

A STUDY TO ASSESS THE EFFECTIVENESS OF A STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING FIBROMYALGIA SYNDROME AMONG 5TH SEMESTER B.SC NURSING STUDENTS AT MIMS COLLEGE OF NURSING, VIZIANAGARAM, ANDHRA PRADESH

Child health Nursing

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ABSTRACT

Background: Fibromyalgia Syndrome (FMS) is a chronic pain disorder characterized by widespread musculoskeletal pain, fatigue, and sleep disturbances. It significantly affects the quality of life of individuals and is increasingly recognized as a global public health concern. Nursing students, as future healthcare professionals, require adequate knowledge regarding the causes, symptoms, and management of fibromyalgia. Structured Teaching Programmes (STPs) can help improve awareness and knowledge among nursing students. **Objectives:** To assess the pre-test level of knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students, evaluate the effectiveness of a Structured Teaching Programme, compare pre-test and post-test knowledge scores, and determine the association between post-test knowledge and selected demographic variables. **Methods:** A pre-experimental one-group pre-test–post-test design was conducted among 100 5th Semester B.Sc Nursing students at MIMS College of Nursing, Vizianagaram, selected through purposive sampling. Knowledge regarding Fibromyalgia Syndrome was assessed using a structured questionnaire with demographic variables and 30 MCQs. A Structured Teaching Programme was delivered after the pre-test, followed by a post-test using the same tool. Data were analyzed using descriptive statistics (frequency, percentage) and inferential statistics (paired t-test and chi-square test). **Results:** The mean knowledge score increased from 12.4 (pre-test) to 24.8 (post-test), indicating a statistically significant improvement following the Structured Teaching Programme ($t = 14.6, p < 0.05$). In the pre-test, 70% of students had inadequate knowledge, while 90% demonstrated adequate knowledge in the post-test. No significant association was found between post-test knowledge scores and selected demographic variables. **Conclusion:** The Structured Teaching Programme was effective in improving knowledge regarding Fibromyalgia Syndrome among nursing students. Educational interventions play an important role in enhancing awareness and preparing nursing students to provide appropriate care.

KEYWORDS

Fibromyalgia Syndrome, Nursing Students, Structured Teaching Programme, Knowledge, Chronic Pain, Health Education.

INTRODUCTION

Fibromyalgia Syndrome (FMS) is a chronic musculoskeletal disorder characterized by widespread pain, fatigue, sleep disturbances, and cognitive difficulties. It is often associated with anxiety, depression, and reduced physical functioning, which significantly affect the quality of life of affected individuals. Although the exact cause of fibromyalgia remains unclear, it is believed to involve abnormal pain processing in the central nervous system along with genetic and environmental factors.

Fibromyalgia is increasingly recognized as an important health concern, particularly among women. The chronic nature of the condition can lead to physical disability and psychological distress, thereby increasing the burden on individuals and healthcare systems.

Healthcare professionals, especially nurses, play a vital role in the early identification, education, and management of individuals with fibromyalgia. Nursing students, as future healthcare providers, require adequate knowledge regarding the symptoms, causes, and management of Fibromyalgia Syndrome. Educational strategies such as Structured Teaching Programmes (STPs) can effectively improve their awareness and understanding of this condition.

NEED FOR THE STUDY

Globally, fibromyalgia affects approximately 2–4% of the population, and in the United States about 3–6 million people are estimated to live with the condition. In India, the prevalence is estimated to be 2–3%, though many cases remain underdiagnosed due to limited awareness and similarities with other musculoskeletal disorders.

In Andhra Pradesh, increasing cases of chronic pain disorders have been reported in healthcare settings; however, awareness regarding fibromyalgia remains limited among healthcare professionals and students. At the district level, including Vizianagaram, knowledge about fibromyalgia among nursing students is inadequate, which may affect early identification and management.

Therefore, improving knowledge through educational interventions is essential. Hence, the present study was undertaken to assess the effectiveness of a Structured Teaching Programme on knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students at MIMS College of Nursing, Vizianagaram.

STATEMENT OF THE PROBLEM

“A Study to Assess the Effectiveness of a Structured Teaching Programme on Knowledge Regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing Students at MIMS College of Nursing, Vizianagaram, Andhra Pradesh.”

OBJECTIVES OF THE STUDY

- To assess the pre-test level of knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students.
- To evaluate the effectiveness of the Structured Teaching Programme on knowledge regarding Fibromyalgia Syndrome.
- To compare the pre-test and post-test knowledge levels regarding Fibromyalgia Syndrome.
- To assess the association between post-test knowledge scores and selected demographic variables.

HYPOTHESES

H₁: There will be a significant increase in the post-test knowledge scores regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students after the Structured Teaching Programme compared to the pre-test scores.

H₂: There will be a significant association between the post-test knowledge scores regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students and selected demographic variables.

MATERIALS AND METHODS

Research Approach: A quantitative research approach was used to evaluate the effectiveness of the Structured Teaching Programme on knowledge regarding Fibromyalgia Syndrome.

Research Design: A pre-experimental research design (one group pre-test and post-test design) was adopted for the study.

Setting of the Study: The study was conducted among 5th Semester B.Sc Nursing students at MIMS College of Nursing, Vizianagaram, Andhra Pradesh.

Population: The population consisted of 5th Semester B.Sc Nursing students at MIMS College of Nursing, Vizianagaram.

Sample: The sample included 100 students from the 5th Semester B.Sc Nursing course at MIMS College of Nursing, Vizianagaram.

Sample Size and Sampling Technique: A total of 100 students were selected using purposive sampling technique for the study

SAMPLING CRITERIA

Inclusion Criteria

- 5th Semester B.Sc Nursing students studying at MIMS College of Nursing, Vizianagaram.
- Students willing to participate in the study.
- Students able to read and understand English.

Exclusion Criteria

- Students absent during data collection.
- Students unwilling to participate.

VARIABLES

Independent Variable: Structured Teaching Programme (STP) on knowledge regarding Fibromyalgia Syndrome.

Dependent Variable: Knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students.

DEVELOPMENT AND DESCRIPTION OF THE TOOL

The tool used for the study consisted of two sections:

Section A: Demographic details of the participants.

Section B: A structured questionnaire consisting of 30 multiple-choice questions (1 mark for each correct answer) to assess knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students.

Table 1: Scoring Interpretation of Knowledge Scores

Level of Knowledge	Score	Percentage
Inadequate Knowledge	0–15	0–50%
Moderately Adequate Knowledge	16–22	51–75%
Adequate Knowledge	23–30	76–100%

Ethical Considerations

Ethical clearance was obtained from the Institutional Ethical Committee of MIMS College of Nursing, Vizianagaram. Permission to conduct the study was obtained from the concerned authorities of the institution. Informed consent was obtained from the participants after explaining the purpose of the study. The participants were assured that their participation was voluntary and that they had the right to withdraw from the study at any time without any consequences.

Data Collection Procedure

The data collection was carried out in three phases.

Phase 1: A pre-test was administered to the participants using a structured questionnaire to assess their knowledge regarding Fibromyalgia Syndrome.

Phase 2: After the pre-test, a Structured Teaching Programme (STP) on Fibromyalgia Syndrome was provided to the participants.

Phase 3: A post-test was conducted using the same structured questionnaire to evaluate the effectiveness of the Structured Teaching Programme on the participants' knowledge regarding Fibromyalgia Syndrome

Data Analysis Plan

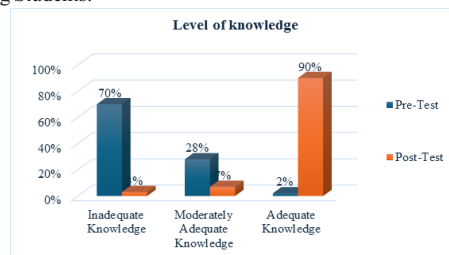
Descriptive statistics (frequency, percentage, mean, and standard deviation) described demographic variables and knowledge levels. Inferential statistics, including the paired t-test and chi-square test, were used to assess the effectiveness of the Structured Teaching Programme and the association with demographic variables

Frequency and Percentage Distribution of Demographic Variables

The majority of the 5th Semester B.Sc Nursing students were aged 20–21 years (46%), followed by 21–22 years (34%) and 18–19 years (20%). Most participants were female (78%), while 22% were male. A majority belonged to nuclear families (70%), with 20% from joint families and 10% from extended families. Regarding residential

status, 65% were hostellers and 35% were day scholars. In terms of monthly family income, 44% had an income between Rs.10,000–20,000, 36% between Rs.20,000–30,000, and 20% above Rs.30,000. Most participants were Hindus (68%), followed by Christians (24%) and Muslims (8%). The main source of information about Fibromyalgia Syndrome was social media (40%), followed by teachers (35%) and friends (25%).

Figure 1: Bar Diagram Showing Pre-test and Post-test Knowledge Levels Regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing Students.



DISCUSSION

Objective 1: To assess the pre-test level of knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students.

The findings showed that the majority of students had inadequate knowledge in the pre-test (70%), while 28% had moderately adequate knowledge and only 2% had adequate knowledge. This indicates that students initially had limited awareness regarding Fibromyalgia Syndrome and its management.

Objective 2: To evaluate the effectiveness of the Structured Teaching Programme on knowledge regarding Fibromyalgia Syndrome.

After the Structured Teaching Programme, knowledge improved significantly. The post-test results showed that 90% of students had adequate knowledge, 7% had moderately adequate knowledge, and only 3% had inadequate knowledge, demonstrating the effectiveness of the teaching programme. Hence, Hypothesis-1 (H_1) was accepted.

Objective 3: To compare the pre-test and post-test knowledge scores regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students.

The mean pre-test score was 12.4 (SD=6.21), which increased to 24.8 (SD=4.37) in the post-test. The paired t-value was 14.6 ($p < 0.05$), indicating a significant improvement in knowledge after the intervention.

Objective 4: To assess the association between post-test knowledge scores and selected demographic variables.

Chi-square analysis showed no significant association between post-test knowledge scores and demographic variables, such as age ($\chi^2=1.36$), gender ($\chi^2=0.92$), type of family ($\chi^2=1.28$), residential status ($\chi^2=1.54$), monthly family income ($\chi^2=1.73$), religion ($\chi^2=0.88$), and source of information ($\chi^2=1.21$) ($p > 0.05$). Hence, Hypothesis-2 (H_2) was rejected.

CONCLUSION

The present study demonstrated that the Structured Teaching Programme significantly improved knowledge regarding Fibromyalgia Syndrome among 5th Semester B.Sc Nursing students. Most participants initially had inadequate knowledge; however, their understanding improved substantially following the educational intervention. These findings emphasize the importance of structured educational programmes in enhancing awareness of fibromyalgia and strengthening nursing students' preparedness to provide appropriate care and support for affected individuals.

NURSING IMPLICATIONS

Nursing Education

- Structured Teaching Programmes (STP) can be used by nurse educators to improve knowledge regarding Fibromyalgia Syndrome among nursing students.
- Educational tools such as structured questionnaires, lectures, and visual aids can help assess and enhance students' understanding of Fibromyalgia Syndrome and its management.

Nursing Practice

- Nurses can educate patients and the community about the symptoms, risk factors, and management of Fibromyalgia Syndrome.
- Improved knowledge among nursing students will help them identify symptoms early and provide appropriate care and support to patients with fibromyalgia.

Nursing Administration

- Nursing administrators can organize health education programmes, workshops, and seminars to increase awareness about Fibromyalgia Syndrome among nursing students and healthcare professionals.
- Structured teaching programmes can be included in nursing education and training programmes to enhance knowledge about chronic pain disorders.

Nursing Research

- Further research can be conducted to evaluate the effectiveness of different teaching strategies on knowledge regarding Fibromyalgia Syndrome.
- Similar studies can also explore the long-term impact of educational programmes on students' knowledge and clinical practice.

RECOMMENDATIONS

- The study can be replicated with a larger sample size for better generalization of findings.
- Similar studies can be conducted among other nursing students and healthcare professionals.
- Follow-up studies can be carried out to assess long-term retention of knowledge regarding Fibromyalgia Syndrome.
- Structured Teaching Programmes can be implemented in nursing education to improve awareness and knowledge about Fibromyalgia Syndrome.

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