

Fear of self in eating disorders

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Abstract

Fear of self has been proposed as a transdiagnostic construct, playing a role in not only obsessive compulsive disorder (OCD), but in related disorders as well. In this article, empirical support for the association between eating disorders (EDs) and the fear of self will be reviewed. Support for the fear of self in EDs will be contextualized within the theory of possible selves, self-discrepancy theory, and motivation frameworks. Most of the research that will be presented pertains to a feared overweight self. The relevance of broadening the scope of feared self-domains attributed to EDs beyond weight to include those pertaining to character will be advocated. Furthermore, risk factors theorized to lead to the development and investment in a feared self in OCD are examined and evidence for their applicability to EDs is presented. Treatment strategies targeting self-concept and the fear of self in EDs are also described, highlighting the clinical relevance of integrating this construct into the conceptualization of EDs. Finally, recommendations for future research are proposed.

Keywords: fear of self, eating disorders, avoidance motivation

Fear of Self in Eating Disorders

Body dissatisfaction and behaviours designed to modify body weight and shape (e.g., dieting, excessive exercise, etc.) are ubiquitous in Western society (Berg & Larsson, 2020; Fiske, Fallon, Blissmer, & Redding, 2014; Lipson & Sonnevile, 2017; Slof-Op 't Landt et al., 2017). Yet only a proportion of individuals (estimates can range from 1.93% to 7.75%, depending on the population examined) will go on to develop one of the main eating disorder (ED) diagnoses (anorexia nervosa [AN], bulimia nervosa [BN], and binge eating disorder [BED]) in their lifetime (Micali et al., 2017; Udo & Grilo, 2018). It remains unclear why pathological eating attitudes and behaviours develop in extreme forms in some individuals, but not others. The answer to this question is complex and multi-faceted, and accordingly, there are several promising areas of research investigating this issue (e.g., genetics, personality traits, etc.; see Culbert, Racine, & Klump, 2015 for a review). The potential role of self-concept in contributing to the development and maintenance of EDs is another avenue warranting further exploration.

The construction of the self is highly individualized and may represent a risk factor for the development and maintenance of EDs. The self is recognized as an important factor in contemporary conceptualizations of EDs (for a review, see Bardone-Cone, Thompson, & Miller, 2018), however, certain aspects of self-concept have largely been ignored. The notion of possible selves and in particular, the feared self, has received little direct research attention despite evidence suggesting its relevance in this population. The development of an idiosyncratic feared possible self and subsequent efforts to avoid becoming this feared version of the self may represent an important aspect of the motivation underlying ED symptomatology. Though conceptualizations of EDs often focus on approach motivation in the form of pursuit of the thin

ideal, avoidance of a feared self may help to explain why ED behaviours persist even once thinness is ‘achieved’.

The present review aims to examine evidence supporting the relevance of fear of self in EDs, including the association between this construct and eating symptomatology as well as the potential pathways contributing to the development of the feared self in this population. The potential importance of targeting fear of self in treatment will also be discussed. Finally, future directions for research into the feared self will be proposed, including the consideration of feared self domains not yet explored in the context of EDs.

Fear of Self and Avoidance Motivation

In their seminal article on possible selves, Markus and Nurius (1986) contrast the actual self (i.e., the self as it is at the present time) with the notion of ‘possible selves’, that is, those self-representations that individuals believe they could become in the future. These authors identified body image as an important self-domain and, illustrating the pervasiveness of the importance attributed to weight in our society, utilised the ‘thin self’ as an example of a positive/ideal possible self and the ‘obese self’ as an example of a feared possible self. The ‘feared self’ is defined as a possible future self possessing undesired qualities or characteristics. Furthermore, possible selves are described as providing a link between cognitive self-representations and motivation (Markus & Nurius, 1986). In the context of EDs, the feared self may represent an overweight self, in contrast with the idealized thin self. Disordered eating behaviours, therefore, may be motivated by approach toward the thin self and/or by avoidance of the feared overweight self.

In other areas of psychology, the primacy of avoidance motivation and the influence of the feared self on behaviour has been noted (e.g., Baumeister, Bratslavsky, Finkenauer, & Vohs,

2001; Carver, Lawrence, & Scheier, 1999; Elliot & Church, 2002). Over a decade ago, Woodman and Hemmings (2008) argued that research on ‘self-representations’, specifically those relating to the body, had lagged behind self-concept research in other areas. Notably, they highlighted the abundance of research into approach toward the idealized thin body in EDs and contrasted it with the dearth of research examining the role of avoidance of a feared body in this population (Woodman & Hemmings, 2008). Since then, there has been some research on the topic of the fear of self in EDs, and generally speaking, these studies have suggested that it is a relevant construct in this diagnostic group. Moreover, as will be reviewed below, there is evidence to suggest that the feared self (e.g., Dalley & Buunk, 2009) and avoidance motivation (for a review, see Harrison, Treasure, & Smillie, 2011) may in fact play a larger role in motivating ED behaviours than pursuit of the thin ideal.

Fear of self in EDs: Empirical Support

Differences in the experience of possible selves have been observed in individuals with eating pathology as compared to healthy control participants. For example, the possible selves described by participants with AN have been found to be more negative than those reported by healthy control participants (Erikson, Hansson, & Lundblad, 2012). Another study by the same research group demonstrated that women with EDs rate ‘desirable’ possible selves more negatively as compared to healthy control participants (Erikson, Hansson, & Lundblad, 2014). Though not measured in these studies, the experience of negative possible selves may suggest investment in feared possible selves (i.e., the salience of negative possibilities may increase estimates of the likelihood of a negative outcome, overestimation of the severity of negative consequences, etc.). Furthermore, there is some evidence to suggest that individuals with eating pathology may be more likely to invest in possible selves related to the body. Indeed, in an

information processing study it was found that women who endorsed eating pathology had faster reaction times for adjectives describing both hoped-for thin selves and feared overweight selves than women who did not report eating symptoms (Girodo, 2003). The findings of these studies illustrate differences in the nature of possible selves observed in individuals with and without eating pathology and suggest the relevance of investigating the feared overweight self.

Simon Dalley and his collaborators (2009; 2011; 2012; 2013a; 2013b; 2016) have conducted several studies examining the relative influence of the feared overweight self, in comparison to the idealized thin self, in predicting disordered eating attitudes and behaviours. In an initial study (Dalley & Buunk, 2009), a community sample of women was asked to think about two prototypical women: the overweight woman and the thin woman. More negative views of the overweight prototype and greater perceived similarity between the self and this prototype were found to interact to predict dieting, independently of body mass index (Dalley & Buunk, 2009). These findings were replicated and extended in a follow-up study using an idiographic method, which found that perceived similarity to a person's own feared overweight body as well as the cognitive availability (i.e., how easy it is to bring to mind) of this body was predictive of intention to diet and choosing a low-calorie food in a laboratory setting (Dalley & Buunk, 2011). The results of these studies are notable for several reasons. They demonstrate the association between the feared overweight self with eating pathology, in this case dieting. Moreover, these results indicate that the desire to avoid becoming a feared self is a stronger motivator of dieting than is the desire to attain thinness, suggesting the importance of avoidance motivation in this population. These results also demonstrate that not only do individuals internalize an idealized thin self, they also seem to internalize a feared or stigmatized overweight self. The degree to which a person has internalized negative views toward this self-representation and also the

degree to which they perceive themselves to be close to being or becoming this feared self plays an important role in the association with dieting behaviour. It is important to highlight that it is perceived similarity/closeness to the feared self, rather than objective closeness (i.e., body mass index) that is implicated in the relationship between the feared overweight self and dieting, highlighting the importance of self-concept in eating pathology (Dalley & Buunk, 2009; 2011).

Subsequent studies conducted by this research group consistently reported associations between the feared overweight self and eating attitudes and behaviours. Specifically, it was found that the perceived likelihood of becoming the feared overweight self mediated the impact of perfectionistic concerns and strivings on dietary restraint, suggesting that dietary restraint may be more related to avoidance of a feared overweight self than to approach toward thinness (Dalley, Toffanin, & Pollet, 2012). Perceived likelihood of becoming the feared overweight self was also found to mediate the relationship between optimism and positive body image, whereas the likelihood of an idealized thin self was not a significant mediator. The authors suggested that optimistic individuals perceive becoming their feared overweight self as less likely and that this contributes to a more positive body image (Dalley & Vidal, 2013). Furthermore, both the feared overweight self and the idealized thin self were found to mediate the relationship between body mass index and body esteem, but results were stronger for the feared overweight self. Again, the authors highlighted the important role of avoidance motivation and the fear of the overweight self, this time in terms of attitudes toward the body (Dalley, Pollet, & Vidal, 2013). Finally, it was found that both the salience of the feared overweight self and the hoped for thin self were both significant mediators in the relationship between avoidance temperament and dieting, though the pathway through the feared overweight self was stronger (Dalley, 2016). Taken together, these studies suggest that fear of self may be more influential in motivating eating

attitudes and behaviours than the pursuit of an idealized thin self. This series of studies provides support for the association between fear of self and ED symptoms, highlights the importance of perceptions of the self over and above actual body weight and shape, and demonstrates the importance of both approach and avoidance motivation while comparing their relative contributions to ED symptoms and self-concept. It should be noted, however, that these studies utilised large community and undergraduate samples of women. Future research should aim to replicate these findings in clinical samples of individuals with EDs.

Self-Discrepancy Theory: Incorporating the Feared Self. The feared self in EDs has also been examined from the perspective of self-discrepancy theory (Higgins, 1987). In this theory, three selves are proposed: the ideal (the self we want to be, representing our hopes and aspirations), the ought (the self we believe we should be), and the actual (the self we are currently). The perceived distance of the actual self from the ideal and/or ought self can have either positive (if the distance is small) or negative (if there is a large discrepancy) effects on affective states (Higgins, 1987). Indeed, research has demonstrated a link between actual/ought and actual/ideal discrepancies and different forms of psychopathology (see Mason et al., 2019 for a review).

Many studies have examined the role of actual body/ideal body discrepancy and have found a relationship with various ED symptoms and body image (Anton, Perri, & Riley, 2000; Heron & Smyth, 2013; Mason et al., 2016; Strauman, Vookles, Berenstein, Chaiken, & Higgins, 1991). Moreover, a psychotherapeutic treatment that addresses self-discrepancies, known as integrative cognitive-affective therapy (ICAT), has been found to be effective in the treatment of BN (Wonderlich et al., 2014; Peterson et al., 2017). This research, however, has been criticized for not taking into account the feared bodily self and actual body/feared body discrepancies (see

Woodman & Hemmings, 2008). The absence of this aspect of the self may be reflected in the results of these studies. For example, in a study that found women who diet have a greater actual/ideal discrepancy than those who do not diet, it was also demonstrated that this group difference was unrelated to thinness ideals, but was instead driven by ‘distorted perceptions of their fatness’ (Gruber, Pope, Lalonde, Hudson, 2001).

In their examination of both the actual/feared body discrepancy and the actual/ideal body discrepancy, Woodman & Hemmings (2008) concluded that the feared body is meaningfully distinct from the ideal body. Furthermore, it has been found that affective state is most related to the self that the individual perceives themselves to be closest to, in this case, either the feared overweight self or the idealized thin self (Woodman & Hemmings, 2008; Woodman & Steer, 2011). The findings pertaining to the importance of perceived proximity is in line with what has been reported in other populations as well (Carver et al., 1999; Heppen & Ogilvie, 2003). This has important implications for EDs. Body image disturbance (i.e., altered or distorted experience of one’s body weight and shape) is a common feature of EDs (Carey & Preston, 2019; Cash & Deagle, 1997; Espeset, Gulliksen, Nordbo, Skarderud, & Holte, 2012; Frank & Treasure, 2016). Distorted body image may lead an individual to (erroneously) believe they are in close proximity to their feared overweight self, activating negative affect and prompting avoidance behaviours (e.g., restriction, compensatory behaviours, etc.) in response to this more salient self. Overall, an examination of the self-discrepancy literature suggests that there is some evidence for the importance of the feared overweight self and avoidance motivation in EDs. Though actual/ideal body discrepancies certainly play a significant role in eating pathology, ‘body image research that neglects the role of the feared self tells only part of a complex picture’ (Woodman & Steer, 2011, pp. 149).

Motivation in EDs: Approach toward Thinness as compared to Avoidance of a Feared Overweight Self. Though approach motivation (i.e., pursuit of thinness) has been established as important in EDs (Stice, Gau, Rohde, & Shaw, 2017; Stice & van Ryzin, 2019), it is also worthwhile to examine research supporting avoidance motivation and its relationship with disordered eating symptoms relative to approach motivation. As described above, fear of self is theorized to reflect avoidance motivation (Carver et al., 1999; Markus & Nurius, 1986) and so evidence highlighting the relevance of this motivation orientation may indirectly support the role of fear of self in this population. Indeed, disordered eating behaviours (e.g., dietary restriction, compensatory behaviours, etc.) can be conceptualized as being motivated by a desire to avoid becoming a feared overweight self.

Other constructs explored in the context of EDs, such as reinforcement sensitivity (i.e., sensitivity to punishment versus sensitivity to reward; Gray, 1991), may also be relevant to the present discussion as possible indicators of avoidance or approach motivation. Moreover, in addition to fear of self, fear of fat, fear of weight gain, and fear of food may also be indicators of avoidance motivation. For example, Levitt (2003) concluded that fear of fat is distinct from drive for thinness and also suggested that this construct may represent avoidance motivation as it may reflect the desire to avoid the negative consequences associated with being overweight (i.e., weight-based stigma). Furthermore, this author indicated that drive for thinness may be a form of approach motivation as it represents striving toward a socially desirable goal (Levitt, 2003).

Several studies have found that indicators of avoidance motivation (i.e., fear of fat, fear of weight gain, fear of food, sensitivity to punishment) are associated with eating pathology and specific symptoms in clinical and non-clinical samples (Bailey & Waller, 2017; Bellew, Gilbert, Mills, McEwan, & Gale, 2006; Chernyak & Lowe, 2010; Chow, Ruhl, Tan, & Ellis, 2019;

Cserjesi et al., 2010; Dodd, Velkoff, Forrest, Fussner, & Smith, 2017; Latner, 2008; Levinson et al., 2017; MacLeod, MacLeod, Dondzilo, & Bell, 2019; Mussap, 2007; Spring & Bulik, 2014; Williamson et al., 2002; Woud, Anschutz, Van Strien, & Becker, 2011). Some studies also compared the relative influence of indicators of both types of motivation and found that indicators of avoidance motivation were found to have stronger relationships with eating pathology than indicators of approach motivation (i.e., drive for thinness, sensitivity to reward; Cserjesi et al., 2010; Mussap, 2007; Williamson et al., 2002; Woud et al., 2011). For example, Mussap (2007) found that punishment sensitivity accounted for a significantly larger proportion of the variance in bulimic symptoms than did sensitivity to reward (though both were significant predictors). These results complement the findings of previously described studies finding that fear of the overweight self was more strongly related to eating pathology than the pursuit of thinness (Dalley, 2016; Dalley & Buunk, 2009; 2011; Dalley & Vidal, 2013; Dalley et al., 2012; 2013). Other studies, however, have found the opposite pattern of results, that indicators of approach motivation were more relevant to eating pathology than indicators of avoidance motivation (Clarke, Ramoz, Fladung, & Gorwood, 2016; Dondzilo et al., 2017; 2019; Rodgers, DuBois, Frumppkin, & Robinaugh, 2018). It should be noted that this research area is complicated by measurement issues. For example, Chernyak & Lowe (2010) highlighted that some of the most commonly used measures of drive for thinness actually include items assessing fear of weight gain. Moreover, it has been suggested that indicators of avoidance motivation may be associated with or even predict indicators of approach motivation (e.g., fear of food has been found to predict drive for thinness [Levinson et al., 2017]), suggesting that a complex relationship may exist between these constructs. Taken together, further research is needed to disentangle the relative contribution of avoidance and approach motivation in EDs as well as

their relationship with one another. Fear of self represents an important indicator of avoidance motivation and may be related to the other indicators mentioned above. That is, fear of food, fear of fat, and fear of weight gain may speak to a higher order fear of the overweight self, and sensitivity to punishment may contribute to a vulnerability toward investment in a feared possible self.

Fear of Self as a Transdiagnostic Factor: Parallels with Obsessive Compulsive Disorder

The fear of self has been studied most extensively in the context of obsessive compulsive disorder (OCD). EDs and OCD share an elevated rate of comorbidity (Bertrand, Bélanger, & O'Connor, 2011) and demonstrate phenomenological similarities (Formea & Burns, 1995; Pigott et al., 1991). Furthermore, several cognitive processes (e.g., thought-fusion, perfectionism, impulsivity, etc.) have already been identified as transdiagnostic to both disorders (Altman & Shankman, 2009; Shafran, 2002; Shafran, Teachman, Kerry, & Rachman, 1999). Given the close relationship between EDs and OCD, it is possible that research into the feared self in OCD may inform our conceptualization of this construct in EDs.

Support for this view comes from studies utilising the Fear of Self Questionnaire (FSQ; Aardema et al., 2013). This self-report measure was developed for use with individuals with OCD and taps into feared self domains common to this disorder (e.g., the self as dangerous, negligent, etc.). Despite having been designed for applicability to OCD self concerns, there is some limited research to suggest that the FSQ measures the fear of self as it applies to EDs as well. It has been found that individuals with EDs obtain greater scores on the FSQ as compared to healthy control participants (Purcell Lalonde, O'Connor, Aardema, & Coelho, 2015; Wilson, Aardema, & O'Connor, 2017) and even as compared to participants with most subtypes of OCD (with the exception of those with repugnant obsessions; Aardema et al., 2018). Results pertaining

to the relationship between fear of self as measured by the FSQ and specific ED symptoms have been mixed, with one study reporting strong positive correlations (Wilson et al., 2017) and another reporting no association (Purcell Lalonde et al., 2015). However, it should be noted that a limitation of the studies employing the FSQ in ED samples is the lack of an OCD symptom measure. Given the high rates of comorbidity between EDs and OCD, it is possible that the levels of fear of self observed in ED samples is better accounted for by the presence of OCD symptoms. Future studies examining this construct in EDs should aim to measure OCD symptoms to address this limitation.

Additionally, inference-based therapy (IBT; O'Connor, Aardema, & Pélissier, 2005) is a cognitive treatment designed for use with individuals with OCD that targets inferential confusion, a maladaptive inductive reasoning process, and related constructs such as the fear of self. This treatment has been found to be as effective as traditional cognitive-behavioural therapy in the treatment of OCD (see Julien, O'Connor, & Aardema, 2016 for a review). IBT has also been adapted for EDs (Bertrand & O'Connor, 2009) and there is some support for its efficacy in reducing both ED symptoms as well as fear of self in individuals with BN (Purcell Lalonde & O'Connor, 2015; Purcell Lalonde, O'Connor, St-Pierre-Delorme, Perreault, & Wilson, 2016). Overall, there is some support for the fear of self as a transdiagnostic factor common to both EDs and OCD.

Development of the Fear of Self. In the OCD literature, the feared self is theorized to develop from the interaction between inferential confusion and a vulnerable/incoherent self-identity (Aardema & Wong, this issue).

Inferential confusion. Inferential confusion is a maladaptive inductive reasoning process comprised of the over-investment in possibility-based information and distrust of sensory

information (O'Connor et al., 2005). This reasoning process may lead a person to distrust their reality-based self in favour of investing in a feared possible one. Applied to EDs, this may be reflected in a thought such as 'When I look in the mirror I can see that I still look the same, but what if I have gained weight and I just can't tell?'. Relatedly, it is theorized that individuals with OCD place their possible self or 'self-as-could-be' in the foreground of their self-concept at the expense of their actual self or 'self-as-is', which is relegated to the background. This is in contrast to the construction of the self-concept of individuals without OCD in which the self-as-is takes precedence (Aardema & O'Connor, 2007). It is possible that the same is the case for individuals with EDs. This inverted self-concept construction may help to explain how someone who is at a healthy weight or underweight may fear and behave as though they are overweight or at great risk of becoming overweight.

Using a self-report measure, a link between inferential confusion and EDs has been demonstrated (Purcell Lalonde & O'Connor, 2015; Wilson, Aardema, & O'Connor, 2018a). Additionally, there is evidence suggesting the potential relevance of each individual component of this construct in this population. For example, the over-investment in possibility-based information is often operationalized in terms of abnormal reasoning processes. Though more research is needed, a few studies have observed impaired reasoning in EDs (Sternheim, Startup, & Schmidt, 2011; Wilson et al., 2017; 2018a). Furthermore, an early theoretical article suggested the potential importance of reasoning errors in the development and maintenance of eating pathology (Vitousek & Hollon, 1990). With regard to the distrust of the senses, it has been found that individuals with EDs experience doubt related to their ability to accurately perceive themselves (Espeset et al., 2012) and evince decreased perceptual confidence (a form of distrust of the senses) in response to prolonged body checking (Wilson et al., 2018b).

Vulnerable self-identity. Vulnerable self-identity, that is, an unstable or incoherent sense of self, is theorized to interact with inferential confusion to lead to the development of a feared self (Aardema & Wong, this issue). Essentially, uncertainty regarding one's identity increases susceptibility to the investment in a possibility-based feared self at the expense of the reality-based self. There is a vast literature pertaining to the development of identity and self-concept in EDs (for a review, see Bardone-Cone et al., 2018). Similarities with the literature describing identity and self-concept in OCD will be highlighted where applicable to illustrate that vulnerable self-identity may develop and represent a risk factor for the investment in a feared self via comparable processes across disorders.

It has long been theorized that EDs develop as a result of identity disturbance related to, among other factors, a failure to develop a diverse set of self-schemas and reliance instead on external sources to provide a coherent identity (Bruch, 1982; Piran, 2001; Vitousek & Ewald, 1993; Wheeler, Adams, & Keating, 2001). More recent empirical articles have also implicated identity disturbance in EDs. For example, a study employing a large clinical sample found that individuals with EDs demonstrated greater identity disturbance across several measures as compared to healthy control participants (Verschuere et al., 2017). Furthermore, identity disturbance and impoverished self-concept (i.e., having few positive and many negative self-schemas) have been found to predict eating symptomatology in women with AN and BN cross-sectionally (Stein & Corte, 2007) and in women with ED symptoms longitudinally (Stein & Corte, 2008). These studies support the role of vulnerable self-identity in EDs in that they suggest a link between difficulties in identity formation and these disorders. Identity disturbance coupled with unconditional negative representations of the self (Cooper, 1997; Erikson, Hansson,

& Lundblad, 2012; Waller et al., 2003; Waller, Ohanian, Meyer, & Osman, 2000), may reflect susceptibility for investment in a feared self.

With regard to more specific processes that may contribute to the development of a vulnerable self-identity, it has been found that individuals with EDs engage in ‘ruminative exploration’, that is, they repeatedly question aspects of their identity. This has been shown to result in emotional distress as well as feelings of insecurity and incompetence with regard to domains of the self (Verschuere et al., 2017). This repeated questioning of identity mirrors research arguing that OCD is associated with preoccupation and ambivalence with regard to the characteristics of their identity (for a discussion, see Bhar, Kyrios, & Hordern, 2015).

Furthermore, a construct known as poor self-concept clarity has been associated with pathological eating attitudes and behaviours and has been suggested as a relevant factor in the development and maintenance of EDs (see Bardone-Cone et al., 2018 for a review). Poor self-concept clarity, defined as an unstable and ill-defined sense of self accompanied by low confidence in one’s self-beliefs (Campbell et al., 1996), is similar to the concept of ‘self-ambivalence’ studied in the context of OCD. Self-ambivalence encapsulates viewing the self in terms of competing dichotomies (e.g., lovable vs. unlovable) and questioning which category best describes the self as well as feelings of uncertainty pertaining to the self and preoccupation with the self (Bhar & Kyrios, 2007). Self-ambivalence has been found to be associated with OCD symptom severity (Bhar & Kyrios, 2007) and to increase vulnerability to OCD behaviours when elicited experimentally (Perera-Delcourt, Nash, & Thorpe, 2014). Again, these processes underscoring an uncertain sense of self may reflect a vulnerability for the development of a feared self in both OCD and EDs. Moreover, poor self-concept clarity has been associated with thin-ideal internalization (Vartanian, 2009; Vartanian & Dey, 2013; Vartanian, Froreich, &

Smyth, 2016), demonstrating its link to investment in externally driven identities. Further research is needed to determine whether poor self-concept clarity is also associated with internalization of a feared overweight self in EDs.

In addition to identity disturbance and uncertain/unstable self-concept, feelings of incompetence in specific self-domains may contribute to a vulnerable self-identity and the development of a feared self. Drawn from the OCD literature, vulnerable self-themes are defined as domains that are valued by the person, but in which they feel incompetent (Doron & Kyrios, 2005). In EDs, thinness reflects a highly valued domain. Indeed, research has consistently supported a link between internalization of the thin ideal propagated in Western society and EDs (Thompson & Stice, 2001) and this construct is thought to be representative of the importance attributed to thinness in the self-concept of individuals with EDs (see Bardone-Cone et al., 2018). Though thinness is valued by society and in particular by those with EDs, individuals with EDs may feel ‘incompetent’ in this domain. For example, the past experience of weight-related teasing has been associated with ED symptoms (e.g., Keery, Boutelle, van den Berg, & Thompson, 2005). This type of experience not only reinforces the value of the weight domain (i.e., the idea that it is so important to be thin that not conforming to this body type results in social ostracism and exclusion), but also elicits feelings of incompetence (i.e., that a person has failed to attain this idealized body type). This proposed pathway is consistent with the postulate that the feared self, as compared to other selves (i.e., ideal, ought), is more likely to develop from salient personal experiences (Ogilvie, 1987). Feelings of incompetence in valued self-domains may contribute to a vulnerable self-identity, which in turn may lead to investment in a feared self.

Overall, vulnerable self-identity, in addition to inferential confusion, is one of the factors that is thought to contribute to the development of the feared self in OCD. Identity disturbance as well as feelings of ambivalence and incompetence in regard to the self may increase the risk of developing pathology in the form of OCD and EDs. Research demonstrating the association between indicators of vulnerable self-identity, inferential confusion, and EDs highlights that the feared self may develop similarly in this population as occurs in OCD.

Construction of the Feared Self in EDs

This paper has reviewed the evidence demonstrating the relevance of the feared self in EDs, drawing parallels with the OCD literature on this topic when applicable. One key difference between studies examining the feared self in EDs as compared to those examining this construct in OCD are the feared self-themes ascribed to each group. Studies investigating this construct in ED samples have focused almost exclusively on a ‘feared overweight self’, while the feared selves attributed to individuals with OCD often pertain to issues of character and morality and do not seem to be as limited in scope. Aardema and colleagues (2018) highlight this perceived distinction well, arguing that OCD is characterized by a fear of a ‘tainted inner self’ whereas individuals with EDs experience a ‘feared bodily self’ (Aardema et al., 2018). This distinction, however, may not be accurate or necessary.

As described above, the FSQ (Aardema et al., 2013) was developed as a measure of the feared self and designed with OCD in mind. The questions included on this measure tap into several self-themes, including the dangerous self, the insane self, and the immoral self. Despite no mention of weight, individuals with EDs score similarly or even higher than OCD groups on this measure (Aardema et al., 2018), which suggests that the feared self in EDs may be broader than merely a feared overweight self. Historical accounts (Keel, 2005) and modern ethnographies

(Cheney, Sullivan, & Grubbs, 2018) identify the importance of social and cultural themes such as asceticism, self-sacrifice, and self-discipline in EDs. Furthermore, EDs have been described in terms of ‘embodied morality’ and perceived links with heroism, power, and spirituality have been reported (see Cheney et al., 2018 for a discussion). Further evidence for a feared self that goes beyond weight comes from a qualitative study examining interviews with individuals participating in a weight loss program. It was determined that, though weight was directly implicated in identity for some, the majority of participants reported that the motivation to lose weight was linked to goals related to other valued aspects of their identity (Granberg, 2006). Additionally, research applying expectancy theory to EDs has demonstrated that expectations regarding the consequences of attaining thinness or being thin also go beyond weight and tap into domains of the inner self. Indeed, the Thinness and Restricting Expectancy Inventory has a one factor structure termed ‘overgeneralized self-improvement’ relating to the expectation that thinness is accompanied by feelings of attractiveness, but also increased competency, capability, confidence, and respect from others (Hohlstein, Smith, & Atlas, 1998). Thus, the desire to be thin or the fear of weight gain may reflect larger characterological desires and fears.

Furthermore, in Western society it is almost impossible to disentangle weight from character. There are many negative stereotypes associated with being overweight. Qualities attributed to overweight individuals include being lazy, having poor self-control, being unfriendly, and being incompetent (see Bartels, 2020). Aardema & Wong (this issue) provide examples from popular media (movies, television, etc.) supporting the fusion between appearance and inner self, with outward ugliness being consistently associated with flaws of character and morality. The same applies to weight, with evidence highlighting the distinction between thin and overweight characters in terms of the characteristics and circumstances

assigned to them, with overweight characters portrayed as lazy, stupid, and subject to ridicule by others (Ata & Thompson, 2010). Additionally, weight-based stigma has been shown to have important, real-world implications. For example, overweight children are often teased and excluded. It has also been found that overweight women are evaluated more negatively by health and mental health professionals, and are less likely to receive financial aid, to be selected as romantic partners, or to receive a promotion at work (for a discussion, see Bacon, Scheltema, & Robinson, 2001). Weight-based stereotypes and anti-fat attitudes begin at an early age (e.g., Cramer & Steinwert, 1998) and persist across time. One study found that nearly half of their sample of adults would give up one year of their life to avoid being obese and 15% indicated they would be willing to give up ten years to avoid this outcome (Schwartz, Vartanian, Nosek, & Brownell, 2006). Internalized weight bias has also been found to have biological consequences (independent of actual weight) such as higher cortisol levels and increased risk of dementia (for a discussion, see Williams & Annandale, 2019). These studies demonstrate the perceived association between weight and character, highlighting the negative consequences of these erroneous beliefs especially in the social sphere. Finally, there is evidence to suggest that the relationship between the feared overweight self and ED symptoms is modulated by beliefs linking fat to negative character traits. As described in a previous section, Dalley and Buunk (2009) found that the relationship between fear of the overweight self and dieting was strongest in those who perceived the prototypical overweight woman less ‘favourably’. In this study, favourability was measured not only in terms of attractiveness, but also in terms of character traits such as reliability, assertiveness, and laziness. Results from this study highlight the link between fear of self, negative beliefs linking weight to character, and eating symptoms (Dalley & Buunk, 2009).

The research presented above highlights the influence of sociocultural factors in EDs. Thin-ideal internalization, a construct implicated in the development and maintenance of EDs, is theorized to develop via social reinforcement (Thompson & Stice, 2001). Both positive reinforcement of thinness as well as the punishment associated with not conforming to the thin ideal (i.e., criticism, teasing, etc.) at the hands of family, peers, and the media contributes to the development of thin-ideal internalization (Thompson & Stice, 2001). An internalized feared overweight self may also reflect this social element, that is, the desire to be accepted and to avoid rejection. Indeed, studies have found that individuals with EDs view weight and shape as a means to gain acceptance from others (Cooper, Cohen-Tovée, Todd, Wells, & Tovée, 1997) and that fear of weight gain may in fact represent a fear of the social consequences of being overweight (Levinson, Rapp, & Riley, 2014; Levinson, Vanzhula, & Christian, 2019). Furthermore, eating pathology has been linked to a tendency to strive to avoid being perceived as inferior (Bellew et al., 2006) and to avoid social exclusion (Wertheim, Paxton, Schutz, & Muir, 1997). Given pervasive beliefs tying weight to character in addition to the negative effects of weight stigma, it seems reductive to limit the definition of the feared self in EDs to weight. Instead, the feared self in EDs may represent the fear of a rejected self, an unsuccessful self, and an unloved self, among others.

Treatment Implications

The integration of notions related to the self and specifically, fear of self, into clinical conceptualization as well as the application of therapeutic strategies targeting this construct may help to increase the efficacy of current treatments for EDs. It has been suggested that developing a clearer sense of self (Verschuere et al., 2017) and new, more positive selves (either with regard to the conceptualization of the current self or to future possible selves) represent an

important avenue for treatment (Stein & Corte, 2007; 2008). Indeed, it has been argued that investment in possible selves are important motivating factors with regard to goal-directed behaviour and behavioural change, especially when linked to salient and valued self-schemas (Stein & Markus, 1996). Taken together, this suggests that treatment strategies targeting self-concept and the fear of self may be an important addition to the treatment of EDs.

IBT (O'Connor et al., 2005), a cognitive treatment originally developed for OCD and later adapted for EDs (Bertrand & O'Connor, 2009), is the only treatment that includes interventions directly targeting the fear of self. Fear of self is addressed in a two-session module as part of the larger IBT program. In this module, psychoeducation is provided pertaining to how identity disturbance can result in defining the self in terms of who a person does not want to be/become (i.e., a feared self) as opposed to who they are/want to be (i.e., actual and ideal selves). In an accompanied writing exercise, clients are asked to articulate their feared selves and are then asked to re-state these descriptions in the affirmative (i.e., in terms of who they want to be), which also serves the purpose of bringing to the foreground the client's values and goals (O'Connor et al., 2005; Bertrand & O'Connor, 2009). As mentioned previously, there is some limited support for the efficacy of IBT in the treatment of EDs (Purcell Lalonde & O'Connor, 2015; Purcell Lalonde et al., 2016). The strategies described in this module can be employed within an IBT approach, but can also be used as an adjunct to other therapies.

Several treatments already incorporate or focus on self and/or self-concept, without targeting the feared self directly. Bardone-Cone and colleagues (2018) review the efficacy of several treatments for EDs (e.g., enhanced cognitive behavioural therapy, mindfulness-based interventions, etc.) that target self-related constructs such as self-esteem and self-efficacy, among others (Bardone-Cone et al., 2018). Furthermore, ICAT incorporates interventions based on self-

discrepancy theory that target ideal/ought/actual discrepancies and has been found to be effective for individuals with EDs (Wonderlich et al., 2014; Peterson et al., 2017). The treatments described above may be complemented by the addition of interventions directly addressing the fear of self. This may involve incorporating the fear of self module from IBT or otherwise utilising standard cognitive strategies that target fear of self. Generally speaking, cognitive strategies that help the client to identify aspects of the self (actual, ideal, and feared) that may have put them at risk to develop an ED or that serve to maintain it may illuminate areas of intervention not previously identified and may also render the treatment provided more personalized and applicable to the client. That is, strategies that serve to identify individualized actual and possible selves may allow for the identification of erroneous beliefs relating to the feared self (i.e., perceived proximity to this feared self, likelihood of becoming this version of the self, etc.), while also helping the client to construct a realistic self-concept based on who they are currently and a possible self based on who they want to become, guided by their values and strengths.

Fear of self may also inform behavioural interventions. It has been suggested that abnormalities in fear learning processes (i.e., enhanced acquisition and generalization of fear in addition to greater difficulty achieving fear extinction) may be relevant to EDs as has been found for anxiety disorders and OCD (for a review see Murray et al., 2018). The primary therapeutic intervention employed to target fear based on the fear learning model is exposure. Though this strategy has been found to be extremely effective for anxiety disorders (Abramowitz, Deacon, & Whiteside, 2019), there is some debate as to its applicability to OCD (O'Connor, Ouellet-Courtois, & Aardema, 2019) and modest support for its efficacy in EDs (see Koskina, Campbell, & Schmidt, 2013 for a review). O'Connor and colleagues (2019) argue that fear learning

principles are not as easily applied to OCD as to anxiety disorders like phobias due in part to the selective nature of the feared stimulus in OCD (e.g., fear in response to one type of stimuli but not to another related stimulus, fear is elicited in some contexts but not others, etc.). A similar issue with applying fear learning principles to EDs has also been raised. Indeed, though fear of weight gain is typically considered a core feature of EDs, it remains unclear whether weight gain represents the feared stimulus or the feared outcome and how other fears (i.e., fear of food) or anticipated consequences (e.g., social rejection) may be implicated (Murray et al., 2016a).

Correct identification of the feared stimulus and outcomes is crucial to effective exposure as one of the central processes at work is inhibitory learning, that is, learning that a feared outcome will not occur despite exposure to the feared stimulus (Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014). Murray and colleagues (Murray et al., 2016a; Murray, Loeb, & Le Grange, 2016b) highlight that ‘self-concept violating outcomes’ may be the anticipated consequence (i.e., feared outcome) of weight gain, and therefore it is expectancies pertaining to these outcomes that need to be targeted via exposure. Accordingly, it is suggested that clinicians conduct an idiographic assessment to determine the client’s specific fears before developing a plan for an exposure-based intervention to ensure that the correct fears are targeted and relevant expectancies violated (Murray et al., 2016a). It is in this way that the fear of self construct may be applicable. Preliminary work identifying the feared self domains of the client may help to identify feared outcomes specific to the individual, in particular those that go beyond the fear of weight gain, which may help to increase the efficacy of exposure-based interventions for individuals with EDs.

Future Directions

One of the key issues highlighted by this review is the importance of investigating feared self themes that go beyond weight in EDs. Qualitative studies examining fears reported by individuals with EDs as well as the use of probing questions designed to identify the anticipated consequences of weight gain may represent a particularly useful starting place. Indeed, this would not only aid in the development of representative measures, but also would have important implications for identifying feared outcomes for exposure-based interventions. Furthermore, qualitative studies have the benefit of being informed by the lived experience of individuals with EDs, which can be a helpful addition to expert knowledge (e.g., Hart & Wade, 2020). Another method for assessing the nature of feared self themes in EDs is the development of measures assessing a range of ED-specific fears. Several self-report questionnaires and at least one semi-structured interview have already been developed for this purpose (e.g., Levinson et al., 2019), but additional research is needed to further validate these measures.

Though there is evidence to suggest the relevance of fear of self in both OCD and EDs, research into this construct remains in its early stages. Continued research examining fear of self using both analogue and clinical samples as well as different types of measures and study designs is necessary in order to develop a more complete understanding of the role of this construct in EDs. Most research examining the fear of self in EDs has consistently found an association between fear of self and dieting in non-clinical samples (Dalley, 2016; Dalley & Buunk, 2009; 2011; Dalley et al., 2012). However, as described above, only one (Wilson et al., 2017) of two studies examining this construct in a clinical sample has found a link with ED symptoms. This may be due to differences in ED symptom severity across clinical and non-clinical samples. It is possible that fear of self is more relevant for individuals who engage in non-clinical dieting, while another construct, such as the pursuit of the thin ideal, may become

the primary motivating factor as severity increases. This hypothesis would, however, be at odds with research finding thin-ideal internalization to be a risk factor preceding the development of EDs (e.g., Thompson & Stice, 2001). Alternatively, divergent findings across sample type may also reflect differences in measurement. Indeed, studies conducted in non-clinical samples used behavioural and experimental tasks, while studies involving clinical participants examined fear of self using a single self-report measure (i.e., the FSQ developed for OCD samples). Taken together, this pattern of findings suggests the importance of taking into account symptom severity as well as the potential influence of measurement modality when assessing the relationship between the fear of self and ED symptoms. Relatedly, future research may benefit from the use of both explicit (i.e., self-report) and implicit measures as part of a multi-modal assessment of the fear of self construct. Implicit measures may be particularly useful given the potentially socially undesirable nature of feared self-themes and, as previously described, divergent patterns of responding may be associated with implicit as compared to explicit measures. To examine this possibility further, a study that is currently underway is utilising a psychophysiological paradigm measuring both approach and avoidance responses to different body types and linking implicit reactions to explicit self-reported pursuit of thinness and fear of self (Wilson & Racine, in preparation). Finally, future research would also benefit from prospective and experimentally designed studies. Prospective studies are needed to determine whether investment in a feared self predicts onset of ED symptoms or if fear of self develops later as a consequence of investment in other ED beliefs. Experimental studies would also be helpful in examining the potentially causal relationship between fear of self and EDs.

Furthermore, using experimental paradigms we can also determine which factors may influence

this relationship (e.g., perceived proximity), how the feared self is triggered, and whether different feared self themes are linked to distinct symptoms.

Given the evidence linking the fear of self to both EDs and OCD, in addition to other areas of overlap between these disorders, it may be beneficial to adopt a transdiagnostic perspective in future research. A transdiagnostic approach can facilitate the identification of fundamental processes conferring risk for the development of multiple mental health disorders and also help us to understand factors that contribute to the onset of one disorder versus another. More specifically, the propensity to invest in a feared possible self may represent a vulnerability factor common to multiple disorders (i.e., OCD, EDs, and potentially others) while the nature of feared self themes may influence the development of OCD in one individual and an ED in someone else. The limitations of symptom-based diagnosis and research have been noted in the ED literature and the potential utility of categorizing EDs based on personality traits and cognitive processes (see Wildes & Marcus, 2013 for a review) or of identifying underlying ‘mechanistic pathways’ (see Murray et al., 2018 for a discussion) has been put forward. Transdiagnostic research into the fear of self and other processes may respond to these needs by helping us to gain a better understanding of the relationship between OCD and EDs and to identify elements that are unique and those that are shared by these disorders. As Bulik (2016) argues in her paper discussing the future of ED research, integrating ideas and methods from other areas is an important next step in the advancement of the ED field.

Conclusion

The study of the fear of self may contribute to our understanding of the motivation underlying disordered eating behaviours. Variations in content and salience of feared self-themes may help to explain differences across individuals in terms of the development of EDs. Though

there is a vast literature demonstrating that approach motivation (ideal/actual discrepancy, pursuit of thinness, etc.) is vitally important to the conceptualization of EDs, this review highlights the relevance of integrating avoidance motivation and the fear of self into our understanding of these disorders. There is evidence from studies employing self-report (e.g., Aardema et al., 2018) and behavioural (e.g., Dalley & Buunk, 2011) measures supporting the association between fear of self and EDs in clinical and analogue samples. Moreover, research adopting a self-discrepancy framework and studies examining motivation orientation lend support to the assertion that there is merit in exploring avoidance motivation, and particularly the fear of self. Using a transdiagnostic lens, evidence for the proposed etiological pathways of the feared self in OCD were examined in EDs. Several points of similarity were noted suggesting the possibility that this construct may develop in a similar fashion in EDs as well. Overall, the limited research available investigating fear of self in EDs suggests that it is a relevant construct in this population warranting further research. Future studies should aim to replicate and extend previous findings linking fear of self to EDs and specific symptoms and would benefit from the investigation of the construction of the feared self in EDs, specifically, examining self-themes that go beyond weight.

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