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Effectiveness of Planned Teaching Program on Knowledge regarding Psychogenic Non-Epileptic Seizures among Community People in Selected Rural Areas. A Quasi-Experimental Study

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Abstract: ***Aim of the study: The study aims to find Effectiveness of planned teaching program on knowledge regarding psychogenic non-epileptic seizures among community people in selected rural areas. Objectives of study: Primary objectives: 1) To assess the effectiveness of planned teaching program on knowledge regarding psychogenic non-epileptic seizures among community people in selected rural areas. Secondary objectives: 2) To assess the existing knowledge regarding psychogenic nonepileptic seizures among community people in selected rural area. 3) To find out the association between post-test knowledge score with their selected demographic variables. Method: One group pre -test post -test research design and based on quantitative approach carried out on 90 community people selected by non-probability convenient sampling technique. Results: The presents study evaluates and found that demographic variables, The study reveals that pre- test 20 (22.22%) were poor level of knowledge, 25(27.78%) had average level of knowledge, 25(27.78%) were good level of knowledge, 19 (21.11%) had very good level of knowledge and 1(1.11%) had excellent knowledge. Minimum score was 9 and maximum score 21. Mean knowledge score 4.8±1.863 and mean percentage score was 23.5±9.315 and post- test 05 (5.56%) had poor level of knowledge, and 05(5.56%) had average level of knowledge and 6(6.67%) had good level of knowledge,24(26.67%) had very good level of knowledge and 50(55.56%) had excellent knowledge. Minimum score was 14 and maximum score 25. Mean knowledge score 17.22±1.117 and mean percentage score was 45.12±5.585. Interpretation and conclusion: Mean, standard deviation and mean difference values are compared and student's paired 't' test is applied at 5% level of significance. The tabulated value for n = 90 i.e., 89 degrees of freedom. The calculated 't' value i.e., 53.692 are much higher than the tabulated value at 5% level of significance for overall knowledge score of population which is statistically acceptable level of significance. Hence it is statistically interpreted that the knowledge score in pre and posttest of regarding psychogenic non-epileptic seizures among community people in selected rural area.***

Keywords: PNES: Psychogenic non- epileptic seizures, H0: Null hypothesis, H1: Research hypothesis

1. Introduction

""The secret of getting ahead is of getting started."
- Mark Twain

PNES is a complex condition typically associated with underlying psychological factors such as stress, trauma, or psychiatric disorders. Due to limited awareness and understanding, especially in rural communities, individuals experiencing PNES are of-ten misdiagnosed or subjected to unnecessary and ineffective treatments. The lack of knowledge among community members can also contribute to social isolation and discrimination against those affected.

Nurses and healthcare educators have a vital role in enhancing community awareness and knowledge through structured teaching interventions. A planned teaching program can serve as an effective tool to improve understanding of PNES, promote early recognition, encourage appropriate healthcare-seeking behavior, and reduce stigma.

2. Need of the Study

The need for the study arises from several key factors, including the prevalence of psychogenic non-epileptic seizures (PNES) in rural areas, the lack of awareness and understanding among community members, and the potential consequences of untreated or mismanaged PNES. Research knowledge regarding Psychogenic Nonepileptic Seizures (PNES) in India is limited, particularly compared to Western countries. Studies are needed to address the prevalence, clinical profile, and long-term outcomes of PNES in the Indian population, including the impact of cultural factors and access to mental health services. Furthermore, there's a need for research on effective psychological interventions and multidisciplinary approaches for PNES management within the Indian context. The estimated prevalence of PNES in the general population is 2-33 8 per 100,000. This means that, on average, between 2 and 33 individuals out of every 100,000 people are estimated to have PNES. Studies have also shown that PNES is seen in all age groups. The estimated annual incidence of PNES is around 3.1 per 100,000, meaning that approximately 3.1 new cases are diagnosed per 100,000 people each year. Studies have indicated a higher prevalence of PNES in the 15-19 age group, with rates as high as 59.5 per 100,000.

As a nursing professional or health educator, it is crucial to identify and address gaps in community health knowledge. This research topic was selected based on the observed need

to improve community awareness and educate the rural population about PNES through a planned teaching intervention. The outcomes of this research will support the integration of educational programs into primary healthcare services and promote evidence-based nursing practice in community mental health.

3. Review of Literature

Bompaire, F, et al. (2021) Psychogenic non-epiraptic seizures (PNES) are clinically defined as involuntary expressions of emotional stress similar to epileptic seizures, but not conscious, similar to panic attacks. Your neurophysiological physiopathology is different. However, states like PNES are perceived in some cultures as a cultural phenomenon. PNES is one of the three most important neuropsychiatric issues, aiming to become an international league against the epilepsy ask forces that released an update on PNES epidemiology in 2017. Research on PNES is complicated. These patients are difficult to identify and tend to separate themselves according to a medical service diagnosis. Estimates of incidence and prevalence in the literature are based on the diagnosis of tertiary care epilepsy units diagnosed with PNS in approximately 20-40% of adult patients and 10-23% of children with drug- resistant epilepsy. The estimated comorbidity is 5-50%. 75% of PNES patients are young adult women. PNES is under the age of 6, which is rare in 50 years. Female domination is not seen in classical methods of children, late body, or subgroups (intellectual disability) (approximately 10% of patients with PNNE). Psychiatric comorbidities such as anxiety, post-traumatic stress disease, and prehistoric trauma are common in patients with PNNE. Recent changes in the epidemiology of PNES recognize that the state exists all over the world, not just in the western developed countries, but also around the world.

Hypothesis
Will be tested at 0.05 level of significance.

- H0–There was no significant difference between effectiveness of planned teaching program on knowledge and practice regarding Psychogenic Non Epileptic Seizures among community people after pre - test and post - test.
- H1– There was significant difference between effectiveness of planned teaching program on knowledge and practice regarding Psychogenic Non Epileptic Seizures among community people after pre - test and post - test.

4. Research Methodology

Research design
In this study – quasi-experimental one group pre-test post-test research design.

Setting of the study
Study was conducted among community people in selected rural areas.

Variables of the study

Demographic variable: - The characteristics and attributes of the study subjects are considering demographic variables. In addition, sometimes investigators even try to establish relations of the demographic variables with the research variables. Thus, the demographic variables in this study are Age , gender, marital status, educational status, occupation, annual income.

Independent Variables: It is a stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variables. In this study independent variables were planned teaching program.

Dependent Variables: It is outcome or response due to effect of independent variable, which researcher wants to predict or explain. In this study dependent variable was knowledge regarding psychogenic non-epileptic seizures.

Population of the study
In this study population was community people of selected rural areas.
Target population: community people in selected rural areas.
Accessible population: community people in selected rural areas available at the time of data collection

Sample Size:
Number of subjects, event, behaviours, or situation that are examined in a study. In this study, total 90 community people in selected rural areas.

Research Criteria

Inclusion criteria: community people who are:

- Willing to participate in study
- Available at the time of data collection.
- Able to read and write Marathi, Hindi, English.

- **Exclusion criteria:** community people who are:
- People who are critically ill.
- Withdraw participation due to personal reason.
- Individual refuses to give informed consent.
- Community people who residing in urban areas.

Sampling Technique:
Prior to conduct study, researcher was obtained permission from respective authority to conduct study in selected rural areas and introduced the community people about self and research also taken written consent letter from community people. Selected community people through the non-probability convenience sampling technique in that researcher conveniently select the 90 samples from selected rural areas.

Tool and Technique for the Study
The tool consists of two section
Section I – demographic data of community people.
Section II – knowledge regarding psychogenic non-epileptic seizures. Technique of data collection means of gathering with the use of specific tools used in a given methods are known as technique of data collection.

In the present study, technique used for collecting the data was using a tool consist of demographic questionnaire and knowledge regarding psychogenic non-epileptic seizures.

Feasibility of the Study

1) Permission was obtained from respective authority of selected rural area.
2) Participants were co-operative and they were given consent for study.

Validity of Tool

Tool the Content and construct validity of the research tools will be done by the experts in the field of Mental Health Nursing department.

Reliability of Tool

Reliability of the tool was done by using split half method the reliability was drawn out by testing tool on 09 participants. The spearman-Brown split half method was used for questionnaire. The tool was said to be reliable if the correlation coefficient was more than or equal to 0.8. The correlation coefficient 'r' of the tool was 0.86. Which was equal to 0.8 and hence the tool was found to be reliable.

Pilot Study

A smaller version of proposed study that is conducted to develop and refine the methodology, such as the treatment, instrument, or data collection process to be used in large study. Permission was taken from concerned authority. Pilot study was conducted 04/03/2025 to 10/03/2025 for period of 7 days. A sample of 09 community people was selected from selected rural area. The investigator approached the sample individually, discussed the objective of the study and obtained consent for participation in study. Knowledge regarding psychogenic non epileptic seizures among community people in selected rural areas was assessed by administering the questionnaire.

The collected data was coded, tabulated and analyzed by using descriptive statistics and inferential statistics. Correlation test was done to find correlation between pre-test and pos-test knowledge score, there was positive correlation between pre-test and post-test knowledge. The pilot study was feasible in term of time, money, material and resources.

Main Study

Permission was taken from concerned authority. Main study was conducted 27/03/2025 to 02/04/2025 for period of 7 days. A sample of 90 community people was selected from selected rural area. The investigator approached the sample individually, discussed the objective of the study and obtained consent for participation in study. Knowledge regarding psychogenic non epileptic seizures among community people in selected rural areas was assessed by administering the questionnaire. The collected data was coded, tabulated and analyzed by using descriptive statistics and inferential statistics. Correlation test was done to find correlation between pre-test and pos-test knowledge score, there was positive correlation between pre-test and post-test knowledge. The main study was feasible in term of time, money, material and resources.

Plan for Data Analysis

The analysis of the data is based on the objectives of the study. The data for main study was analyze as following:

1) The demographic of the subjects was analyze using frequency and percentage.
2) The pre-test and post-test knowledge scores was analyze using frequency and percentage.
3) Effectiveness of planned teaching program on knowledge regarding psychogenic non-epileptic seizures among community people in selected rural areas. A quasi- experimental study was analyzed using paired "t test by measuring the significant
4) difference between pre-test and post-test scores.
5) The calculated data was presented in the form of graphs and tables.
6) The association of knowledge with demographic variables was analyze by using 'chi square method'

5. Major Findings of the Study

5.1 Demographic variable of data

The study analyzed the demographics of 90 participants, focusing on knowledge regarding psychogenic non-epileptic seizures. The majority were aged between 36 and 45 years, with 38.9% falling within this age range. The majority were well-educated, with 22.2% having completed secondary education. However, only 11.1% had primary education, suggesting limited involvement from individuals with lower literacy levels. The educational background was predominantly graduate-level, enhancing the study's internal validity but requiring caution when extrapolating findings to less-educated populations. The occupation distribution was comprehensive, with 50 participants accounting for 55.6% of the total sample. The majority of participants were in the middle- to higher-income bracket, suggesting better access to healthcare, awareness about psychogenic non-epileptic seizures, and willingness to participate in research. The monthly income distribution showed that 38.89% of participants were in the Rs. 10,001 – 15,000 income bracket. The study provides a comprehensive overview of participants' previous exposure to information regarding non-epileptic seizures distribution, highlighting the importance of knowledge regarding psychogenic non-epileptic seizures.

5.2 Organisation of Findings

Section A: Distribution with regards to demographic variables.

Table 4.1: Percentage wise distribution of participant according to age group, n=90

Age Group (in years)	Frequency	Percent
18- 25 Years	10	11.1
26- 35 Years	25	27.8
36- 45 Years	35	38.9
46- 55 Years	15	16.7
Above 55 Years	05	5.6
Total	90	100.0

Table 4.2: Percentage wise distribution of participant according to their gender, n=90

Gender	Frequency	Percent
Male	50	55.6
Female	40	44.4
Other	0	00
Total	90	100.0%

Table 4.3: Percentage wise distribution of participant according to their marital status, n=90

Marital Status	Frequency	Percent
Single	60	66.7
Married	30	33.3
Divorced	0	00
Widowed	0	00
Total	90	100.0%

Table 4.4: Percentage wise distribution of participant according to their education, n=90

Education	Frequency	Percent
Primary	10	11.1
Secondary	20	22.2
Graduate and above	60	66.7
Total	90	100.0%

Table 4 5: Percentage wise distribution of participant according to their occupation, n=90

Occupation	Frequency	Percent
Unemployed	50	55.6
Self employed	20	22.2
Private Job	10	11.1
Government Job	10	11.1
Total	90	100.0%

Table 4.6: Percentage wise distribution of participant according to their monthly income, n=90

Monthly Income	Frequency	Percent
Less than Rs. 5000	10	11.11
Rs. 5000-10,000	20	22.22
Rs. 10,001-15,000	35	38.89
Above Rs. 15,000/	25	27.78
Total	90	100.0%

Table 4.7: Percentage wise distribution of participant according to their previous exposure of information regarding non-epileptic seizures, n=90

Previous exposure of information Regarding non-epileptic seizures	Frequency	Percent
Yes	20	22.2
No	70	77.8
Total	90	100.0

Section B

Assessment of existing knowledge regarding psychogenic non-epileptic seizures among community people in selected rural area.

Assessment of the pretest knowledge regarding psychogenic non- epileptic seizures among community people in selected rural area, n=90

Level of Pre-test knowledge	Score Range	Level of Pre test Knowledge Score	
		No of Participant	Percentage
Poor	0-6	20	22.22
Average	7-12	25	27.78
Good	13-18	25	27.78
Very Good	19-24	19	21.11
Excellent	25-30	1	1.11
Minimum Score		9	
Maximum Score		21	
Mean knowledge Score		4.8±1.863	
Mean% Knowledge Score		23.5±9.315	

Assessment of the post test knowledge psychogenic non-epileptic seizures among community people in selected rural area, n=90

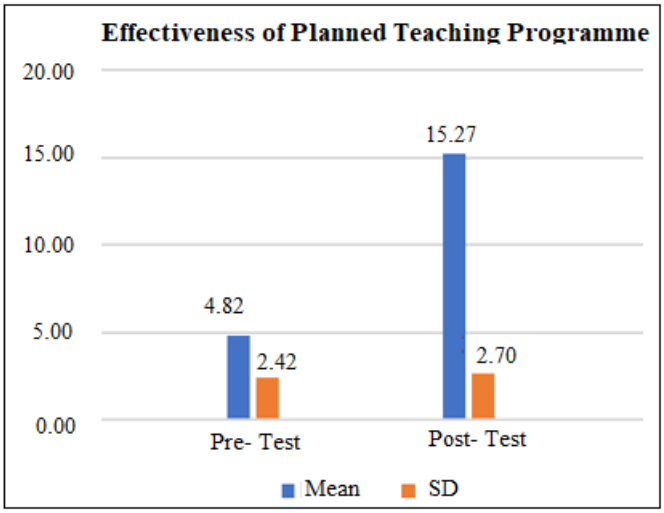
Level of post test knowledge	Score Range	Level of Post test Knowledge Score	
		No of Participant	Percentage
Poor	0-6	5	5.56
Average	7-12	5	5.56
Good	13-18	6	6.67
Very Good	19-24	24	26.67
Excellent	25-30	50	55.56
Minimum score		14	
Maximum score		25	
Mean knowledge score		17.22±1.117	
Mean% Knowledge Score		45.12±5.585	

Section C

Assessment of effectiveness planned teaching programme on knowledge regarding psychogenic non-epileptic seizures among community people in selected rural area.

Significance of effectiveness planned teaching program on knowledge regarding psychogenic non-epileptic seizures among community people in selected rural areas, n=90

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	4.8222	2.42449	15.26±0.746	53.692	0.0001 S, p<0.05
Post-Test	15.2667	2.69748			



Section D

Association of post-test knowledge score regarding psychogenic non- epileptic seizures among community people in selected rural area with demographic variables

Table 4.11: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with age, n=90

Age group (in years)	No. of Participant	Mean post test knowledge score	F-value	p-value
18-25years	10	4.9±3.22	1.961	0.0031 Sig.
26-35years	25	4.6±0.53		
36-45years	35	3.9±0.63		
46-55years	15	4.8±0.59		
Above 55years	5	5.0±0.51		

Table 4.12: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with gender, n=90

Gender	No. of Participant	Mean post test knowledge score	F-value	p-value
Male	50	4.9±3.22	0.361	0.550 NS
Female	40	4.6±0.53		
Other	50	00±00		

Table 4.13: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with marital status, n=90

Marital Status	No. of Participant	Mean post test knowledge score	F-value	p-value
Single	60	4.9±3.22	0.271	0.604 NS
Married	30	4.6±0.53		
Divorced	0	00±00		
Widowed	0	00±00		

Table 4.14: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with education, n=90

Education	No. of Participant	Mean post test knowledge score	F-value	p-value
Primary	10	4.7±0.67	1.579	0.0037 S
Secondary	20	4.6±0.50		
Graduate and above	60	4.9±2.9		

Table 4.15: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with occupation, n=90

Occupation	No. of Participant	Mean post test knowledge score	F-value	p-value
Unemployed	50	4.9±3.22	0.134	0.939S
Self employed	20	4.7±0.57		
Private Job	10	4.5±0.48		
Government Job	10	4.5±0.52		

Table 4.16: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with monthly income, n=90

Monthly Income	No. of Participant	Mean post test knowledge score	F-value	p-value
Less than Rs.5000	10	4.9±3.22	2.236	0.041S
Rs. 5000-10,000	20	4.7±0.59		
Rs. 10,001-15,000	35	4.9±0.68		

Table 4.17: Association of post-test knowledge score regarding psychogenic non-epileptic seizures among community people in selected rural area with previous exposure of information regarding non-epileptic seizures, n=90

Previous exposure of information regarding non-epileptic seizures	No. of Participant	Mean post test knowledge score	F-value	p-value
Yes	20	4.9±3.22	0.361	0.021S
No	70	4.6±0.53		

6. Summary

The study aimed to evaluate the effectiveness of a planned teaching program on knowledge about psychogenic non-epileptic seizures among community people in rural areas. The research design involved a quasi-experimental one-group pre-test post-test design with 90 participants. Demographic variables included age, gender, marital status, educational status, occupation, and annual income. A demographic questionnaire and knowledge about psychogenic non-epileptic seizures were used. The study found that the majority of participants were aged between 36 and 45 years, well-educated, and in the middle- to higher-income bracket.

The study also assessed existing knowledge regarding psychogenic non-epileptic seizures among community people in selected rural areas. The results showed a significant difference between age groups, gender, marital status, education, occupation, and annual income. Participants with higher education levels had the highest mean post-test score, while those with secondary education had the lowest. The larger standard deviation in the graduate group indicates more variability in knowledge acquisition among highly educated individuals. Previous exposure to information regarding non-epileptic seizures was statistically associated with their post-test knowledge score. The results suggest that higher education is a key factor in knowledge retention and comprehension, possibly due to better cognitive skills, familiarity with learning materials, or prior exposure to related information. Further research and interventions are needed to improve understanding and treatment of these conditions.

7. Recommendations

1) A similar study can be conducted on large scale.
2) A similar study can be replicated by using other innovative sources.
3) A descriptive study can be carried out to assess the level of knowledge regarding psychogenic non-epileptic

seizures among teachers.

4) A similar study can be replicated by using other Sampling Technique.
5) A Similar study can be conducted in other settings also.

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