

OCCUPATION THERAPY ON POSITIVE AND NEGATIVE SYMPTOMS OF CHRONIC SCHIZOPHRENIA PATIENT

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ABSTRACT

Schizophrenia is considered a serious disorder. Recently, findings have shown that combination of medical-occupational therapy is effective in treatment of this disorder. In this research, the aim is determining the effect occupational therapy of on positive and negative symptoms of schizophrenia patients in care centre of chronic schizophrenia patients. Subject was 64 chronic schizophrenia patients. They were selected in the form of accessible non-probable random and they were investigated through Andreasen's scale assessment positive and negative symptoms (SAPNS). Occupational therapy was implemented for 6 hours in a week for 6 months for intervention group. Data is analyzed using descriptive and comprehensive statistics Analyze of covariate (ANCOVA). Results showed that occupational therapy has been effective on reduction of positive and negative symptoms. Occupational therapy has been effective on both of symptoms. It is recommended that other social-mental interventions be used more for observing medical effects.

Keywords: *Occupation Therapy, Schizophrenia, Symptoms*

INTRODUCTION

Background

Schizophrenia is considered a serious mental disorder requiring long-term treatment in which severity is not abnormal during sickness progress (Chen *et al.*, 2009) These patients are not often aware of their need to treatment and social effects of their symptoms (Raffard *et al.*, 2009). This sickness effects on almost 24 million people worldwide (Chen *et al.*, 1998). Schizophrenia is divided in two types of 1 and 2 based on existence or absence of positive and negative symptoms. Positive symptoms among patients of type 1 include hallucination, delusion, and bizarre behavior, thought disorder. Brain structure in CT scan is normal and treatment response is relatively good.

Negative symptoms among patients type 2 are mainly: alogia, aphasia, anhedonia, apathy, blunting of affect and lack of attention .and some disorder in structures are seen in CT scan and treatment response is not also good (Sadock and Sadock, 2007). Findings revealed that using antipsychotic drugs are effective on reduction of presence in the hospital; however, they have less effectiveness on obtaining profession, independent life, and personal relationships of the patient. Therefore, standard treatment for schizophrenia includes mixture of medical and other treatments.

That is why mental enabling and occupational therapy are highly important and scientists offer combination of both (Atkinson, 2001; Buchain *et al.*, 2003). Occupational therapy as one of mental-social treatments leads the patients to a normal life as much as possible (Goldenson, 1978). Occupational therapy pioneers believe that using body and mind simultaneously during playing, in the gym, and even in the workplace can be effective on individual's health and it became the basic belief for this method of treatment (Fortinash, 2000). The main goal of occupational therapy is active involvement of an individual on daily activities (Tasumi *et al.*, 2011). Although mental-social treatments increase the wellbeing by 25 percent, recent studies have encouraged combination of medical treatment along with mental-social one in order to obtain long-term improvement in treatment results (Foulds, 2006; Kopelowicz and Liberman, 2003). Due to few studies in this field and in order to reduce side effects of medical treatments .we intend, in this research, to investigate effectiveness of occupational therapy on reducing positive and negative symptoms of hospitalized chronic schizophrenia patients in care center of chronic patients.

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MATERIALS AND METHODS

Methods

Participation

This research is a clinical-trial one conducted in Zahedan, Iran in 1392-93 (2013-2014). The population under study is chronic schizophrenia patients in Zahedan, Iran.

Recruitment

64 schizophrenia patients were selected by accessible, non probable and random method and investigated by Anderson positive and negative symptom questionnaire. Then 32 patients (16 male and 16 female) were placed in intervention group along with another 32 patients (16 male and 16 female) in control group. Control group was matched by drug. The criteria to enter this research were having not physical debilitating sickness as well as age between 30-60.

Data Collection

Anderson positive and negative questionnaire is the criterion for investigating positive and negative symptoms among schizophrenia patients (Andreasen, 1989). Andreasen’s scale for assessment of positive symptoms (SAPS) has symptoms such as hallucination, delusion, and bizarre behavior and thought disorder that are contain 35 items. The choice for questions included nothing scored 0, suspicious scored 1, minor scored 2, medium scored 3, severe scored 4 ,and excessive scored 5. Thus, the higher score an individual obtains, the more severe symptoms he has and vice versa. Andreasen’s scale for assessment of negative symptoms (SANS) includes symptoms such as: blunting of affect, alogia, avolition, anhedonia, and lack of attention. Which is adaptable with scale for assessment of positive symptoms and that are contain 24 items. Contation –validity method was used to obtain validity and normalization of this questionnaire and second test was used to find scientific trust in that (r=0.89) was trusted (Forouzande *et al.*, 2008). In intervention group, occupational-therapy sessions were held for six hours a week for six months. Occupational therapy included activities such as team games, gardening, pottery making, calligraphy and painting among males as well as embroidery tapestry, painting, calligraphy, knitting, mirror embroidery, embroidery, sequin embroider, doll making, among female. After six months of occupational therapy, intervention and control groups were assessed by SAPNS.

Data Analysis

Discriptive statistic has used for showing mean and standard deviation(SD) both of group and ANCOVA method was applied for determining the effect of occupational therapy on positive and negative symptoms. Information was analyzed by SPSS software 18 and Meaningful level of (P<0.01) was used for investigating research findings.

RESULTS AND DISCUSSION

Finding

Mean and SD of intervention and control group are illustrated in following in table1:

Table 1: Mean and Standard deviation (SD) of intervention and control group

Control group	Intervention group	Symptoms
50/68±119/6	60/8 ±12/12	Positive
47/29±15/32	58/03± 12/47	Negative

According to the results illustrated in the table 1 difference are not statistically significant between groups Mean and standard deviation.

Table 2: Results from ANCOVA of variance related to score Mean of positive and negative symptoms post test

Observe power	Eta Partial Square	sig	F	Mean Square	of df	Sum of squares	of Source
1	./8	./001	242/32	9921/56	1	9921/56	positive
1	./47	./001	47/39	5250/95	1	5250/95	Negative

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Table 2: Results of analyze of variance (ANCOVA) related to score Mean of positive and negative symptoms post test. P value: significant at the ($P < 0.01$) level.

Results in table 2 indicate that the results of ANCOVA significant is positive symptom variable ($P < 0.01$ and $F = 242/32$) and negative symptom ($P < 0.01$ and $F = 47/39$). Therefore, the research assumption stating that occupational therapy is effective positive and negative symptoms of schizophrenia patients is confirmed. In addition, effect-size coefficient shows that 80 per cent difference of two groups in the stage of posttest in terms of positive symptoms variable is related to trial intervention and in negative symptoms variable, effect-size coefficient shows that 47 per cent difference of two groups in the stage of posttest in terms of negative symptoms variable is related to trial intervention and statistical power is one in both of symptoms.

Implication

In this research, meaningful improvement occurred in positive and negative symptoms and there was a meaningful difference in average of two groups in post-stage step.

Suresh (2008) showed that there was a meaningful improvement in positive and negative symptoms of schizophrenia patient's specially thinking disorder and paranoid beliefs (Suresh, 2008). Forouzandeh *et al.*, (2012), in a research, revealed that positive and negative symptoms improved in intervention group (Forouzandeh *et al.*, 2012). Main goals of treatment in all mental patients such as schizophrenia is improving quality of life and helping to reach a normal situation in everyday life as well as reducing treatment. Severity of symptoms and prevention from side effects of illness. This is only effective by standard and comprehensive plan to help the patient (Langle *et al.*, 2006; Roder *et al.*, 2001).

Patients with severe negative symptoms tend to be isolated from society, avoid others due to the fact that negative symptoms mix with other symptoms as a result of high mental pressure to vulnerability to changes in being placed in new conditions. These unfamiliar conditions for these kinds of people make them anxious. It is thought that their autism protect them from sensitive and vulnerable spirit. Thus, the patient develops negative symptoms and cannot easily create interrelationships with others and severity of these symptoms for schizophrenia patients lead to long-term hospitalization (Tasumi *et al.*, 2011). The main goal of occupational therapy is enabling the patient for everyday-life activities (Segal *et al.*, 2006). Mohammadi *et al.*, (2012) in a research entitled effectiveness of music therapy on reducing positive and negative symptoms showed that music therapy is only effective on negative symptoms and positive symptoms have not changed (Mohammadi *et al.*, 2012). The reason for the difference of this result in positive symptom with those of other researches is rooted in way of implementing occupational therapy, cultural differences and existing demographic differences. Cook *et al.*, (2009) Buchin *et al.*, (2003), in their researches, showed that occupational therapy has been effective on reducing negative symptoms (Buchin *et al.*, 2003) How and Cook (2002) revealed that occupational therapy has been effective for schizophrenia patients (How and Cook, 2002). Eklund *et al.*, (2001) in a research showed high number of their relevant variables, less psychiatric symptoms, and better life quality (Eklund *et al.*, 2001). Hallewell (1999) in a study for treatment alternatives of schizophrenia, in strategies of prescribing clozapin, points to mixture of this drug with mental interventions (Hallewell, 1999). Negative symptoms such as isolation, not having motivation and being indecisive for doing individual and social affairs show better response to treatment with some treatment like occupational therapy and gift-punishment system.

Conclusion

In this research, occupational therapy had a meaningful effect on positive and negative symptoms of schizophrenia.

ACKNOWLEDGEMENT

Researchers appreciate deputy of Zahedan medical university, welfare organization and officials and personnel of care center of chronic patients as well as all who helped in this research.

Key Message

- It is recommended that other mental-social interventions be used to create more treatment effects on schizophrenia symptoms, discribe and remove side effect.

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- Effectiveness of these interventions in other psychological variables such as anxiety, depression, emotional intelligence and other positive and negative variables related to mental illnesses ought to be investigated.

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