Intrusive imagery in severe health anxiety: Prevalence, nature and links with memories and maintenance cycles

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ABSTRACT

Increased understanding of the nature and role of intrusive imagery has contributed to the development of effective treatment protocols for some anxiety disorders. However, intrusive imagery in severe health anxiety (hypochondriasis) has been comparatively neglected. Hence, the current study investigates the prevalence, nature and content of intrusive imagery in 55 patients who met DSM-IV-TR (APA, 2000) criteria for the diagnosis of hypochondriasis. A semi-structured interview was used to assess the prevalence, nature and possible role of intrusive imagery in this disorder. Over 78% of participants reported experiencing recurrent, distressing intrusive images, the majority (72%) of which either were a memory of an earlier event or were strongly associated with a memory. The images tended to be future orientated, and were reliably categorised into four themes: i) being told 'the bad news' that you have a serious/life threatening-illness (6.9%), ii) suffering from a serious or life-threatening illness (34.5%), iii) death and dying due to illness (22.4%) and iv) impact of own death or serious illness on loved ones (36.2%). Participants reported responding to experiencing intrusive images by engaging in avoidance, checking, reassurance seeking, distraction and rumination. Potential treatment implications and links to maintenance cycles are considered.

Severe and persistent health anxiety is diagnosed as the somatoform disorder 'hypochondriasis' in DSM-IV-TR (APA, 2000). It has however been argued that the underlying cognitive processes are more consistent with those in anxiety disorders (Mayou, Kirmayer, Simon, Kroenke, & Sharpe, 2005; Noyes, 1999; Olatunji, Deacon, & Abramowitz, 2009). Furthermore, as a label, the diagnosis of 'hypochondriasis' has negative connotations. Thus it may be less pejorative and more clinically useful to conceptualise hypochondriasis as severe and persistent health anxiety, lying at the far end of a continuum that has mild health anxiety at its other end. Hence, in the current paper the term 'health anxiety' is used instead of 'hypochondriasis'.

Severe and persistent health anxiety is characterised by preoccupation with the fear of having a serious disease, which persists in spite of appropriate medical reassurance. Epidemiological studies report that up to nine per cent of patients in general medical practice clinics experience health anxiety (Creed & Barsky, 2004; Gureje, Ustun, & Simon, 1997) and the prevalence in the general population has been reported to be as high as five per cent (Asmundson, Taylor, Sevgur, & Cox, 2001). Health anxiety not only causes great suffering for the patient and those around them but is also costly in terms of higher medical care utilisation (Barsky, Ettner, Horsky, & Bates, 2001). Hence, it remains a priority to understand the aetiology and maintenance of health anxiety and to develop effective treatments. Although imagery research has contributed both to the understanding and treatment of a number of anxiety disorders (Hirsch & Holmes, 2007), there has been little previous investigation of imagery in health anxiety. Hence the current paper explores the prevalence and nature of intrusive imagery in health anxiety for the purpose of providing further insight into the aetiology, maintenance and treatment of the disorder.

Intrusive imagery is a hallmark feature of PTSD (Brewin & Holmes, 2003; Ehlers, Hackmann, & Michael, 2004; Steil & Ehlers, 2000) and has been reported to affect the majority of patients with social phobia (Hackmann, Clark, & McManus, 2000), agoraphobia (Day, Holmes, & Hackmann, 2004), simple phobia (Pratt, Cooper, & Hackmann, 2004) and OCD (Speckens, Hackmann, Ehlers, & Cuthbert, 2007). Previous research suggests that such intrusive images are often linked to memories of adverse events that occurred in childhood or around the time of onset of the disorder (Day et al., 2004; Hackmann et al., 2000; Speckens et al.,

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2007), thus providing insight into the development of the disorder and leading the development of effective imagery re-scripting treatment techniques (Holmes, Arntz, & Smucker, 2007; Hunt & Fenton, 2007; Wild, Hackmann, & Clark, 2007, 2008).

Intrusive imagery has also been demonstrated to play a role in the maintenance of some anxiety disorders. For example, Hirsch, Clark, Mathews, and Williams (2003) reported that holding in mind a negative rather than neutral self image increased socially phobic participants' anxiety and had a detrimental effect on their self-impression and observer rated performance. Maladaptive responses to intrusive images have also been shown to contribute to the maintenance of anxiety disorders (Hackmann & Holmes, 2004). For example, Steil and Ehlers (2000) found that rumination, thought suppression and distraction in response to intrusive images was associated with PTSD severity and Speckens et al. (2007) reported that patients with OCD responded to intrusive images with obsessing, neutralising, distraction, avoidance and reassurance seeking. The prevalence and nature of imagery in patients with health anxiety, however, is not yet known. Nor is it clear whether they respond to intrusive imagery with strategies that have been hypothesised to maintain anxiety disorders, such as checking, reassurance seeking, avoidance, distraction or rumination (Abramowitz & Moore, 2007; Salkovskis & Warwick, 2001; Taylor & Asmundson, 2004).

To date there has only been one previous study of intrusive imagery in patients with health anxiety (Wells & Hackmann, 1993). This preliminary study reported that such patients had images which centred on themes of the self, death and illness, and were often linked to memories of adverse events. However, this study only included ten patients who were selected specifically because they reported experiencing imagery, rather than being a representative sample. Hence, it cannot give any indication of the prevalence of intrusive of imagery in health anxiety. The current study aims to build upon these initial findings by using a semi-structured interview to examine the occurrence and nature of intrusive imagery in a larger sample of patients who meet DSM-IV-TR (APA, 2000) criteria for the diagnosis of hypochondriasis.

The current study had three main aims:

1. To determine the prevalence and nature of recurrent intrusive imagery in participants with health anxiety, and to examine the content and characteristics of the imagery in health anxiety (frequency, recurrence, time code, vividness, perspective and associated distress).
2. To determine whether intrusive images are associated with specific memories, and if so whether the events that the memories relate to cluster in time around the onset of participants' health anxiety. If images are associated with memories, to establish the level of distortion of the image in relation to the memory of the actual event (i.e., the degree to which the image is an accurate representation of the memory of the event).
3. To determine whether participants respond to intrusive images by engaging in behavioural responses hypothesised to maintain health anxiety (e.g., avoidance, reassurance seeking etc.).

Method

Participants and recruitment

Participants were invited to take part in the study after attending an assessment to participate in a randomised controlled trial of mindfulness-based cognitive therapy (MBCT) for health anxiety (McManus, Williams, Surawy, & Muse, in preparation). Diagnoses were established for the purposes of the randomised

controlled trial, by a trained assessor, using the Structured Clinical Interview for Diagnosis (First, Spitzer, Gibbon, & Williams, 1997). Participants were given information about the study and signed a written consent form.

Measures

Whiteley Index

The Likert-scale version of the Whiteley Index (Pilowsky, 1967; Welch, Carleton, & Asmundson, 2009) is a 14-item self-report questionnaire measuring health anxiety, and has been demonstrated to have good validity and reliability (Welch et al., 2009).

Short Health Anxiety Inventory

The Short Health Anxiety Inventory (Salkovskis, Rimes, Warwick, & Clark, 2002) is an 18-item self-report questionnaire measuring health anxiety which has been shown to be reliable, to have a high internal consistency and to have good sensitivity/ specificity (Salkovskis et al., 2002).

Beck Depression Inventory

The Beck Depression Inventory-II (Beck, Brown, & Steer, 1996) is a widely used 21-item self-report measure of depression that has been demonstrated to have good reliability and validity (Beck, Steer, & Carbin, 1988).

Beck Anxiety Inventory

The Beck Anxiety Inventory (Beck & Steer, 1990) is a widely used 21-item self-report measure of anxiety which has a high internal consistency, test–retest reliability and convergent validity (Beck, Epstein, Brown, & Steer, 1988).

Semi-structured interview

The semi-structured interview was based on those used in previous studies (e.g., Day et al., 2004; Hackmann et al., 2000; Speckens et al., 2007) and covered the following areas:

Interview section 1: prevalence, nature and content. Participants were asked to focus on their experiences of being anxious about their health in order to identify related intrusive imagery. Imagery was defined as a multi-sensory experience which could include any of the five modalities (visual, sounds, bodily sensations, taste and smell). Those who experienced intrusive imagery were asked to identify their most significant/distressing image and to evoke this image and describe it. Participants were then asked to respond to all subsequent questions in relation to this 'index image' only.

Participants' descriptions of the index image were transcribed verbatim and analysed using a content analysis approach (Stemler, 2001). Participants' images were initially independently reviewed by two raters (first and fourth authors) in order to identify recurrent features. These features were then compared and any differences reconciled through discussion to produce a final summary list of themes. Finally, the two raters independently coded each of the images as fitting into one or more of the defined themes. Reliability of this coding was established by comparing agreement between raters.

Whether the image was recurrent rather than a one-off was established, and the frequency with which the image had occurred in the last week was noted. Images were then categorised as relating to the past, present or future and participants rated how vivid and distressing the image was from 0 'not at all' to 100 'extremely'. Participants also rated the predominant viewpoint in the image using the following scale: from '−3 field perspective', defined as "looking out through your own eyes, observing details of what is going on around you", through '0 interchangeable perspective' defined as "alternating between the two perspectives",