Behaviour Research and Therapy 48 (2010) 851–859

Contents lists available at ScienceDirect

Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat

Rumination, experiential avoidance, and dysfunctional thinking in eating disorders

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ARTICLE INFO

Article history:
Received 30 June 2009
Received in revised form
4 May 2010
Accepted 10 May 2010

Keywords:
Rumination
Avoidance
Thought processes
Eating disorders
Dysfunctional attitudes
Self-focus

ABSTRACT

The majority of research in eating disorders (ED) has investigated the content of disorder-specific thoughts, while few studies have addressed underlying cognitive-affective processes. A better understanding of processes underpinning ED may have important implications for treatment development. Two studies were conducted that investigated levels of rumination, beliefs about rumination, experiential avoidance, and aspects of schematic thinking in individuals with eating pathology. The latter was assessed with a newly designed ED-Sentence Completion Task (ED-SCT). Study 1 ($N = 177$) examined relations between ED psychopathology and these variables in a student population. Extending this, Study 2 ($N = 26$) assessed differences between patients with anorexia nervosa and healthy control participants. The results showed that ED psychopathology was related to disorder-specific cognitions, experiential avoidance as well as ruminative brooding but not reflection. A follow-up of anorexia nervosa patients indicated that changes in ED psychopathology were associated with changes in dysfunctional attitudes and maladaptive cognitive-affective processes. These findings highlight cognitive processes that may play an important role in the maintenance of eating pathology.

Introduction

Psychological disorders are characterised by disorder-specific thoughts. Beck's (1976) cognitive theory of emotional disorders was the first to specifically suggest that different disorders have unique cognitive profiles that reflect specific disorder-related content. Attention is commonly captured by stimuli related to such material (Mathews & MacLeod, 1986; McCabe & Gotlib, 1995) and likely to become subject to further cognitive processing, for example, by dwelling on or attempting to avoid such content, which often leads to the intensification of concerns (Nolen-Hoeksema, 2000; Watkins & Baracaia, 2001). There is now an extensive amount of literature to suggest that repetitive thought is a feature evident across psychopathological states and characterised by similar processes (see Ehring & Watkins, 2008; Watkins, 2008). Indeed, repetitive, abstract and verbal thinking, with little sustained focus on direct experiential states, defines rumination and worry. Rumination and worry are commonly found in disorders such as depression, anxiety, or post-traumatic stress disorder, and evidence suggests that they are causally related to the development and/or maintenance of cognitive and emotional problems (e.g., Ehring, Frank, & Ehlers, 2008; Segerstrom, Tsao, Alden, & Craske, 2000; Watkins et al., 2007). A better understanding of these transdiagnostic processes underpinning a range of psychopathologies, together with disorder-specific content, is central to the development of novel strategies for intervention (Barnard, 2004).

Much work in the field of eating disorders (ED) has focused on disorder-specific thoughts, suggesting that these individuals are particularly preoccupied with thoughts about the control of their eating, weight and shape (Cooper, Wells, & Todd, 2004; Fairburn, Cooper, & Shafran, 2003; Fairburn, Shafran, & Cooper, 1998). Consistent with this, experimental research in ED has verified the enhanced processing and recall of food-, weight- and shape-related stimuli (see Lee & Shafran, 2004). Most cognitive theories of ED propose the presence of dysfunctional cognitive structures (schemas) to account for this cognitive fixation. The term schema refers to a mental representation of knowledge that serves as a model for understanding the self, one's environment, and other people by influencing the selection and interpretation of information (Dalgleish, 2004). It is theorised that in ED, issues pertaining to eating, weight and shape are a central component of these cognitive structures, thus increasing their accessibility (Garner & Bemis, 1982; Vitousek & Hollon, 1990; Waller, Kennerley, & Ohanian, 2007). Empirical investigations assessing aspects of schematic thinking are still needed (Woolrich, Cooper,

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doi:10.1016/j.brat.2010.05.009

& Turner, 2006). Indeed, the Eating Disorder Beliefs Questionnaire (EDBQ; Cooper, Cohen-Tovée, Todd, Wells, & Tovée, 1997) is one of only few measures designed to assess ED-related dysfunctional attitudes. Findings show the presence of dysfunctional assumptions in ED populations (Cooper & Hunt, 1998; Cooper & Turner, 2000; Cooper, Rose, & Turner, 2005), suggesting that cognitions associating the self with eating, weight, and shape control are common and central to these individuals' sense of self. Such thoughts are likely to underpin further cognitive processing and likely to contribute to and/or intensify ED-symptomatology, in ways similar to other psychological disorders (see above).

Indeed, some theoretical accounts of ED have suggested that transdiagnostic processes may underlie and contribute to the maintenance of cognitive-affective and somatic manifestations (Park & Barnard, 2006; Park, Dunn, & Barnard, under review; Waller et al., 2007; Wolff & Serpell, 1998). These accounts have highlighted the role of rumination and experiential avoidance as maladaptive strategies for regulating affect. However, there has been little empirical research in ED aimed at assessing such processes.

Rumination is defined as conscious thoughts that revolve around common concerns and that recur in the absence of immediate environmental demands (Martin & Tesser, 1996). Nolen-Hoeksema (1991) proposed a conceptualisation of rumination in the context of depressed mood, defining it as thoughts that repetitively focus the individual's attention on his or her negative feelings and symptoms, their causes, meanings and consequences. There is considerable evidence showing that rumination is associated with a range of negative outcomes in clinical and non-clinical samples of various psychological disorders (e.g., persistence of negative mood and thinking, impairment of problem-solving and concentration; Ehring et al., 2008; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Rimes & Watkins, 2005; Watkins & Teasdale, 2001, 2004).

While it is well recognised that preoccupation with the control of eating, weight and shape is a feature of core ED psychopathology (Cooper & Fairburn, 1987; Fairburn et al., 2003), there are surprisingly few studies examining the process of rumination in ED. In a community sample of female adolescents, the tendency towards rumination in response to low mood predicted the onset of binge eating and increases in bulimic symptoms (Nolen-Hoeksema, Stice, Wade, & Bohon, 2007). Based on interviews, Troop, Holbrey, and Treasure (1998) found higher rates of cognitive avoidance and rumination in response to life events and difficulties in ED patients compared to non ED-controls.

Experiential avoidance refers to a process involving excessive negative evaluations of unwanted internal events such as thoughts, feelings, and bodily sensations, an unwillingness to experience these private events, and deliberate efforts to control or escape from them (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). As such, there is some overlap with thought suppression, and both avoidance and suppression of internal events are thought to contribute to the persistence of problematic emotional states (Hayes et al., 1996; Purdon, 1999). Avoidant personality traits are common in ED (Diaz-Marsa, Carrasco, & Saiz, 2000), and it has been suggested that these pre-date the onset as well as contribute to the maintenance of abnormal eating patterns (Lyubomirski, Casper, & Sousa, 2001; Troop & Treasure, 1997; Troop et al., 1998). Findings of deficits in detecting emotional and body-state signal support this position (Kucharska-Pietura, Nikolaou, Masiak, & Treasure, 2004; Wagner, Ruf, Braus, & Schmidt, 2003), and ED may even facilitate the capacity for avoiding emotions and bodily states (Serpell, Treasure, Teasdale, & Sullivan, 1999), making this process particularly pertinent to these disorders.

Finally, research in depression has shown that meta-cognitive beliefs, for example, in the form of beliefs about the benefits of rumination are common and proximal factors in determining the frequency and stability of rumination in samples that have a tendency to ruminate (Barnhofer, Kuehn, de Jong-Meyer, & Williams, 2006; Watkins & Baracaia, 2001; Watkins & Moulds, 2005). It is possible that beliefs about rumination act as an internal control mechanism that strengthens ruminative thinking (Flavell, 1979), which may be one factor accounting for its persistence. Strategies to control cognitions (e.g., 'If I don't keep thinking about my eating then I'll lose control and gain weight') are often observed in clinical work in ED (Cooper, Grocutt, Deepak, & Bailey, 2007). However, no direct assessments of beliefs about rumination have been carried out.

This article reports two studies where rumination, experiential avoidance, and aspects of schematic thinking were directly assessed. Together these studies were particularly aimed at advancing understanding of the processes by which individuals are likely to *react to* ED-concerns.

Study 1

The aim of Study 1 was to measure levels of rumination, beliefs about rumination, experiential avoidance, and aspects of schematic thinking in a student population. Schematic thinking was assessed using a newly designed Eating Disorder-Sentence Completion Task (ED-SCT), which was based on the Sentence Completion Task (SCT) devised by Teasdale, Taylor, Cooper, Hayhurst, and Paykel (1995) to assess aspects of schematic thinking in depression. In Teasdale et al.'s version, participants were required to complete self-referring sentence stems involving the anticipated outcome of social approval or personal achievement (e.g., 'If I could always be right then others would ……. me') with the first word that came to mind. The task was originally designed to pit predictions from a schematic model perspective (Barnard & Teasdale, 1991; Teasdale & Barnard, 1993) against those from Bower's (1981) associative network theory. According to Bower, negative mood states increase accessibility of all negative concepts and thus would lead to the completion of sentences, such as the one above, with a negative word. In contrast, the schematic model approach proposes that mood states influence thinking by changing the inter-relationship between constructs (in depression implying a close dependence between self-worth and social approval) and thus would lead to completions with a positive word. Results showed that depressed patients gave more positive completions than non-depressed controls, and that changes in mood were associated with changes in the number of positive completions (Sheppard & Teasdale, 1996; Teasdale, Lloyd, & Hutton, 1998; Teasdale et al., 1995). In this way, the task separated a simple valence effect from an effect linked to higher-level meaning. Results from these studies supported the use of this task as a tool for assessing the *presence* and *changes* of schematic thinking in depression.

For the present study, an ED-SCT was developed by minimally adapting sentence structures created by Teasdale et al. in order to reflect the operation of ED-related schematic thinking. Specifically, individuals with ED commonly associate eating, weight and shape with social-, self-acceptance, and control (Cooper et al., 1997), and sentences were designed to tap into such underlying assumptions. Thus, an individual with significant ED-concerns completing a sentence such as 'If I could always be my ideal weight and shape then others would …… me' might be more likely to use a positive completion such as 'like', 'accept' or 'respect' than an individual with mild or no ED-concerns. This is because of the closer dependence of the individual's self-view on success at meeting eating, weight and shape goals, which as described further above, is thought to be a reflection of the centrality of such issues to mental representations (schemas).