Effectiveness of Practicing Self-Care Module on Activities of Daily Living (ADL) among Patients with Schizophrenia in a Selected Hospital

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**ABSTRACT**

Schizophrenia is a clinical syndrome of very serious and persistent neurobiological brain disease with profoundly disruptive psychopathology that results in severe, impairment in the lives of an individual, family and community. Patients need to depend on the family members or health care team members to meet their self-care needs. The present study determined the effectiveness of practicing self-care module on Activities of daily living (ADL) among patients with schizophrenia in selected hospital. During the study period, totally 30 patients with schizophrenia between the age group of 21-40yrs participated in this study. Convenient sampling technique was used to select the participants. After obtaining consent, data has been collected from subjects with observational checklist. Subjects were given training for seven hours per day. Post test was conducted after 7days. Descriptive, paired t test and chi-square test were used to analyze the data. The finding of the study depicts evidence of significant difference between pre and posttest at the level of P<0.01, so the self-care module helped them in their Activities of daily living to the maximum extent. There was a statistically significant difference in pre and post-test on level of performance in relation to Personal hygiene, personal grooming, communication, responsibilities and over all the level of P<0.001. The study highlighted that, the need of retraining ADL for patients with schizophrenia is mandatory by the psychiatric nurses in hospital setting.

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**INTRODUCTION**

Schizophrenia is a severe and persistent neurobiological brain disease, and it is a clinical syndrome of profoundly disruptive psychopathology that results in severe, impairment in the lives of an individual, family and community. Schizophrenia is a chronic and severe mental disorder that affects how a person thinks, feels, and behaves. People with schizophrenia may have a problem with differentiating them with fantasy and reality. Although schizophrenia is not as common as other mental disorders, the symptoms can be very incapacitating. Besides, patients with schizophrenia have a lack of independent living, self-care, social skills, and vocational skills (Olesen et al., 2012).

Despite 50 years of pharmacological and psychosocial interventions, schizophrenia remains one of the leading causes of disability (Strassnig et al., 2014).
Table 1: Frequency and Percentage distribution of the demographic variables (N=30)

| S.No. | Demographic Variables | Frequency | Percentage |
|-------|------------------------|-----------|------------|
| 1.    | Age in years           |           |            |
|       | a. 21-25               | 9         | 30         |
|       | b. 26-30               | 9         | 30         |
|       | c. 31-35               | 7         | 23.3       |
|       | d. 36-40               | 1         | 3.3        |
|       | e. >40                 | 4         | 13.4       |
| 2.    | Sex                    |           |            |
|       | a. Male                | 18        | 60         |
|       | b. Female              | 12        | 40         |
| 3.    | Educational status     |           |            |
|       | a. Non-literate        | 7         | 23.3       |
|       | b. Primary             | 10        | 33.4       |
|       | c. High school         | 7         | 23.3       |
|       | d. Higher secondary    | 3         | 10.0       |
|       | e. College             | 3         | 10.0       |
| 4.    | Occupational status    |           |            |
|       | a. Coolie              | 12        | 40.0       |
|       | b. Business            | 2         | 6.7        |
|       | c. Unemployed          | 16        | 53.3       |
| 5.    | Locality               |           |            |
|       | a. Rural               | 13        | 43.3       |
|       | b. Urban               | 17        | 56.7       |
| 6.    | Marital status         |           |            |
|       | a. Married             | 18        | 60.0       |
|       | b. Unmarried           | 12        | 40.0       |
| 7.    | Duration of illness    |           |            |
|       | a. 6 months to 3 years | 21        | 70.0       |
|       | b. More than 3 years   | 9         | 30.0       |

Table 2: Percentage distribution of level of Activities of daily living (N=30)

| Various          | Pre test | Post test |
|------------------|----------|-----------|
|                  | 0-25     | 26-50     | 51-75     | 0-25 | 26-50 | 51-75 |
|                  | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Personal hygiene | 24 | 80.0 | 6 | 20.0 | - | - | 4 | 13.3 | 26 | 86.7 |
| Personal grooming| 29 | 96.7 | 1 | 3.3 | - | - | 6 | 20.0 | 24 | 80.0 |
| Communication    | 30 | 100.0 | - | - | - | - | - | - | 30 | 100.0 |
| Personal responsi|
| ties             | 29 | 96.7 | 1 | 3.3 | - | - | 9 | 30.0 | 21 | 70.0 |
| Overall          | 24 | 80.0 | 6 | 20.0 | - | - | 5 | 16.7 | 25 | 83.3 |
Table 3: Comparison on the level of Activities of Daily Living (N=30)

| Various aspects       | Pre test | Post test | Paired "t" test |
|-----------------------|----------|-----------|----------------|
|                       | Mean     | Standard  | Mean           | Standard | 23.36SS* |
|                       | Deviation|           | Deviation      |          | 25.81SS* |
| Personal Hygiene      | 7.47     | 1.01      | 17.57          | 2.01     | 30.94SS* |
| Personal grooming     | 4.07     | 0.37      | 9.57           | 1.19     | 34.28SS* |
| Communication         | 2.93     | 0.25      | 5.80           | 0.48     | 35.30SS* |
| Personal responsibilities | 11.10   | 0.55      | 24.03          | 2.24     |          |
| Over all              | 25.63    | 1.43      | 57.00          | 4.94     |          |

P*<0.001, SS: Statistically significant.

Schizophrenia is presently thought to be a functional increase of dopamine level at the postsynaptic receptor. However, other neurotransmitters like serotonin, Gama amino-butyric acid and acetylcholine are also presumably involved. This will result in a group of psychiatric disorders characterized by gross distortion of reality, withdrawal from social interaction, disorganization and fragmentation of perception, thought and emotions. The mentally disabled were deprived of their fundamental rights and socially rejected with no economic independence. The simultaneous use of subjective and objective measures of cognitive dysfunction may provide a complete picture of individual rehabilitation targets in patients with schizophrenia (Prouteau, 2004; Sharma and Harvey, 2002).

The patients are highly dependent on the health care team members to meet their self-care needs during hospitalization. Since there is a significant defect in thought process and their behaviour is bizarre, unpredictable and appears incoherent, in total their insight is totally or partially absent, with that impairment they are unable to function like before with their family as before, particularly in meeting their self-care needs. Individuals with schizophrenia have impairment in prospective memory (ProM) that describes the complicated ability to execute a future goal (Shrivastava et al., 2010). The first sign of impending psychosis is neglecting their self-care needs. The Psychiatric nurse must conduct re-training program on activities of daily living which helps them to relearn, practice and maintain their self-care needs to function independently (Twamley et al., 2008).

The nurse must aim to modify the mentally disabled patient’s lifestyle and help them to adapt to the environment and educate according to the severity of the condition. Rehabilitation is an integral part of nursing. Rehabilitation is a dynamic, health-oriented process that assists patients with schizophrenia to meet the greatest possible level of physical, mental, spiritual, social and economic needs.

As nurses have arrived at the door of the twenty-second century, preventive psychiatric care has placed the most significant emphasis on primary prevention and tertiary prevention than secondary prevention. The concept is changed from Health for the people to Health by the people. It emphasizes the importance of patient participation and placing Health in the patient’s hands. Rehabilitation starts from the time of admission. Hence the re-training program based on self-care module will be beneficial for the mentally disabled as well as for their family member to reduce their burden in nursing the patients with Schizophrenia (Mahone et al., 2016).

Hence the investigator aimed to re-train the patients with schizophrenia to improve their activities of daily living and thereby to help them attain their quality of well-being.

**MATERIALS AND METHODS**

The research design of the study was pre-experimental. It was conducted in a psychiatric ward at a selected hospital. The study population includes all patients who were diagnosed based on ICD-10 classification as schizophrenia and admitted in the Psychiatric ward of a selected hospital. Non-probability convenient sampling technique was used for this study. The sample size was 30 consisting of both male and female patients who fulfilled the inclusion criteria and admitted in a psychiatric ward at a selected hospital.

**Sampling criteria**

**Inclusion Criteria**

1. Both male and female patients who were diagnosed as schizophrenia based on ICD-10 classification and admitted in the psychiatric ward.
2. Patients who were admitted for the first time at psychiatric wards.
3. The patients who had the insight level of 4 to 6 as
Table 4: Association of self-care module with demographic variables (N=30)

| No. | Demographic Variables | Level of Activities of daily living | X2   |
|-----|-----------------------|------------------------------------|------|
|     | No.                  | %       | No.                  | %       | No.                  | %       |
| 1.  | Age in years         |         |                      |         |                      |         |
|     | a.21-25              | -       | 1                    | 3.3     | 8                    | 26.7    | 7.914 |
|     | b.26-30              | -       | -                    | -       | 9                    | 30.0    |
|     | c.31-35              | -       | 2                    | 6.7     | 5                    | 16.7    |
|     | d.36-40              | -       | 1                    | 3.3     | -                    | -       |
|     | e.>40               | -       | 1                    | 3.3     | 3                    | 10.0    |
| 2.  | Sex                  |         |                      |         |                      |         |
|     | a. Male              | -       | 2                    | 6.7     | 16                   | 53.3    | 1.000 |
|     | b. Female            | -       | 3                    | 10.0    | 9                    | 30.0    |
| 3.  | Educational status   |         |                      |         |                      |         |
|     | a. Non-literate      | -       | 4                    | 13.3    | 3                    | 10.0    | 11.486 SS* |
|     | b. Primary           | -       | -                    | -       | 10                   | 33.3    |
|     | c. High school       | -       | 1                    | 3.3     | 6                    | 20.0    |
|     | d. Higher secondary  | -       | -                    | -       | 3                    | 10.0    |
|     | e. College           | -       | -                    | -       | 3                    | 10.0    |
| 4.  | Occupational Status  |         |                      |         |                      |         |
|     | a. College           | -       | 2                    | 6.7     | 10                   | 33.3    | 0.450 |
|     | b. Business          | -       | -                    | -       | 2                    | 6.7     | NS     |
|     | c. Unemployed        | -       | 3                    | 0.0     | 13                   | 43.3    |
| 5.  | Locality             |         |                      |         |                      |         |
|     | a. Rural             | -       | 3                    | 10.0    | 10                   | 33.3    | 0.679 |
|     | b. Urban             | -       | 2                    | 6.7     | 15                   | 50.0    |
| 6.  | Marital status       |         |                      |         |                      |         |
|     | a. Married           | -       | 5                    | 16.7    | 13                   | 3.3     | 4.000 SS* |
|     | b. Unmarried         | -       | -                    | -       | 12                   | 0.0     |
| 7.  | Duration of Illness  |         |                      |         |                      |         |
|     | a.6months-3years     | -       | 4                    | 13.3    | 17                   | 56.7    | 0.286 NS |
|     | b.>3                 | -       | 1                    | 3.3     | 8                    | 26.7    |
per Ahuja's 6 point insight scale.

**Exclusion Criteria**

1. Patients who had received the formal re-training program on Self-care module.
2. Patients who were suffering from a neurological disorder.
3. Patients who were not willing to participate in the re-training program.
4. Patients who were participated in the pilot study.

**Description of the tool**

The investigator developed the tool after reviewing the related literature and guidance from the experts in the field of Psychiatry and Psychiatric nursing. It consists of two parts with Section A of Demographic data. Section B had the checklist consists of 25 items and scoring for each item as follows Dependent-1, Partially Dependent-2, Independent-3, the scores of ADL were interpreted as Dependent- 0-25, Partially Dependent- 26-50 and Independent-51-75.

The ethical permission was obtained from the institutional ethics committee and other experts too. Content Validity was received from the experts. The reliability of the tool was tested. A pilot study was conducted for one week, and there was no change or modification was made in the tool for the main study.

The study was conducted for four weeks. The investigator interviewed patients, and those who met the sampling criteria were included for the study by convenient sampling technique. Data has been collected from the patient with an observation checklist. The subject was given training based on structured self-care module in the experimental group. The time spent for data collection procedure was seven hours (from 6 am to 1 pm) per day. Data regarding activities of daily living performed by samples were graded by using an observation checklist. The post-test was conducted by the investigator after seven days of intervention, using the same observation checklist and results were statically analyzed.

**Major Findings Of The Study**

The distribution of frequency and, the percentage of demographic variables of 30 patients with schizophrenia. The majority of patients nine (30%) were on the age group of 21-30 years and 23% of them in the age group of 31-35 years and one (3.3%) was on the age group of 36 to 40 years, 13% of them were aged above 40 years. Regarding sex, 18(60%) subjects were males, and 12(40%) were females. About the educational status, ten (33.4%) subjects had a primary level, and seven (23.3%) had a high school level, and seven (23.3%) were non-literate. The occupation shows that 16(53.3%) subjects were unemployed, and two (6.7%) were coolie. Patients residents in the urban area were 17(56.7%), and those in the rural area were 13(43.3%) Marital status of the patients shows that 18(60%) were married and 12(40%) were unmarried. Concerning the duration of illness 21(70%) subjects were belonging to the period of six months to three years and nine (30%) of them were belonging to the period of more than three years as depicted in Table 1.

The percentage distribution of subjects based on the pre and post-test scoring on the level of activities of daily living. In the aspect of personal hygiene, 24(80%) were dependent, and six (20%) were partially dependent in the pre-test. But in the post-test 26(86.7%) were independent, and four (13.3%) were partially dependent. Regarding personal grooming, during the pre-test, 29(96.7%) were dependent, and one (3.3%) was partially dependent. But in the post-test 24(80%) were independent and six (20%) were partially dependent. The communication shows that 30(100%) were in part dependent level in the pre-test, and 30(100%) were independent during post-test. In respect of taking responsibility 29(96.7%) were dependent and one (3.3%) was in part dependent level in the pre-test, but in the post-test 21(70%) were in independent level, and nine (30%) were in part dependent level. Overall, 24(80%) were independent level, and six (20%) were in a partially dependent level in the pre-test. In the post-test, 25(83.3%) were at the independent level, and five (16.7%) were in part dependent level as depicted in Table 2. The SSFI comprises four main sections: self-concern, occupational role, role in the family and other social roles. Each section has several subsections covering different areas of social functioning (Kulhara et al., 2010; Padmavathi et al., 1995). The current study suggests the importance of all these aspects, which makes the patient independent.

As per the Table 3, it reveals that there is a statistically significant difference in pre and post-test on level of performance concerning Personal hygiene, personal grooming, communication, responsibilities and overall the level of P<0.001.

There is a statistically significant association between the practice of self-care module and demographic variables such as educational status and marital status of patients with schizophrenia at the level of P<0.05. There is no statistical association between the practice of self-care module and demographic variables such as age, sex, occupational status, locality and duration of illness as given in...
Table 4. The research study was conducted to assess the effectiveness of self-care module on activities of daily living among patients with schizophrenia. The study was done on 30 patients with schizophrenia who stayed in the inpatient Psychiatric ward, in selected hospital.

Discussion

In our study, the first objective of this study was to determine the level of ADL performed by patients with schizophrenia. Psychiatric nurses use a biopsychosocial model of holistic care, which involves client education and encourages self-management and spiritual support for clients with schizophrenia; in which the importance of the client’s perspective in treatment decisions is emphasized. Peplau's (1952) “therapeutic use of self” has evolved in psychiatric nursing from simple client education to discussing and confirming client preferences, acting as an advisor, and encouraging clients’ desired levels of independence (Koolaee, 2014; Ivarsson et al., 2004). The findings of the present study reveal concerning overall scoring of the activities of daily living performed by patients with schizophrenia in pre-test shows that 24 (80%) subjects were independent level and 6(20%) were in particularly dependent level. Similar other study shows the same findings. The shared identified occupational problems could serve as a foundation for planning individually adapted interventions (Twamley et al., 2008; Koolaee, 2014).

The second objective was to evaluate the effectiveness of self-care module practised by patients with schizophrenia. The finding of the study depicts evidence of a significant difference between pre-test and post-test. The overall improvement in the performance of activities of daily living after the re-training program based on self-care module shows that 5(16.7%) subjects were in partially dependent level and 25(83.3%) were in independent level. Similar studies show the same result. Hence, the awareness of mental illness is a narrative act in which people make personal sense of the many challenges they face (Mahone et al., 2016).

The third objective was to associate the demographic variables with self-care module practised by patients with schizophrenia. Bringing social outcome measures to the forefront and into the communities will allow for a more patient-centric approach (Johnson et al., 2012). Chi-square test was done to show the significant association between the self-care module and demographic variables of the patients with schizophrenia. There is a statistically significant association between the practice of self-care module and demographic variables such as educational status and marital status of the patients with schizophrenia at the level of p<0.05. The need to conduct research that impacts health policies and planning of services for this disorder will provide impetus in these areas (Adams et al., 2007; Adams and Drake, 2006).

CONCLUSIONS

The study highlights that the effectiveness of self-care module on the performance of Activities of daily living by the patients with schizophrenia and proved the investigator’s hypothesis that there is a significant difference (p<0.001) in the performance of activities of daily living by the patients with schizophrenia who received re-training program based on self-care module. The chronic nature of schizophrenia requires continuous engagement between clients and treatment team members. Transparent sharing of information and clear communication are essential to establish treatment decisions that support clients in their personal goals. Psychiatric nurses play a vital role. Thorough knowledge and proficiency in the use of shared decision-making tools, they facilitate the incorporation of shared decision making into clinical practice to improve medication follow-through. So, further studies can be conducted on this focus in terms of self-concern, occupational role, family and social roles.

Recommendations For Further Research

1. This study can be replicated on a larger sample size with an extended period.
2. This study can be conducted by using experimental design
3. Psychoeducation can include innovative technologies like the use of video shows.
4. This study can be conducted among patients with mental illness.
5. The Community Psychiatric nurse can conduct a similar study in community settings.

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Conflict Of Interest

The authors declare that there is no conflict of interest.
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