

## Comparative Study of the Components of Rumination of Anger in Patients with Depression and Obsessive-compulsive Disorder

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### ABSTRACT

**Introduction:** The purpose of this study was to compare anger rumination in patients with depression and obsessive-compulsive disorder. **Methods:** The research method was causal-comparative. The statistical population of the present study included all patients with depression and obsessive-compulsive disorder in Qom city in 2016-2017. The sampling method was available in this study, 120 of which were selected from the research population. The used instrument was anger rumination questionnaire (ARS). Data were analyzed by t-student statistical method of two independent groups. **Findings:** Results showed that the scales of anger rumination were different in the two groups of depression and obsessive-compulsive disorder ( $p = 0/00$ ). Thus, the amount of anger rumination in patient with obsessive-compulsive disorder is higher than those who are depressed ( $p = 0/00$ ). **Conclusion:** The findings of this study, while having practical aspects in this domain, can be valuable in planning remedial procedures.

**Keywords:** Anger Rumination, Patients with depression, Obsessive-compulsive disorder

Depression as a severe psychiatric disorder imposes heavy costs on general health. According to epidemiological studies, the prevalence of this disorder was reported to be 17.1%. Depression is a factor in the degradation of the individual's performance and in the development of physical illnesses such as hypertension, diabetes, and other problems. Over the last two decades, the importance of this disease has been increasingly taken into account in terms of the suffering it imposes to the patients and the costs it inflicts on the health resources (Perk and Casper, 2010; Besharat et al, 2013). The other structure that has been recently considered in this area is the notion of anger rumination. Recent studies have highlighted the role of ruminants in depression and some psychological disorders.

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Ruminations are a feature that predisposes individuals to relatively stable patterns of thinking and behavior in different situations and times, which can be due to various life events or emotions such as anger rumination, depression or anxiety (Newman, Fouco, Gray and Simon, 2010). Also, obsessive-compulsive disorder is one of the oldest and most difficult mental disorders (Palit, 1993).

Social studies of the prevalence of this disorder during the life of this disorder is 2.5% for adults and for children and adolescents from 1 to 2.3%, and its annual prevalence for adults is between 0.5-2.1%, and for children and adolescents is 0.7% (American Psychiatric Association, 2013). Regarding the disabling of obsessive-compulsive disorder, the treatment of this disorder has long been considered by therapists who have focused on different aspects of this disorder in different periods of time, based on the main assumptions of the various theoretical approaches. Those who have obsessive compulsive cannot throw their thoughts out of their minds. Some theorists argue that the behavior of obsessive-compulsive appears to divert individual attention from obsessive-compulsive thought (Rachman, 1976).

In the meta-cognitive model, vulnerability to psychological disorders as well as the continuation and maintenance of these disorders are associated with cognitive-related attention syndrome. This syndrome is characterized by a high concentration of conflict, a threat review, a ruminal processing of the activation of disturbed beliefs and self-regulation strategies. This pattern predicts the role of meta cognition in vulnerability to psychological disorders and its continuity. According to Beck (1967), the topics and contents of thoughts in depressed people are related to past failures. Pia Giorgio and Wales (2001) argue that negative automated thoughts are short and brief evaluations of failures and losses in depressed patients. While rumination is a long chain of recurring, spinning and self-centered thoughts, and is a respond to early negative thoughts (Riplei, 1997, quoted by Pia Giorgio and Wales, 2004; Yousefy, 2014).

Although studies have focused on the role of cognitive and emotional vulnerability in the development of obsessive-compulsive disorder and depression, these studies are still at the beginning of their ways in the world. On the other hand, studies that carried out on Iranian samples have mainly focused on cognitive variables such as memory, cognitive processing styles, and ineffective beliefs, and few studies have been conducted on rumination of anger. Therefore, with regard to the significant prevalence of obsessive-compulsive disorder and depression, especially obsessive-compulsive disorder in Qom city, the present study investigates anger rumination in patients with depression and obsessive-compulsive disorder. Despite extensive studies on the relationship of anger rumination with obsessive-compulsive and depression, it seems that there are still some ambiguities in this regard. As mentioned earlier, with regard to the high rate of anger rumination in patients with obsessive-compulsive disorder and references to the role of anger rumination in depression, it seems that the comparison of the role of anger rumination in these two disorders and their comparisons from the perspective of these variables are the main issue of this research. Since the rumination of

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anger and anxiety is a strong, natural and necessary feeling for human survival, it has a lot of energy. This energy can be destructive or constructive. Recent studies have highlighted the role of ruminants in depression and some psychological disorders. Ruminations are a feature that predisposes individuals to relatively stable patterns of thinking and behavior in different situations and times (Clarke, 2010), which can be due to various life events or emotions such as depression or anxiety. Anger rumination as one of the rumination styles is defined as repetitive cognitive processes (unintentional and recursive), that emerge after a period of rumination of anger and continues. Anger rumination can be defined as thinking about this excitement. The phenomenology of anger rumination encompasses the experiences of rebellion and fantasies of revenge (Sakodulski et al., 2001; Abdulmanafi and Besharat, 2013). Anger rumination is one of the most important signs of depression and various research findings have confirmed the relationship between anger and depression rumination. Anxiety rumination is associated with deteriorating, beginning, returning, and continuing of depression (Queen Laan Cloul, 2010).

Ruminant thoughts are often associated with negative thoughts, which can cause discomfort and depression and increase aggressiveness. Other studies have shown that rumination in response to depression symptoms is predictive of the onset of new episodes of major depressive disorder, and these people usually experience more severe and depressive periods. The main symptoms of obsessive-compulsive disorder are repetitive obsessions that are time consuming because of extreme distress or major disturbances. Obsessions are thoughts, impulses, or disturbing images that experience unwanted and inappropriate; While practical obsessions are repetitive behaviors or mental actions that a person feels is required to perform them in response to obsessive compulsive or strictly enforced rules. In obsessive-compulsive disorder, obsessive and anxiety thoughts are accompanied by practical obsessions. These obsessive compulsive are obsessive things that a person does to try to reduce his obsession. These practices are repetitive, cliché and somewhat involuntary. When angry feelings are recalled, rumination causes the association of anger feelings with past memories and activates negative turning ideas that are closely related to the central perception of the individual. They also include rotating thoughts of rumination. At that time, one may feel hostile to others, and the desire for revenge and other rational components of anger can be created in him (Abdulmanafi and Besharat, 2013). According to above, the researcher is trying to answer the question whether there is a significant difference between the patients with depression and obsessive-compulsive disorder in the anger rumination components.

### **METHODOLOGY**

Considering the fact that in this research, we compared the anger rumination in patients with depression and obsessive-compulsive disorder, the research method was applied in terms of purpose and in terms of collecting data was a causal-comparative study. The statistical population of this study included all patients with depression and obsessive-compulsive disorder in Qom city in the year 2016-2017, who started their treatment with psychiatrists and clinical psychologists.

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The sampling method was available in this study. One hundred twenty individuals with obsessive-compulsive disorder and depression were selected based on the diagnosis of psychiatrists and clinical psychologists according to the criteria for entering the research. For each questionnaire, 60 people were considered. Since the study sample included two groups of people with depressive disorder and obsessive-compulsive disorder, 60 people were considered for each group. Inclusion criteria included having at least eighteen years of age, no drug use, and no history of psychosis or severe psychological disorder. After providing the anger rumination questionnaire, we referred to governmental and nongovernmental health centers of Qom city. After identifying people who were diagnosed as obsessive-compulsive disorder and depression with psychiatrist or psychologists, and after interviewing and providing basic information in general, the aim of the research was explained to them. After receiving satisfaction, the questionnaire of anger rumination was distributed and collected after completing.

**Anxiety Rumination Questionnaire (ARS):** This scale was developed by Sokodulsky et al. (2001) and measures the tendency to think about the provocative situations of anger and to recall the periods of anger in the past. This scale consists of 18 items and 4 factors: post thought of anger "after a debate with someone, I am always fighting with him", the memories of anger "I think about the unfairness to me", the revengeful thoughts "after a conflict, I have a lot of fantasies about revenge, "and understanding the causes," I think why people are abusing me". Scoring is based on the 4 points Likert scale from 1 (never) to 4 (always). The scores of post-thinking anxiety scales range from 6 to 42. High scores on this scale indicate that post-thinking of anger is high. The subcategory scores for revenge thoughts and understanding causes are from 4 to 28, and high scores on these scales represent revenge thoughts and spend a lot of time to understand the causes of the events. The subcategory scores of the anger memories are from 5 to 35, and high scores on this scale indicate the high memories of anger. Also, high scores in the whole scale represent the high levels of anger rumination. Cronbach's alpha was 0.86 for post thought of anger, 0.72 for revenge thoughts, 0.85 for anger memories, 0.77 for understanding of the causes, and is 0.93 for the whole scale (Sokodulski et al., 2001).

To analyze the data obtained from the questionnaire, descriptive statistics (mean, standard deviation, skewness and Kurtosis) and inferential statistics (t-student test of two independent groups) were used.

## RESULTS

The descriptive statistics of the research variables included rumination of anger, post-thought of anger, revenge thoughts, anger memories and understanding of the causes are presented in the following table.

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**Table 1: Descriptive statistics of research components of anger rumination**

<b>Descriptive statistics</b>	<b>Group</b>	<b>Number</b>	<b>Mean</b>	<b>Standard deviation</b>	<b>Skewness</b>	<b>Kurtosis</b>
Anger rumination	Depressed	60	32.33	28.4	-1.71	3.813
	Obsessive-compulsive	60	38.03	31.97	074.0	-510.0
Post-thought of anger	Depressed	60	9.50	7.99	137.0	288.0
	Obsessive-compulsive	60	11.38	9.87	1.786	4.633
Revenge thoughts	Depressed	60	11.58	10.07	087.0	-1.617
	Obsessive-compulsive	60	13.13	11.62	401.0	520.0
Anger memories	Depressed	60	10.24	8.73	-245.0	306.0
	Obsessive-compulsive	60	14.03	12.52	074.0	-383.0
Understanding the causes	Depressed	60	9.01	8.48	240.0	224.0
	Obsessive-compulsive	60	9.44	8.05	139.0	671.0

There is a difference between the components of the rumination of anger (post-thoughts of anger, revenge thoughts, anger memories and understanding of causes) in patients with depression and obsessive-compulsive disorder.

Also, the results of the skewness and kurtosis indicate that the variables of the research are normal. In addition, given that the level of significance in the Levine test is greater than 0.5, it can be said that the assumption of equality of variances is established, and given that the scale of measurement is the distance, it is possible to use parametric tests.

Finally, in the following table, an independent t-test is presented to compare the factors of anger rumination in two groups:

**Table 2: Table t of t-student of two independent groups in order to compare the factors of anger rumination**

		<b>T</b>	<b>Degree of freedom</b>	<b>Significance level</b>
Post-thought of anger	Homogeneity of variances	-4.02	118	0.000
Revenge thoughts	Homogeneity of variances	6.36	118	0.000
Anger memories	Homogeneity of variances	6.79	118	0.000
Understanding the causes	Homogeneity of variances	-6.10	118	0.203

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The results of the above table indicate that the scores of post-thoughts of anger, revenge thoughts and anger memories are different in the two groups of depression and obsessive-compulsive disorder, so that post-thoughts of anger, revenge thoughts, memories of anger in obsessive-compulsive disorder are higher than depressed individuals and there is no significant difference between the two groups in understanding of the causes. This difference is shown in the conditions of homogeneity of variances. As a result, the above hypothesis is accepted with a probability of 95%.

### **DISCUSSION AND CONCLUSION**

In this research, we evaluated the amount of rumination in depressed and obsessive-compulsive patients. Emotional disorders are associated with negative beliefs about depression emotions. Since in depression, people have negative beliefs about rumination and depression, and they think that depression is accompanied by dangerous problems, fear of depression and fear of recurrence are an important factor in emotional disturbances. Depressed people often have excessive sensitivity to early signs and symptoms of depression, and tend to interpret the symptoms negatively as signs of relapse or abnormal flow.

The results of the analysis of the research data showed that the scores of post-thoughts of anger, revenge thoughts and memories of anger are different in the two groups of depression and obsessive-compulsive disorder, so that post-thoughts of anger, revenge thoughts, memories of anger in obsessive-compulsive disorder are higher than depressed individuals and there is no significant difference between the two groups in understanding of the causes. In explaining this hypothesis it can be argued that anger rumination plays a strategic role in obsessive-compulsive to deal with anger. When angry feelings are invoked, obsessive thoughts activate emotional anger with previous memories and activate negative thoughts that are closely related to the central self-concept of the individual. These rotational thoughts also include anger rumination. At this time, one may feel hostile to others, and desire to take revenge and other components of the rumination will be created in him. From the meta cognitive point of view, positive beliefs about the benefits and advantages of rumination are likely to make people engage in stable rumination. When the rumination is activated, people consider this process to be uncontrollable and potentially harmful, and may result in harmful interpersonal and social consequences. The arousal of negative beliefs and then evaluations about rumination contribute to obsessive thoughts. Therefore, some of the defective cycles of rumination and certain meta-cognitive beliefs may be responsible for the continuation of the experience of obsessive-compulsive thoughts (Motamedi, 2013).

The results of this hypothesis are contrary to the results of Khosravi, Mehrabi, Moqaddam (2011), Besharat et al. (2011), Abdolmanafi and Besharat (2013), Khosravi et al. (2015), Besharat et al. (2016), Rasting and Nolen (2012), Raymes and Watkins (2015), Balsamo (2015), Gilbert et al. (2015), that state anger rumination in patients with depression is significantly higher than those with obsessive-compulsive disorder.

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It seems that the rumination thoughts related to the reviewing of emotions due to the problem and the concern about the non-resolution of the problem in both disorders are effective, but in depressed patients, self-critique and review of mental issues are also involved and exacerbate the symptoms of depression. These results suggest that in the process of treating these two disorders, the attention to the content of thinking content and thinking styles of patients are so important, and it is required to teach depressed and obsessive patients to get rid of recurring, unnecessary and negative ruminant thoughts through different therapeutic techniques such as meta-cognitive techniques. The effect of teaching positive thinking techniques and thought control on decreasing rumination in people with depression and obsessive-compulsive disorder with the aim of reducing the risk of depression and obsessive-compulsive symptoms is a subject that needs to be addressed in the future studies.

The lack of availability of depressed and obsessive patients due to the lack of cooperation between private clinics, the impossibility of communicating with a number of depressed and obsessive-compulsive patients, and the existence of problems such as finding shock or strong pain killers by the patient, which leads to a lack of concentration and understanding of the patient from the question, were among the limitations of this research.

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### ***Conflict of Interest***

The authors colorfully declare this paper to bear not conflict of interests

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