

Compare of intolerance of uncertainty among obsessive-compulsive disorder, generalized anxiety disorder and healthy subjects

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ABSTRACT: Intolerance of uncertainty has been defined as the unwillingness to tolerate the possibility that negative events may occur in the future, no matter how low the probability. Previous research suggests that intolerance of uncertainty may be more specific to worry and generalized anxiety disorder (GAD) than to other anxiety disorders. Therefore, the current study compared intolerance of uncertainty in individuals with GAD, OCD and HS. Individuals with GAD or OCD reported more intolerance of uncertainty than controls, but they did not differ significantly from each other. These findings suggest that intolerance of uncertainty may be a central theme in a number of the anxiety disorders.

Keywords: uncertainty, obsessive-compulsive disorder, generalized.

INTRODUCTION

Intolerance of uncertainty has received considerable research attention since its conceptualisation (Freeston et al., 1994). Dugas, et al (1998) developed a cognitive behavioral model of GAD based on the premise that individuals with GAD have difficulty dealing with uncertainty in everyday life. The model identifies four main cognitive factors that influence the maintenance of pathological worry: intolerance of uncertainty, positive beliefs about worry, negative problem orientation, and cognitive avoidance. Intolerance of uncertainty has been supported as the key variable for this model. Its significance led to the development of the Intolerance for Uncertainty scale (Buhr & Dugas, 2002; Freeston, et al., 1994), which has been revised and validated extensively (Khawaja & Yu, 2010; Sexton & Dugas, 2009). Intolerance of uncertainty is now recognised as a dispositional trait reflecting unfavourable outlook toward uncertainty and its consequences (Dugas & Robichaud, 2007). Individuals with high intolerance of uncertainty levels find it difficult to manage uncertain events and circumstances of their lives (Ladouceur et al., 1997). Such individuals cannot tolerate being uncertain about what may happen to them in their life. Moreover, a vague and ambiguous future is perceived as threatening (Dugas et al., 2001). Such individuals believe that uncertainty hinders and impairs their functioning, and that unpredictability is unfair and problematic (Sexton & Dugas, 2009). Subsequently, these individuals start to respond negatively to uncertain situations on an emotional, cognitive, and a behavioural level (Dugas et al., 2004). Thus, intolerance of uncertainty is considered as a risk factor for the development of anxiety disorders (Norton et al., 2005). Researchers have proposed a similarity in cognitive processing between GAD and OCD (Comer et al., 2004). Moreover, recent studies have also suggested that intolerance of uncertainty is associated with symptoms of OCD (Lind & Boschen, 2009). McEvoy and Mahoney (2011) found that intolerance of uncertainty, compared to other anxiety and depressive symptoms, explained most of the variance in social anxiety. Individuals with social anxiety are concerned about social situations in which there is possibility of them being evaluated and judged negatively (Hofmann & Barlow, 2002).

However, these associations need more investigations. The present study endeavored to further clarify the intolerance of uncertainty in obsessive-compulsive disorder, generalized anxiety disorder and healthy subjects.

MATERIALS AND METHODS

Methods

Participants

Patients selected from these centers: private clinic of doctor Mazderany (Sari city), Imam Reza Hospital and a private clinic of doctor Bagheri (Amol city), private clinic of doctor Kaka Soltani and Taleghani Hospital (Chalus city), Noushahr and Kelardasht Hospital, which included 150 subjects (50 subjects with generalized anxiety disorder and 50 subjects with obsessive compulsive disorder) based on inclusion and exclusion criteria; inclusion criteria are:

- Having OCD and GAD diagnostic criteria according to DSM-IV-TR
- Age minimum 25 years and maximum 40 years
- Having at least a high school education

And exclusion criteria are:

- Having psychotic symptoms or suicidal thoughts
- Having a personality disorder, neurological illness or narcotic substance abuse
- Receiving medication or other psychological interventions when entering the study

Gender of obsessive-compulsive disorder (OCD) was 14 men and 36 women (n=50), generalized anxiety disorder (GAD) was 14 men and 36 women (n=50) and healthy subjects (HS) was 30 men and 20 women (n=50).

Measures

Intolerance of Uncertainty Questionnaire (IUS)

The IUS (Buhr & Dugas, 2002; Freeston, et al., 1994) is designed to measure intolerance of uncertainty, particularly the idea that uncertainty is unacceptable, reflects negatively on the person, and leads to frustration and stress leading to an inability to take action. The 27 items are rated on a five-point Likert scale that ranges from 1 (*not at all characteristic of me*) to 5 (*entirely characteristic of me*). Buhr and Dugas (2002) reported that the IUS demonstrated excellent internal consistency ($\alpha = .94$) and good test-retest reliability ($r = .74$). The IUS has good convergent validity correlating with other measures of worry, anxiety, and depression (Buhr & Dugas, 2002). Buhr and Dugas (2002) reported that the IUS has good discriminant validity, discriminating between generalised anxiety symptoms, somatic anxiety symptoms, and individuals with no symptoms.

Analysis

Descriptive analysis used for data frequency, mean and standard deviation, Also ANOVA and Post hoc Tukey HSD test were calculated.

RESULTS AND DISCUSSION

Results

To examine differences in IUS scores across the 2 diagnostic and HS groups, an analysis of variance was conducted. The main effect of group was significant ($F = 14.3, P < .000$) (Table 1). Post hoc Tukey's HSD tests indicated that individuals meeting study criteria for both GAD and OCD reported significantly higher scores on the IUS than those in the control group (P 's $< .000$). Individuals in both the GAD and OCD groups endorsed significantly more intolerance of uncertainty than those in the control group. However, the GAD and OCD groups were not significantly different from each other (Table 2).

Table 1. intolerance of uncertainty analysis of variance among OCD, GAD and HS groups

Variable (intolerance of uncertainty)	SS	df	MS	F	Sig
Between groups	11658.1	2	5829		
Within groups	59991.2	147	408.1	14.3	0.000
Total	71649.4	149			

Table 2. Results of post hoc Tukey test for Thought Fusion

Dependent variable	Groups	Mean difference	Standard error	Sig
intolerance of uncertainty	generalized anxiety vs. obsessive-compulsive disorder	6.7	4.06	0.2
	generalized anxiety vs. healthy subjects	21.03	4.02	0.000
	obsessive-compulsive disorder vs. healthy subjects	14.2	4.04	0.002

Discussion

Intolerance of uncertainty has received increasing research attention in relation to GAD and OCD in the last few years. Most studies have found intolerance of uncertainty to be most related to GAD (e.g., Dugas et al., 2001; Ladouceur et al., 1999; Sexton et al., 2003), specifically to its hallmark symptom of pathological and uncontrollable worry, although a number of studies found support for a significant relationship between intolerance of uncertainty and symptoms of OCD (e.g., Steketee et al., 1998; Tolin et al., 2003). To better understand the specificity of this construct, the current study compared levels of intolerance of uncertainty among participants with analogue OCD and GAD. Participants in both the GAD and OCD groups reported significantly higher levels of intolerance of uncertainty than those in a non-anxious control group; however, they did not differ significantly from one another. This finding suggests that intolerance of uncertainty may not be specific to one disorder, but is, in fact, relevant to both GAD and OCD. In summary, there is mounting evidence that intolerance of uncertainty plays a role in both GAD and OCD. Future research would benefit from studies aimed at better understanding the specific nature of intolerance of uncertainty as it relates to the development and maintenance of psychological disorders such as GAD and OCD. For example, if worry and compulsive behaviors serve comparable functions in that they both decrease uncertainty and associated anxiety (Comer et al., 2004), identifying potential factors (e.g., emotion regulation deficits, an inflated sense of responsibility) associated with the differential development of one disorder over the other becomes an important topic for future research.

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