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A study to assess the effectiveness of psycho education programme on knowledge of schizophrenia among caregivers of the patients with schizophrenia, in a selected hospital, Coimbatore.

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Abstract: *Apre experimental one group pre – test, post - test design was undertaken to evaluate the effectiveness of psychoeducation programme on knowledge of schizophrenia among caregivers of the patients with schizophrenia, in a selected hospital, Coimbatore.The objectives were to assess the knowledge on schizophrenia among care givers of the patients with schizophrenia, to administer psycho education programme on schizophrenia among caregivers of the patients with schizophrenia, to reassess the knowledge on schizophrenia among caregivers of the patients with schizophrenia also to associate the findings with selected demographic variables.*

Methods: *The research approach adopted for this study was quantitative type and the research design was pre experimental one group pre- test post- test design. This study was conducted among30 caregivers of the patients with schizophrenia with the age group between 20-60 years in selected hospital at Coimbatore based on inclusion criteria using convenient sampling technique. The data for the study was collected by structured knowledge questionnaire following which samples were subjected to psycho education programme on schizophrenia for a duration of one hour. Post test was conducted after seven days following intervention using same knowledge questionnaire. The data were analyzed and interpreted by descriptive and inferential statistics.*

Results: *Among the demographic variables, (40%) of the samples belonged to the age group of 31-40years.73.33% of them were females. 58% had monthly income between Rs 5000/- to Rs 10000/-. 40% of them were educated up to higher secondary education. 93% were from nuclear family. 13% of the samples have history of mental illness in the family. Majority of samples 87% were from rural area. 39% each of the samples stayed with patients for more than 1 month.*

The pre- test knowledge score were ;20% of the participants obtained score between the range of good, 60% obtained score in the range of average and 20% obtained poor score. Similarly post test score were 80% obtained good score and 20% obtained average and nobody obtained poor score.

This indicates that the mean post -test knowledge score of the subjects 26.63 was higher than the mean pre- test score of 20.3. The calculated 't' - value obtained from paired 't' - test was 6.39 which is significant at $p<0.05$ level showing that there is improvement in the knowledge of the samples. The results of chi square analysis indicated that there was significant association with type of family and length of stay with patient. So the selected hypothesis is accepted. Study was found to be effective.

Interpretation and Conclusion: *The result revealed that there was a significant improvement in knowledge of schizophrenia among caregivers of patients with schizophrenia after psycho education programme. This research shows that caregivers should be given education on schizophrenia to provide adequate care to the ill family members and to prevent complications of schizophrenia.*

Key words: *Assess, effectiveness, psycho education programme, knowledge, schizophrenia, caregivers.*

1. INTRODUCTION:

Schizophrenia is a common psychiatric disorder. One percentage of the total population suffers from schizophrenia. The severity of the symptoms and chronic patterns of schizophrenia often causes a high degree of disability. It was found

that families who are new to the illness are unable to deal with fear and sorrow. Lack of knowledge of family members leads to more complications like recurrence. Psycho education for the family have been considered to be the most promising and successful one to improve knowledge of family members[1]

Studies have shown that genetics, neurobiology, environmental, psychological and social factors are important contributory factors of schizophrenia. Some of the recreational activities and medications might cause or worsen symptoms. Researches in the psychiatric field are now focused on the role of neurobiology, but no single organic cause has been found. Genetic causes could put a person at higher risk for developing schizophrenia and stressful life events could trigger onset of the symptoms[2]

Schizophrenia is a chronic debilitating mental illness. It causes isolation in the patients. It is known as a psychotic illness, which means a person, with schizophrenia may experience delusions, hallucinations and disordered thoughts. Most of them have no insight into their illness. So they are unaware of their illness. So they need continuous support from the family members[3]

Complete cure is difficult in case of schizophrenia. So preventive measures and early detection can be focussed. Promising results in the prevention and delay of transition to psychotic disorder from high risk state have been found. Untreated psychosis is associated with poor outcome of schizophrenia. Early diagnosis, intervention in psychosis, including promotion of early help-seeking behaviour, will promote better outcomes in schizophrenia. Early intervention programmes are more effective than routine management. The main preventive measures for schizophrenia are decreasing the maternal stress during pregnancy, avoiding X-ray exposure during pregnancy, and lowering the level of stress for child while growing up.[5]

A combination treatment of anti-psychotic medication and a talking treatment such as cognitive behavioural therapy can be used in schizophrenia. One in four people with the illness completely cure within five years. Psychological therapies are the important pathway to treatment. For most patients, symptoms can be decreased and wellbeing can be increased.[6]

Family therapy is especially effective in chronic schizophrenia patients. It typically consists of a brief program of family education about schizophrenia. It has found that relapse rates of schizophrenia are higher in families with high expressed emotions. So the significant others are taught to decrease expectations and family tensions, by giving social skills training to enhance communication and problem solving.[10]

Indian families have been typically described as often believing in causes like supernatural forces and therefore seek help from magico-religious healers observe. Beliefs about the causation of schizophrenia could influence the attitudes of patients' families adopt towards the patient and may also influence their help-seeking behaviour. This is particularly true of rural and semi-urban populations in India and those hailing from an orthodox and very religious background who through religious centres of healing in search of a desperate cure for mental illness. So a psycho education on schizophrenia is essential to remove these superstitions.[12]

A study conducted to assess the effectiveness of psycho education program on knowledge of schizophrenia for patients with schizophrenia and their family members in Netherlands. A total sample of 108 schizophrenia patients and their family members were selected. The results showed that the mean scores of knowledge before the program was 6.92(SD=2.6) and after the programme was 7.82(SD=1.92). The researcher concluded that psycho education improved the knowledge of patients and caregivers[15]

2. NEED FOR STUDY:

The schizophrenia patients have disturbances in thought and cognitive impairment. It is a chronic disorder and in between multiple acute episodes are occurring.The family members are the people who are supposed to provide psychosocial support to the schizophrenia patients. The goal of psycho education is to make people aware of schizophrenia thereby improving the knowledge and fostering an easier and effective course of illness.[18]

In the worldwide population, 1% is schizophrenia sufferers. It is often a chronically disabling condition therefore this condition is highly responsible for the population's morbidity. The incidence rate of schizophrenia is 18 - 20 cases per 100,000 populations per year. Its peak age of onset is different for men and women. The average age of onset for men and women are 20-25 and 25-30 respectively. Schizophrenia occurs in all societies regardless of class, colour, religion, culture. However there are some variations in terms of incidence and outcomes for different groups of people.[20]

Schizophrenia ranks among the top 10 causes of disability in developed countries worldwide. The main leading cause of mental disability that WHO was given is schizophrenia. The prevalence rate for schizophrenia is 1.1% of the population. It means at any one time 51 million people worldwide suffer from schizophrenia, including; 6 to 12 million people in china, 4.3 to 8.7 million people in India, 2.2 million people in USA, 285,000 people in Australia, 280,000 people in Canada, 250,000 diagnosed cases in Britain.[24]

Rates of schizophrenia are generally similar from country to country-about 0.5% to 1 percent of the population. Another way to express the prevalence of schizophrenia at any given time is the number of individuals affected per 1,000 total population. In the India, prevalence rate of schizophrenia is 7.2 per 1,000. The number of people who will be diagnosed as having schizophrenia in a year is about one in 4,000. So about 1.5 million people will be diagnosed with schizophrenia in one year, worldwide.[28]

A study conducted to assess prevalence of schizophrenia with other mental disorders among the general population in India. Case registers and field surveys were used to collect data. The study revealed that there was no significant differences in prevalence of schizophrenia between males and females, nor between urban and rural and sites, and that lifetime prevalence of schizophrenia is 4.0/1000.[31]

A study conducted to assess the effectiveness of psycho education program on knowledge and attitude on schizophrenia among caregivers of schizophrenia patients in Thrissur. The results showed that the mean scores of knowledge and attitude before the program were 6.06 and 29.37 and after the program were 6.91 and 37.57 respectively. It was concluded that psycho-educational program on schizophrenia increase the knowledge and attitude of caregivers.[40]

3. OBJECTIVES:

- To assess the knowledge on schizophrenia among care givers of the patients with schizophrenia.
- To administer psycho education programme on schizophrenia among caregivers of the patients with schizophrenia.
- To reassess the knowledge on schizophrenia among caregivers of the patients with schizophrenia.
- To associate the findings with selected demographic variables.

4. MATERIALS AND METHODS:

The research approach adopted for this study was quantitative type and the research design was pre experimental one group pre- test post- test design. In this study psycho education programme was given to the samples after pre -test. Seven days after the psycho education programme post- test was done to assess the knowledge regarding schizophrenia. In this study a comparison between the pre - test and post- test score was done to find out the effectiveness of psycho education programme. This study was conducted in a selected hospital at Coimbatore, among 30 young caregivers of schizophrenia patients in the age group of 20-60 years. The samples were selected on the basis of inclusion criteria by using non probability convenient sampling technique. The investigator introduced them and developed rapport with the subject. The investigator explained purpose of the study and obtained written informed consent from the subject prior to the study, Pre- test knowledge was assessed with the help of structured knowledge questionnaire regarding schizophrenia and after that a psycho education programme was done. The post- test was conducted after seven days following intervention using the same knowledge questionnaire.

5. ANALYSIS :

The data was presented in the form of table and figures.

SECTION I
DISTRIBUTION OF DEMOGRAPHIC VARIABLES AMONG CARE GIVERS

Table- 1.1Age distribution of samples
N=30

Age	Frequency	Percentage
• 21-30 years	8	26.67%
• 31-40 years	12	40%
• 41-50 years	7	23.33%
• 51-60 years	3	10%

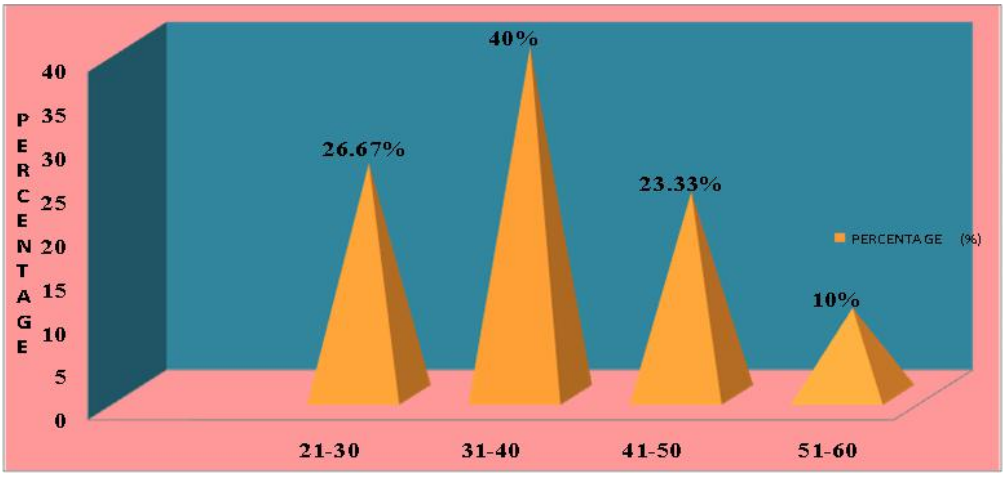

Fig-1.1 Cone diagram showing distribution of samples according to age.

The above table- 1.1 and figure- 1.1 shows that with regard to the age,40% of the samples were in the age group of 31- 40 years.

Table- 1.2 Distribution of samples in terms of family monthly income.

N=30

Family monthly income in Rupees	Frequency	Percentage
• Below 5000	8	26
• 5000-10000	17	58
• Above 10000	5	16

n=30

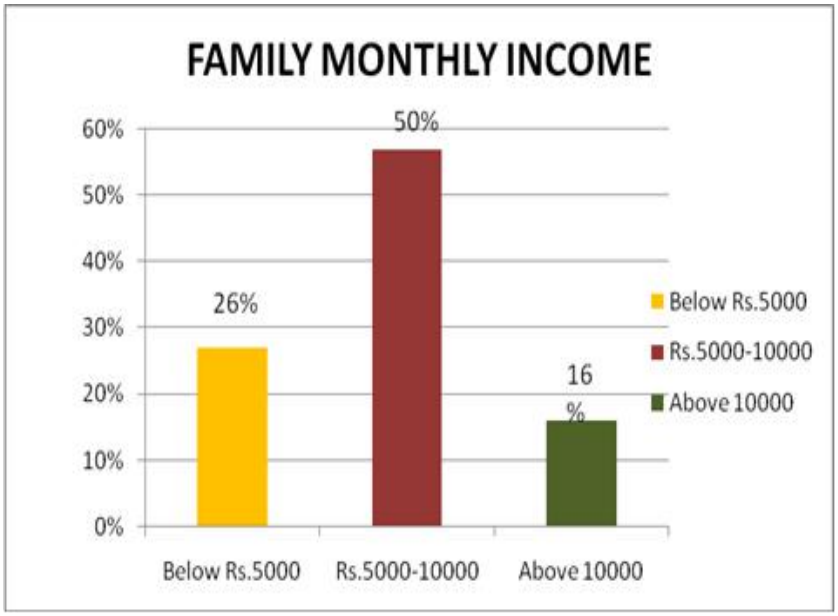

Fig- 1.2 Bar diagram showing distribution of samples in terms of their family monthly income.

The above table 1.2 and figure 1.2 shows that most ofthe samples 58% belongs to the income group of 5000-10000.

Table- 1.3 Distribution of sample on the basis of qualification of educational status

N=30

Qualification/ Educational status	Frequency	Percentage
• Primary level	6	20%
• Secondary level	15	50%
• College level	9	30%

N=30

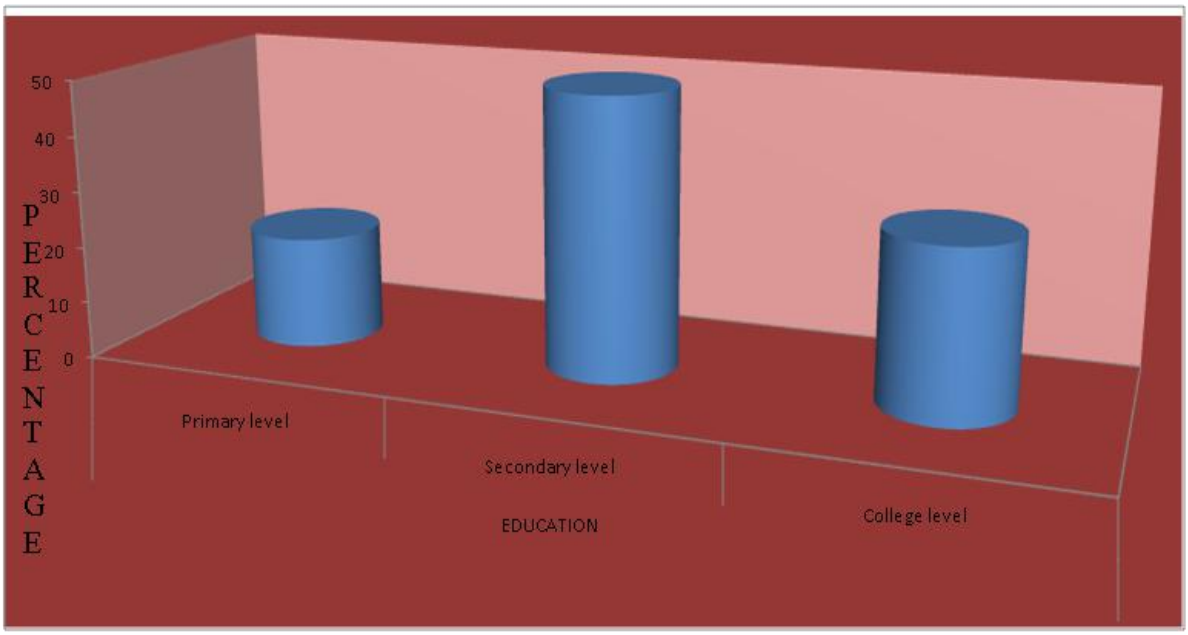

Fig- 1.3 Bar diagram showing the distribution of sample on the basis of educational status of the caregivers

The above table- 1.3 and figure- 1.3 shows that 50% of the care giverswere educated up to secondary level.

Table- 1.4 Distribution of samples with regard to type of family

N=30

Type of family	Frequency	Percentage
• Nuclear family	28	93%
• Joint family	2	7%

N=30

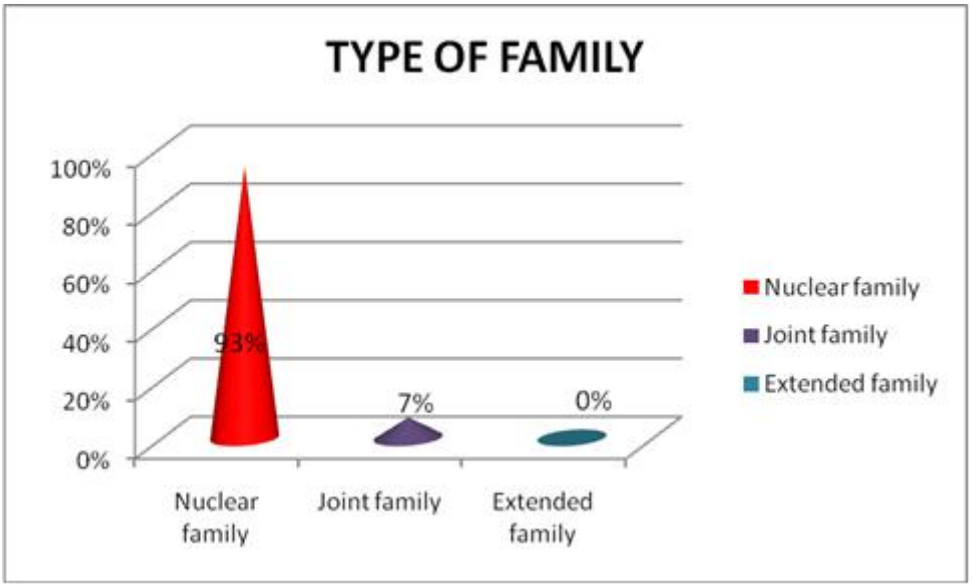

Fig- 1.4 Cone diagram showing distribution of samples with regard to their type of family.

The above table-1.4 and figure-1.4 shows that considering the type of family, majority of the samples 93% came from nuclear family.

Table- 1.5 Distribution of samples in terms of length of stay with patient.

N=30

Length of stay with patient	Frequency	Percentage
• 6 months-1 year	10	33.33%
• 1-2 years	6	20%
• Above 2 years	14	46.67%

N=30

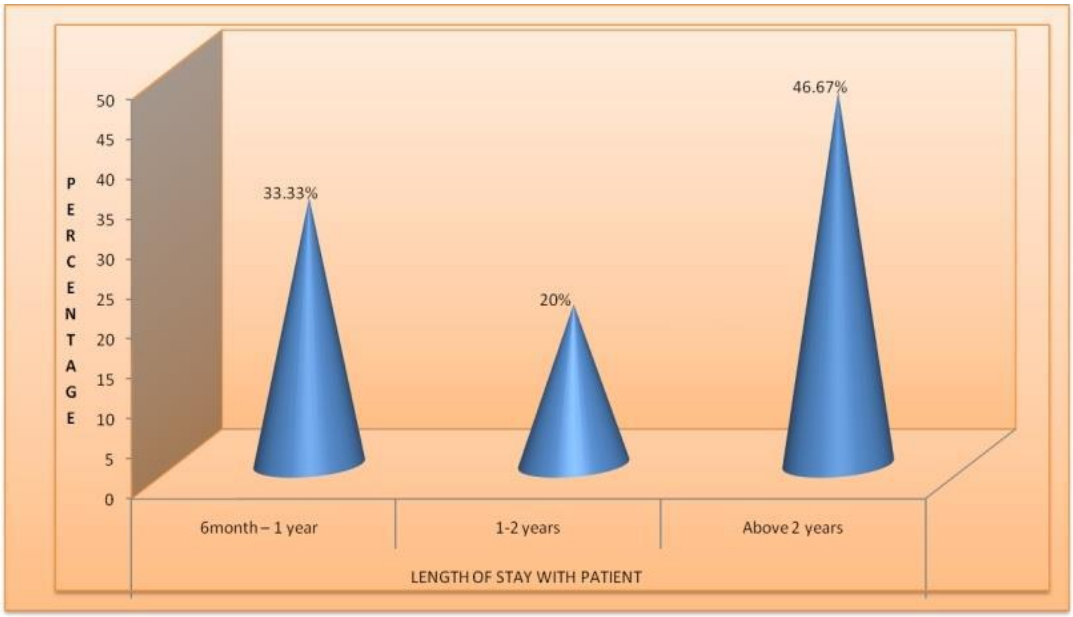

Fig - 1.5 Diagram showing the distribution of samples in terms of length of stay with patient.

The above table-1.5 and figure-1.5 shows that most of the samples 46.67% had stayed with patient for more than 2 years.

Table- 1.6 Distribution of samples in terms of Gender

N=30

Area of residence	Frequency	Percentage
• male	8	26.67%
• female	22	73.33%

N=30

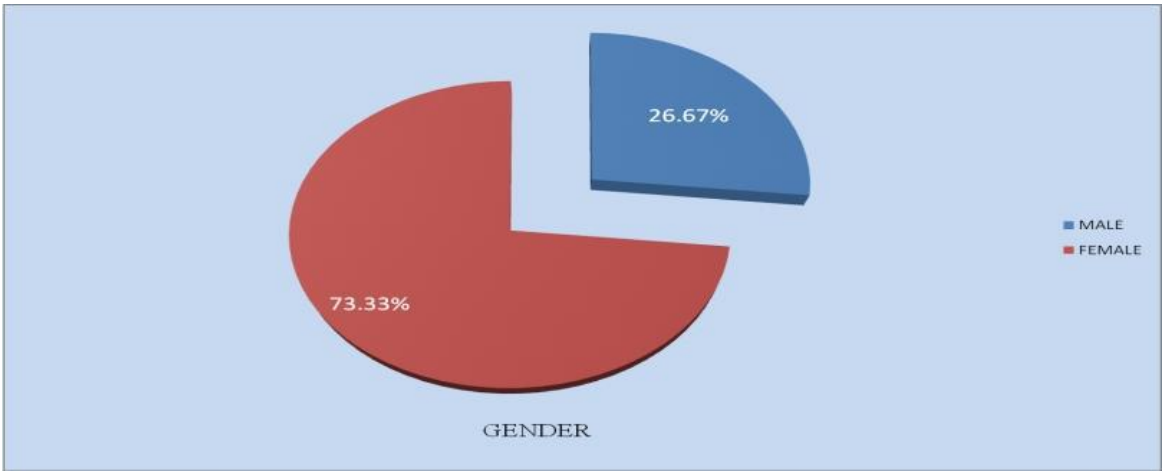

Fig- 1.6 pie diagram shows distribution of samples according to their gender.

The above table- 1.6 and figure- 1.6 shows that while considering gender, 73.33% of the samples were female.

SECTION II

ASSESSMENT OF KNOWLEDGE ON SCHIZOPHRENIA AMONG SAMPLES DURING PRE TEST.

Table- 2.1 Frequency and Percentage distribution of level of knowledge on schizophrenia among caregivers of patients with schizophrenia during pre- test.

N=30

Knowledge level	Frequency	Percentage
Poor <16	6	20%
Average 16-24.617	18	60%
Good >24.617	6	20%

The above table- 2.1 shows the frequency and percentage distribution of level of knowledge on schizophrenia among samples during pre- test.The levels of knowledge were seen in 3 categories Poor, Average, and Good.Among the 30 samples, 6(20%) had poor knowledge, 18(60%) had average knowledge and 6(20%) had good knowledge.

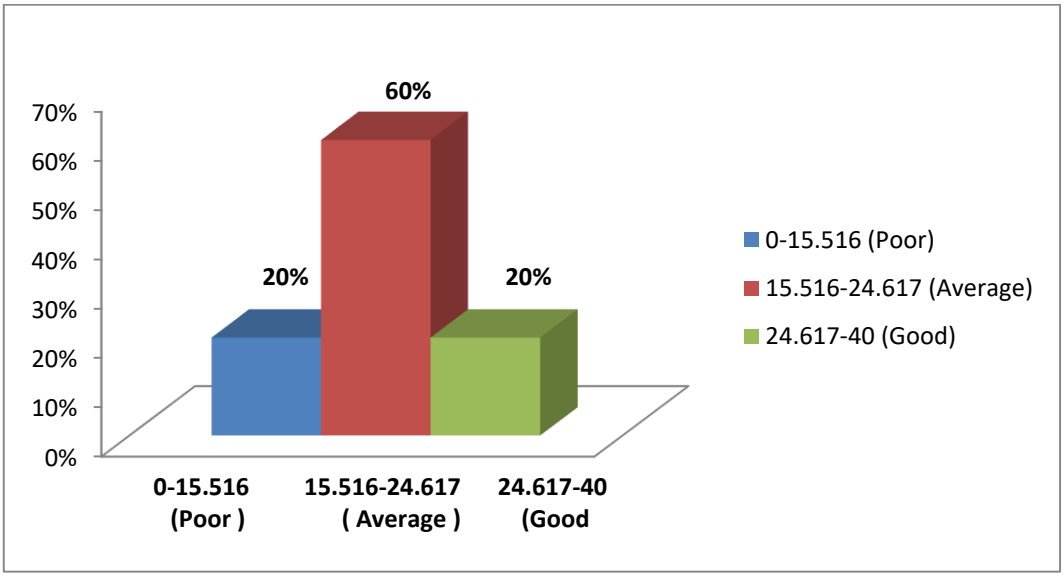

Table- 2.2 Mean, standard deviation, range and mean percentage of pre- test knowledge score regarding schizophrenia among samples.

N = 30

Domain	Mean	Standard Deviation	Range	Max. score	Mean%
Knowledge	20.03	4.614	16	44	66.76%

The statistical outcome such as mean, standard deviation, range, mean score percentage of pre -test knowledge score regarding schizophrenia among samples were shown in the table – 2.2. Out of the maximum score 44, the samples had mean knowledge of 20.03 with standard deviation of 4.61 and mean percentage attained was 66.76%.

SECTION III

DISTRIBUTION OF POST – TEST KNOWLEDGE SCORE REGARDING KNOWLEDGE ON SCHIZOPHRENIA AMONG SAMPLES

Table- 3.1 Frequency and percentage distribution of level of knowledge on schizophrenia among sample during post test

N=30

Knowledge level	Frequency	Percentage
Poor <16	0	0%
Average 16-24.6	6	20%
Good >24.617	24	80%

From the above table- 3.1, majority of samples those who participated in the study got good knowledge regarding schizophrenia during the post -test after the administration of psycho education programme on knowledge regarding schizophrenia. Out of the 30 samples 6(20%) had average knowledge regarding schizophrenia and 24(80%) had good knowledge. This indicated that the teaching programme helped the caregivers in gaining needed information on schizophrenia, which would in turn help them to identify the signs and symptoms of schizophrenia and thereby they are able to give proper home care to schizophrenic patients.

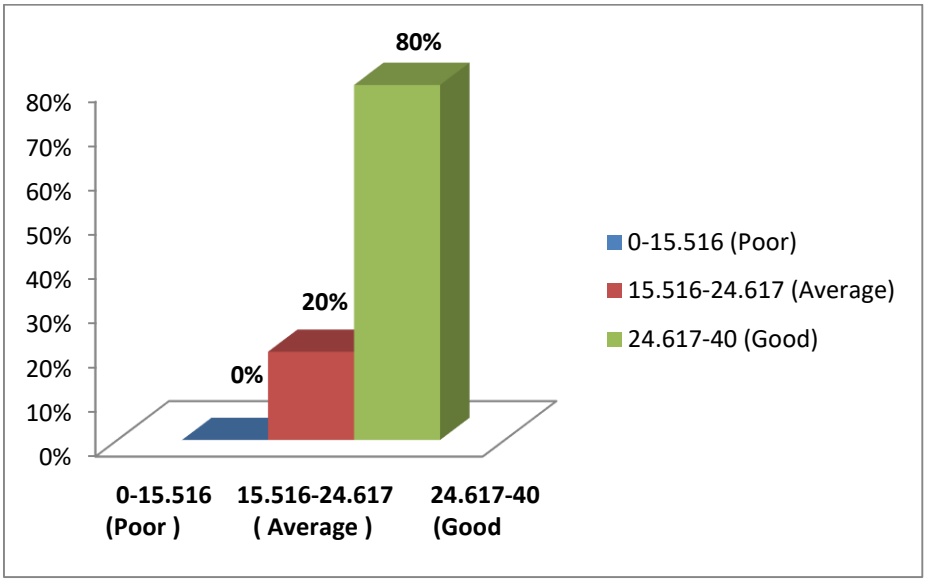

Table - 3.2 Mean, standard deviation, range and mean percentage of post -test knowledge score regarding schizophrenia

N=30

Domain	Mean	Standard Deviation	Range	Max.score	Mean percentage
Knowledge	26.63	4.12	17	44	88.76%

The above table – 3.2 shows the statistical outcome such as mean, standard deviation range, maximum score, mean % of post -test knowledge score regarding schizophrenia among the samples. Out of the maximum score of 44, the samples had attained mean knowledge of 26.63 with standard deviation of 4.12, range 17 and mean score percentage attained was 88.76.

SECTION IV

EFFECTIVENESS OF PSYCHOEDUCATION PROGRAMME ON SCHIZOPHRENIA BY COMPARING PRE AND POST TEST SCORES AMONG THE SAMPLES.

Table – 4.1 Comparison of pre-test and post-test level of knowledge among samples Ernakulum

	Pre Test		Post Test	
	Frequency	Percentage	Frequency	Percentage
Poor (0-15.516)	6	20%	0	0
Average (15.516 -24.617)	18	60%	6	20%
Good (24.617 - 44)	6	20%	24	80%

The above table compares the pre-test& post-test knowledge of the samples.60% had average knowledge, 20% had poor knowledge and 20% had good knowledge about schizophrenia during pre - test. In the post-test no one is having poor knowledge, 20% had average knowledge and 80% had good knowledge.

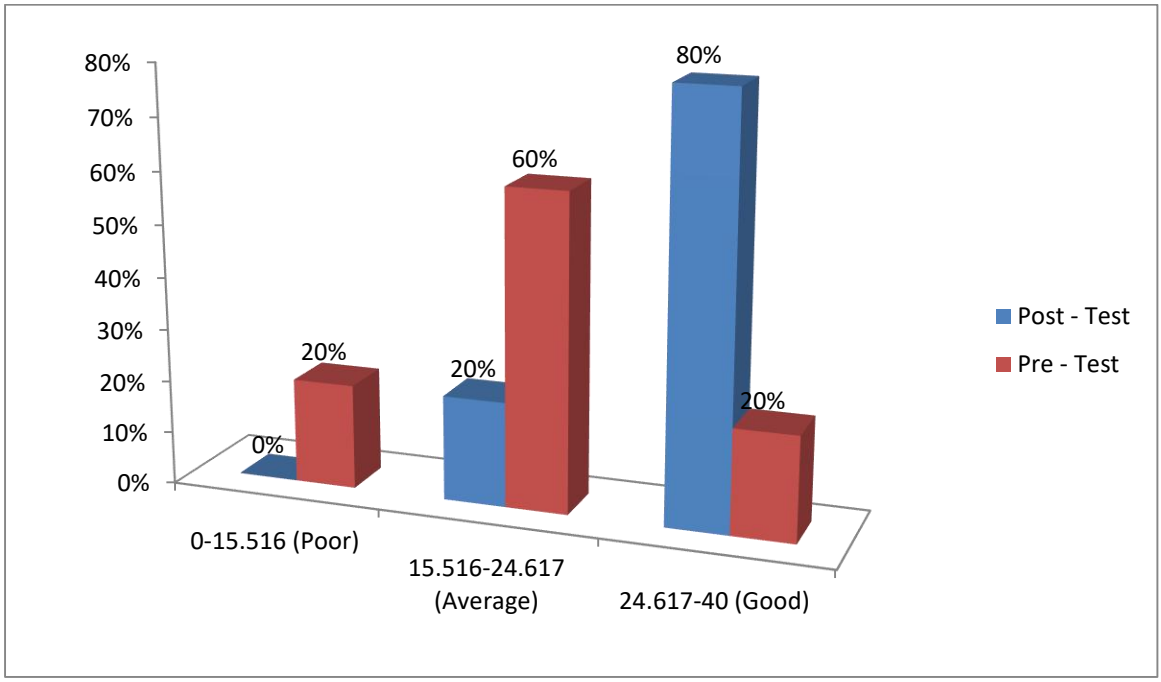

Table- 4.1 Comparison of mean, standard deviation, mean difference and paired "t" value of knowledge regarding schizophrenia among care givers of patients with schizophrenia during pre – test and post – test.

Variable	Mean	Standard Deviation	Range	Mean difference	Paired "t" Value
Pre- test	20.03	4.614	16	6.6	
Post - test	26.63	4.12	17	6.6	6.390

TESTING OF HYPOTHESIS

H_1: There will be a statistically significant difference between the mean pre – test knowledge score and mean post – test knowledge score of caregivers of patients with schizophrenia regarding schizophrenia following the psycho education programme.

The above table-4.1 reveals that the mean pre - test knowledge score was 20.03 and post- test knowledge score was 26.63 which was higher than the pre -test score. The standard deviation of pre-test knowledge score was 4.614 and post- test knowledge score was 4.12. The obtained 't' value was 6.390. which is greater than table value at 0 .05 level of significance.So the research hypothesis (H_1) was accepted. The result indicated that the psycho education programme was effective.

SECTION V

ASSOCIATION BETWEEN PRE TEST KNOWLEDGE SCORE AND SELECTED DEMOGRAPHIC VARIABLES AMONG THE SAMPLES

Table - 5.1 The association between the level of knowledge and selected demographic variables.

N=30

sl.no	Demographic variables	Level of knowledge		Calculated value of χ^2	Tabulated value of χ^2
		Below median score	Above median score		

		No	Yes		
1.	**Age in years**				
	a)21-40 years	5	12	0.13	3.83
	b)41-60 years	4	9		NS
2.	**Education**				
	a)Higher secondary	7	13	0.02	3.84
	b)College level	3	7		NS
3.	**Occupation**				
	a)Employed	4	13	1.2	3.84
	b)unemployed	6	7		NS
4.	**Type of family**				
	a)Nuclear family	14	5		3.84
	b)Joint family	2	9	8.62*	S
5.	**Length of stay with patient**				
	a)6 months -2 years	12	4		3.84
	b)Above 2 years	3	11	6.56*	S

S(S-* SIGNIFICANT, NS-NOT SIGNIFICANT)

The table – 5.1 shows the association between knowledge and selected demographic variables of samples such as age, education, occupation, type of family and length of stay with patient.

TESTING THE HYPOTHESIS 2:

H_2: There will be a significant association between mean pre - test knowledge score and selected demographic variables.

Among the demographic variables, the chi-square values were, age (x^2=0.13),education (x^2=0.02),occupation (x^2=1.2),type of family(x^2=8.62) and length of stay with patient(x^2=6.56).In this study, the result of chi square analysis shows that the type of family, and length of stay with patient were significant with knowledge at 0.05 level. So there was significant association between pre – test knowledge score and any of the selected demographic variables.

6. FINDINGS OF THE STUDY:

The findings of the study were;

6.1 SAMPLE CHARACTERISTICS

1. About the age 8(26.67%) samples belonged to the age group of 21-30 years, 12(40%) were 31-40 years, 7(23.33) belongs to 41-50 years and 3(10%).were 51-60 years.
2. Regarding the family monthly income in rupees, 8(26%) had income between Rs.5000& Rs.10000. 17 (58%) had income below Rs.5000 and 5 (16%) had income above Rs. 10000.
3. About the education, most of the samples, 15(50%) had secondary education, 6(20%) had primary education, and 9(30%) had college level education
4. When type of family was taken into consideration, 28(93%) were from nuclear family and 2(7%) were from joint family.
5. Regarding the length of stay with patient, 10 (33.33%) had 6 months to 1 year stay with patient, 6 (20%) had 1-2 years stay with patient,14 (46.67%) had above 2 years stay with patient

6.2 MAJOR FINDINGS OF THE STUDY

ASSESSMENT OF KNOWLEDGE ON SCHIZOPHRENIA AMONG CAREGIVERS DURING PRE- TEST

Among the 30 samples, 6(20%) had poor knowledge, 18(60%) had average knowledge and 6(20%) had good knowledge.

ASSESSMENT OF KNOWLEDGE ON SCHIZOPHRENIA AMONG CAREGIVERS DURING POST-TEST

Among the 30 samples 6(20%) had average knowledge regarding schizophrenia for cardiovascular diseases and 24(80%) had good knowledge.

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME IN TERMS OF GAIN IN KNOWLEDGE ON SCHIZOPHRENIA

The mean pre - test knowledge score was 20.03 and post- test knowledge score was 26.63 which were higher than the pre -test score. The standard deviation of pre- test knowledge score was 4.614 and post- test knowledge score was 4.12. The obtained 't' value was 6.390 which is greater than table value at 0.05 level of significance.So the research hypothesis (H_1)"there will be a statistically significant difference between the mean pre – test knowledge score and mean post – test knowledge score of caregivers regarding schizophrenia following the psychoeducation programme" was accepted. The result indicated that the psycho education programme was effective.

RELATIONSHIP BETWEEN SELECTED DEMOGRAPHIC VAERABLES AND PRE-TEST SCORE

The present study showed that there was significant association between demographic variables like type of family, length of stay with patient and knowledge score.

7. CONCLUSION:

This study enlightens the importance of the research work. The research was conducted among caregivers of patients with schizophrenia of a hospital at Coimbatore and revealed that there was significant lack of knowledge regarding schizophrenia among caregivers. The psycho education programme had a remarkable role in improving their knowledge and the study also revealed that there was association between knowledge and selected demographic variables like type of family and length of stay with patient.

8. RECOMMENDATIONS:

- A similar study can be undertaken for a large sample in different settings.
- A comparative study can be conducted among the staff nurses within the organisation.
- A similar study can be conducted among caregivers at different settings.
- A similar study conducted among nursing students.

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