Original Article

Perseverative thinking and self-differentiation among patients with generalized anxiety disorder and normal people

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Abstract

Generalized anxiety disorder is one of the most common anxiety disorders with high prevalence in community and clinical settings. The aim of this study was to compare perseverative thinking and self-differentiation in patients with generalized anxiety disorder and normal individuals. The research design was causal-comparative. The population included all patients and normal individuals going to Aramesh and Nedaye Shadi counseling centers at Urmia in three quarters in the year 2020, among whom, 60 individuals were selected by the convenience sampling method. One group contained 30 individuals with a diagnosis of generalized anxiety disorder and a group consisted of 30 normal individuals. The participants completed Ehring et al.'s perseverative thinking and Skowron and Friedlander's self-differentiation questionnaires. Multivariate analysis of variance in SPSS-23 was used to analyze the data. The results showed that the mean scores of perseverative thinking in patients with generalized anxiety disorder was significantly higher and the mean scores of self-differentiation was significantly lower than the normal individuals. The results indicated the importance of perseverative thinking and self-differentiation among patients with generalized anxiety disorder.

Introduction

Generalized Anxiety Disorder (GAD) is one of the common psychiatric disorders (Momeni, Shahidi, & Heydari, 2019). It is defined as uncontrollable worry and anxiety, which is observed in most days during a period of 6 months. GAD symptoms include malaise, irritability, muscle contraction, fatigue, sleep disturbance, and difficulty in concentration (American Psychiatric Association, 2013). According to Diagnostic and Statistical Manual for Mental Disorders, approximately 12% of patients, who visit psychiatric clinics develop GAD. Developing GAD creates many problems and issues for the individual, including difficulty in establishing interpersonal relationships and its quality,

feeling of weakness and inadequacy, inability to regulate emotions and reduced performance in the field of education, occupation, marriage, family and parenting (Barrera & Norton, 2009). Despite the high outbreak and negative consequences of GAD, studies on this disorder are among the rarest studies conducted in comparison with other anxiety disorders (Cassidy, Lichtenstein- Phelps, Sibrava, & Thomas, 2009).

One of the variables which has been observed in individuals with generalized anxiety is perseverative thinking. Perseverative thinking is defined as a sort of thinking about a person's negative experiences or problems that is characterized by three key features i.e. repetitive, automatic, and thought stop problem (Shirmohammadi, Kakavand, & Shams-Esfandabad,

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2016). Ehring (2010) defines perseverative thinking as a sort of thinking about a person's negative experiences or problems. Perseverative thinking is precisely defined by thought rumination, which is the main characteristic of depression and anxiety, which is in turn the main characteristic of pervasive anxiety that is highly correlated with emotional disorders. Research findings have shown that perseverative thinking, especially its worrisome aspect, is associated with a variety of anxiety disorders including generalized anxiety (Macedo, Soares, Amaral, Nogueira, & Maderia, 2014). For example, the results of research conducted by Shirmohammadi et al. (2016) showed that in the developed model, perseverative thinking in the form of a pattern can predict the pervasive anxiety. Also, Drost, Vander-does, Van-Hemert, Pennix, and Brenda (2014) concluded in a research that perseverative thinking mediates the relationship between depression and anxiety. The results of the research by Hijnea, Penninxb., Van-Hemertcm and Spinhovena (2020) also showed that increased perseverative thinking causes an increase in the level of anxiety and worry and avoidance system and depression. The results of the research (Sorg, Vogele, Furka, and Meyer-Andrea, 2012) also showed that there is a significant relationship between perseverative thinking and increased excessive anxiety.

On the one hand, environmental and personal risk factors increase the probability of emerging the disease or disorder. Many studies based on stress diathesis model in psychopathology have investigated the role of family-related factors as a predisposing factor in diathesis (vulnerability) (Peleg & Zoab, 2014). One of the factors related to the family that can predispose an individual to psychological problems and emergence of symptoms of illness is self-differentiation (Eskandari, Pajouhinia & Abavisan, 2016). According to Bowen, the degree of differentiation in each individual indicates the extent to which the individual is able to separate the cognitive process from the emotional one that the individual experiences. Bowen has defined the self-differentiation as the ability of individuals to be flexible and act wisely, especially in the face of anxiety (Ebadpour and Saber, 2015). Self-differentiation has four components: emotional reactivity, emotional cut-off, fusion with others, and the ability to attain the I–position (Rodríguez-González, Skowron, Cagigalde-Gregorio, & Munoz San Roque, 2016). Haber (1984) showed that there is a significant negative relationship between self-differentiation and anxiety. In addition, the results of the research by Momeni and Alikhani (2013) indicated that there is a significant negative relationship between self-differentiation and stress and anxiety. It means that the higher the degree of self-differentiation in individuals, the lower the level of stress and anxiety. In another study conducted by Peleg and Papko (2002), the results showed that there was a significant negative relationship between

self-differentiation and anxiety and mental illness symptoms.

With regard to the above findings and high importance of containing the pervasive anxiety and intervention in this disorder and paying attention to cognitive and metacognitive processes involved in this disorder, including perseverative thinking, and to the importance of self-differentiation as a determinant of next reactions and behaviors of the individuals in life, the present research compares the self-differentiation and perseverative thinking and differentiation in individuals with GAD and normal individuals. Therefore, making an investigation into the mechanisms involved in psychological trauma, especially anxiety, including high perseverative thinking and low self-differentiation, can provide a good basis for therapists to develop strategies to reduce psychological trauma. Finally, the dispersion of the research in this field shows the necessity for this research. Therefore, the present research seeks to answer the question whether there is a significant difference between the people with GAD and normal people in their perseverative thinking and self-differentiation? Consequently, the present research was conducted aiming at comparing perseverative thinking and self-differentiation in people with GAD and normal people.

Method

Participants

The present research design was causal-comparative. The population of this research consisted of all patients with generalized anxiety disorder referring to Aramesh (relaxation) and Nedaye Shadi (happiness voice) counseling centers in Urmia city in the second quarter of 2020. Among the patients who referred to these centers, 30 patients with generalized anxiety disorder were selected by convenience sampling. In addition, among the other individuals, who had referred to these counseling centers for reasons other than psychiatric illnesses, 30 people were selected as the normal control group. According to minimum sample size law in causal-comparative studies, which is mentioned 20 individuals for each group (Delavar, 2012), 30 people were selected for each group as samples in order to increase the external validity of the research. In total, 31.3% of the subjects were male and 68.8% of them were female. The age range of the subjects was 18-59 years, with a mean age of 36.27 and a standard deviation of 10.31. The groups were homogenized in terms of demographic variables (age, sex, marital status, and education) in order to control the error variance. The most important criteria to be included in the research was generalized anxiety disorder in mental health and clinical group based on the general health test in the control group, and the most important criteria to be excluded from the research were developing other mental disorders, brain damage, and drug abuse.

Instrument

Perseverative Thinking Questionnaire

Ehring's (2010) perseverative thinking questionnaire was used to measure perseverative thinking. This questionnaire is a self-report instrument consisting of 15 phrases. This test is composed of a general scale of perseverative thinking, three subscales of repetitive negative thinking (9 items), perceived inefficiency (3 items), and mental capacity capture (3 items). The scoring system was in the form of 5-degree Likert. Good grades are indicative of high volume of repetitive negative thoughts in the subjects. Ehring (2010) reported the reliability coefficient of the questionnaire through Cronbach's alpha for the whole questionnaire to be 0.95. The significant correlation of this scale with other scales of perseverative thinking measurement including response style questionnaire, anxiety state questionnaire, Beck Depression Inventory indicates the convergent validity of this scale (Ghaedi, Shabankareh & Moghadam-Barzegar, 2015) reported the reliability of this scale by Cronbach's alpha method to be 0.86. They also investigated the validity of this scale in an Iranian sample by factor analysis and showed that this scale has a good validity. The reliability coefficient in alpha Cronbach method is 0.92 in the present research.

Self-Differentiation Inventory

This questionnaire was developed by Skowron and Friedlander (1988) and revised by Skowron and Smith (2003) and its final questionnaire was developed by Jakson in 45 items based on Bowen's theory. The focus of this instrument is on important life communications and current relationships of individuals with core family. The sections of this questionnaire are scored on a Likert scale from 1 to 6. This scale includes four subscales i.e. emotional response, I-position, emotional cut-off, and fusion with others. A higher score means more differentiation and a lower one means less differentiation, all subscales except I-position are scored in a reverse method. Cronbach's alpha coefficient reported by Skowron and Friedlander for this questionnaire was 0.81 (Skowron & Friedlander, 1998). Jahanbakhshi and Kalantar Koosheh (2012) calculated the reliability of the questionnaire by Cronbach's alpha coefficient to be 0.69 and its validity to be 0.85. Cronbach's alpha coefficient of this questionnaire was calculated to be 0.89 in this research

Procedure

First, the patients diagnosed with generalized anxiety disorder by a psychologist or psychiatrist in clinics and counseling centers were referred to the researcher. A clinical interview was conducted to ensure the accuracy of the diagnosis of generalized anxiety disorder in patients and compliance of the diagnostic criteria of this disorder with DSM-5 diagnostic criteria with the consent of the patients. After ensuring compliance with the inclusion criteria and rejection of DSM-5 about the disorder, the researcher presented the questionnaires individually to patients in a quiet meeting in the same places referred to the treatment. After explanation on how to complete the questionnaires, the participants were asked to clear their ambiguities by asking question(s) if the items were ambiguous. There was no time limitation for completion of the questionnaires. The same procedure was used for the control group. In order to control the possible effect of the tests' order, a set of tests was presented to each subject randomly in a different order. The collected data were analyzed by multivariate analysis of variance.

Results

Table 1 shows the descriptive indices of the subjects' scores in perseverative thinking variables and self-differentiation.

Table 1. Group's mean and standard deviation of research variables

Groups	GAD		Normal	
	M	SD	M	SD
Perseverative Thinking	22.766	3.865	17.793	2.820
Self-differentiation	213.766	46.129	226.55	42.703

As shown in Table 1, the mean scores of perseverative thinking and self-differentiation in individuals with generalized anxiety disorder is higher than ordinary people, and the mean scores of self-differentiation in individuals with generalized anxiety disorder is lower than ordinary people.

In order to compare the mean scores of perseverative thinking and self-differentiation in individuals with generalized anxiety disorder and ordinary people and before using multivariate analysis of variance, Box and Levin test was used to observe its hypothesis. First, the hypotheses of this test are investigated. The results showed that the Box test was not significant (F=2.69, p<0.01), i.e. the hypothesis of homogeneity of variance-covariance matrices of the research variables holds between the groups. In addition, Levin test was not significant for perseverative thinking (F=0.05, p<0.08), and self-differentiation (F=0.215, p<0.06), which means that the presumption of variances' homogeneity holds.

Table 2 compares the mean scores of perseverative thinking and self-differentiation between individuals with generalized anxiety disorder and ordinary people.

Table 2. MANOVA on mean values of the perseverative thinking and self-differentiation between the study groups

Dependent variables	SS	df	MS	F	P
Perseverative thinking	346.756	1	346.756	31.68	0.000
Self-differentiation	241.308	1	241.308	4.218	0.02

The results of Table 2 show that there is a significant difference between the two groups in the mean scores of perseverative thinking and self-differentiation, and patients with generalized anxiety disorder received higher scores in perseverative thinking and lower scores in self-differentiation.

Discussion

The aim of the present research was to compare the perseverative thinking and self-differentiation in patients with generalized anxiety disorder and ordinary individuals. The results of the present study showed that there was a significant difference between the mean scores of perseverative thinking and self-differentiation in people with generalized anxiety disorder and ordinary people and the mean scores of perseverative thinking in individuals with generalized anxiety disorder was higher and the mean scores of self-differentiation in these individuals was lower than the ordinary people. These findings are consistent with the results of the research conducted by Shirmohammadi et al. (2016) who showed that perseverative thinking predicts pervasive anxiety. It is also consistent with the results of the research conducted by Drost et al. (2014) who showed that the perseverative thinking caused an increase in anxiety. Moreover, the results of a research conducted by Sorg et al. (2014) revealed a significant relationship between perseverative thinking and increased anxiety. In explanation of these findings, it can be said that the people, who are more prone to repetitive negative thinking, also evaluate negative social events more negatively than others (Wong, McEvoy, & Rapee, 2015). Since the people with perseverative thinking have negative and dysfunctional cognitions, they use undesirable and harmful problem-solving styles, which ultimately lead to creation of negative emotions, anxiety, and worry (Lonie & Desai, 2015). People, who have higher perseverative thinking characteristics, suffer more psychological turmoil, and repetitive negative thoughts make them more prone to anxiety, stress, and worry (Shirmohammadi et al., 2016). The other finding of the present research was that the mean scores of self-differentiation in people with generalized anxiety disorder was lower than the ordinary people. This finding is consistent with the results of the

research conducted by Momeni and Alikhani (2013) who showed that there is a significant negative relationship between self-differentiation, stress, and anxiety. It is also consistent with the results of a research conducted by Peleg-Papko (2002) who showed that there is a significant negative relationship between self-differentiation and anxiety and mental illness symptoms. In explanation of these results, it can be said that differentiated people have a clear definition of themselves and their beliefs. They can choose their direction in life and may not lose their control in highly-emotional situations, which lead to emergence of involuntary behaviors and making endless decisions in many people, and make decisions based on reason and logic. In contrast, undifferentiated individuals, who do not have a defined identity and proceed along with the emotional wave of the family in existing interpersonal issues and roles, experience high level of chronic anxiety and are prone to psychological problems and emergence of illness symptoms (Momeni & Alikhani, 2013). In addition, those who are highly self-differentiated, have independent behaviors and are less emotionally responsive in their relationships and can differentiate their feeling and thought and control their anxiety and emotions, but self-differentiation is associated with decreased autonomy and increased emotional response, people, who have low differentiation, are less able to control their emotions and experience more anxiety (Hamedi, Khosravi, Peivastehgar, Drvizheh, & Khodabakhsh et al , 2011). Regarding the limitations and suggestions of the present research, it should be noted that the most important limitation of the present research was the lack of control over drug use, which can affect the results. In addition, since the sample of the present research only included the people with generalized anxiety disorder and ordinary people, it is suggested that the variables of this research be compared in other anxiety disorders in future research as well.

Conclusion

In a general conclusion, it can be concluded that perseverative thinking and self-differentiation are of special importance in patients with generalized anxiety disorder, and these variables play an important role in the emergence and possibly in the treatment of this disorder, so, it is recommended that psychotherapists pay a special attention to perseverative thinking and self-differentiation in the treatment of patients with this disorder because it can be useful in the effectiveness of treatment.

Disclosure statement

The authors of this article declare that there was no conflict of interest.

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