Effect of Psycho-Educative Intervention on Knowledge about Illness and Self-care in Patients with Schizophrenia

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Abstract

In view of growing incidences of schizophrenia, a common mental disorder, present study enrolled 60 such patients (30 each in experimental and control groups) to evaluate pre- and post-intervention knowledge of schizophrenic patients and their self-care performance among in-patients of LGB Regional Institute of Mental Health in Tezpur (Assam). An association between knowledge and self-care performance was also studied. The findings revealed deficiencies in self-care performance and areas of knowledge among schizophrenic patients. However, the psycho-education intervention was effective on both the counts.

Schizophrenia is a mental illness with multiple paradigms. Once schizophrenia develops people usually suffer from the illness or its residual effects for rest of their lives. Impairment in psychosocial functioning is recognised as a core feature of schizophrenia. Schizophrenia is the fourth leading cause of disability throughout the world (Murray, 1997). Treatment and psychosocially oriented interventions can help the people with schizophrenia to lead productive lives. Treatment that combines medication, awareness program and various skill training can improve quality of life of people with schizophrenia. In view of various problems encountered by schizophrenic patients the present study aimed to evaluate a psycho-educative intervention in terms of improvement in knowledge and self-care performance in schizophrenic patients. Selected self-care performance included: performance skills related to bathing, dressing, feeding self, hair care, nail care and sleeping habit.

Objectives

The objectives of the present study were to determine: (i) The pre- and post-intervention level of schizophrenic patients’ self-care performance, (ii) Pre- and post-intervention knowledge of schizophrenic patients, (iii) The association between pre-test level knowledge and sample characteristics such as age, sex and education, and (iv) The relationship between knowledge and self-care performance.

Methods

The study adopted an evaluative research approach with pre- and post-nonequivalent control group design. The sample consisted of 60 schizophrenia patients, 30 in each group (experimental and control). Schizophrenia patients were selected from the indoor settings of LGB Regional Institute of Mental Health, Tezpur, Assam. The study sample was a convenient sample.

A review of related research and non-research literature helped the investigator to select the criteria and develop content for the psycho-educative intervention package about schizophrenia.

The tools used for data collection were the following (reliability and validity are given): (1) A socio-demographic performa containing 13 items; (2) An observation checklist on performance of self-care consisting of 30 items (\(r_{13}=0.913\)); (3) A knowledge questionnaire about schizophrenia with a total of 110 items (\(r_{28}=0.70\) including areas like introducing mental illness, meaning of schizophrenia, causes of schizophrenia, sign symptom, treatments, side effects of medication, need for medication, misconception, and self-care during hospitalisation; (4) An insight assessment scale consisted of 6 items, which was used only to decide on the inclusion criteria.

Content validity of the tools intervention plan was established by giving it to five experts in the field of mental health against structured criteria. Psycho-educative intervention plan was implemented in two sessions of 45 minutes each.

Data Collection

Administrative permission was obtained and the subjects were explained about the study procedure and informed consent was obtained before administering the intervention. On day 1, 2 and 3 schizophrenic patients were observed for self-care performance. On day 3, the knowledge questionnaire was administered to the patients. Schizophrenia patients under the experimental group received two 45 minutes teaching sessions on schizophrenia on the basis of the psycho-educative intervention package on...
day 4 and 5. Following the teaching sessions booklets were distributed to patients. The schizophrenic patients were again observed for self-care performance (on day 9, 10 & 11), and the knowledge (on day 11) following the intervention.

The data gathered were analysed and interpreted in terms of the objectives of the study. Descriptive and inferential statistics were utilised for the analyses. All the hypotheses were tested at 0.05 level of significance. Paired 't' tests were computed to find out the difference between pre- and post-test mean scores of self-care performance, and knowledge of schizophrenic patients in control and experimental groups. Independent ‘t’ tests were computed to determine the statistically significant difference between post-test mean scores of the control and experimental groups in self-care performance, and knowledge.

**Results**

**Findings related to schizophrenic patients**

1. Maximum number of schizophrenic patients in both experimental (50%) and control groups (53.3%) were in the age group of 20-29 years; majority of schizophrenic patients participated in the study were male (73.3% in control group, 80% in experimental group).

2. Majority of subjects (control 50%, experimental group 60%) had education up to or above high school level.

3. Maximum subjects in control group (40%) had occupation of cultivation and 30% of subjects in experimental group had similar occupation.

4. Majority of schizophrenic patients participating in the study (90% in control group and 80% in experimental groups) were Hindu; mother tongue of maximum number of subjects under study was Assamese (control group 83.3%, experimental group 86.7%).

5. Monthly income of 63.3 percent of the subjects was below Rs 2000.

6. Majority of the schizophrenic patients participated in the study were from rural areas i.e. 66.7 percent in control group and 80 percent in experimental groups.

7. Majorities of subjects were having duration of illness as above 2 years (80% in control group and 70% in experimental group).

8. Majority of schizophrenic patients were admitted for the first time to the hospital (80% in control group and 76.7% experimental group).

**Effect of the Psycho-educative Intervention**

Pre- and post-test mean and standard deviation of self-care performance scores of control group were 54.1 and 54.6 respectively, whereas mean and standard deviation scores on self-care performance of experimental group were 59.9 and 125.3, respectively.

Both the control and experimental groups did not differ significantly at pre-test mean scores on knowledge ($t_{(58)} = 0.588$, $p > 0.05$) and self-care performance ($t_{(58)} = 1.8$, $p > 0.05$).

The mean post-test self-care performance scores in experimental group was found to be significantly higher than their pre-test scores, ($t_{(29)} = 0.05$ although there was no statistically significant difference between pre- and post-test mean self-care performance scores of schizophrenic patients in control group ($t_{(29)} = 1.13$, $p > 0.05$).

Mean and standard deviation of pre- and post-test knowledge scores of control group were 36.6 and 36.3 respectively, whereas same for the subjects under experimental group were 36.9 and 85.

Total and area-wise mean knowledge post-test scores in experimental group were found to be significantly higher than the pre-test scores ‘t’ value on total knowledge scores: 22.51, $p<0.05$ level. A total of nine areas for knowledge included: (i) meaning of mental illness, (ii) meaning of schizophrenia, (iii) causes of mental illness, (iv) signs and symptoms of schizophrenia, (v) treatment of schizophrenia, (vi) side effects of medications, (vii) need for medications, (viii) misconceptions, and (ix) self-care during hospital stay. The ‘t’ value obtained from area 1 to area 9 were $t_{(29)} = 13.5$, $p<0.05$; $t_{(29)} = 14.7$, $p<0.05$; $t_{(29)} = 15.7$, $p<0.05$; $t_{(29)} = 14.2$, $p<0.05$; $t_{(29)} = 10.1$, $p<0.05$; $t_{(29)} = 4.5$, $p<0.05$; $t_{(29)} = 16.5$, $p<0.05$ and 4.76, $p<0.05$ respectively.

The mean post-test self-care performance scores of schizophrenic patients in experimental group was significantly higher than that of control group, ($t_{(58)} = 22.52$, $p<0.05$ level. It showed that the experimental group had significantly improved in self-care performance.

<table>
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<th>Group</th>
<th>Variables</th>
<th>Mean</th>
<th>MD</th>
<th>SD0</th>
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<td>Control</td>
<td>Pre-test self-care</td>
<td>54.13</td>
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<td>5.65</td>
<td>1.03</td>
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<td>Pre-test knowledge</td>
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<td>0.63</td>
<td>5.12</td>
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<td></td>
<td>Post-test knowledge</td>
<td>36.27</td>
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<td>Experimental</td>
<td>Pre-test self-care</td>
<td>59.90</td>
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<td>Pre-test knowledge</td>
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<td>48.07</td>
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<td>Post-test knowledge</td>
<td>85.0</td>
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T$_{29}$= 2.04, $p=0.05$,
performance in comparison to self-care performance of control group.

Total and area-wise modified gain scores computed between pre- and post-knowledge mean percentage scores of subjects in control and experimental groups, indicate that the maximum modified gain (1.00) had been in the area of self-care during the hospital for experimental group. In control group subject the modified gain was negligible.

Total area- wise mean post-test knowledge scores of control group did not differ from pretest mean score statistically. The obtained 't' values were $t_{28} = 0.68, p>0.05; 0.70, p>0.05; 0.09, p>0.05; 0.99, p>0.05; 1.65, p>0.05; 2.03, p>0.05; 0.05, p>0.05; 2.03, p>0.05; 1.55, p>0.05; 0.05$ for area 1 to area 9 respectively. The 't' value obtained between total pre- and post-test knowledge mean scores was $t_{18} = 0.68, p>0.05$.

The total and area-wise mean post-test knowledge scores of schizophrenic patients in experimental group were significantly higher than that of control group in all the areas. The obtained ‘t’ value for total post-test knowledge mean scores was $t_{189} = 32.01, p<0.05$ level. The ‘t’ values obtained for area (i) to area (ix) were $t_{188} = 18.83, p<0.05; 20.09, p<0.05; 13.40, p<0.05; 17.21, p<0.05; 18.38, p<0.05; 4.62, p<0.05; 5.89, p<0.05; 33.90, p<0.05; 15.62, p<0.05$, respectively. It showed that the experimental group had improved in terms of knowledge in comparison to the subjects in control group.

To test the association between schizophrenia patients pre-test knowledge level and selected variables such as age, sex and education, chi-square test was computed. The obtained chi-square values were $1.35, 0.31, 0.01$, at $df(1)$ for education, sex and age, respectively. The present study showed no significant association between the pre-test knowledge level and variables such as age, sex and education at 0.05 level of significance.

The correlation values obtained between control group subjects post-test knowledge and posttest self-care performance ($r_{189} = 0.132, p>0.05$) was not statistically significant, indicating no statistically significant relationship.

The correlation values obtained between the post-test knowledge of subjects in experiment group with post-test self-care performance ($r_{185} = -0.025, p>0.05$) was also not found to be statistically significant. Thus it showed that there were no statistically significant relationships between post-test knowledge and posttest self-care performance.

**Discussion**

The study indicated that the psycho-educative intervention for schizophrenia patients was effective in terms of significant gain in self-care performance. Neglected self care is a common problem in schizophrenic patients. Poor self-care might be associated with the disease process, lack of insight towards illness or due to poor initiation as part of the disease. Self-care abilities in schizophrenic patients can be preserved through regular and early intervention in hospital care (Owens & Jhonstone, 1980). Our findings are consistent with those of Solomon et al (1996) where they reported that individualised or group psycho-education for schizophrenia patients was useful in increasing self-care abilities.

The psycho-educative intervention in terms of enhancement of knowledge regarding the disease was found effective. Statistically significant difference in knowledge mean scores was observed between pre- and post-test knowledge scores of schizophrenic patients, this is consistent with the findings of Prema (1995) and Sudhakar (2006), where researcher studied the effectiveness of contingency management program on activities of daily living in schizophrenia on 60 schizophrenic patients. Interventions included psycho-education, education on ADL and behavioural counselling. Result showed a significant difference in the ADL status in terms of better functioning.

**Conclusion**

There are deficiencies in self-care performance, and all the areas of knowledge among schizophrenia patients. Psycho-educative intervention evaluated in this study was found to be effective in terms of improving self-care performance and knowledge in schizophrenia patients.

**References**

5. Owens DGC, Jhonstone EC. The disabilities of chronic schizophrenia- their nature and the factors contributing to their development. *British Journal of Psychiatry* 1980; 136:384-95
8. Sudhakar, R. Effectiveness of contingency management programme on activities of daily living in schizophrenia. Unpublished MSc Nursing dissertation, NIMHANS, Bangalore, 2006