

## Assessment of the Memory of Patients with Breast Cancer Before and after Chemotherapy

**Dehghani Z:** Department of Psychology, Faculty of Humanities, Islamic Azad University, NajafAbad Branch, Iran

**Tavakoli M :**Department of Psychology, Faculty of Educational Sciences and Psychology, University of Isfahan, Isfahan, Iran

**Mokarian F:** Oncology Specialist, Breast Cancer Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

**Corresponding Author:** Mahgol Tavakoli, m.tavakoli@edu.ui.ac.ir

### Abstract

**Introduction:** Breast cancer is the second most common cancer in the world .Chemotherapy as one of the treatments for this disease causes a wide range of symptoms and side effects. Therefore, the present study assessed the memory of patients with breast cancer before and after chemotherapy.

**Methods:** The statistical population of this comparative research included all women presenting to Sayyid al Shohada Hospital in Isfahan 2016. Forty people, selected through convenience sampling method, were examined before and after chemotherapy. They were assessed through the working memory subscale of Wechsler Intelligence Scale, Rey Visual Memory Test, Rey Auditory Memory Test and, Everyday Memory Test .As the data, distribution was non-normal, nonparametric Wilcoxon test is used instead of the t-dependent parametric test. For data analysis. Data were analyzed in SPSS 22.

**Results:** The results showed that the highest difference existed between before and after treatment in the mean and standard deviation of delayed visual memory before treatment ( $71.75 \pm 76.7$ ) and after treatment ( $85.66 \pm 77.6$ ), hearing impairment immediately before treatment ( $50.11 \pm 85.11$ ) and after treatment ( $63.53 \pm 63.11$ ) and delayed auditory memory before treatment ( $95.5 \pm 57.5$ ) and after treatment ( $87.52 \pm 02.11$ ). The results of Wilcoxon test showed a significant difference between the mean scores of visual and auditory memory before and after chemotherapy ( $P <0.001$ ).

**Conclusion:** Based on the findings of this study, the defects in the memory of patients with breast cancer were due to chemotherapy. It is recommended that Psychological interventions be applied along with medical treatment for improving these problems.

**Keywords:** Breast Cancer, Chemotherapy, Memory.