



Efficacy of Anxiety Exposure as a Stand-Alone Treatment in Meta Cognitive Beliefs and Pathological Worry Associated with Generalized Anxiety Disorder

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ABSTRACT: Worry is a component of many psychological disorders. Worry exposure is a technique that is useful in treating excessive worry. We examined its efficacy in reducing pathological worry and met cognitive beliefs associated with generalized anxiety disorder. Three patients were selected by convenient sampling. The method was a multiple-baseline experimental single case study. Subjects completed Pennsylvania State Worry Questionnaire (PSWQ) and Met cognitions questionnaire (MCQ-30) at pretreatment (baseline), treatment (session1, session4 and session8) and at follow-up (three months after treatment). The results provide consistent evidence that in patients with GAD, Worry exposure reduced associated symptoms of generalized anxiety disorder. In conclusion, worry exposure as a stand-alone treatment is efficacious in reducing pathological worry and met cognitive beliefs symptoms typically faced in GAD patients.

Key words: GAD, Worry exposure, Pathological worry, Meta cognitive beliefs

ORIGINAL ARTICLE

INTRODUCTION

Generalized anxiety disorder (GAD) is characterized by excessive and uncontrollable worry and anxiety over many events or activities for at least 6 months, with three of six associated symptoms (restlessness/ keyed-up/on edge, difficulty concentrating, muscle tension, insomnia, fatigability, irritability) causing significant distress or impaired functioning, and not because of other Axis I disorders or the physiologic effects of medical conditions or substance use, according to the Diagnostic and Statistical Manual of Mental Disorder, Fourth Edition (DSM-IV-TR). Generalized anxiety disorder (GAD) is one of the most often occurring anxiety disorders with an estimated lifetime prevalence of 5–6% (Kessler et al., 2005). Although individuals with GAD do not seek treatment from mental health practitioners as often as people with other anxiety and depression disorders, they are second only to patients with post-traumatic stress disorder and panic disorder in seeking help from primary care doctors and their rate of healthcare use is high (Hoffman et al., 2008). GAD seldom refers without intervention (Yonkers et al., 2003) and increases the risk to develop co morbid disorders, particularly depression (Wittchen & Hoyer, 2001). To enhance the treatment effectiveness for GAD is therefore a mental health priority (Wittchen et al., 2002). Most of psychotherapeutic treatment studies for GAD have compared cognitive-behavioral therapy (CBT) with a waiting list control group (WL) (Fava et al., 2004). CBT was usually efficacious with a mean Hedges g of 0.82 for

anxiety measures across all studies and Psychopharmacological treatment was similarly successful (Mitte, 2005). Nevertheless, CBT be less efficacious for GAD than for other anxiety disorders (Ballenger et al., 2001).

According to wells (Wells, 2002), Worrying can be distinguished from other forms of negative thinking, and it is a central feature of Generalized Anxiety Disorder (GAD). It is argued that both the occurrence and the appraisal of worrying have potentially damaging consequences for emotional well-being. Worrying is part of a cognitive-intentional syndrome maintaining emotional disturbance, and negative appraisal of worrying is central in GAD. The maintenance of pathological worrying can be linked to particular met cognitive beliefs about worry.

The prominent avoidance theory of worry and GAD by Borkovec et al.(1998) suggests that the core symptom of GAD, uncontrollable worry, allows patients to cognitively avoid otherwise emotionally disturbing issues and perceived dangers. From this point of view, worry is a predominantly cognitive-verbal activity that inhibits full emotional processing. As a result, disturbing emotional meanings of potentially dangerous and anxiously anticipated events cannot be fully tested or altered, making the repetitive processing of the feared stimuli probable (Foa and Kozak, 1986). According to these assumptions, exposure treatment should also be successful in GAD. It can be applied by confronting physical stimuli (exposure in vivo) or imagined stimuli (exposure in sensu). Given

that worry is typically characterized by the focus on hypothetical future events, it follows that exposure in sense should be a crucial component of the treatment of GAD. Indeed, imaginable exposure techniques targeting worry [‘worry exposure’ (WE)] have been part of CBT treatment packages in trials for GAD (Barlow et al., 1992). Worry exposure consists of teaching the client to accept, rather than avoid, resist, or fight, the emotional distress associated with certain images. The client purposely exposes him- or herself for extended periods of time to various images, without avoiding or escaping the full emotional impact of those images. Such avoidance can be overt (behavioral avoidance) or covert (e.g., worry distraction, punishment, problem solving). Accepting and tolerating emotional responses allow the habituation process to occur. Through this process, the association of fear and avoidance responses with particular images can be extinguished. The ultimate goal of worry exposure is for the individual to experience the images simply as images and not as realistic representations of actual threats to his or her well-being (Rygh and Sanderson, 2004).

From a theoretical perspective, dismantling active CBT components for GAD aids in the understanding of the underlying functional mechanisms, from a practical point of view, it may offer a more parsimonious treatment approach (Hoyer et al., 2009a). Based on these considerations, this study aimed to test the unique efficacy of US alone, largely isolated from other therapeutic procedures. WE is based primarily on assumptions of extinction and habituation. Therefore, we examined how WE affect cognitive variables such as negative met cognitions about the dangerousness of worrying. In sum, the present trial aimed to test whether WE as a stand-alone exposure treatment for GAD is efficacious?

MATERIALS AND METHODS

The recruitment of patients occurred at the outpatient psychotherapy unit of the Zanjan University of Medical Sciences, Iran, from May 2012 to July 2012. The treatment and 3 month follow-up of all participants was completed in October 2012. The protocol was approved by the ethics board in university of Tabriz and all participants gave written informed consent.

The inclusion criteria were a primary DSM-IV diagnosis of GAD and age between 18 and 50 years. The exclusion criteria were serious physical impairment

(DSM-IV axis III), any lifetime history of schizophrenia, bipolar disorder, seizure or organic brain syndrome, substance abuse or dependence within the past year, serious personality disorder, any concurrent psychotherapeutic intervention or benzodiazepine use. One patient presented with benzodiazepine use and was randomized after successful tapering off of this medication. Use of antidepressant drugs was not an exclusion criterion when begun before and maintained on a stable dosage throughout the study.

Participants: Three patients with Generalized Anxiety Disorder (GAD) were selected using Structured Clinical Interview for DSM-IV (SCID) based on disorders axis I. Subjects were selected using purposeful sampling, and underwent the treatment after gaining treatment needs.

Experimental Design: Multiple baseline experimental single case studies were used as the method of the present study. The treatment programmed was carried out for 8 weekly sessions, with a follow up period of 3 months later treatment ending. Subjects completed Pennsylvania State Worry Questionnaire (PSWQ) and Met cognitions questionnaire (MCQ-30).

Worry Exposure:

1. Rationale: Patients are instructed to mentally expose themselves to worry at set times, for a prolonged period, by thinking about the feared events. The exposure takes place by conjuring up an image of the most feared expectation, and focusing on this for a period of 25 minutes. As mentioned, the goal is twofold: habituation to the feared image and the accompanying arousal, and changing the meaning of the feared situation.

2. Implementation: WE followed the protocol by Heiden & Broeke (2009). Worry exposure consists of five steps, these are described in 5 step: Step 1: Selecting the Worry Situation to Which a Patient Will Be Exposed, Step 2: Identifying the Most Feared Expectation, Step 3: Conjure Up an Image of the Most Feared Expectation, Step 4: Think of Alternative Explanations or Outcomes, Step 5: Evaluation

Personal characteristics of the patients: The present study examines the efficacy of US in treating patients with GAD. Three patients with GAD were selected using Structured Clinical Interview for DSM-IV (SCID) based on disorders axis I. Table 1 shows personal characteristics of the patients.

Table 1. Personal characteristics of the patients

Medication	Level of Education	Marital Status	Age	Gender	Group
Drug medication	Master's degree	Married	45	Female	A
No medication	Diploma	Single	36	Female	B
Drug medication	Bachelor of science	Single	24	Male	C

RESULTS

All patients completed the treatment. Table 2 demonstrates the results of PSWQ and MCQ-30 on three samples. To examine the stability of change and possible improvement following treatment, treatment conditions

were tested 3 months after treatment. The WE improved significantly relative to after treatment on measures of worry frequency (PSWQ) and met cognitive beliefs variables.

Table2: The summary of the results of PSWQ and MCQ-30 on three samples

Items	A	B	C
PSWQ (based-line)	70	65	63
PSWQ (first session)	96	62	60
PSWQ (fourth session)	52	47	41
PSWQ (eighth session)	42	32	37
Follow up	47	40	35
% of recovery	40%	51%	41%
Total % of recovery	44%		
MCQ-30 (based-line)	89	98	92
MCQ-30(first session)	80	84	83
MCQ-30(fourth session)	60	63	54
MCQ-30(eighth session)	50	43	38
Follow up	52	41	39
% of recovery	44%	56%	59%
Total % of recovery	53%		

PSWQ= Pennsylvania State Worry Questionnaire; MCQ= Met cognitions questionnaire

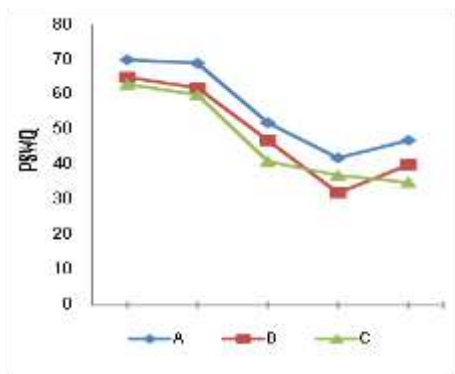


Fig. 1

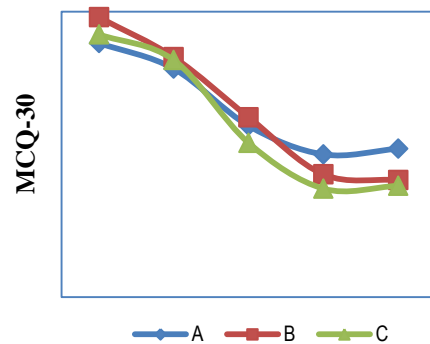


Fig. 2

In order to have a better understanding on comparing the effect of different tests on three patients, we have depicted them .Figure. 1. Showed the results of PSWQ and Figure. 2. showed The results of MCQ-30.As we can observe from the results of Table 2 and Fig. 1 & Fig. 2, the level of PSWQ and MCQ-30 among three patients has been reduced after the eighth sessions.

DISCUSSION

Borkovec et al. (1998) made the suggestion, based on their research, that worry is an active attempt to avoid and control emotional distress evoked by particular images. Avoiding images by worrying, however, is an

ineffective strategy for long-term anxiety reduction, because worrying only temporarily reduces distress. An association of a direct personal threat with a particular image remains intact and ready to evoke more episodes of worry, as long as the affect associated with that image is avoided. A “phobic” type of response to such images can develop with excessive avoidance. For these reasons, worry exposure may be a particularly important component of treatment. Worry exposure teaches clients to accept, tolerate, and eventually habituate to emotional reactions associated with certain images. A long-term reduction in anxiety associated with these images is achieved by directly facing the images and habituating to

the emotional responses associated with them (Rygh & Sanderson, 2004). This is the single subject study examining the efficacy of WE as stand-alone treatment for patients with DSM-IV GAD. The patients exhibited distinct improvements on all outcome measures in treatment conditions. Accordingly, symptoms of excessive worrying and negative metacognitive appraisal of worrying were reduced. These improvements appeared stable, as indicated by 3 month follow-up assessments. With regard to US, the results replicate the previously demonstrated efficacy (Hoyer et al., 2009b) for GAD.

In summary, in this study of US as a stand-alone treatment for GAD we found this method to be efficacious. Although WE represent effective principles of change in GAD, this treatment should be further developed more systematically combined with other treatment components.

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