Effectiveness of STM (Structured Teaching Module) on Knowledge Regarding Home Care Management of the Patients with Chronic Mental Disorder Among Family Members in a Selected Urban Area

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Abstract: *A mental disorder or mental illness is a psychological or behavioral pattern associated with distress or disability that occurs in an individual and is not a part of normal development or culture. The recognition and understanding of mental health conditions has changed over time and across cultures, and there are still variations in the definition, assessment, and classification of mental disorders, although standard guideline criteria are widely accepted.*

Currently, mental disorders are conceptualized as disorders of brain circuits likely caused by developmental processes shaped by a complex interplay of genetics and experience. In other words, the genetics of mental illness may really be the genetics of brain development, with different outcomes possible, depending on the biological and environmental context.

The majority of people with schizophrenia have a pattern of illness where they relapse and then have a remission. A significant number of these people become less able to look after themselves after each relapse and their lack of self-care and poorer functioning causes them to become more disabled and isolated. One possible way of helping these people, alongside medication, is to teach them life skills, the components of which are communication and financial awareness, competence in domestic tasks and personal self-care.

During the waning days of the Program on Chronic Mental Illness in 1992, a federal task force on homelessness and mental illness released a report; among the recommendations was a call for a service systems demonstration project to further test the systems integration hypothesis. The demonstration was to determine whether a small grant of resources to promote the integration of systems would result in better coordination among mental health providers and other human services providers and would promote residential stability and improved quality of life for individuals who were homeless and had a mental illness. ACCESS was designed with the Program on Chronic Mental Illness in mind.

Chronic mental illness has been a social welfare policy issue in the United States for almost two centuries. Characterized by a series of reform movements, mental health policy has been focused on a variety of organizational solutions to the problems of individuals with severe mental illness.

Material & Methods:

A pre-experimental study with pre-test and post-test design was undertaken to find out Effectiveness of STM (Structured teaching module) on knowledge regarding home care management of the patients with Chronic Mental Disorder among family members. The data was collected from 50 family members of patients with Chronic Mental Disorder through purposive sampling technique using structured interview schedule with close-ended questionnaires.

Results:

The data revealed that, the total mean knowledge score of the family members during pre-test was 13.96±4.27 which is 39.89% of the total score revealing poor knowledge. The total mean knowledge score

of the family members during post-test was 25.54±4.73 which is 72.97% of the total score revealing good knowledge.STM was highly effective for the family members in the age group of 31-40 years, which consist of majority of sample. There was highly significant difference found between the pre and post-test knowledge score. And no significant association between knowledge score of family members in post-test when compared to the demographic variables of family members except type of family which shows significant relationship and educational qualification which shows highly significant relationship.

Conclusion:

After the detailed analysis of this study shows that effective use of STM help in providing pertinent information regarding home care management of the patients with Chronic Mental Disorder was effective to improve the family member's knowledge.

Keywords: STM (Structured teaching module)**,** Chronic Mental Disorder**,** home care management

I. INTRODUCTION

The objective of study is to evaluate STM on home care management of patients with Chronic Mental Disorder among family members.

Mental disorders are mostly ill understood and underestimated problems, particularly in our country, where they are often considered as physical disease. The term mental disorder refers to a clinically syndrome or pattern that occurs in an individual. If a substantive impairment of one or several of the mental faculties of perception, thinking, feeling, behaviour, or the physiological, neurological systems linked to these brain activities known as mental disorders (Maris R. W., et. al., 2006 & Vyas J. N., Ahuja N. 2003).

Individuals, who through no fault of their own or their families, suffer from one of several diseases affecting the brain comes under Chronic Mental Disorder. There is no cure for Chronic Mental Disorder. People with serious mental illness are significantly functionally impaired by the illness for an indefinite period of time. Chronically mentally ill clients are often diagnosed with schizophrenia, bipolar disorders, depression or schizoaffective disorders (Goldman C.R., 1998 & Richie F. &Lusky K., 1999).

Most prevalent mental disorders worldwide are schizophrenia, affective, bipolar disorders, major depression. According to the National Institute of Mental Health (NIMH), approximately 2.5 million Americans are affected by schizophrenia (Stohler R. et. al., 2005, Swartz J. A. et. al., 2006 & NIMH, 1994).

Five million adults in the United States suffer from Chronic Mental Disorder. It has been estimated that out of these between 40% and 60% either reside with or receive primary care from family members. (Mays G. D. and Lund C. H., NIMH, 1994).

In India, an estimated 30% of the population suffers from some form of psychiatric disorder. Twenty million Indian families have at least one members suffering from schizophrenia. More than 12% of Indian children aged 1 – 16 years suffer from mental disorders and the incidence of mental retardation is also high. Severe mental disorders that include schizophrenia, bipolar disorders, organic psychosis and major depression affect nearly 2% of our population (Info Change News, Dec. 2002 &Ramadoss A., 2007).

Mental disorders are highly stigmatized conditions that many people want to keep private because of their embarrassment or fear of discrimination. Mental disorders often result in profound burden of illness and disability (Math S. B. et. al., 2007).

In many developing countries, families have been partners in the care of persons with mental disorders for over five decades. This was so even when the rest of the world looked at families as a cause of mental disorders. Home care service seems to offer a viable alternative mode of follow – up care for the chronically mentally ill population. Moreover, it may be possible to prevent repeated hospitalizations for these patients and offer them a better chance of long term community adjustment (Murthy R. S., 2003).

Home health psychiatric nursing is a unique and intriguing specialty. For patients who require home care management, it is essential to focus on the home health environment and create programs that will benefit the specific needs of these patients. The psychiatric patient must be included as health care changes take place.

As the need for home health continues to rise, addressing psychiatric patient careconcerns is of primary importance and the establishment of psychiatric home health programs is imperative (Callahan R.R., 1999).

Involving family members in some collective form of treatment has many benefits. In countless cases where incest has occurred secrecy has been seen to be the organizing principle of all family relationships. Meaningful treatment within a family setting enables issues of secrecy, shame, guilt and responsibility to be dealt with while at the same time allowing people to talk about a subject that may have been taboo for far too long (Singh S. 2006).

The need's level of the families of psychiatric patients are: Firstly, families need support from the professionals to acquire the skills of care, respite care and crisis support in emergencies, as well as emotional support to meet their own needs and to maintain the cohesion of the families. Secondly, the state should support families financially to offset the caring responsibility of the families and help them to form self-help groups. Thirdly, professionals have to change their attitudes and practices to develop a true partnership with the families and make the experiences of the family an essential part of the programme and policy development. (Murthy R. S., 2003).

The family, as a unit of the society forms an integral part of the care giving system for persons with mental illness, especially in our country. The demands of being involved in the care of a seriously mentally ill patient have serious impact on the caregiver's health. It is necessary to treat the patient and also to evaluate the mental status of the caregivers, since in community family members are the caregivers (Math S. B., Chandrashekar C.R. &Bhugra D., 2007).

1.1 Objectives of Study

1. To assess the knowledge of home care management of patients with Chronic Mental Disorder among family members prior to the implementation of STM.
2. To implement STM on home care management of patients with Chronic Mental Disorder among family members.
3. To assess the knowledge of home care management of patients with Chronic Mental Disorder among family members after implementation of STM.
4. To determine the effectiveness of STM on knowledge of home care management of patients with Chronic Mental Disorder among family members.
5. To find the association between knowledge Score of home care management of Chronic Mental Disorder among family members with selected demographic variables.

II. MATERIAL AND METHODS

A pre-experimental study with pre-test and post-test design was undertaken to find out Effectiveness of STM (Structured teaching module) on knowledge regarding home care management of the patients with Chronic Mental Disorder among family members. The data was collected from 50 family members of patients with Chronic Mental Disorder through purposive sampling technique using structured interview schedule with close-ended questionnaires.

The sample who met sampling criteria and available during the time of data collection were selected as the subject for the study. They were selected by non-probability convenient sampling technique.

In Phase I of the study, a descriptive survey approach was adopted to assess the knowledge of home care management of patients with Chronic Mental Disorder among family members prior to the implementation of STM. In Phase II of the study an evaluative approach was used to measure the effectiveness of STM on knowledge of home care management of patients with Chronic Mental Disorder among family members. The research design used was pre-experimental, pre-test, post-test design to measure the effectiveness of STM (Structured teaching module) on knowledge regarding home care management of the patients with Chronic Mental Disorder among family members.

A self-structured assessment questionnaire on home care management of patient with chronic mental disorderwas developed which consists knowledge of personal hygiene, safety and security, nutritional care, administration of medication, assertive communication, emotional and spiritual support, support mechanisms for the families of mentally ill patients. And aSTM (Structured teaching module) was prepared to provide pertinent information about the same.

- **Section A:** This section contained (11)questions about the demographic profile of sample such as demographic characteristics of family members of the patients with Chronic Mental Disorder such as age, sex, religion,

educational status, occupation, type of family, per capita monthly family income, residential area, family members accompanying with patient, previous exposure to information about mental disorder, and Patient's information like duration of mental disorder and type of mental disorder.

- **Section B:** This section contained (35) questions about knowledge of personal hygiene, safety and security, nutritional care, administration of medication, assertive communication, emotional and spiritual support, support mechanisms for the families of mentally ill patients.
- **Section C:**This section contained STM (Structured teaching module) on knowledge regarding home care management of the patients with Chronic Mental Disorder.

The content validity of questionnaire was established by experts. The experts were selected on the basis of their expertise, experience and interest in the problem being studied. They were from different specialties i.e. Psychiatry, Psychology, Education, Research, Statistics and Mental Health Nursing. They were requested to give their opinions on the appropriateness and relevance of the items in the tool. Necessary modifications were made as per the expert's advice. The reliability of the questionnaire was established by Test-retest method & Karl-Pearson's correlation formula was used and the co-relation value was r= 0.89.

A final study was carried out on 50 family members. Data was collected from the study samples which comprised of the family members of patients with chronic mental disorder, who met the designated criteria were selected through non-probability convenient sampling technique. Objectives of study was discussed and obtained consent for participation in study. Existing knowledge regarding home care management of the patients with Chronic Mental Disorder was assessed by administering a structured assessment questionnaire, followed by administration of STM (Structured teaching module) on knowledge regarding home care management of the patients with Chronic Mental Disorder. Posttest was taken. Based on the objective and the hypothesis the data was analyzed by using various statistical tests i.e. percentage, mean, and standard deviation.

2.1 Statistical Methods

The significance was calculated by using mean, Standard deviation, unpaired t statistics, paired t statistics for comparison and the Chi-square statistics is used to find the independence of difference. Significance was accepted at 0.01 and 0.05 level of probability.

III. RESULTS

Section I:Description of Socio demographic data of samples

Findings of section I show that out of 50sample distribution shows that out of 50 samples majority (50%) of the family members were in the age group of 31-40 years from which majority (54%) were male, (88%) were Hindus, (42%) were degree holders and above (46%) had their own business, Fifty percentage of the family members belonged to nuclear family, most of the family members of the mentally ill patients were from middle class, (58%) of the were from rural area, (44%) were spouse, (76%) received the information from the health professional, (48%) of the patients with Chronic Mental Disorder had schizophrenia (48%) and (92%) of the patients had Chronic Mental Disorder for more than 2 years.

Section II: Description of knowledge assessment of the family members before implementation of STM

In Table 1 Findings related to area wise distribution of mean, SD and mean percentage of pretest knowledge score of family members regarding home care management of the patients with Chronic Mental Disorder shows that the highest mean score (1.4±0.61) which is 46.67% of the total score was obtained in the area of "Personal Hygiene", whereas the lowest mean score (0.78±0.58) which is 26% of the total score was in the area "Importance and need for home care management". However, the mean score (1.76±0.8) which is 35.2% of the total score was in the area of "Administration of medication" and more or less similar mean score (0.68±0.51) which is 34% of the total mean score was in the area of "Support for family members" obtained.

Impact Factor: 6.252

n=50

S.N.	Area	Scores			
		Max. Scores	Mean	SD	Mean %
1	Meaning and cause of mental disorders	4	1.58	1.01	39.50
2	Importance and need for home care management	3	0.78	0.58	26
3	Personal Hygiene	3	1.4	0.61	46.67
4	Safety and Security	4	1.8	0.61	45
5	Nutritional Care	4	1.64	0.66	41
6	Administration of medication	5	1.76	0.8	35.2
7	Assertive communication	3	1.26	0.63	42
8	Emotional and Spiritual Support	7	3.06	1.06	43.71
9	Support for family members	2	0.68	0.51	34
	Total	**35**	**13.96**	**4.27**	**39.89**

Section III: Area wise comparison of mean, SD and mean percentage of pre and post-test knowledge score of the family members

Table 2 shows Area wise comparison of mean, SD and mean percentage of pre-test and post-test knowledge score of family members regarding home care management of the patients with Chronic Mental Disorder reveals that during pre-test the highest mean score (1.4±0.61) which is 46.67% of the total score was obtained for the area of "Personal Hygiene" whereas the lowest mean score (0.78±0.58) which is 26% of the total score was obtained for the area of "Importance and need for home care management". However during post-test it was observed that the highest mean score (3.18±0.75) which is 79.5% of the total score for the area of "Safety and Security", and the lowest mean score (1.98±0.65) which is 66% of the total score was for the area of "Importance and need for home care management". Further, the difference in mean percentage of the total scores reveals that the highest mean difference was 40% for the area of "Importance and need for home care management" which might be due to lowest pre-test mean percentage (26%) whereas, the lowest mean difference was 29.33% for the area of "Personal hygiene" which might be due to highest pre-test mean percentage (46.67%).

Similarly, comparison of overall mean, SD & mean percentage of pre-test and post-test knowledge score reveals that during pre-test the mean score was 13.96±4.27 which is 39.89% of the total score, whereas in post-test the mean score was 25.54±4.73 which is 72.97% of the total score depicting difference of 33.08% increase in mean percentage of score. It reveals that the STM was effective on various areas of home care management of the patients with Chronic Mental Disorder.

n=50

S.N.	Area	Max. score	Pre-test			Post-test			Difference in Mean %
			Mean	SD	Mean %	Mean	SD	Mean %	
1	Meaning and cause of mental disorders	4	1.58	1.01	39.5	3.1	0.81	77.5	38
2	Importance and need for home care management	3	0.78	0.58	26	1.98	0.65	66	40
3	Personal Hygiene	3	1.4	0.61	46.67	2.28	0.61	76	29.33
4	Safety and Security	4	1.8	0.61	45	3.18	0.75	79.5	34.5
5	Nutritional Care	4	1.64	0.66	41	2.88	0.82	72	31
6	Administration of medication	5	1.76	0.8	35.2	3.42	0.86	68.4	33.2
7	Assertive communication	3	1.26	0.63	42	2.18	0.6	72.67	30.67

8	Emotional and Spiritual Support	7	3.06	1.06	43.71	5.14	1.03	73.43	29.72
9	Support for family members	2	0.68	0.51	34	1.38	0.57	69	35
Total		35	13.96	4.27	39.89	25.54	4.73	72.97	33.08

Section IV: Association between the post-test knowledge score and demographic variables of family members of the patients with Chronic Mental Disorder.

n=50

Sl. No.	Variables	d.f.	Table value	Cal. value	Level of Significance
1	Age	9	16.92	10.4	Not Significant
2	Sex	3	7.82	2.50	Not Significant
3	Religion	3	7.82	3.03	Not Significant
4	Educational qualification	16	32	34.5	Highly Significant
5	Occupation	9	16.92	7.19	Not Significant
6	Type of family	6	12.59	13.7	Significant
7	Monthly per capita income	12	21.03	11.2	Not Significant
8	Residential area	3	7.82	1.33	Not Significant
9	Family member accompanying the patient	9	16.92	13.1	Not Significant
10	Previous exposure to information	6	12.59	12.3	Not Significant
11	Type of mental disorder	9	16.92	9.05	Not Significant
12	Duration of mental disorder	9	16.92	13.1	Not Significant

Findings in table 3 shows that Chi square was calculated to find out the association between the post-test knowledge score and the demographic variables of the family members of the patients with Chronic Mental Disorder. There was no significant association between knowledge score of family members in post-test when compared with age, sex, religion, occupation, monthly per capita income, residential area, family member accompanying the patient, previous exposure to information, type of mental disorder and duration of mental disorder except type of family which shows significant relationship and educational qualification which shows highly significant relationship. ($P > 0.05$).

Hence, it can be interpreted that the difference in mean score related to the all demographic variables were not true except type of family and educational qualification whereas, null hypothesis accepted for all other demographic variables except these two where null hypothesis was rejected.

IV. DISCUSSION

The present study revealed that Majority (50%) of the family members were in the age group of 31-40 years from which majority (54%) were male, (88%) were Hindus, (42%) were degree holders and above (46%) had their own business, Fifty percentage of the family members belonged to nuclear family, most of the family members of the mentally ill patients were from middle class, (58%) of the were from rural area, (44%) were spouse, (76%) received the information from the health professional, (48%) of the patients with Chronic Mental Disorder had schizophrenia (48%) and (92%) of the patients had Chronic Mental Disorder for more than 2 years.

The total mean knowledge score of the family members during pre-test was 13.96±4.27 which is 39.89% of the total score revealing poor knowledge. The total mean knowledge score of the family members during post-test was 25.54±4.73 which is 72.97% of the total score revealing good knowledge.

Area wise post-test mean score were above 66% of the total score in all the areas reveals good knowledge. STM was highly effective for the family members in the age group of 31-40 years, which consist of majority of sample, (37.14%) effectiveness was observed for the family members who do not had formal education further STM was more effective for those who were self-employed and unemployed, for the family members who were from extended family.

The STM was more effective (34.74%) for the family members of the patients with Chronic Mental Disorder who received information from health professional, it was more effective for the family members of patients suffer for last 2 – 5 years.

There was highly significant difference found between the pre and post-test knowledge score. And no significant association between knowledge score of family members in post-test when compared to the demographic variables of family members except type of family which shows significant relationship and educational qualification which shows highly significant relationship.

The total mean knowledge score of the family members during pre-test was 13.96±4.27 which is 39.89% of the total score revealing poor knowledge. The total mean knowledge score of the family members during post-test was 25.54±4.73 which is 72.97% of the total score revealing good knowledge.STM was highly effective for the family members in the age group of 31-40 years, which consist of majority of sample. There was highly significant difference found between the pre and post-test knowledge score.

And no significant association between knowledge score of family members in post-test when compared to the demographic variables of family members except type of family which shows significant relationship and educational qualification which shows highly significant relationship.

V. CONCLUSION

The present study explore that there is significant effect of STM on knowledge regarding home care management of the patients with Chronic Mental Disorder among family members. The correlation finding which was done to find the relationship with selected demographic variables was done by using 'chi-square' test. STM have significant effect in improving home care management of the patients with Chronic Mental Disorder among family members where type of family and educational qualification that shows significant relationship.

VI. IMPLICATION AND RECOMMENDATION

The findings of study have implication at various level of nursing like nursing practice, nursing education, nursing administration and nursing research in following ways:-

- The STM will help the nursing professionals in hospital and community to reinforcing their knowledge on home care management of the patients with Chronic Mental Disorder.
- It will also helpful to improve the knowledge of family members of the patients with the Chronic Mental Disorder regarding Chronic Mental Disorder.
- The nurse educator can use the STM to teach the students about home care management of the patients with Chronic Mental Disorder.
- The findings can be utilizes for conducting research on the effectiveness of STM on various aspect of home care management of the patients with specific chronic mental disorder.
- The research findings can be utilized to conduct research on home care management of the patients with acute mental disorders.
- Keeping in view the findings of the study, the following recommendations are made:
- Same study with large sample size can be done for replication to standardize the STM on home care management of the patients with Chronic Mental Disorder.
- Same study can be conduct with control group.
- A study can be conduct on practice of the family members on home care management of the patients with Chronic Mental Disorder.
- A comparative study can be conduct on knowledge and practice of the family members on home care management of the patients with Chronic Mental Disorder.

A self-instruction module can be prepared and tested for its effectiveness.

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