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**DETERMINING THE PROSPECTIVE (SHORT-TERM) MEMORY BETWEEN
NORMAL INDIVIDUALS AND PATIENTS WITH OBSESSIVE – COMPULSIVE
DISORDER**

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ABSTRACT

The present study was performed to evaluate the prospective memory (short-term) between normal individuals and patients with obsessive – compulsive disorder in clinical psychology students at the Faculty of Psychology of Azad Islami University of Karaj. This research is fundamental in term of purpose and it is a comparative study based on method. In terms of data collection, it is a description of the correlation model.

In order to perform this study, initially 100 BA students in clinical psychology were selected by simple random sampling. Then, each was asked to answer the Prospective Memory Questionnaire and Maudsley Obsessive - Compulsive Inventory (MOCI). After completing the questionnaire, based on Maudsley obsessive-compulsive Inventory (MOCI), participants were divided into two groups of 50 people and control. The meta-memory test was taken from participants. After collection, the data were statistically analyzed.

The results show that the average short-term memory in individuals with obsessive-compulsive is more than normal individuals. As a result, the prospective short-term memory of normal individuals and patients with obsessive-compulsive is differed.

Keywords: Prospective Memory, Obsessive – Compulsive Disorder, Normal Individuals

INTRODUCTION

Memory includes processes by which information, experiences and use them in the information can be encoded, stored, and next interaction with the environment. retrieved. Memory is the ability to store Psychologists often consider memory as the

stored knowledge in mind or storage of memory in the brain. Memory is a wonderful cognitive ability because it forms the human's cognitive learning basis. Without having a cognitive and mental tool to store representations of the past, we would not have the ability for enjoyment and experiences of the future. In fact, memory has provided the possibility to dominate perception and allows us to use our past experiences in the present. There are several types of memory within the division, Tulving (1990) could outline a list of 25 types of memory by investigating the proceedings of Norman (1970). In the recent years, several new compounds have been added to this classification such as implicit memory (tacit or explicit), flashbulb memory, everyday memory, constructive memory, prospective memory, Retrospective memory, and meta-memory.

Prospective memory defect in individuals with obsessive-compulsive disorders is an explanation for unwanted suspicions of these individuals that make them checkout again. Prospective memory is an aspect of memory which refers to recalling a premeditated act (Wingrad, 1998).

This memory does not happen suddenly and directly base on an external stimulus. For example, we consciously and regularly

remind in our mind to call someone without an external application to remember this (Einstein and Daniel, 2005).

A defect in prospective and retrospective memory creates and maintains tend for mandatory inspections. People with mandatory inspections experience prospective memory failure. This failure ruins the confidence in prospective memory (Golij, 1390). Obsessive doubts may be focused on the past or future lives. Obsessive suspicion toward the past cause its permanent re-emerging and individual's question about the correctness of their past actions and their consequences make his main concern. Uncertainty about the future makes disorders in the process of life because it disclaims the ability of decision-making in individual (Dadsetan, 1387).

Obsessive-compulsive disorder is a debilitating disorder which is known by distressing thoughts (obsessions) and behaviors to reduce discomfort (mandatory action) (America Psychiatric Association, 2000). Generally, thought obsessive is a word or image that rushes to the individual's awareness despite the will of human (Dadsetan, 1387). The main feature of obsessive – compulsive disorder is recurrent thinking or practical obsessions and it is so severe makes a considerable suffering for

individuals. This thinking or practical obsession causes a waste of time and creates a substantial disorder in the normal and natural process of life, occupational functioning, usual social activities or relationships (Kaplan and Sadock, 2007).

Researches in the field of metacognition have shown that this area and many aspects of cognition such as memory, attention, communication, problem solving and intelligence have a major share (Moses and Baird, 1999). Metacognitive knowledge of memory is called meta-memory (Flavell, 1988) and consists of knowledge about memory (Metcalf, 2000). Meta-memory refers to the personal knowledge about the process, function, evolution, utilization and capacity of the human memory system in general and memory in special (Yousefi Louye, 1382).

Meta-memory defect is the general feature of the patients with obsessive-compulsive disorder. Individuals have mandatory checkouts, annoying and unwanted doubts who fail in properly perform their duties. They are worried that if they make mistake in doing their home works, they may hurt to himself or others or is something happens, then they have mandatory feeling to be sure that they have done their home works correctly (Mueller and Roberts, 2003).

Also, due to the cognitive nature of obsessive-compulsive disorder, defect, and memory biases are the most important aspect of the pathogenicity of this disorder. In individuals with obsessive-compulsive disorders, obtrusive and intractable thoughts becomes a problem, when these individuals have problem in suppression or inhibition of the thoughts when happening, is reviewing in memory (Parden, 1999).

RESEARCH METHODOLOGY

This research is fundamental in term of purpose and it is a comparative study based on the method which was performed to evaluate prospective memory and meta-memory between the patients with obsessive – compulsive disorder and normal individuals in non-clinical psychology population. In terms of data collection, it is a description of the correlation model.

The statistical population of this research was the Bachelor girl students of psychology in the Faculty of Psychology of the Islamic Azad University of Karaj. The sampling method was in the way that the Maudsley Obsessive Compulsive Inventory (MOCI) was collected from 200 students. 50 people who had a higher score than others were selected as obsessive sample and 50 people who were not obsessive were selected as the control sample. The applied tools in this study were

Prospective Memory Questionnaire and Maudsley Obsessive - Compulsive Inventory (MOCI), and meta-memory test.

Methods of data analysis

Central tendency indicators such as the mean and standard deviation were used in the

descriptive statistics and Spearman correlation test, independent t-test were used in the inferential statistics.

RESULTS AND FINDINGS OF THIS STUDY

Table 1: Results of Spearman correlation test

Type of Relationship	Correlation coefficient	Significance level (P- Value)
Obsession and Prospective-Short term memory	.33	.001
Infection and Prospective-Short term memory	.21	.028
Checkout and Prospective-Short term memory	.31	.003
Dullness and Prospective-Short term memory	.23	.019
Uncertainty and Prospective-Short term memory	.25	.016

The relationship between obsession and prospective-short term memory

The amount or the intensity of the Spearman correlation between obsession and prospective-short term memory is obtained 0.33 and there is a significant relationship.

The relationship between infection and prospective-short term memory

The amount or the intensity of the Spearman correlation between infection and prospective-short term memory is obtained 0.21 and there is a significant relationship.

The relationship between checkout and prospective-short term memory

The amount or the intensity of the Spearman correlation between checkout and prospective-short term memory is obtained 0.31 and the direction of the relationship is positive or direct.

The relationship between dullness and prospective-short term memory

The amount or the intensity of the Spearman correlation between dullness and prospective-short term memory is obtained 0.23 and there is a significant relationship.

The relationship between uncertainty and prospective-short term memory

The intensity of the Spearman correlation between uncertainty and prospective-short term memory is obtained 0.33, the amount or the intensity of the Spearman correlation between uncertainty and prospective-short term memory is obtained 0.25 that the direction of relationship is positive or direct.

The prospective-short term memory of normal individuals is different from patients with obsessive-compulsive disorder.

Table 1 shows the results of the comparative independent t-test in order to compare the

means of prospective - short term memory in normal individuals and patients with obsessive-compulsive disorder.

The obtained t value is equal to 2.13 which is less than 0.05 significance level ($p < 0.05$). The results show that there is a statistically significant difference between prospective - short term memory in normal individuals and patients with the obsessive-compulsive disorder ($p < 0.05$). As a result, the difference between the prospective - short term memory between normal individuals and patients with

obsessive-compulsive disorder has been approved.

The obtained investigation for two samples of normal and patients with obsessive-compulsive shows that the average of prospective - short term memory in normal individuals is equal to 3.02 and in patients with obsessive-compulsive disorder is equal to 3.37. The results show that the average of prospective - short term memory in patients with obsessive-compulsive disorder is more than normal individuals. Figure 1 shows the average of two samples.

Table 2: Independent t-test: Comparison of prospective - short term memory in normal individuals and patients with obsessive-compulsive disorder

Groups	Average	Standard deviation	Mean difference	valuet	Significant level (P-value)
obsessive-compulsive	3.37	.43	.35	2.13	.039
Normal	3.02	.59			

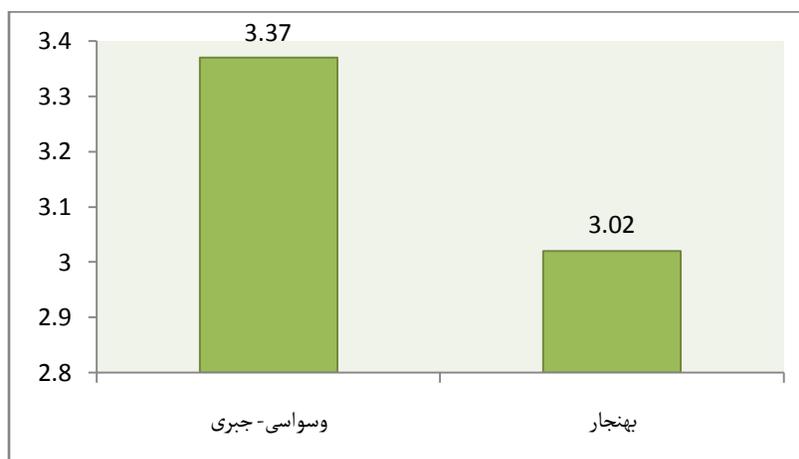


Figure 1: columnar diagram of the amount of prospective - short term memory in normal samples and patients with obsessive-compulsive disorder

DISCUSSION AND CONCLUSION

The total average of the obsession for obsession sample is obtained 0.73 and for

non-obsession sample is obtained 0.18. The average of meta-memory for obsession sample is obtained 13.93 and for non-

obsession sample is obtained 11.04. The average of memory for obsession sample is obtained 3.30 and for non-obsession sample is obtained 2.83.

The correlation between obsession and meta-memory was significant in term of statistical aspect and the amount of correlation is equal to 0.41. The correlation between obsession and memory was significant in term of statistical aspect and the amount of correlation is equal to 0.31. The correlation between obsession and all aspects of memory is significant. The amount of relationship between obsession and prospective - short term memory is equal to 0.33.

In general, the correlation evaluation between the obsession with memory and meta-memory variables shows that by increasing obsession, the amount of memory and meta-memory increases. In other words, people whose obsession rate is higher, the amount of memory and meta-memory is higher in them.

The Spearman correlation test results showed that there is a significant positive correlation between dullness and prospective - short term memory, checkout and prospective - short term memory, infection and prospective - short term memory, and obsession and prospective - short term memory.

The amount of prospective - short term memory in obsessive and non-obsessive

individuals is significantly different ($p < 0.05$). The comparison between the averages of prospective - short term memory showed that the average of prospective - short term memory in obsessive individuals is equal to 3.37 and in non-obsessive individuals is equal to 3.02. These results suggest that the amount of prospective - short term memory in obsessive individuals is significantly higher than non-obsessive individuals. These results suggest that the second hypothesis is confirmed.

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