.

Differences between ADs and EDs are particularly important to consider for diagnostic purposes. In fact, anxiety limited to ED-specific themes must be distinguished from non-ED-specific anxiety [17]. In many women diagnosed with EDs, the anxiety symptoms they experience are specific to their ED. In other words, their anxiety symptoms mostly focus on eating, weight, and shape concerns as well as on fear of weight gain or a feeling of being fat [4, 17]. These patients also typically fear being exposed to high-calorie foods and avoid exhibiting their body in public. When their anxiety is ED-specific and when they succeed in controlling their weight and eating, women with EDs do not experience anxiety [4] and the

clinician cannot conclude in a comorbid AD. However, when a nonspecific anxiety focus is found, such as a general fear of failure or a social anxiety in any public situations, a comorbid AD must be suspected [17].

### 3. Chronology of onset

Various temporal sequences have been suggested for the comorbidity of AD and ED [2, 12]. First, anxiety may be a risk factor for ED. This pathway of association in which anxiety tends to appear prior to the onset of ED has received the most research support [9, 11, 12, 17–19]. According to Godart and colleagues [11], between 41.8 and 48.7% of women seeking help for AN and between 51.9 and 53.3% of those with a BN diagnosis had developed an AD prior to their ED. More recently, Swinbourne and colleagues [12] found that the larger proportion of their sample of women in inpatient treatment (65%) and in outpatient treatment (75%) for ED had had an AD before the onset of their ED. Studies that support this developmental sequence have suggested that (1) excessive fears about events or situations as well as anxiety about social evaluation reported in childhood could predispose to intense preoccupations with weight, shape, and food in late adolescence and young adulthood [12]; (2) an anxious trait, independent of nutritional state, would be underlying in ED patients [20, 21]; (3) childhood anxiety negatively influences the course and outcome of EDs [7]; and (4) anxiety symptoms tends to persist after recovery from an ED [5, 18, 20] and to be significantly higher in recovered women from ED than in healthy controls [10].

Second, anxiety may be secondary to an ED. This chronology of onset has been reported by 16% of inpatient and by 14% of outpatient ED women [12]. This pathway suggests that ED could produce or exacerbate anxiety in some women. It is mainly supported by evidences that anxiety tends to increase following starvation [2, 6] and by the findings that, in AN patients, anxiety symptomatology tends to decrease over the course of ED treatment (as they regain weight) and to be significantly lower than in acutely ill patients [11, 18].

Third, AD and ED may both result from a common aetiology or a shared vulnerability [2, 11]. In this developmental model of comorbidity, it is supposed that when one of these disorders is activated, the vulnerability to the other is increased [2]. This model is supported by findings showing that anxiety and elevated rates of ADs are present in first-degree relatives and family of origin of women who developed an ED [2, 7]. Other overlapping risk factors like early childhood experiences [2] or negative affect [3] could contribute to the high comorbidity rates between both disorders. Along that line, it has been suggested that childhood negative experiences give rise to maladaptive schemas, which negatively influence the interpretation of events and experiences and can accentuate the risk of adopting anxiety- and eating-related symptomatic behaviours [2]. With regard to negative affect, Schneider et al. suggested that anxious individuals could use eating as a means of regulating negative emotions [22].

In further support for the shared vulnerability model, Levinson and Rodebaugh [3] found that social appearance and fear of negative evaluation were associated with a higher risk of experiencing ED and SAD. While social appearance anxiety refers to a fear of being negatively

evaluated because of one's appearance, fear of negative evaluation refers to the idea that one's social self is likely to be judged negatively [3]. Another possible vulnerability factor shared by both types of disorders may be intolerance to uncertainty [23]. Fear or intolerance of uncertainty implies an impression of uncontrollability and unpredictability that has been found in individuals with ADs, GAD especially [24], as well as in AN and BN patients [25]. Individuals with intolerance of uncertainty perceive uncertainty as stressful, upsetting, and unfair [24]. They attribute a negative meaning to uncertainty and believe it should be avoided [24]. In individuals with ED, this personality factor has been suggested to be linked to a need for control, cognitive avoidance, and low novelty seeking [21]. It is also linked to an increased need of predictability and a disposition to avoid new situations [21]. In those who show high levels of intolerance of uncertainty, the ED represents an attempt to gain control over interpersonal and life stressors [25]. It provides security and certainty [26].

When focusing on the chronology of onset of ADs and EDs, one must take into account the natural course of both disorders as well as the fact that the sequence of onset varies according to the AD diagnosis [2]. First, with regard to the course of these disorders, it must be considered that (1) AN typically develops at a younger age than BN [15], (2) SAD is more likely to begin in childhood, and (3) GAD usually develops in adolescence or early adulthood [8]. Therefore, the associations found between AD and ED and their chronology of appearance may not represent a higher risk for AD patients to develop an ED later in life but it could instead reflect the natural course of both disorders, with ADs, in most cases, appearing earlier than EDs. Second, the sequence of onset seems to differ depending on the type of AD: while SAD and specific phobia usually occur prior to ED, GAD has been found to occur simultaneously or after the onset of ED [11, 2]. Moreover, agoraphobia and panic disorder appear more likely to develop after the ED [10].

#### **4. Deepening the association between ADs and EDs**

ED patients experience high levels of anxiety in a wide variety of eating situations. Among the eating situations that elicit anxiety in over 50% of patients with ED, Webb et al. [5] identified the following: eating more than what they had planned, eating when they had not planned to, binge eating, eating in front of others who are thinner, eating when self-conscious of what they are wearing, eating in new situations, eating in front of strangers, and eating in restaurants. In the same study, the strategies used to manage anxiety by ED patients when confronted with anxiety-provoking eating situations were avoiding thinking of calories and fat contained in food, eating in a particular way or in a particular order, and using distractions when eating [5]. Findings from this study highlight a tendency to resort to safety behaviours and cognitive avoidance strategies to manage the anxiety rising from eating situations [2, 5]. They can be understood in light of the cognitive model of anxiety disorders put forward by Beck and colleagues [27, 28] and in which anxiety occurs when a situation is perceived as dangerous [2]. According to this model, anxiety requires an excessive threat meaning to innocuous situations and an underestimation of personal coping resources [2]. Threat meaning and lack of personal coping resources are found in ED women. They perceive eating situations as menacing, as they



evoke strong emotional reactions such as fear and disgust. They also tend to believe they may not have the appropriated resources for dealing with these situations and tend to avoid them.

#### **4.1. Attentional bias towards threat and coping resources**

In the field of anxiety, it has been suggested that an attentional bias towards threat contributes to the development and maintenance of ADs [29]. In ED women, attention biases are centred on threat stimuli relating to food, weight, and shape [21]. A processing priority is given to fear of weight gain as women with ED tend to focus on information that confirms rather than invalidates this fear [2]. According to Nelson and her colleagues [29], state anxiety further increases the attention bias by maintaining the attention on the threat stimuli. Consequently, women with ED who have a comorbid AD are likely to experience state anxiety more often than those without AD when confronted to their feared eating- and weigh-related stimuli, and such attention bias can exacerbate their anxiety and even precipitate binge eating [21, 29]. Thus, while trait anxiety is likely to predispose to and precede AD and ED onset, state anxiety would play an active role in the maintenance of both disorders through an attentional bias towards threat.

When encountering stressful situations, individuals with ED also tend to doubt their ability to deal with and solve these situations [30], which can anchor deeper the belief they must keep fearing eating- and weight-related threat stimuli. Such negative problem orientation has also been found in individuals with ADs [24]. In fact, negative problem orientation implies a catastrophic appraisal of stressful situations and of their consequences [24]. It has been related to poor performance on problem solving and decision making [24]. Along that line, research shows that women with ED are more susceptible than women without ED to assess stressful situations in a catastrophic way, perceive themselves as being under great amount of stress, and rely on dysfunctional coping strategies such as avoidance-oriented or emotion-oriented strategies [31]. Moreover, their active and repetitive use of behaviours such as restrictions and binge eating leads them to think this is an effective way of avoiding and getting rid of negative affect, and particularly of anxiety. It can even negatively impact their likelihood of resorting to active confrontive and more functional coping strategies [30].

#### **4.2. Safety behaviours**

In anxious individuals, safety-seeking behaviours are used as a means of gaining control over feared situations, preventing a possible catastrophe, and avoiding situations leading to worrisome thinking [2, 24]. They reduce the anxiety level in the short term but maintain it in the long term. Ritualistic and slow eating, restricting oneself to only certain foods, which are considered safe foods, eating foods in a particular order, and body checking are examples of safety behaviours in women with ED. Safety behaviours also include behaviours related to body avoidance such as refusing to be weighted, avoiding mirrors, and wearing baggy clothes [2]. While body checking involves scrutinizing one's body repeatedly, body avoidance implies not wanting to learn information from the body or to see one's body [32]. As suggested by Pallister and Waller [2], these rigid behaviours are used in an attempt to get control over eating, weight, and shape and to prevent the catastrophe of gaining weight. They provide a form of

reassurance that unfortunately maintains the ED and, as long as they don't try to disconfirm their fears, the anxiety is also maintained in the long term [2]. Furthermore, when eating restrictions are involved, safety behaviours can lead to a loss of control over eating through an increased risk of binge eating [33].

Safety behaviours can be related to the sense of uncontrollability and unpredictability over certain dimensions of their environment that individuals with a comorbid AD and ED experience [25]. Women with ED aim to control their eating so they may not be confronted with a perceived lack of control over the interpersonal and stressful life events they encounter [25]. That way, they manage an internal sense of certainty and diminish their negative perception of being unable to handle the stressful situation [25]. The ED therefore fulfils their need for security and certainty [23].

### 4.3. Cognitive avoidance strategies

Cognitive avoidance strategies for their part rely on mechanisms like cognitive narrowing, blocking, and dissociation [2]. The anxiety literature suggests that these strategies involve a form of worrisome thoughts substitution and suppression, which allows for diminished unpleasant emotional arousal [24]. They can maintain ADs by impairing the opportunity for a given individual to learn he can handle the feeling of being anxious as well as the stressful situation [24]. Pallister and Waller [2] regard cognitive narrowing as a strategy that brings the attention towards an immediate and present stimulus and requires concrete and low-level thinking. While using cognitive narrowing, a person could for example try to substitute worries by neutral or positive thoughts or use distraction. ED women who rely on cognitive narrowing can focus on and monitor their eating, which reduces their likelihood of experiencing emotional distress and anxiety. Cognitive narrowing also allows for less binge eating in the short run. However, given the food restrictions implicated, an increased risk of binge eating occurs later on [33].

The cognitive avoidance strategy of blocking is used to reduce aversive self-awareness and emotional distress [2]. In ED women, blocking mainly involves binge eating, which is used in order to block or anaesthetize negative emotional states arising from stressful and painful interpersonal situations [2]. Instead of directing their attention on trying to resolve the situation and diminish their emotional arousal, they focus on food. The affect regulation model [34] appears closely related to cognitive avoidance strategies since it posits that women with ED overeat in response to emotional arousal or stress [35]. Thus, as anxiety increases, disordered eating behaviours like binge eating and vomiting may occur more frequently in order to regulate emotions and reduce an emotional void associated with boredom or loneliness [2, 16]. Sadly, instead of alleviating the emotional distress of the women who adopt these behaviours, they can elicit undesirable emotions like shame and reinforce body dissatisfaction, which in turn further increase social anxiety when one has to expose her body to the scrutiny of others [16]. Social evaluation concerns may thereafter accentuate the need to resort to binge eating [3], creating a vicious circle for women with comorbid AD and ED.

Dissociation acts as another cognitive avoidance strategy since it blocks out painful emotions and excludes information from consciousness [2]. According to Pallister and Waller, a high



proportion of BN patients report some depersonalization and derealization when they binge [2]. In restrictive AN patients, it has also been found that those who report higher social anxiety display higher dissociation [2, 36].

In sum, eating behaviours like dieting, fasting, vomiting, and exercising excessively can be used as ways of reducing and in some instances eliminating anxiety, albeit temporarily, in individuals with AN, BN, and binge-eating disorder [19, 37]. This pattern of association is highlighted in Fairburn's transdiagnostic model of ED, in which anxiety-triggering situations encountered lead to a need to resort to disordered eating behaviours as a way to modulate and reduce anxiety [33].

## 5. Treatment considerations

ED patients with comorbid ADs are more likely to experience persisting ED symptoms, poor functioning, and higher psychosocial impairment and mortality risk than those without such comorbidity [1]. Thus, as suggested by Hughes and colleagues, comorbidity can be seen as a marker of illness' severity. Furthermore, through fear of negative evaluation and cognitive avoidance, anxiety can complicate treatment or even negatively affect engagement in treatment [1]. Such considerations highlight the need to consider and implement anxiety-focused interventions in the treatment of EDs. Additionally, when ADs and EDs co-occur in a given patient, it appears essential to opt for interventions that have the potential to address both ED and AD [12, 17]. Doing so will assure better treatment outcomes for both disorders. However, as indicated by Steiger and Israel [17], ED cannot be treated with an approach that would exclusively focus on the management of anxiety symptoms. It therefore justifies the need for a better understanding of what unifies ED and AD in a particular individual, as well as what differentiates the two in order to obtain optimal treatment effects.

The concepts of phobias and fears may be particularly relevant to use in the treatment of ED patients in order to explain their reluctance to gain weight and their bodily concerns [17]. As suggested in the cognitive behavioural treatment approach, psychoeducation about the relationships between thoughts, emotions, and behaviours could be given to ED patients with AD [24]. Additionally, psychoeducation about anxiety as a negative effect and the inefficacy of disordered eating in dealing with distress in the long term should be provided to women seeking help for ED [38]. Relevant concepts explaining GAD, such as intolerance of uncertainty, positive beliefs about worries, negative problem orientation, and cognitive avoidance, could also be covered through psychoeducation.

Cognitive behavioural strategies used for managing and reducing anxiety can wisely be applied for treating ED women who experience high anxiety levels and ADs [5]. **Table 1** presents some ED and AD treatment focus, as well as different type of interventions considered appropriate to address these focus. Treatment of ED should involve reflecting about threat-related cognitions [2], developing coping skills through problem-solving training, as well as developing behavioural experiments aiming at softening rigid cognitive and behavioural eating patterns [3]. More realistic estimates and evaluations of feared eating- and weight-

related stimuli need to be developed by women with ED, and negative problem orientation could be worked on by identifying the consequences of such negative orientation and developing a perception of threats and problems as opportunities and normal parts of life [24].

Treatment focus	Types of intervention
Intolerance of uncertainty and excessive worry	<ul style="list-style-type: none"><li>• Challenging positive beliefs about worry</li><li>• Recognizing that certainty cannot be attained</li><li>• Identifying manifestations of intolerance of uncertainty</li><li>• In vivo exposure to uncertainty</li></ul>
Attentional bias towards threat and negative problem orientation	<ul style="list-style-type: none"><li>• Reflecting about threat-related cognitions</li><li>• Discussing the emotional, cognitive, and behavioural consequences of a negative problem orientation</li><li>• Cognitive restructuring: problems and stressful situations as a normal part of life and an opportunity rather than a threat</li></ul>
Coping skills	<ul style="list-style-type: none"><li>• Problem-solving training</li><li>• Mindfulness and relaxation techniques</li><li>• Behavioural activation and decision making</li></ul>
Behavioural avoidance (e.g. Ritualistic eating, body checking, and body avoidance)	<ul style="list-style-type: none"><li>• Exposure to fearful situations</li><li>• Mirror exposure</li><li>• Graded body image exposure</li><li>• Exposure plus response prevention</li></ul>
Cognitive avoidance (e.g. cognitive narrowing, blocking, and dissociation)	<ul style="list-style-type: none"><li>• Exploring of the relationship between emotions, cognitions and behaviours</li><li>• Tolerance of emotional distress</li><li>• Emotional processing</li><li>• Imaginal exposure</li></ul>

**Table 1.** AD- and ED-related focus of treatment and appropriate types of intervention.

Selected interventions, encompassing ADs and EDs, should focus on reducing safety behaviours such as eating only certain foods perceived as less risky and fattening, eating in a particular way, and using body checking to maintain control over weight and eating [2, 5]. By using behavioural experiments, ED women with a comorbid AD can test out whether or not their fears and dysfunctional beliefs regarding the non-use of their safety behaviours prove to be true [2]. As suggested by Levinson and Rodebaugh [3], some behavioural experiments could be centred on social appearance anxiety. For example, ED patients could be instructed to talk about a certain aspect of their appearance with others in order to disconfirm their belief that

others mainly focus on that aspect of their physical anatomy and that they may reject them based on their perceived physical flaws [3].

To deal with behavioural avoidance, exposure to anxiety-provoking eating situations also seems essential to use as an intervention strategy. As for behavioural experiments, exposure allows for disconfirming the ED patients' fears of catastrophe and improving their beliefs that they have the internal resources to cope with the situations they avoid. In an exposure plus response prevention intervention strategy, patients with ED are encouraged to eat forbidden foods (exposure) and to keep themselves from vomiting (response prevention) [39]. Past research has shown that body checking and body avoidance, which can be conceptualized as behavioural manifestations of an overvaluation of weight and shape, can be effectively addressed through exposure [32]. In fact, interventions strategies like mirror exposure and graded body image exposure are promising for ED women [32]. Mirror exposure allows for habituation to and a reduction of the distressing thoughts and feelings experienced towards the body. It has been shown to significantly increase body satisfaction and decrease of body avoidance [32]. For its part, graded body image exposure uses psychoeducation about body avoidance and the overvaluation of weight and shape as well as a hierarchy of anxiety-provoking situations that are avoided with the goal of helping women with ED learning that their fears with regard to their weight and shape are harmful to them and unlikely to happen [32].

Treatment also has to consider cognitive avoidance strategies that are used to either escape from or reduce aversive self-awareness and negative affect [2]. Cognitive narrowing and blocking can be targeted by focusing on the underlying emotions and distress that ED women are anaesthetizing through restrictive and binge eating. As suggested by Haynos and colleagues [40], treatment involves increasing the patient's capacity to tolerate distress as well as identifying how cognitions and emotions are associated. Considering that intolerance of uncertainty may represent a shared vulnerability between ADs and EDs [23], developing a tolerance to uncertainty and unpredictability may also be relevant for treatment. While doing so, manifestations of intolerance of uncertainty should be identified and addressed through exposure [24]. Finally, interventions addressing cognitive narrowing and blocking should investigate and test the ED patients' beliefs about negative emotions, and particularly about anxiety [40].

## 6. Conclusion

Anxiety symptoms and ADs are frequently reported in women with ED. In fact, comorbid ADs are prevalent across the full spectrum of ED and particularly likely to be observed in clinical inpatient and outpatient samples. Although the understanding of the nature of the link between anxiety and ED still has to be explored and deepened, most available research focusing on the AD-ED comorbidity suggests that, in a high proportion of ED women, disordered eating symptoms are preceded by symptoms of anxiety and even considered as anxiety driven. Therefore, AD should be systematically assessed and addressed in women

with ED. ADs play a maintaining role in the symptomatology of ED and thus must be recognized and treated as soon as possible [18]. Moreover, different mechanisms involved in both ADs and EDs need to be considered as treatment-appropriate focus. Among them, intolerance of uncertainty, attentional bias towards threat, negative problem orientation, and behavioural and cognitive avoidance appear particularly relevant.

In sum,

- Up to 75% of women with AN and BN present an AD.
- GAD and SAD are the most frequently AD diagnoses in women with ED.
- Three temporal sequences of the onset of AD and ED have been suggested, with the one in which AD precedes ED disposing of the most empirical support.
- ED and AD present a shared vulnerability through adverse childhood experiences, negative affect, fear of negative evaluation, and intolerance of uncertainty.
- Attentional bias, coping resources, safety behaviours, and cognitive avoidance strategies can be found in women with ED.
- Treatment for ED women with a comorbid AD should involve behavioural experiments, exposure, problem-solving training, and tolerance of emotional distress and uncertainty.

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