Comparison of rumination between men and women with obsessive-compulsive disorder and social anxiety disorder: a cross-sectional study

Leila Salek Ebrahimi¹, Seyyedeh Elnaz Mousavi²*, Soheila Belal Habashi³, Jafar Hasani⁴

1. Assistant professor of Clinical Psychology, Research Center of Psychiatry and Behavioral Sciences, Tabriz University of Medical Sciences, Tabriz, Iran.
2. Department of Clinical Psychology, Faculty of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran.
3. Department of Psychology, Faculty of Humanities, Azad University of Tonekabon, Tonekabon, Iran.
4. Associate Professor, School of Clinical Psychology, Tarbiat Moalem University, Tehran, Iran.

*Corresponding Author:
Address: Department of Clinical Psychology, Faculty of Medicine, Zanjan University of Medical Sciences, Zanjan, Iran.
Email: dr.emousavi@zums.ac.ir

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Abstract

Introduction: Ruminations are one of the influencing factors in the development and continuation of obsessive-compulsive disorder and social phobias. Therefore, this study aimed to compare the rumination between men and women with obsessive-compulsive disorder and social anxiety.

Materials & Methods: The research design was cross-sectional. The research participants included 30 patients with social anxiety disorder and 30 patients with obsessive-compulsive disorder who were aged between 15 and 50 years from Zanjan city in 2017. Samples were selected on the basis of psychiatrist diagnosis and structured diagnostic interviews (SCID-I) and (SCID-II), and the inclusion and exclusion criteria. The rumination response style questionnaire (RRS) was used to measure the variables.

Results: The results of MANOVA showed that women with OCD have more rumination and distraction than men with this disorder (p≤0.05). However, there was no significant difference between two groups regarding the component of contemplation. There was no significant difference between men and women in social anxiety disorder in terms of rumination and its related components.

Conclusion: According to research findings, rumination plays an important role in obsessive-compulsive disorder and social anxiety, which are experienced by both groups. Therefore, the role of ruminations in women with obsessive-compulsive disorder is more intense.

Keywords: Obsessive-compulsive disorder, Social anxiety, Ruminations, Women, Men
Introduction
Among all psychological disorders, obsessive-compulsive disorder and social anxiety, are disorders that factors which affect the incidence and continuity of them are numerous and not well known; these disorders cause dysfunction in the normal process of life, occupational function, routine social activities, or individual relationships (Sadock and Sadock, 2015). Obsessive-compulsive disorder is a chronic mental disorder and one of the ten disabling medical conditions in the world. The prevalence of life-long obsessive-compulsive disorder in the general population relatively 3%. The findings of epidemiological studies have led to obsessive-compulsive disorder as a "hidden epidemic" (Azadbakht et al., 1397). Social anxiety disorder involves the persistent fear of social situations and consequently, avoidance of these situations. The disorder is one of the most common and debilitating anxiety disorders with an annual prevalence of approximately 7% and a life long prevalence of 13%. Median age at the onset of disorder is 13-year. The results of various researches show that people with social anxiety face with numerous problems such as emotional inhibition and avoidance of social situations, non-invasive schemas about themselves and the surrounding world, dominant behaviors, low perceptions of Intimacy in relationships with peers and romantic relationships, reducing social support and mental health and reducing the quality of life (Ghadampour et al., 1396). One of the main characteristic of patients with these disorders is the repetitive thoughts, which are called rumination (Jorman, 2006). Rumination are defined as a kind of passive coping style in which a person constantly focuses on the symptoms, causes, and consequences of the problem and does not use effective action to solve the problem (Hassanzadeh, 2012). Ruminants are known as one of several factors which simultaneously vulnerability and maintaining play role in of the disorder; although many people believe that rumination help them to solve their problems, but the response to the problems through rumination is associated with more problems and tension (Asadzadeh and Alilo, 1396). In one study, the relationship between social anxiety symptoms and rumination was found, and patients with social anxiety disorder experience rumination (Brozevich et al., 2014). Rumination is one of the cognitive characteristics of obsessive patients, which is characterized by endless intrusiveness, sometimes in some minor issues, and sometimes about an unsolvable philosophical problem (Smey and Alloy, 2009). rumination in patients with anxiety disorders, especially social anxiety disorder, can weaken important person's critical situations, such as education, employment, functions, and social relationships (Aderka et al., 2012). It seems that the cause of the overlapping of emotional disorders is the existence of common components such as rumination and avoidance, so confirmation of the findings of the research that deals with common disciplines among the disorders will have a pragmatic application. In fact, these findings imply that because of the similarity of the content of these disorders, we can use the same therapeutic protocols that are both easier to learn and to use, and in harmony with the psychotherapy tradition, it is enough to be conceptualized in accordance with the individual conditions of each individual The issue of the (Farchion et al. 2012). pathology of these disorders is important because of the comorbidity and precedence of these disorders in general and between emotional disorders more specifically, so recognition, treatment and prevention of these disorders can be used to understand and treat other disorders such as depression and substance abuse. Materials that have high comorbidity with these disorders can help (Mohammadi et al., 2013). The goal is to help the person to stop thinking, to get rid of intrusive thoughts, and ultimately to tolerate the unpleasant emotions (Zahiri et al., 1396). Therefore, the present study compares the rumination of women and men with obsessive-compulsive (OCD) and social anxiety disorder.

Materials and Methods
This study was a cross sectional post-event descriptive study. The statistical population of this study included all patients with obsessive-compulsive disorder and social phobias in the age range of 15 to 50 years old in Zanjan city in 2017. A sample of 60 patients, including 30 patients with obsessive-compulsive disorder and 30 patients with social phobia disorder, referred to Zanjan city clinics. The age of the obsessive-compulsive group was in the range of 20-45 years, with an average of 56.5 and the
age group with social phobia in the range of 17-33 years, with an average of 13.14. The participants were selected in the form of convenience sampling method and using structured diagnostic interviews (SCID-I) and (SCID-II). Inclusion criteria were being afflicted with either of the two clinical disorders, having a minimum degree of junior level at a secondary school, and being in the age range of 15-50 years. The exclusion criteria were having personality disorders, intellectual disability, bipolar disorder, psychosis, and substance abuse. Data analysis was carried out using SPSS-18 software.

Rumination Response Style Questionnaire (RRS):
The scale of rumination response style is a subscale from the Nolen-Hoeksma and Moro response styles questionnaire. This self-report scale is constructed by Nolen-Hoeksma and Moro (1991), containing 22 questions of four Likert's options, which grades are scored on a scale of 4 points from 1 (almost never) to 4 (almost always). (Adler, 2008, quoted by Dharahan et al., 2011). This scale shows how much the participants are involved in everyday thought or rumination. Scores can range between 22 to 88 and include 3 components: distraction, deep thought and meditation. The total score is obtained with the sum of scores for each item (Travertin et al., 2003). The alpha coefficient of this scale is 0.90, retest validity have reported 67% (Yuk, Kim, Yang and Lee, 2010). Bagherinejad, Salehifardardi and Tabataba'i translated this questionnaire into Persian and its validity was reported in the Iranian sample by the Cronbach's alpha coefficient as an index of internal consistency of 88. (Bagherinezhad, Salehifardardi and Tabataba'i, 2010).

Structured Clinical Interview for Axis I, DSM-IV, (SCID-I):
This tool is a comprehensive standardized tool for assessing the underlying psychiatric disorders of the axis I based on the definitions and criteria of DSM-IV, which Fors, Spitzer, Gibbon and Williams designed for clinical and research purposes in 1997. In Iran, Sharifi and his colleagues in 2004 also translated the Persian version of the structured clinical interview for DSM-IV-axis I disorder with intercultural methodology in Persian, and in a multicentre study, its validity was measured. A valid instrument for diagnosis is clinical and, in particular, research and even educational (Bakhtiari, 2000).

Structured DSM-IV Clinical Interview for Axis (SCID-II) II:
This tool is a semi-structured diagnostic interview that Fors, Spitzer, Gibbon, and Williams have developed in 1997 to measure 10 personality-based disorder-related disorders, based on DSM-IV, as well as passive-aggressive personality disorder. The content validity of the translated version of the test in Iran was confirmed in Bakhtiari research (2000) and the reliability coefficient of this test was also obtained using a test-retest method with a one-week interval of 0.87 (Sharifi, Mohammadi, Amini, Kaviani and Semnan, 2004).

Results
In terms of demographic characteristics of the studied groups, the mean age of the obsessive-compulsive disorder was 30.56 and social anxiety disorder was 24.13 years. In total, 55% of subjects were female and 45% were male. 21.7%, 28.3% and 50% respectively had the under-diploma, diploma and over diploma respectively. Also, 58.3% were single, 36.7% were married and 5% were divorced. Despite the significant difference in some of the demographic variables in the two groups, the results of covariance analysis indicated that these differences did not contribute to the results of this study.

Despite the significant difference in some of the demographic variables in the two groups, the results of covariance analysis indicated that these differences did not contribute to the results of this study. The components of the ruminations in both groups were analyzed according to the gender variable and the results showed that there was a significant
difference in the type of rumination in the group of people with obsessive-compulsive disorder is different between men and women. It shows that sex plays an important role on the type of rumination in obsessive-compulsive patients. The results of multivariate analysis of variance analysis for this finding are presented in tables.

The results of Table 2 show that the significance levels of the Lambda Wilkes test allow for the use of multivariate analysis of variance. These results indicate that there is a significant difference between two groups of women and men with obsessive-compulsive disorder in at least one of the components of rumination (ETA 0.27, P = 0.036). According to ETA, the difference between the two groups according to the dependent variables is significant and the difference is based on the Lambda Wilkes test of 0.27%, that is, about 27% of the variance related to the difference between the two groups due to the interactions of the dependent variables.

There was a significant difference between the mean score of total rumination between male and female groups (P = 0.003 and F = 0.03). In this module, the average score of obsessive-compulsive disorder women is 18.8% higher than that of men. Therefore, women with obsessive-compulsive disorder may have more rumination than men (Table 3). There was a significant difference between the mean scores of distraction component (P=0.013, F=7) in both groups of women and men with obsessive-compulsive disorder at p≤0.05; in the distraction component, the mean of women with obsessive-compulsive disorder -5.6 is higher than that of men. This difference is statistically significant at the level of p≤0.05. Therefore, men with obsessive-compulsive disorder have more distraction than women.

In the components of deep thinking and meditation, although the mean of women was higher than men, this difference was not statistically significant in patients with obsessive-compulsive disorder (p≤0.05) (Table 3). In the social anxiety group, there was no significant difference between the two groups in terms of rumination and its components. In this group, the mean total of ruminal score was higher in women than in men, although this difference was not statistically significant.

Discussion

The purpose of this study was to compare rumination between men and women with OCD and social anxiety disorder. The findings showed that there is a significant difference between the mean score of rumination and the component of distraction in two groups of women and men with obsessive-compulsive disorder. The mean of the women with obsessive-compulsive disorder in both cases - total score and scores of distraction is higher than men. Therefore, the overall result of this study showed that women had a more rumination than men with obsessive-compulsive disorder and the difference between the two groups of women in men in distraction is greater.

Also in the social anxiety group, rumination in women was higher than that of men, although this difference was not statistically significant. In explaining this finding, it can be said that when individuals face a negative life event, instead of focusing on the problem, they focus on disagreement between the present state and the desired situation (Carver & Lion, 1990). People who are ruminant repeat negative cognitive content after stressful events (Nolen-Hoeksema and Davis, 1999). All individuals enter the self-regulation cycle after experiencing stress, but those who are cognitively vulnerable are hardly out of this cycle (Smith et al., 2006). When an excited emotion is raised or called, interpretations, reactions and strategies determine whether this excitement will continue, exacerbate or diminish. One of the emotion regulation strategies used by social anxious people to
deal with the emotional experience associated with a recently experienced social situation is the post-event processing of events associated with that social position. During this rushing process, individuals are constantly negatively influencing their negative and distorted experiences in social situations, and their anticipated anxieties increase their exposure to social status (Hosseini Ramaqani et al., 2015). The findings of this study are consistent with the research by Modino et al. (2018) on the experience of social anxiety and negative rumination. The findings of this study also coincide with the studies by Rines et al. (2017), entitled "Relationship between rumination and obsessive-compulsive disorder"; they showed that treatments that target unsatisfactory agents such as rumination could potentially improve overall outcomes. What is really about the changing of rumination to anxiety? When people experience negative emotions, they begin to consider their inner thoughts that with the constant paying attention to such feelings, rumination occurs (Lybromski et al., 2015). In fact, the rumination of repetitive thoughts is about the cause of the negative emotions that a person has recently experienced, associated with severe anxiety. If each individual changes his perceptions of life and environment and seriously cope with problems, he has a high level of mental health and compatibility (Liu and Ron, 2018). Also, the findings of this study are congruent with the research conducted by Namdarpour et al. (2017) with the title of studying the factors affecting the rumination of women with marital conflicts. That is important for the role of individual characteristics on rumination. It also suggests whether women who have strong beliefs about controlling emotions, feeling responsible for relationships, and mastering important life events, or who have weak beliefs, may be more likely than men to be ruminant. Women may have sufficient control over important life events, but they still tend to ruminate. Maybe they are worried about the emotional track of their communications and they are listening to their relationship problems. In addition, even when they believe they are dominant over the major life events, they also feel that their emotions are uncontrollable when they experience negative emotions, which makes them tend to rumination. The findings of this study uncoordinated with Khosravi et al. (2008), aimed at comparing ruminant components in depressed, obsessive-compulsive patients, and normal people. The results of their study showed that men with obsessive-compulsive disorder have a higher rumination than women. This research, like other studies, has some limitations. One of the most important limitations of this study was that before submitting questionnaires with samples of structured diagnostic interviews (SCID-I) and SCID-II), this issue also prolonged the process so attempting to control the fatigue effect by randomly submitting questionnaires. It is suggested that in future research, the rumination be compared in other anxiety disorders and axis II disorders, especially in personality disorders that are likely to be similar to obsessive-compulsive disorder (OCD) and social anxiety. Finally, the authors would suggest that this research should be completed with more samples.

Conflict of interest
Authors declare no conflict of interest.
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