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A STUDY TO ASSESS THE KNOWLEDGE REGARDING NON-PHARMACOLOGICAL MANAGEMENT FOR DYSMENORRHEA AMONG BSC NURSING STUDENTS IN SELECTED COLLEGES OF THIRUVANANTHAPURAM DISTRICT

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ABSTRACT

Among young women, Dysmenorrhea is a frequent gynecological condition which usually brings in discomfort, absenteeism and poor academic performance. Non-pharmacological management measures like heat therapy, physical activity, relaxation, yoga, acupressure and dietary adjustments, offer safe and effective ways of treating menstrual pain. It was a descriptive cross-sectional study that measured the knowledge of B.Sc nursing students concerning these strategies with the help of the structured questionnaire. The results revealed that the majority of the students were familiar with the simple treatment methods including heat therapy, rest, and exercise whereas the knowledge about the complementary methods including yoga, acupressure, and diet change was low. The higher the level of knowledge the higher the students were in higher years of study. The findings highlight the necessity of systematic education courses, hands-on presentations, and awareness campaigns to increase the level of knowledge among students on the importance of non-pharmacological interventions, their role in advancing the personal well-being of students, as well as equip them with the knowledge to guide patients properly in the comprehensive way.

Keywords: *Dysmenorrhea, Non-pharmacological management, B.Sc nursing students, Menstrual health, Awareness, Complementary therapies.*

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INTRODUCTION

Menstrual pain or dysmenorrhoea is among the most widespread gynecological issues of young women, especially students, during adolescence and early adulthood. It can have a great influence on the everyday activities, education, and the quality of life. Physical exercises, dietary modifications, use of heat, relaxation methods, and use of complementary therapies are some of the non-pharmacological management strategies, which are safe and easily available means of relieving menstrual pain. In the case of B.Sc nursing students, who themselves are affected by dysmenorrhea and will in future also be required to guide patients on the same, they must have adequate knowledge of these strategies both personally and professionally.

Prevalence and Impact of Dysmenorrhea

Dysmenorrhea is manifested by pain in the lower abdomen that may be mild to severe cramping, and usually accompanied with fatigability, headaches, nausea, and irritation. Absenteeism, lack of focus during lectures, as well as involvement in practical or extra curriculum activities, may arise due to the recurrence nature of the menstrual pains. The effects may disrupt academic performance and well-being of students in general, and it is imperative to be conscious of the management strategies that cause minimum interruptions in the daily routine of the nursing students.

Non-Pharmacological Management Strategies

Although analgesics and hormonal treatments are the most widely used pharmacological treatments in menstrual pain management, non-pharmacological methods are inexpensive and safe. Heat application, physical exercise, yoga, acupressure, relaxation, and diet change are some of the strategies that can be used to reduce pain and improve physical and mental well-being. The knowledge of these interventions enables nursing students to take self-care precautions and holistic approaches to deal with dysmenorrhea without taking drugs only.

Importance of Knowledge Among B.Sc Nursing Students

These aspects indicate the significance of learning about non-pharmacological interventions on dysmenorrhea among B.Sc. Nursing students:

- B.Sc. Nursing students assume a dual role as they have to take care of their own menstrual health and instruct their future patients.
- Proper knowledge can enable the students to cope effectively with their symptoms and they would be able to continue with their academics.
- Improves the general health through healthy coping mechanisms.
- Equips students with the capability to offer evidence-based practice advice to clinically and community-based patients.
- The detection of gaps in the knowledge of the students can inform the specific educational interventions, curriculum development, and awareness-raising.
- Make sure that the nurses of the future are qualified enough to further the holistic menstrual health care.

LITERATURE REVIEW

Abubakar et al. (2020) used a cross-sectional study to investigate the application of complementary and alternative medicine in the management of dysmenorrhea in undergraduate pharmacy students in Malaysia. The research found that students had good awareness of such common non-pharmacological treatments as heat application and moderate physical activities, but they had little information on other therapies, in particular, herbal treatment, acupressure, and relaxation methods. Majority of the students used self-initiated methods as opposed to professional directions and would tend to mix interventions without knowledge of their efficacy. The results have underscored the need to have organized education programs to improve the knowledge of various non-pharmacological techniques among students that will ensure safe and informed practice and empower them to counsel patients in the clinical setting.

Alahakoon and Wickramarathne (2021) studied the occurrence and management of dysmenorrhea in nursing undergraduates in Peradeniya University, Sri Lanka, with regard to the association between the knowledge, coping, and academic activities. They noted that even though the majority of students complained of having menstrual pain, their dependence on pharmacological remedies was high and their knowledge on non-pharmacological procedures was moderate. The students were conversant with heat therapy, rest and moderate

exercise though little was known about complementary measures like yoga, dietary change and relaxation techniques. The research found that by improving the level of awareness and offering systematic training of non-pharmacological approaches, students can be empowered to handle dysmenorrhea, which in turn will improve their personal health as well as performance in school.

Almutairi et al. (2020) investigated non-pharmacological approaches among health college students in Saudi Arabia in curbing dysmenorrhea. This analysis has shown that lifestyle changes, such as physical exercise, heat application, and rest were commonly practiced by the students, but the students were not familiar with well-organized interventions, such as yoga, acupressure, and diet. These strategies were embraced by most students through personal experience or peer advice and not through formal education, which tended to make them inconsistent in relieving their symptoms. The authors pointed to the necessity of the curricular integration of evidence-based non-pharmacological interventions when the students will be able to deal with their symptoms independently and to guide the patients effectively in clinical practice.

Ameade et al. (2018) carried out a research on dysmenorrhea and its management among female university students in Northern Ghana, the strategies used to cope with it, and the effects of menstrual pain on their daily life. According to the study, the majority of the students had dysmenorrhea, but the knowledge of non-pharmacological interventions was weak and mostly limited to the use of rest and heat. Not many students knew about such strategies as exercise patterns, diet changes, or stress coping strategies. The authors declared that non-pharmacological management of dysmenorrhea required specific educational initiatives and awareness activities that will enhance the level of knowledge and promote the introduction of effective approaches to dysmenorrhea.

RESEARCH METHODOLOGY

The section describes the methodology that was adopted to determine the knowledge on the subject of non-pharmacological management of dysmenorrhea among B.Sc Nursing students. It also gives a more in-depth description of the research design, study population, sampling, data collection processes, tools and methods of analysis. The structure of the methodology was designed in a manner that the research was conducted in a systematic manner with an ethical approach, confidentiality and accuracy.

Research Design

The research design was descriptive cross-sectional research design as it was used to measure the knowledge of B.Sc nursing students on the non-pharmacological management of dysmenorrhea. This type of design was selected because it will be possible to collect the information of a specific population at the point in time without manipulating variables to give an accurate picture of the current knowledge levels. It is also used to help determine the relationship links between demographic variables and knowledge helping to guide future education programs to enhance awareness and competency.

Sample Size and Population

The population of the study was a sample of B.Sc nursing students studying in a tertiary nursing institution and qualified under the inclusion criteria. A sample of 100 students was chosen purposely and the subjects had to have experienced dysmenorrhea at least once during the past 6 months. The inclusion criteria were on students who were willing to participate voluntarily in the study and age ranged 18 years to 25 years. The students who had chronic illnesses or were taking long-term medication were also eliminated to be able to remove the possible effect on their conceptualization or experiences of non-pharmacological management.

Data Collection

The two-week observational and assessment approach was used to collect data within a period of two weeks. The participants were involved in interactive activities involving evaluation of what they have learned about the non-pharmacological management strategies by discussing and demonstrating the practical examples and asking them questions based on the scenarios. All the participants were briefed on the objectives and purpose of the study and informed that they were volunteering to participate. The researcher also monitored the responses and documented the findings in a systematic manner and clarified on the doubts to facilitate correct evaluation during the sessions. Ethics were upheld, such as confidentiality and informed consent.

Data Collection Tools and Instruments

Structured observational checklists and guided scenario based exercises were used to measure the knowledge of the students on non-pharmacological interventions like physical exercises, heat, dietary changes, rest and relaxation, and complementary interventions. These procedures allowed a systematic observation and record

of responses of students in a homogenous way among all the participants. The strategy aimed at evaluating the theoretical knowledge and insect awareness concerning the problem of non-pharmacological management of dysmenorrhea and offered an explicit picture of the awareness of the students.

Data Analysis

Descriptive and inferential statistics were employed in the analysis of the data. The demographic characteristics and general knowledge levels were summarized with the help of descriptive statistics frequencies, percentages and mean values. The knowledge was divided into poor, moderate and good knowledge based on understood and performed skills observed in the evaluation exercises. Inferential statistics was done by Chi-square test to test the associations between the levels of knowledge and the chosen demographic variables such as age, academic year and family history of dysmenorrhea and then systematic interpretation of the results was made.

RESULTS AND DISCUSSION

This part will report the research findings on the knowledge of non-pharmacological management of dysmenorrhea among the B.Sc nursing students. The findings are presented in detail and explained on the background of the specifics of the participants demographic parameters, as well as the level of their general knowledge and correlation between the knowledge and the chosen variables. The results are combined with discussion in order to give a complete picture of the awareness of students, pointing out to the implications of nursing education and personal health management. This is achieved by combining both descriptive and inferential statistics to describe the characteristics of the participants and the scores of their knowledge and to examine possible relationships between them, respectively, which gives a full picture of the results of the study. Table 1 presents the demographic features of the research participants in a table format and Figure 1 presents them graphically. The table and figure introduce essential variables, i.e. age, the year of study and family history of dysmenorrhea. The percentage and counts of frequency were used to show the distribution of the overall percentage of participants in each of the categories, which offered a brief profile of the study population.

Table 1: Demographic Characteristics of Participants

Characteristics		Frequency	Percentage (%)
Age (years)	18–20	60	60%
	21–23	30	30%
	24–25	10	10%
Year of Study	First Year	40	40%
	Second Year	35	35%
	Final Year	25	25%
Family History of Dysmenorrhea	Yes	50	50%
	No	50	50%

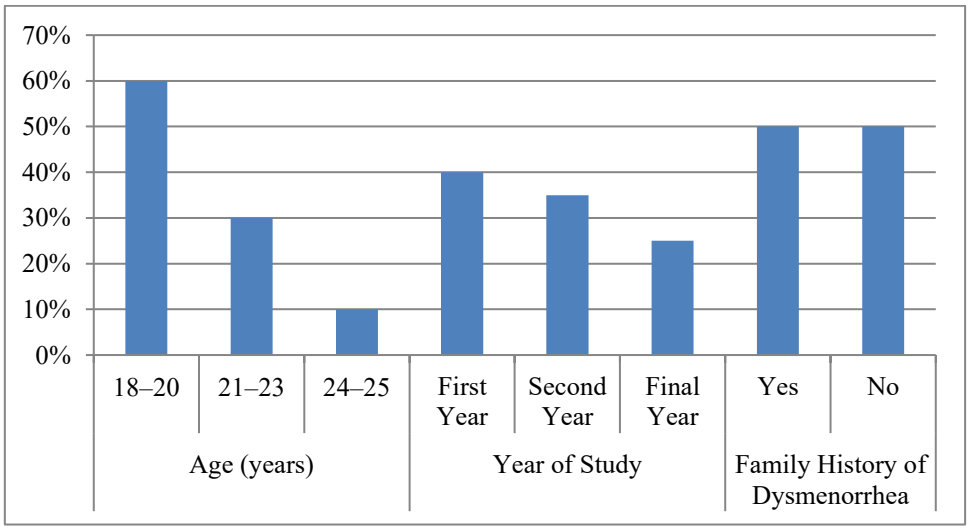

Figure 1: Graphical Representation of Demographic Characteristics of Participants

Ages Wise, 60% of the students were aged 18 to 20 years, 30% were between 21 and 23 years old, and 10% belonged to the 24 to 25 age category. Regarding study year, 40% of the respondents were first-year students, 35% were second-year students and the remainder 25% were final-year students. In regards to family history of dysmenorrhea, 50% of the respondents claimed that they had a positive family history, and the other 50% had no family history of this disease.

Table 2 and Figure 2 present the summary of the knowledge of the participants on the non-pharmacological approach to managing dysmenorrhea and demonstrate it graphically. The table and figure classifies the level of knowledge into poor, moderate and good categories, and the frequency and percentage was given. This gives a clear picture on the level of awareness to the population under study.

Table 2: Knowledge Levels Regarding Non-Pharmacological Management

Knowledge Level	Frequency	Percentage (%)
Poor (0–8)	30	30%
Moderate (9–16)	55	55%
Good (17–25)	15	15%

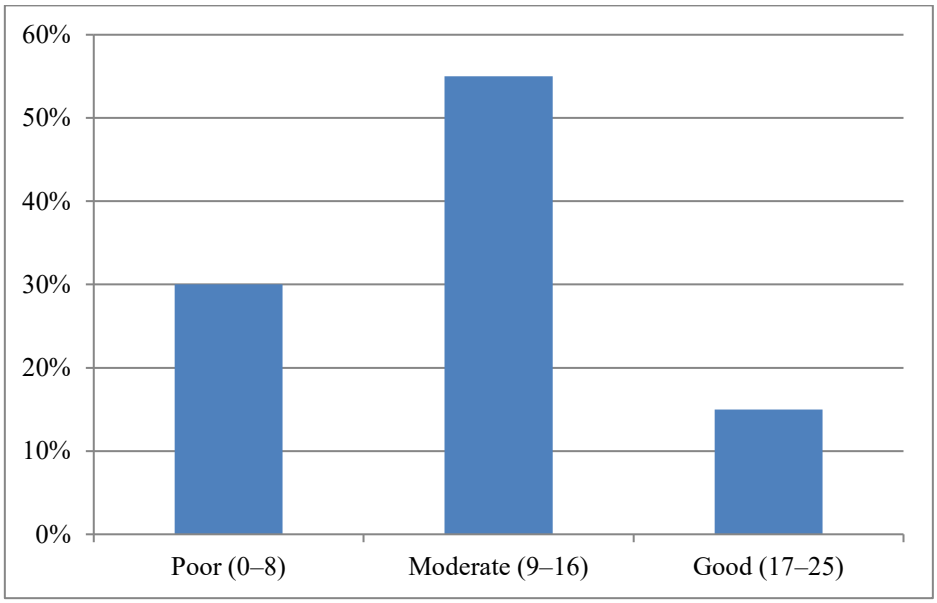

Figure 2: Graphical Representation of Knowledge Levels Regarding Non-Pharmacological Management

The findings show poor knowledge in 30% of the students, moderate knowledge in 55%, and good knowledge in 15% of the students. This indicates that although majority of the students had reasonable knowledge on basic management approaches, a limited population knew holistic scope of non-pharmacological interventions.

Table 3 and Figure 3 summarize the awareness of particular non-pharmacological interventions in managing dysmenorrhea among B.Sc nursing students and depict it graphically. The table and figure indicate some of the strategies including heat therapy, physical activity, rest/relaxation, yoga, acupressure, and dietary changes with the frequency of awareness among the participants and the proportion of those who are aware of these techniques. The graphical demonstration gives the visual picture of distribution of awareness considering various strategies and it is easy to compare the level of knowledge among the study population.

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Table 3: Awareness of Specific Non-Pharmacological Strategies

Non-Pharmacological Strategy	Frequency	Percentage (%)
Heat Therapy	80	80%
Physical Exercise	70	70%
Rest/Relaxation	75	75%
Yoga	35	35%
Acupressure	30	30%
Dietary Modifications	40	40%

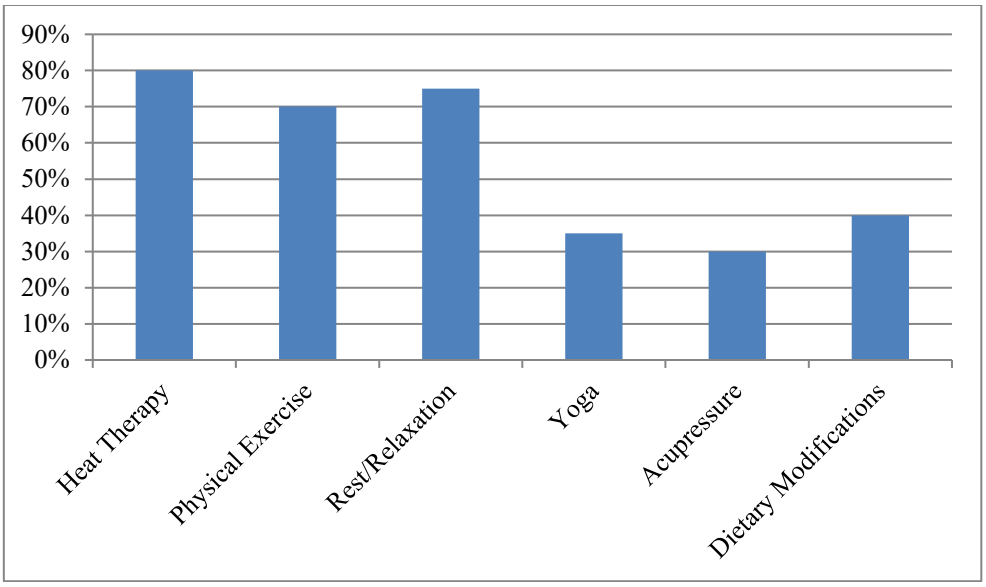

Figure 3: Graphical Representation of Awareness of Specific Non-Pharmacological Strategies

The most familiar strategy according to the findings was heat therapy, according to which 80% of the students were aware of it, then there was rest/relaxation (75%), and physical exercise (70%). Four out of ten respondents were aware of the dietary changes whereas 35% and 30% of students mentioned knowledge of yoga and acupressure, respectively. These results show that the use of basic interventions including heat therapy, rest and exercise are widely recognized in students with little knowledge on the use of complementary and less frequently practiced strategies.

CONCLUSION

The researchers evaluated the level of awareness about non-pharmacological conditions of dysmenorrhea in B.Sc nursing students and discovered that the majority of participants were familiar with such popular non-pharmacological practices as heat therapy, rest, and physical exercise, but not with such complementary interventions as yoga, acupressure, and dietary changes. The fact that students in higher academic years showed a higher level of knowledge was indicative that their exposure to the content in the curriculum and clinical experience saw them develop higher awareness. These results support the importance of specific educational interventions, such as structured educational lessons, demonstrations, and awareness campaigns to improve the knowledge of the students concerning a wider set of non-pharmacological measures. The enhancement of knowledge within the field will be able to help students deal with personal well-being issues, offer sufficient self-control over dysmenorrhea, and become capable of advising patients comprehensively, which will allow them to develop into competent and holistic nursing specialists of the future.

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