"A Study To Assess The Effectiveness Of Structured Teaching Program On Knowledge Regarding Medication Adherence Among Caretakers Of Schizophrenic Patient Coming To Outpatient Department At Tertiary Care Hospital Of The City"

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ABSTRACT

PROBLEM STATEMENT

"A study to assess the effectiveness of structured teaching program on knowledge regarding medication adherence among caretakers of schizophrenic patient coming to outpatient department at tertiary care hospital of the city."

BACKGROUND OF THE STUDY

Medication adherence is the first and main determinant of treatment success. Nonadherence is a multi-factorial phenomenon that can result from five major interacting factors. These are health team and health system-related factors; patient-related factors; therapy-related factors; socio-economic factors; and condition-related factors. The prevalence of non-adherence in mental illness was found to be 40% to 60% worldwide. The most important and highly encountered form of medication non adherence is where a patient does not follow the recommended dose and frequency. The ratio of non-adherence has been reported as 40%- 60% for antipsychotics. Moreover, in studies evaluating medication adherence based on diagnosis, the ratio of non-adherence to medication has been shown to be 11%-80% in patients with schizophrenia.

MATERIALS AND METHODS

The Research Method adopted for the present study is Quasi-experimental Approach, which is quantitative research design. Non probability convenient sampling technique is used. The study is aimed at assessing the effectiveness of structured teaching program on knowledge regarding medication adherence among the caretakers of schizophrenic patient and determining its effectiveness statistically. Sample size is 60. Self-structured questionnaire was used as tool.

RESULT

In pre-test, 16.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had poor knowledge (Score 0-8) and 71.6% of them had average knowledge (score 9-16) and 11.7% of them had good knowledge (score 17-25) regarding the medication adherence. In post-test, 1.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had average knowledge (Score 9-16) and 98.3% of them had good knowledge (score 17-25) regarding the medication adherence.

INTRODUCTION

Schizophrenia is a common severe mental disorder with a lifelong prevalence rate of 1%, which is mainly manifested in the disorder of mental and psychological processes such as thinking, perception, self-experience, cognition, will, emotion and behaviour and has the characteristics of high disability rate, repeated illness and prolonged course. Genetic susceptibility, abnormal neurotransmitter function and external factors may all contribute to the development of schizophrenia. The current treatment of schizophrenia is based on the administration of antipsychotic medications. Medication can control the condition of schizophrenic patients, which has been effective in the alleviation of positive symptoms, prevention of relapse and extension of life expectancy. It has been shown that effective management of schizophrenia requires continuous long-term treatment in order to keep symptoms under control and prevent relapse. The extent to which patients follow the prescribed time intervals and dosage requirements is defined as medication adherence. A Low degree is considered as poor medication adherence. Medication non-adherence behaviours include not taking medication on time, not taking medication according to the dose, stopping the medication and reducing medication by them. Good medication adherence is the key to the effectiveness of drug treatment. Poor medication adherence will cause many problems in schizophrenic patients. First, low medication compliance will lead to low efficacy and high relapse. Some articles pointed out that the symptoms of schizophrenia developed the fastest in the five years before the onset of schizophrenia, dosing on time and at the right dose is an important factor in the effectiveness of treatment, irregular medication is the key risk factor for relapse 6. About 75% of patients with schizophrenia discontinue their antipsychotic drug treatment within 18 months. Antipsychotic drug treatment reduces the risk of relapse (RR = 0.35), and the risk of readmission (RR = 0.38). It also increases the risks of a movement disorder (RR = 1.55), sedation (RR = 1.50), and weight gain (RR = 2.07). In a systematic review, found that lack of xviii illness insight, beliefs about the effectiveness of medication, substance abuse, and the quality of the therapeutic relationship were important influencing factors. Enhancing patient motivation, by taking into account these factors, may be key to encouraging medication adherence.

BACKGROUND OF THE STUDY:

Schizophrenia is estimated to affect approximately 7 individuals out of 1000 in their lifetimes, with fifty per cent of patients attempting suicide. However studies have shown that measuring medication adherence in caretakers of patients with schizophrenia is difficult and no gold standard currently exists. Without reliable and valid instruments to evaluate non-adherence in this population, research into strategies to improve adherence cannot move forward. Antipsychotic medications are powerful, mind-altering drugs that are prescribed to control psychotic symptoms. Right attitude of caregivers towards antipsychotic drugs is very important. It is also necessary to have a proper understanding of the expected side effects of atypical antipsychotics especially for the caregivers to develop positive attitude, as they are the people who should encourage and ensure that the patient is taking medications. Thus the relapse of the condition can be prevented, which will eventually improve the prognosis. The research design adopted was pre-experimental design, one group pre-test- post-test design. Totally 40 caregivers were selected by purposive sampling method. The study was conducted in psychiatric ward and new psychiatric ward in PSG Hospital. The data

was collected through self-administered knowledge questionnaire. Subsequently structured teaching programme regarding antipsychotic drugs was given for 15-20 minutes. The post test was conducted by the same knowledge questionnaire after 7 days. The data collected was analysed by using descriptive statistics. Paired t' test and chi-square analysis. During pre-test, none of them had adequate level of knowledge. 3 (7.5%) had moderately adequate knowledge and 37 (92.5%) had inadequate knowledge about antipsychotic drugs. After the structured teaching programme, the knowledge level of care givers after 7days of post-test showed that 35 (87.5%) had adequate knowledge, and 5 (12.5%) had moderately adequate knowledge. There was significant difference found between before and after structured teaching program. Thus, the result showed that structured teaching programme regarding antipsychotic drug was highly effective. There was a marked difference in knowledge score of care givers (t = 35.8) after the structured teaching programme on antipsychotic drugs. Medication adherence is the first and main determinant of treatment success. It is defined by world health organization as "the degree to which the person's behaviour corresponds to the agreed recommendations from a health care provider". Non-adherence is a multi-factorial phenomenon that can result from five major interacting factors. These are health team and health system-related factors; patient-related factors; therapy-related factors; socio-economic factors; and condition-related factors. The prevalence of non-adherence in mental illness was found to be 40% to 60% worldwide. In developing countries, the magnitude of poor adherence is expected to increase. So, this study aimed to assess medication adherence status and its associated factors among psychiatric patients in Asella Referral and Teaching Hospital in Oromia, Ethiopia.

NEED OF THE STUDY

In India the rate of mental illness is 100 per thousand populations. It has been estimated that 20% - 50% of any patient population is at least partially complaint and that in patients with schizophrenia and related psychotic disorders rates run as high as 70%-80%. The WHO is currently undertaking a global survey of 26 countries in all regions of the world, based on ICD and DSM criteria. The first published figures on the 14 country surveys completed to date, indicate that, of those disorders assessed, anxiety disorders are the most common in all but 1 country (prevalence in the prior 12-month period of 2.4% to 18.2%) and mood disorders next most common in all but 2 countries (12- month prevalence of 0.8% to 9.6%), while substance disorders (0.1% -6.4%) and impulse-control disorders (0.0%-6.8%) were consistently less prevalent. It has been estimated that of largest prevalence rate of psychiatric illness. In the U.S find the anxiety disorders affect 15.7 million people in United States each year. The World Health Organization has reported the ratio of medication adherence as around 50% in people with a chronic disease. Non adherence to treatment is a major problem in psychiatric patients; a recent review has stated a ratio of 20%-60% in psychiatric patients Treatment non adherence can be in the form of not taking the medication at the recommended dose and frequency, not taking the medication at all and irregular attendance to follow-up appointments or not attending at all. The most important and highly encountered form of medication non adherence is where a patient does not follow the recommended dose and frequency. The ratio of non-adherence has been reported as 40%- 60% for antipsychotics. Moreover, in studies xx evaluating medication adherence based on diagnosis, the ratio of non-adherence to medication has been shown to be 11%-80% in patients with schizophrenia.

AIM OF THE STUDY:

To assess the effectiveness of structured teaching program on knowledge regarding medication adherence on caretakers of schizophrenic patient coming to psychiatric outpatient department at the tertiary care hospital

OBJECTIVES OF THE STUDY:

1. To assess the demographic data of caretakers of schizophrenic patient coming to psychiatric outpatient department at the tertiary care hospital of the city.

2. To assess the pre-test knowledge score of caretakers of schizophrenic patient coming to psychiatric outpatient department at the tertiary care hospital of the city.

3. To assess the post-test knowledge score of caretakers of schizophrenic patient coming to psychiatric outpatient department at the tertiary care hospital of the city.

4. To assess the effectiveness of structured teaching program on knowledge regarding medication adherence on caretakers of schizophrenic patient coming to psychiatric outpatient department at the tertiary care hospital of the city.

5. To evaluate the association between study finding with selected demographic variable.

RESEARCH APPROACH:

Quantitative research is directed at the discovery of relationship as well as cause and effect. In this study Quantitative research approach was used. It helps the investigator in selection of participants, manipulation of independent variables, control, observation to be made and the type of statistical analysis to be used, to interpret the data. The present study is aimed to determine "effectiveness of structured teaching program on knowledge regarding medication adherence among caretakers of schizophrenic patient coming to outpatient department at tertiary care hospital of the city".

RESEARCH DESIGN:

Pre- experimental one group pre-test post-test design

01 X 02 Pre-Exp. group = Pre-Experimental Group.

01 = Pre-test knowledge about medication adherence

X = Structured Teaching Program on medication adherence

02= Post-test knowledge about medication adherence.

SAMPLING TECHNIQUE:

The sampling technique used for the study is type of non- probability convenient sample technique. Non-probability convenient sampling is a technique in which the researcher selects samples based on the subjective judgement of the researcher rather than random selection. Non-probability convenient sampling method is used in which samples are selected from the population only because they are conveniently available to the researcher. In present study, non-probability convenient sampling method was used to select 60 caretakers of schizophrenic patient coming to outpatient department at tertiary care hospital of the city.

DESCRIPTION OF THE DATA COLLECTION TOOL:

Data collection tool is the procedures or instrument used by the investigator to observe or measure the key variables in the research problem. The tool used in the present study was self- structured questionnaire which comprises of two sections. The questionnaire consists of close ended questions as they are easier to administer, analyse and assess the knowledge of medication adherence among caretakers of schizophrenic patient. They can also be completed in given amount of time. Review of literature provided adequate content for the tool preparation. The details of section are given below: The tool consists of 4 sections:

Section A- Written informed consent form

Section B- Demographic data of caretakers of schizophrenic patient coming at outpatient department at selected tertiary care hospital. This tool consists of 09 items on personal information to find out any association between selected demographic variables and study findings. It consists of background variables such as age, education, religion, occupation, income, type of family, duration of stay with patient, relation with patient, mental illness in family other than patient and source of knowledge about schizophrenia.

Section C- Self structured questionnaire on knowledge regarding medication adherence among the caretakers of schizophrenic patients coming to outpatient department at tertiary care hospital of the city. It consisted of 25 items to assess the knowledge of medication adherence among caretakers of schizophrenic patient. Questions were asked regarding: • Meaning, causes and sign and symptoms of Schizophrenia lv • Enlist the drugs used to treat Schizophrenia • Side effects of antipsychotics • Meaning of medication adherence • Importance of medication adherence • Causes of non-adherence • Strategies for medication adherence

Section D- Structured Teaching program on medication adherence, its strategies, importance and role of caretakers in medication adherence.

RELIABILITY OF THE TOOL:

Reliability of the tool is assessed by administering the tool to 06 caretakers of Schizophrenic patients Test-retest method was used to test the reliability of questionnaire and the tool was found reliable '. In this study, the reliability was determined by administering self-structured knowledge questionnaire to 06 caretakers of Schizophrenic patients coming to outpatient department at tertiary care hospital of the city. The reliability was calculated by using the Karl Pearson's formula. The reliability was confirmed by using coefficient alpha test. The normal range of value is between 0.00 and +1.00 and higher values reflect a higher internal consistency. The result was = 0.98.It shows that the tool was reliable.

DATA COLLECTION PROCESS:

Before the actual data collection, the investigator had completed the following formalities:

1. Approval from the research committee member & written permission from head of the institution to conduct research.

2. The investigator introduced self, explained the study of the purpose to caretakers of schizophrenic patient coming at outpatient department at selected tertiary care hospital of the city. The data was collected. Prior the data collection permission was obtained from the authorities. The purpose of the study and method of data collection was explained to the subjects for getting true responses. The assurance was given regarding the confidentiality of the information. An informed consent was obtained from the respondents indicating their willingness to participate in the study. The subjects who fulfil the sampling criteria were taken for the study. Total 60 samples were selected by non-probability convenient sampling method. The data was collected from the caretakers of schizophrenic patient coming to outpatient department at selected tertiary care hospital of the city. Investigator administered self-structured questionnaire on knowledge of medication adherence among caretakers of Schizophrenic patient to obtain pre-test score and investigator conducted structured teaching program on knowledge of medication adherence as intervention, later post test was conducted with the same questionnaire. After the data gathering process, the investigator thanked all the study subjects as well as the authority persons for their cooperation. The total 60 caretakers were divided according to their convenience. On day one, pre-test taken and structured teaching program was administered and on same day post- test was conducted
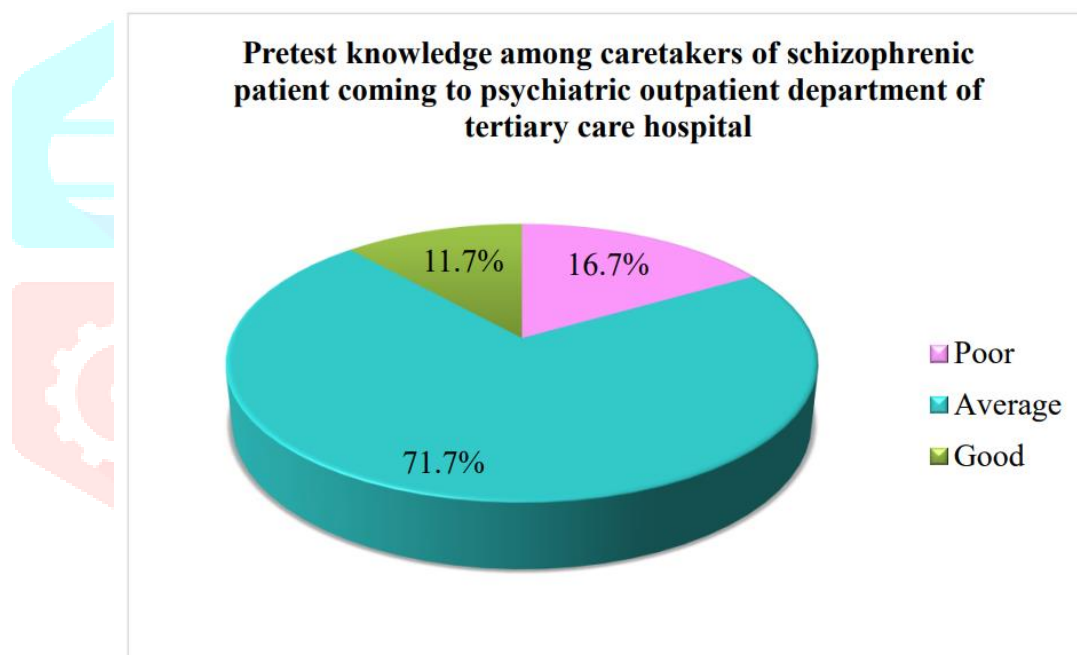
RESULT

Pre-test knowledge score of caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital of the city.

N=60

Knowledge	Pretest	
	Freq	**%**
Poor (score 0-8)	10	16.7%
Average (score 9-16)	43	71.7%
Good (score 17-25)	7	11.7%

In pre-test, 16.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had poor knowledge (Score 0-8) and 71.7% of them had average knowledge (score 9-16) and 11.7% of them had good knowledge (score 17-25) regarding the medication adherence
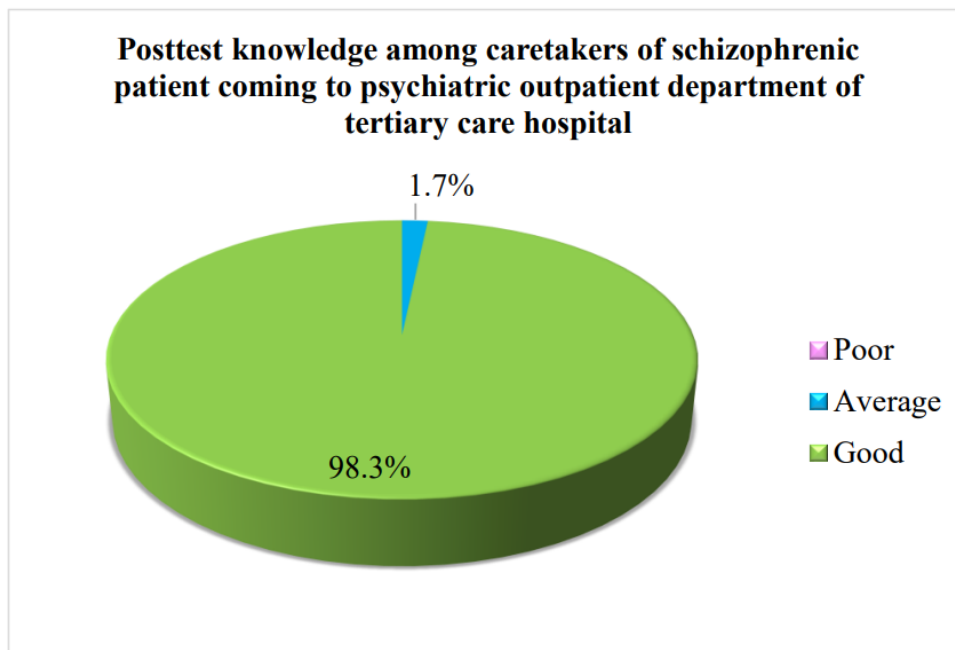

Pretest knowledge among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital

Post-test knowledge score of caretakers of schizophrenic patients coming to psychiatric outpatient department of tertiary care hospital of the city

N=60

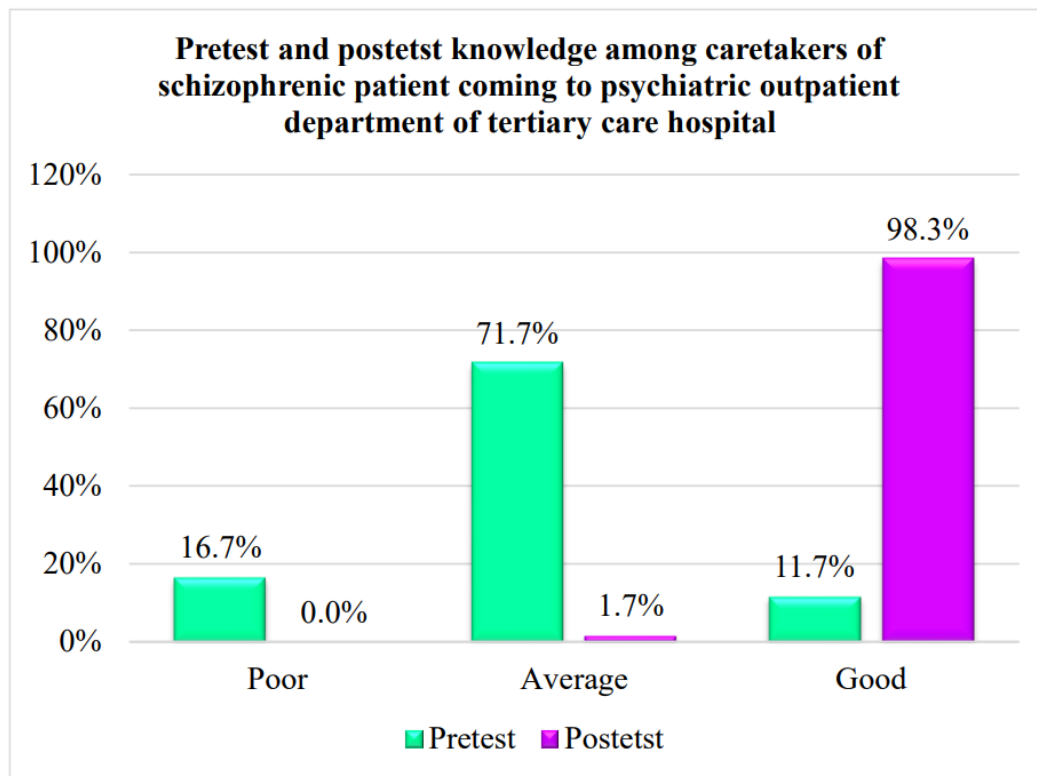| Knowledge	Post-test	
	Freq	**%**
Poor (score 0-8)	0	0.0%
Average (score 9-16)	1	1.7%
Good (score 17-25)	59	98.3%

In post-test, 1.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had average knowledge (Score 9-16) and 98.3% of them had good knowledge (score 17-25) regarding the medication adherence.

Posttest knowledge among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital

Effectiveness of structured teaching program on knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital of the city

Knowledge	Pretest		Post-test	
	Freq	%	Freq	%
Poor (score 0-8)	10	16.7%	0	0.0%
Average (score 9-16)	43	71.7%	1	1.7%
Good (score 17-25)	7	11.7%	59	98.3%

In pretest, 16.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had poor knowledge (Score 0-8) and 71.7% of them had average knowledge (score 9-16) and 11.7% of them had good knowledge (score 17-25) regarding the medication adherence. In post-test, 1.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had average knowledge (Score 9-16) and 98.3% of them had good knowledge (score 17-25) regarding the medication adherence. 1.7% 98.3% Posttest knowledge among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital Poor Average Good 80 This indicates that the knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital of the city improved remarkably after structured teaching program.

Pretest and postetst knowledge among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital
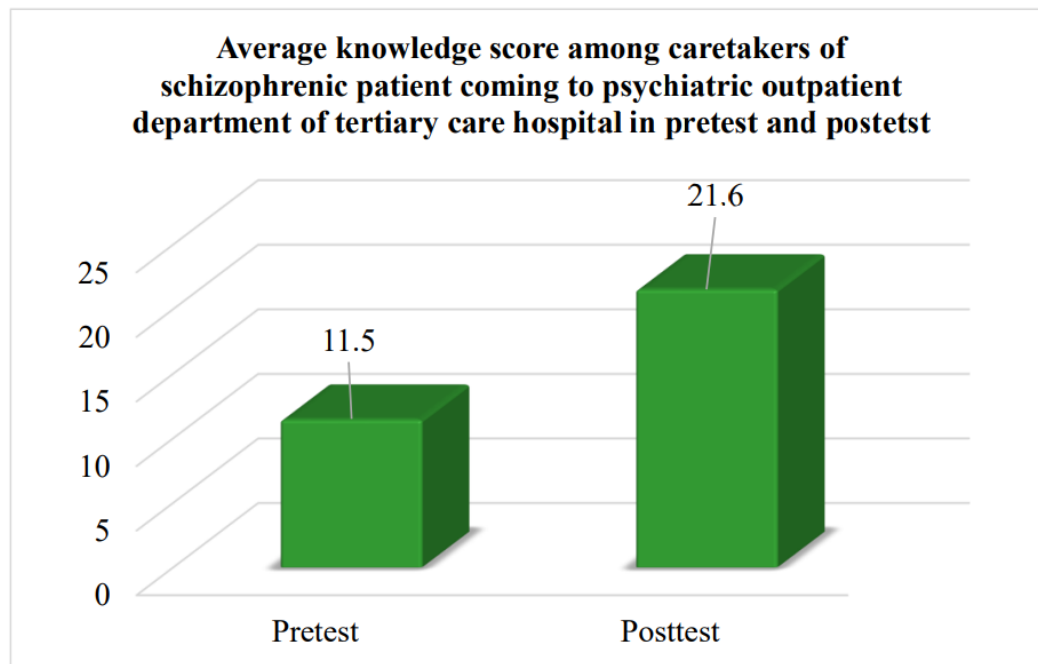
Paired t-test for the effectiveness of structured teaching program on knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital of the city

N=60

	Mean	SD	T	df	p-value
Pretest	11.5	3.4	21.0	59	0.000
Posttest	21.6	2.0			

Researcher applied paired t-test for the effectiveness of structured teaching program on knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital of the city. Average knowledge score in pretest was 11.5 which increased to 21.6 in post-test. T-value for this test was 21 with 59 16.7% 71.7% 11.7% 0.0% 1.7% 98.3% 0% 20% 40% 60% 80% 100% 120% Poor Average Good Pretest and postetst knowledge among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital Pretest & Postetst 81 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. Average knowledge score in post-test was significantly higher than that in pretest. It is evident that the structured teaching program is significantly effective in improving the knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital of the city.

Average knowledge score among caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital in pretest and postetst

Fisher's exact test for the association between knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital with selected demographic variables.

Since p-values corresponding to demographic variables Relationship with the patient, occupation and total monthly income were small (less than 0.05), the demographic variables relationship with the patient, occupation and total monthly income were found to have significant association with the knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital.

DISCCUSION:

The present study shows that maximum 40% of caretakers participated in the study belonged to age group of 51 to 60 years and remaining study 6.7% of the caretakers of schizophrenic patients had age 20-30 years, 16.7% of them had age 31-40 years, 36.7% of them had age 41-50 years age group. The majority of caretakers participated in this study 61.7% of them had nuclear family, 10% of them had joint family, 5% of them had separated family. The majority (56.7%) of caretakers participated in this study had monthly income Rs.6001-1000.that is low socioeconomic status. 11.7% of them had monthly income Rs.10001-20000 and 8.3% of them had monthly income above Rs. 20000, majority (33.3%) of caretakers participated in the study were housewives. 21.7% of them were professionals, 23.3% of them had business and 21.7% of them were farmers.

The present study shows that, In pretest, 16.7% of the caretakers of schizophrenic patient coming to psychiatric outpatient department of tertiary care hospital had poor knowledge (Score 0-8) and 71.7% of them had average knowledge (score 9-16) and 11.7% of them had good knowledge (score 17-25) regarding the medication adherence. In post-test, 98.3% of them had good knowledge (score 17- 25) regarding the medication adherence, and 1.7% of them had average knowledge (score 9-16) regarding medication adherence. Mean knowledge score in pre-test was 11.5 which was increased to 21.6 in post-test. This indicates that the knowledge regarding medication adherence among caretakers of schizophrenic patient improved remarkably after structured teaching program.

The present study shows that the demographic variable occupation, total monthly income, and relationship with the patient were found to have significant association with the knowledge regarding medication

adherence among caretakers of schizophrenic patient coming to psychiatric outpatient department of the tertiary care hospital.

CONCLUSION

Present study focuses on assessment of the knowledge of caretakers and effect of structured teaching program on knowledge regarding medication adherence. From this study researcher concluded that the structured teaching program was effective to improve the knowledge of caretakers regarding medication adherence. Total 60 caretakers selected as sample at the time pre- test knowledge scores, 11.7% of subjects were having good knowledge, 71.7% were having average knowledge and 16.7% in the poor knowledge category. At the time of post- test knowledge scores, 98.3% of subjects were having good knowledge, 1.7% were having average knowledge and only 0% were in the poor knowledge category. The relationship of knowledge with demographic variable calculated by using fisher, Since pvalues corresponding to demographic variables Relationship with the patient, occupation and total monthly income were small (less than 0.05), the demographic variables relationship with the patient, occupation and total monthly income were found to have significant association with the knowledge regarding medication adherence among caretakers of schizophrenic patient coming to psychiatric OPD of the tertiary care hospital.

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