.

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING MENSTRUAL CUP AMONG HIGH SCHOOL GIRLS AT SELECTED SCHOOL AT KANNUR

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DECLARATION BY THE CANDIDATES

We hereby declare that this dissertation entitled "A Study to assess the effectiveness of Structured Teaching Program (STP) on knowledge regarding Menstrual Cup among high School Girls at selected School at Kannur " is a bonafide and the genuine research work carried out by us under the guidance of Ms.Jeyachithra S S, Associate Professor, HOD, Department of Obstetrics and Gynaecology Nursing, College of Nursing, Kannur Medical College Anjarakandy.

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"Gratitude unlocks the fullness of life."

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ABSTRACT

A study to assess the effectiveness of Structured Teaching Programme on level of knowledge regarding Menstrual Cup among high School girls at selected School at Kannur.

OBJECTIVES OF THE STUDY

- To assess the pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls at selected School at Kannur.
- To evaluate the effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at Kannur.
- To find the association between the pre-test level of knowledge regarding Menstrual Cup among high School girls and their selected variables.

The setting of the study was a selected School at Kannur, and the sampling technique adopted was simple random sampling. The research approach was quantitative, and the research design was a one group pre-test post-test pre-experimental design. The sample of the study consisted of 30 high School girls aged 12 to 14 years, studying in 8th standard, selected based on sampling criteria. Written permission was obtained from the headmaster of the School, and informed consent was obtained from the guardians of the participants. A structured knowledge questionnaire was used to collect data on selected variables and knowledge regarding Menstrual Cup .

The collected data was analysed using both descriptive and inferential statistics. Frequency distribution and percentage were used to analyse selected variables and knowledge levels. Paired t test was used to evaluate the effectiveness of the Structured Teaching Programme, and Chi-square test was applied to assess the association between selected variables and pre-test knowledge.The findings of the study revealed a significant improvement in the knowledge level of high School girls after receiving the Structured Teaching Programme on Menstrual Cup .

Key words: Level of knowledge, Structured Teaching Programme, Menstrual Cup, high School girls.

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CHAPTER 1

INTRODUCTION

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CHAPTER 1

The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge."

—Stephen Hawking

"A small cup, a big step toward awareness"

1.1 INTRODUCTION

Menstrual health is a foundational aspect of adolescent well-being, yet it continues to be surrounded by silence, stigma, and misinformation—particularly in School settings. In India, cultural and religious taboos often dictate restrictive practices during menstruation, leading to physical discomfort, social isolation, and emotional distress for young girls. These barriers not only hinder open discussion about menstruation but also limit access to accurate information and safe menstrual hygiene practices. Despite being a natural physiological process, menstruation is still shrouded in secrecy, especially in conservative communities. Many girls are introduced to menstruation with little to no prior knowledge, leaving them vulnerable to confusion, fear, and unhealthy practices. Traditional menstrual products like disposable pads are widely used, but they are often expensive, environmentally harmful, and inaccessible to those from economically disadvantaged backgrounds. [1]

In contrast, the Menstrual Cup is a sustainable, safe, and cost-effective alternative that can empower girls to manage their periods with dignity and confidence. However, awareness and acceptance of Menstrual Cups remain significantly low—particularly among high School girls—due to prevailing myths, lack of education, and societal discomfort in addressing menstrual topics.[2]

According to global health estimates, menstruating individuals spend approximately 65 days per year managing their menstrual flow. Poor menstrual hygiene, especially in low- and middle-

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income countries, has been linked to urogenital infections, reduced School attendance, and limitations in social participation. Inadequate water, sanitation, hygiene (WASH) infrastructure, and menstrual education further exacerbate these challenges. [3,4]

In this context, structured teaching programs play a crucial role in breaking taboos, filling knowledge gaps, and fostering informed choices among adolescent girls. Educating high School girls about Menstrual Cups not only promotes health and hygiene but also contributes to sustainable development and gender equity. This study, therefore, seeks to assess the effectiveness of a Structured Teaching Programme in enhancing knowledge regarding Menstrual Cups among high School girls in Kerala—a step toward empowering the next generation with knowledge, confidence, and sustainable menstrual solutions.

1.2 NEED AND SIGNIFICANCE OF THE STUDY

Menstrual health is a vital aspect of reproductive health, particularly among adolescent girls. In Kerala, high School girls may face challenges in managing their menstruation due to lack of awareness, social stigma, and limited access to hygienic menstrual products. Menstrual Cups offer a sustainable, cost-effective, and hygienic alternative to traditional products. However, existing research indicates a significant gap in knowledge and awareness about Menstrual Cups among adolescent girls. Studies have shown that many girls in India, including Kerala, lack adequate information about menstrual health and hygiene, leading to poor menstrual practices and potential health risks. [5]

Approximately 71% of adolescent girls in India are unaware of Menstrual Cups (IIPS, 2019-20). Specifically, there is a scarcity of research focusing on Menstrual Cups among high School girls in Kerala, highlighting the need for targeted interventions and education to promote menstrual health awareness and adoption of hygienic menstrual practices(6). This study aims to evaluate the effectiveness of a structured teaching program on knowledge regarding Menstrual Cups among high School girls in Kerala, addressing this critical knowledge gap and contributing to improving menstrual health outcomes. Menstrual Cups greatly reduce the waste generated from Menstrual Cycles as it is reusable, unlike sanitary pads and tampons. Hence, it is more eco-friendly. Since it can be used for five or more years, it's more economical too. Menstrual Hygiene Management (MHM) is an integral part of the Swatch Bharat Mission Guidelines (SBM-G). The MHM Guideline (December 2015) is issued by the Ministry of Drinking Water and Sanitation to support all adolescent girls and women. According to it, the sanitary waste should be wrapped in leak proof pouches provided by producer and should be disposed with dry waste at the time of door-to-door collection. [7]

According to State of India's Environment 2019 Survey, the Menstrual Hygiene Alliance of India (MHAI) has approximated that there are 336 million menstruating women in India, of which 36 per cent use disposable sanitary napkins - that totals to 12 1 million women. This implies that India has 12.3 billion disposable sanitary napkins to take care of every year, majority of which are not

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biodegradable/compostable [8]. According to the Solid Waste Management (SWM) Rules 2016, the items contaminated with blood and body fluids, including cotton, dressings, soiled plaster casts lines and bedding, are bio-medical waste and should be incinerated, autoclaved or microwaved to destroy pathogen. [9]

1.3 BACKGROUND OF THE STUDY

Menstruation is a natural and essential biological function that marks a critical stage in the development of adolescent girls. However, in many parts of India—including Kerala—menstruation continues to be surrounded by silence, stigma, and misinformation. High School girls, particularly those between the ages of 12 and 16, often begin their menstrual journey without adequate knowledge, leaving them confused, anxious, and vulnerable to unsafe menstrual hygiene practices. In School environments, open discussion about menstruation is rare, and menstrual health education is either absent or minimal. As a result, many high School girls rely solely on peers or family—who themselves may lack accurate information—for guidance. This contributes to the continued use of unhygienic practices, social discomfort, and absenteeism from School during menstrual periods. The lack of menstrual education not only affects the physical well-being of these girls but also hampers their academic participation and self-confidence. Traditional menstrual products like disposable sanitary pads are widely used but are costly over time and pose serious environmental concerns due to their non-biodegradable nature. The Menstrual Cup, a reusable, cost-effective, and environmentally friendly alternative, offers a promising solution. It can be used for up to 8–10 years, reduces sanitary waste, and requires fewer changes throughout the day—making it highly suitable for adolescent girls managing School routines. However, awareness and adoption of Menstrual Cups remain extremely low among this population due to myths, misconceptions, and a lack of structured education.

According to the National Family Health Survey (NFHS-5), over 71% of adolescent girls in India are unaware of Menstrual Cups. The situation is no different in Kerala, despite the state's higher literacy and health awareness levels [6]. The cultural sensitivity around menstruation, combined with the absence of structured School-based interventions, creates a significant gap in menstrual health education. This knowledge gap often leads to poor decision-making around menstrual hygiene products and contributes to a cycle of misinformation and wasteful practices. Review of existing literature shows that Structured Teaching Programmes are an effective way to improve menstrual knowledge, debunk myths, and encourage healthy attitudes and practices among School-going girls. Studies from various regions in India have confirmed that targeted educational interventions significantly increase knowledge and acceptance of Menstrual Cups. Despite this, there is a lack of localized studies in Kerala focusing specifically on high School girls—a group at a critical stage for learning, adaptation, and long-term behavioural change. [10]

This study aims to assess the effectiveness of a Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at a selected School at Kannur, Kerala. By doing so, it seeks to bridge the educational gap, promote eco-friendly menstrual practices, and empower

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adolescent girls with the knowledge and confidence to make informed health decisions. The findings may also inform future health education initiatives and School curricula aimed at sustainable menstrual hygiene management.

1.4 STATEMENT OF THE PROBLEM

A study to assess the effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at Kannur.

1.5 OBJECTIVES OF THE STUDY

1. To assess the pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls at selected School at, Kannur

2. To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at, Kannur

3. To find the association between the pre-test level of knowledge regarding Menstrual Cup among high School girls with their selected variables

1.6 VARIABLES

DEPENDENT VARIABLE: - Knowledge on Menstrual Cup

INDEPENDENT VARIABLE: - Structured Teaching Programme on Menstrual cup

1.7 HYPOTHESIS

H_{01}(Null Hypothesis 1): The mean post-test level of knowledge score will not be significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_{02}(Null Hypothesis 2): There is no significant association between the pre-test levels of knowledge score regarding Menstrual Cup among high School girls at selected School at Kannur with their selected variables.

H_1(Alternative Hypothesis 1): The mean post-test level of knowledge score is significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_2(Alternative Hypothesis 2): There is a significant association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables.

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1.8 ASSUMPTIONS

1) High School girls will have some Knowledge regarding Menstrual Cup
2) A Structured Teaching Programme can effectively improve knowledge regarding Menstrual Cup among high School girls.
3) High School girls who are attending Structured Teaching Programme will use Menstrual Cup in future.

1.9 OPERATIONAL DEFINITION

1.9.1 Assess

Assess refers to the process of systematically evaluating the level of knowledge regarding Menstrual Cup among high School girls. [11]

1.9.2 Effectiveness

Effectiveness refers to the extent to which the Structured Teaching Programme has achieved its intended outcome. In this study, effectiveness is measured by the significant increase in post-test knowledge scores compared to pre-test scores among high School girls regarding Menstrual Cup.[12]

1.9.3 Structured Teaching Programme

Structured Teaching Programme refers to a systematically organized, culturally appropriate, and School-based health education session specifically designed for high School girls. [13]

1.9.4 Knowledge

Knowledge refers to the awareness, understanding, or information acquired through education, experience, or study. [14]

1.9.5 Menstrual Cup

A Menstrual Cup is a small, reusable, funnel-shaped device made of medical-grade silicone, used to collect menstrual blood. [15]

1.9.6 High School Girls

High School girls refer to female students studying in classes 8, typically between the ages of 12 to 14 years. [16]

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1.10 ETHICAL CONSIDERATION

1. Ethical approval was obtained from the institutional ethical committee prior to conducting the study, ensuring adherence to proper research ethics.

2. Formal permission was taken from the headmaster of the selected high School at Kannur, permitting the study to be carried out in the School setting.

3. Informed written consent was obtained from the guardians of the high School girls, and assent was taken from the students themselves, ensuring voluntary and informed participation.

4. The study was conducted without disrupting the regular academic schedule of the students. Sessions were planned appropriately to avoid interfering with their routine.

5. The structured teaching tool and knowledge questionnaire were validated by subject experts to ensure clarity, relevance, and suitability for the target age group.

6. Participation in the study was completely voluntary. Students were informed about their right to withdraw at any point without any pressure or negative consequences.

7. Confidentiality and anonymity of all participants were strictly maintained. No identifying information was disclosed in any report or analysis.

8. High School girls were given the opportunity to ask questions and seek clarification regarding the study, ensuring their comfort and understanding of the process.

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1.11 CONCEPTUAL FRAME

Conceptualization refers to the process of developing and refining abstract ideas. A conceptual model facilitates logical thinking, systematic observation, and interpretation of observed data. It also helps in directing relevant questions regarding a phenomenon and identifying practical solutions to existing problems. One of the essential purposes of a theoretical framework is to clearly communicate the relationships among various concepts. It serves as a valuable reference for clinical practice, research, and education.

In the present study, Pender's Revised Health Promotion Model (HPM) has been adapted as the conceptual framework to explore the factors influencing adolescent girls' adoption of Menstrual Cups as a health-promoting behaviour. This model consists of three primary components: individual characteristics and experiences, behaviour-specific cognitions and affect, and behavioural outcomes. Individual characteristics and experiences include prior related behaviour and personal factors. In this study, prior related behaviour refers to the lack of awareness and limited exposure to Menstrual Cups among adolescent girls. Personal factors include age, religion, income, family type, residence, menstrual history, and the type of feminine hygiene products currently used.

Behaviour-specific cognitions and affect are considered central to the model because they are modifiable and open to change through educational interventions. These include perceived benefits of action, such as preventing reproductive tract infections and the long-term cost-effectiveness of using Menstrual Cups. Perceived barriers to action involve lack of awareness, cultural myths, and misconceptions. Perceived self-efficacy is shaped by encouragement from peers, teachers, and parents, while activity-related affect includes curiosity and motivation to shift toward healthier options. Interpersonal influences involve the attitudes and support of family, peers, and teachers, and situational influences include the presence of social and religious taboos and lifestyle changes during adolescence.

These cognitive and affective elements contribute to the individual's commitment to a plan of action, which in this context refers to the intention to consider or adopt Menstrual Cup use. This commitment can be influenced by immediate competing demands and preferences. Competing demands, which are considered low control factors, may include a reluctance to accept advice from others, while competing preferences, which reflect high control, include strong intellectual ability and the capacity to grasp and process information effectively.

The ultimate behavioural outcome is the adoption of health-promoting behaviour—in this case, the use of Menstrual Cups. Through a structured teaching program, the study aims to enhance knowledge and reduce barriers to Menstrual Cup adoption among adolescent girls, thereby supporting improved menstrual hygiene practices and overall reproductive health. [17]

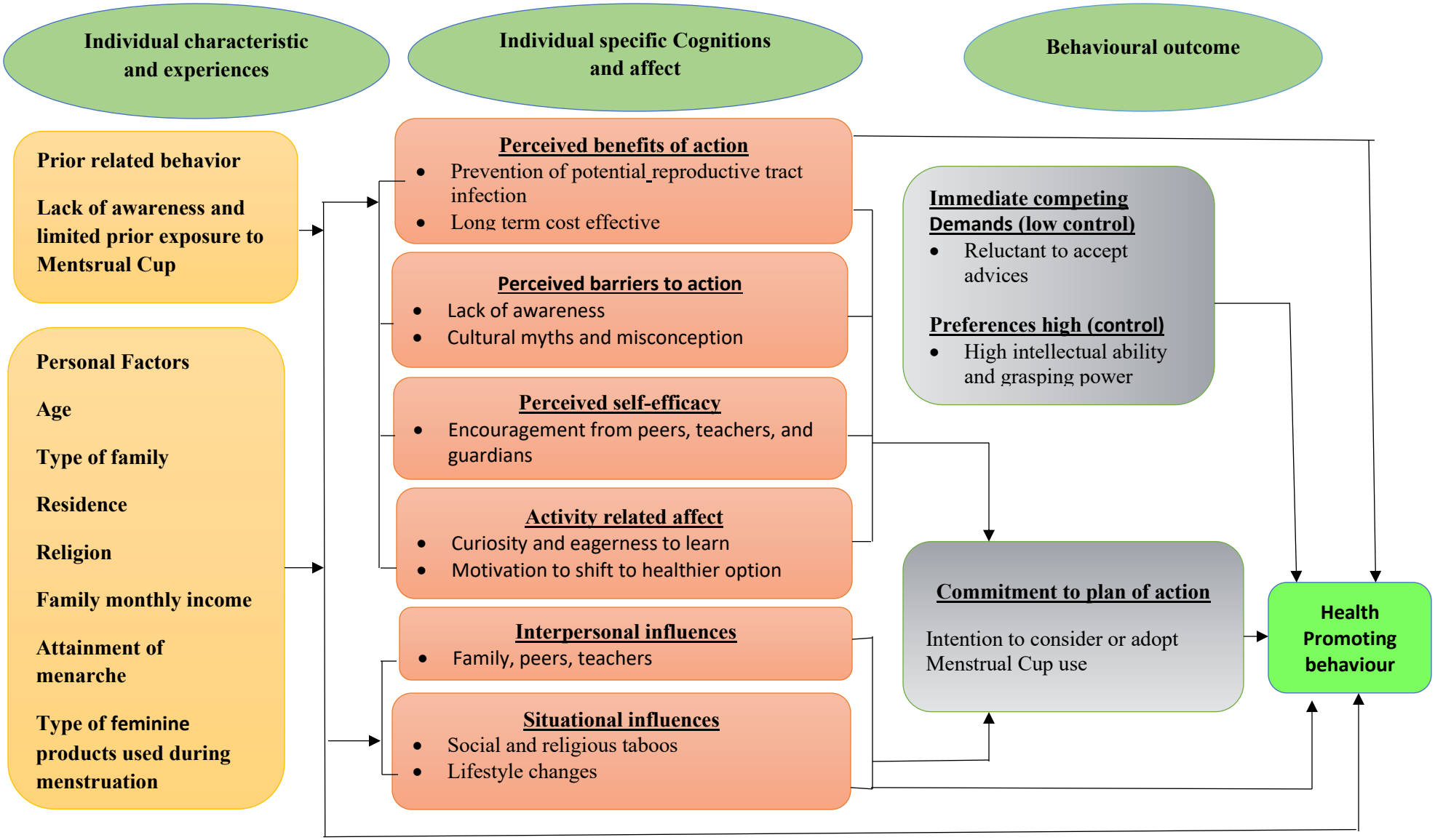

FIGURE1.1: PENDER'S REVISED HEALTH PROMOTION MODEL

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CHAPTER 2

REVIEW OF LITERATURE

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2.6	SUMMARY	

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CHAPTER 2

REVIEW OF LITERATURE

"Research is creating new knowledge by building on the foundations of what others have discovered." ***– Neil Armstrong***

2.1 INTRODUCTION

A review of literature is one of the most essential components of the research process. It provides a comprehensive overview of existing knowledge, previous research findings, and theoretical insights on a particular topic. According to the American Nurses Association (ANA, 2000), "A literature review is a body of text that aims to review the critical points of knowledge on a particular topic of research".[18] This section presents a detailed analysis of studies conducted on menstrual health, awareness about Menstrual Cups, and the impact of structured educational interventions. The main purpose of this literature review is to understand what has already been studied about Menstrual Cup knowledge, particularly among adolescent girls, and to identify the existing gaps in awareness and acceptance.

The Menstrual Cup is a relatively underutilized, yet highly sustainable menstrual hygiene product. Despite its health, economic, and environmental benefits, its usage remains limited—largely due to lack of awareness, myths, and cultural stigma. High School girls, who are at a critical stage of physical and emotional development, often lack access to accurate information regarding newer menstrual hygiene products like the Menstrual Cup. This makes them a key group for targeted health education interventions. A review of earlier studies shows that Structured Teaching Programmes have significantly improved knowledge, corrected misconceptions, and promoted positive attitudes toward Menstrual Cup use among adolescent girls and young women. However, there is a scarcity of such studies conducted specifically among high School girls in Kerala, where menstrual health education often remains informal or absent. Therefore, this literature review explores existing evidence related to Menstrual Cup awareness, acceptability, and the effectiveness of structured teaching interventions. It provides a foundation for the present study, which aims to assess whether a Structured Teaching Programme can effectively enhance knowledge about Menstrual Cups among high School girls in a selected School at Kannur.

The review in this study is divided into following sections

1. Literature review related to effectiveness of Structured Teaching Programs on Menstrual Cup Awareness and Attitude

2. Literature review related to assessment of Pre-Existing Knowledge and Awareness

3. Literature review related to acceptability, usability, and public Perception of Menstrual Cups

4. Clinical Safety and Reported Health Complications of Menstrual Cups

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2.2 LITERATURE REVIEW RELATED TO EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON MENSTRUAL CUPS

A quasi-experimental study was conducted,titled "Effectiveness of Structured Teaching Programme regarding knowledge about uses of Menstrual Cup among Nursing students" to evaluate the impact of educational intervention on Menstrual Cup awareness. The study was carried out among 201 B.Sc. Nursing students at Adichunchanagiri College of Nursing in Karnataka, India. A one-group pre-test/post-test design was used, with a structured teaching program (STP) implemented between assessments. Pre-test results showed 81.59% of students had inadequate knowledge about Menstrual Cups, with only 9.4% having prior usage experience. Following the intervention, 63.18% of participants demonstrated adequate knowledge, and the mean knowledge score significantly increased from 7±3.06 to 15±2.36 ($p<0.05$). The findings underscore the effectiveness of structured teaching in improving awareness and knowledge, and highlight its importance in promoting eco-friendly menstrual hygiene practices among future healthcare providers. [19]

A pre-experimental study was conducted, titled "A Study to Assess Effectiveness of Structured Teaching Program on Knowledge Regarding Safe Use of Menstrual Cup among Adolescent Girls of Selected Schools at Nashik" to evaluate the impact of structured education on Menstrual Cup knowledge among adolescent girls. The study involved 450 adolescent girls aged 11–19 years from selected Schools in Nashik, Maharashtra. A one-group pre-test and post-test design was used, with knowledge measured before and after a structured teaching program. Pre-test results showed that 75% of participants had poor knowledge of Menstrual Cup use. Following the intervention, 66% demonstrated good knowledge. The mean knowledge score increased significantly from 10.39 (SD = 3.87) to 19.01 (SD = 3.26), with a t-value of 36.13 and $p < 0.00001$, indicating a statistically significant improvement. The study concluded that structured teaching programs are effective in enhancing Menstrual Cup awareness and knowledge among adolescent girls, promoting safer and more informed menstrual hygiene practices. [20]

A pre-experimental study was conducted, titled "A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Use of Menstrual Cup Among 1st Year BSc Nursing Students" at Nootan College of Nursing, Visnagar, Gujarat. The study aimed to evaluate the effectiveness of a structured teaching program in improving knowledge about Menstrual Cup use among 60 first-year BSc Nursing students. A one-group pre-test and post-test design was used, with a structured knowledge questionnaire administered before and after the educational intervention. Results showed that prior to the program, 70% of students had inadequate knowledge, while after the intervention, 75% achieved adequate knowledge. The mean knowledge score increased from 4.95 to 17.15, with a statistically significant t-value of 25.95 ($p < 0.05$). The study concluded that structured teaching significantly improved knowledge about Menstrual Cups, especially among students with varying menstrual flow patterns and age groups. [21]

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A descriptive quantitative study was conducted , titled “A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and Attitude Towards Menstrual Cup among Adult Women” at Carmel College of Nursing, Aluva, Kerala. The study aimed to evaluate changes in knowledge and attitude regarding Menstrual Cup use following a Structured Teaching Programme. A sample of 60 adult women aged 17–22 years was selected using a non-probability convenient sampling method. A structured questionnaire assessed both knowledge and attitude pre- and post-intervention. Results showed significant improvements: excellent knowledge increased to 56.7% post-test from a majority having poor or average knowledge in the pre-test. Additionally, 66.7% of participants exhibited a positive attitude towards Menstrual Cups after the intervention, compared to 33.3% with negative attitudes beforehand. Statistical analysis using paired t-tests confirmed significant differences between pre- and post-test scores for both knowledge ($t = 16.81$) and attitude ($t = 14.79$), indicating the effectiveness of the teaching programme in improving menstrual health awareness and receptivity to sustainable menstrual products.[22]

A pre-experimental study was conducted, titled “Effectiveness of Structured Teaching Programme on Knowledge and Attitude Regarding Menstrual Cup Hygiene Among Undergraduate Female Students” at Sharda University, Greater Noida. The study assessed the impact of a Structured Teaching Programme (STP) on Menstrual Cup hygiene among 50 purposively selected undergraduate students. A self-administered questionnaire and attitude rating scale were used for data collection. Pre-intervention findings indicated limited awareness and mixed attitudes toward Menstrual Cup hygiene. Post-intervention results showed a significant improvement in both knowledge and attitude scores, with the mean knowledge score rising from 12.24 to 18.14 and the attitude score increasing from 29.08 to 32.24 ($p < 0.001$). These outcomes underscore the effectiveness of structured educational interventions in enhancing menstrual hygiene awareness and promoting positive attitudes toward Menstrual Cup usage among young women. [23]

2.3 LITERATURE RELATED TO ASSESSMENT OF PRE-EXISTING KNOWLEDGE AND AWARENESS ON MENSTRUAL CUP

A quantitative descriptive study was conducted, titled “A Quantitative Study to Assess the Level of Knowledge and Attitude on Menstrual Cup Among Adolescent Girls in Selected School, Thrissur”, with the objective of assessing the baseline knowledge and attitudes of adolescent girls regarding Menstrual Cup usage. The study was conducted among adolescent girls aged 13–17 years in a selected School in Thrissur, Kerala. Using a structured questionnaire, the researchers collected data on the participants' awareness, misconceptions, perceived advantages and barriers, and their willingness to adopt the Menstrual Cup as a menstrual hygiene product. The findings revealed that a majority of the participants demonstrated low to moderate levels of knowledge and held various myths and misconceptions, such as concerns about discomfort, safety, and reproductive health impacts. The study further identified contributing factors such as socio-cultural taboos, insufficient menstrual education, and lack of open communication regarding menstrual health. However, the study also highlighted that structured teaching and proper information dissemination led to a notable positive shift in attitude, with many participants expressing interest in trying the

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Menstrual Cup when provided with appropriate knowledge. The researchers concluded that targeted educational interventions are effective in improving menstrual health literacy and reducing stigma among adolescents. This study emphasizes the critical need for comprehensive menstrual health education in Schools, particularly focusing on safe, sustainable menstrual practices. It supports the importance of integrating Menstrual Cup awareness into health programs to empower adolescent girls with informed choices. [24]

A community-based cross-sectional study was conducted, as part of the Thinkal project in Alappuzha Municipality, Kerala, to assess the impact of awareness and knowledge dissemination on the usage of Menstrual Cups among women. The study involved two groups of participants—one that received Menstrual Cups along with structured awareness sessions led by medical professionals and experienced users, and another that received only information pamphlets at distribution centers without attending awareness sessions. Out of 4345 women, the group that attended the awareness sessions reported a significantly higher adoption rate (40.6%) compared to the non-awareness group (20.7%). The awareness sessions addressed concerns such as fear of insertion, leakage, urinary infections, and proper usage. The findings strongly suggested that misinformation, lack of familiarity, and cultural stigma were primary barriers to Menstrual Cup adoption. However, well-structured educational interventions drastically improved acceptance, with 91.5% of participants expressing willingness to continue usage.This study underscores the importance of community engagement and structured teaching in enhancing menstrual health practices, particularly in promoting sustainable alternatives like Menstrual Cups among Indian women. [25]

A study was conducted to evaluate the knowledge, attitude, and practice regarding Menstrual Cups among women of reproductive age in a rural area of Malappuram district, Kerala. This community-based cross-sectional study included 256 women aged 18 to 49 years and was carried out through house-to-house surveys using a structured questionnaire. The findings revealed that although 95.7% of participants had heard of Menstrual Cups—primarily through media—actual usage was significantly lower, with only 26.5% using it as their primary form of menstrual protection. Two-thirds (66.5%) believed Menstrual Cups are safe, yet major barriers such as fear of leakage, discomfort, and limited understanding of usage persisted. Cultural misconceptions, especially concerns about use before marriage and confusion regarding sterilization and sizes, also emerged. Despite high awareness, the study found substantial gaps in accurate knowledge and a moderate level of acceptance. A noteworthy outcome was that 58.8% of the women expressed willingness to use Menstrual Cups if made available, highlighting the potential impact of awareness interventions. The study concludes that addressing misconceptions through community education and enhancing accessibility can empower women to make informed choices. These findings strongly support the implementation of Structured Teaching Programmes—particularly among adolescents—to foster early, accurate understanding and normalize the use of sustainable menstrual hygiene products like the Menstrual Cup. [26]

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A cross-sectional descriptive study was conducted , titled “Assessment of knowledge and creating awareness for the use of Menstrual Cup and its related aspects during menstruation among young adults: an environment-friendly approach” at Doon Hospital, Dehradun. The study aimed to assess the baseline knowledge and attitude of young females regarding Menstrual Cups and to evaluate the effect of structured awareness creation through educational intervention. The study included 230 menstruating females aged 19 to 29 years. Before intervention, only 68.6% were aware of the Menstrual Cup, and just 13.5% had ever used it. Knowledge was mostly rated as average (46.5%), and only 28.7% had good knowledge. After an educational video on Menstrual Cups was shown, the proportion of participants with good knowledge rose significantly to 59.6%. Additionally, 77% of participants expressed willingness to use a Menstrual Cup post-awareness, and 56.1% were ready to recommend it to others. Despite initial hesitancy, the study demonstrated that educational interventions significantly improved understanding, acceptance, and willingness to adopt Menstrual Cups. The participants also recognized the cup’s cost-effectiveness and eco-friendliness, although misconceptions and limited awareness persisted before the intervention. This research highlights the value of structured teaching programs in promoting Menstrual Cup usage, especially among young women. The findings reinforce the need for proactive awareness campaigns within educational and healthcare settings to normalize and encourage the use of sustainable menstrual hygiene products. [27]

2.4 LITERATURE RELATED TO ACCEPTIBILITY AND USABILITY OF MENSTRUAL CUP

A comprehensive systematic review and meta-analysis was conducted, titled “Menstrual Cup use, leakage, acceptability, safety, and availability: a systematic review and meta-analyses” to evaluate Menstrual Cups’ effectiveness, safety, and acceptability as menstrual hygiene products worldwide. The review synthesized data from 43 eligible studies out of 436 identified records, involving a total of 3,319 participants. The included studies represented diverse settings across both high-income and low-to-middle-income countries, primarily focusing on vaginal Menstrual Cups (63%), with fewer studies involving cervical or mixed types. Findings indicated that leakage rates with Menstrual Cups were comparable to or lower than those reported for disposable pads or tampons. Importantly, in 13 of the reviewed studies, approximately 73% of users expressed willingness to continue using Menstrual Cups, reflecting high acceptability. Safety assessments showed no adverse effects on vaginal flora in four studies involving 507 women. However, some users—especially those using cervical cups—reported needing professional assistance for cup removal initially. The review also identified 199 different brands of Menstrual Cups available across 99 countries, with prices ranging from \$0.72 to \$46.72, and a median cost of \$23.30, highlighting the product’s global availability and cost variation. Overall, the meta-analysis supports Menstrual Cups as a safe, acceptable, and cost-effective menstrual hygiene option, with high user satisfaction and potential for widespread adoption. These findings emphasize the importance of promoting Menstrual Cups through accessible education and support to maximize usability and public acceptance. [28]

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A cluster randomized controlled feasibility study was conducted, titled “Comparing use and acceptability of Menstrual Cups and sanitary pads by Schoolgirls in rural Western Kenya”, published in the International Journal of Reproduction, Contraception, Obstetrics and Gynecology. The study explored the use, acceptability, and experience of Menstrual Cups versus disposable sanitary pads among adolescent Schoolgirls in a rural Kenyan setting, where menstrual hygiene management (MHM) remains a challenge due to limited access to affordable and hygienic menstrual products. The study enrolled 450 Schoolgirls aged 14–16 years, randomized to receive either a Menstrual Cup (n=195) or disposable sanitary pads (n=255). Participants were followed for 12 months, with periodic assessments of product use, acceptability (based on ease of insertion, removal, comfort, pain, and soreness), and related menstrual hygiene practices. Both groups received health education and training on product use. Findings revealed that Menstrual Cup uptake was initially lower than pad use (39% vs. 85% at one month) but increased significantly over time, reaching 80% by 12 months. Acceptability scores for Menstrual Cups also improved, rising from 73 to 81 out of 100. Common initial issues like discomfort and pain with cup use reduced substantially over time — pain dropped from 23% at three months to 2% at one year. Girls reported a learning curve in adopting the Menstrual Cup, with peer support playing a critical role in overcoming apprehensions. Conversely, pad use remained consistently high throughout the study period, with acceptability scores increasing from 83 to 89. Notably, a significant minority of girls (about a quarter) reported wearing pads intravaginally, especially those with no prior pad use experience, underscoring the importance of proper menstrual hygiene education alongside product distribution. The study concluded that with adequate instruction, support, and persistence, Menstrual Cups are a viable, acceptable, and sustainable option for menstrual hygiene management among adolescent girls in LMICs. It also highlighted the importance of addressing cultural beliefs, infrastructural limitations, and the need for integrated menstrual health education to ensure successful adoption and use of menstrual hygiene products. [29]

A cross-sectional study was conducted, titled “Experience and adaptability of Menstrual Cup as a menstrual hygiene management method among its users in Kerala” was conducted to evaluate the perceived benefits and challenges faced by Menstrual Cup users in Kerala (2022). The study included 211 women who had used the Menstrual Cup for at least six consecutive cycles. Data were collected through an online questionnaire, and participants were recruited using snowball sampling. The mean age of participants was 32.16 years, and most had learned about the Menstrual Cup from friends or online platforms. The study observed that difficulties with insertion and removal significantly reduced after the third cycle, indicating increasing adaptability with continued use. Notably, the use of the Menstrual Cup contributed to substantial health, economic, and social benefits. Among the users, 91.3% reported economic benefits, 70.4% experienced health improvements, and 76.7% observed enhanced participation in social activities. Additionally, 55.8% reported improved work performance, and 38.4% reported better attendance at regular engagements after adopting the cup. Although side effects such as allergies (3%), dryness (2.5%), and infections (2%) were reported, these were minimal. Practical challenges were also noted, including difficulty in sterilization while traveling (21.2%), limited access to clean water (7.2%), and a need for privacy during cleaning (3.8%).The study emphasizes the Menstrual Cup's effectiveness as a safe, comfortable, and

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cost-efficient menstrual hygiene management tool. It highlights the need for awareness programs and improved accessibility to Menstrual Cups, especially for first-time users and women in resource-limited settings. [30]

A prospective observational study was conducted at a tertiary care Centre in Chennai from September 2022 to April 2024 to assess the feasibility, acceptability, and adaptation of Menstrual Cup use among Indian women. The study included 200 first-time Menstrual Cup users, who were followed over three consecutive menstrual cycles after receiving education on proper use and hygiene techniques. Out of the 434 women initially approached, 200 completed the study. Most participants were aged 21–30 years, married (57%), and graduates (46%). Before adopting the Menstrual Cup, 82.5% were using sanitary napkins, with reported issues such as leakage (41%) and rashes (34.5%).Significant improvements were observed across the study period. Ease of insertion increased from 72% to 85%, ease of removal from 72% to 82%, and overall comfort improved from 90% to 98%. The incidence of leakage dropped substantially from 17% in the first cycle to just 5% by the third cycle. Importantly, by the end of the third cycle, 96.5% of users intended to continue using the Menstrual Cup, and 96% stated they would recommend it to others. This study highlights the potential of Menstrual Cups as a sustainable, cost-effective, and acceptable menstrual hygiene solution, especially when coupled with structured education. The findings reinforce the importance of awareness programs in increasing adoption rates and addressing initial hesitancy among first-time users. [31]

A cross-sectional study was conducted titled “Assessment of knowledge, attitudes, and barriers to Menstrual Cup use among working women” to evaluate the awareness, attitudes, and practical challenges faced by working women in adopting Menstrual Cups. The study was carried out at the Obstetrics and Gynecology Outpatient Department (OBGYN OPD) of Chettinad Medical College, Tamil Nadu. A total of 100 working women aged between 25–45 years were selected through a convenience sampling method. Participants were administered a structured and pre-validated questionnaire, which captured demographic details, prior menstrual hygiene practices, awareness and knowledge about Menstrual Cups, and the perceived barriers to their adoption. Data were statistically analyzed using SPSS version 25, with both descriptive (percentages and frequencies) and inferential statistics (Chi-square test). Results of the study showed that 45% of the women were aware of Menstrual Cups, but only 20% had any prior experience using them. A statistically significant association was observed between educational qualification and willingness to use Menstrual Cups, with higher education levels corresponding to increased acceptability ($p = 0.03$). Furthermore, it was found that women who received information from healthcare professionals demonstrated more openness to try the Menstrual Cup compared to those who received information from social media or peers ($p = 0.02$). One of the key barriers identified was the lack of adequate workplace sanitation facilities, with 70% of participants reporting issues such as insufficient access to clean washrooms and lack of privacy during working hours. Despite these concerns, after an awareness session was conducted during the study, 60% of participants expressed willingness to use the Menstrual Cup in the future, suggesting that education plays a vital role in shaping attitudes. [32]

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2.5 LITERATURE RELATED TO CLINICAL SAFETY AND REPORTED HEALTH COMPLICATIONS OF MENSTRUAL CUP

A systematic review was conducted, titled “Acceptability and safety of the Menstrual Cup: A systematic review of the literature” to evaluate Menstrual Cups as a feminine hygiene product. The review included 38 studies identified from databases such as PubMed, Cochrane Library, Scopus, PopLine, and Google Scholar, covering the period from 1966 to July 2019. The selected studies involved women of reproductive age and were published in English or Spanish. Findings revealed that Menstrual Cup acceptability ranged from 35% to 90%, with 10% to 45% of users reporting difficulties, primarily related to insertion and removal. However, many users described it as more comfortable than pads or tampons, and continued use ranged from 48% to 94%, indicating high satisfaction over time. In terms of safety, the review documented isolated cases of toxic shock syndrome, mechanical entrapment, and allergic reactions. Additionally, an increased risk of expulsion was noted among users of intrauterine devices (IUDs). The authors concluded that Menstrual Cups are generally safe, cost-effective, and acceptable, but emphasized the need for further randomized controlled trials and long-term studies to explore potential complications such as bacterial overgrowth or retrograde menstruation. [33]

A case report study was conducted, titled "An improperly positioned Menstrual Cup complicated by hydronephrosis: A case report" to highlight a rare complication associated with Menstrual Cup use. The study presents the case of a 47-year-old woman who experienced right flank pain due to an entrapped bladder caused by the incorrect placement of a Menstrual Cup, which subsequently led to acute unilateral hydronephrosis. Diagnosis was confirmed using computed tomography imaging. A literature review was also performed to identify other reported side effects of Menstrual Cup use. The findings emphasize the need for healthcare professionals to be familiar with Menstrual Cup placement and associated complications. As the popularity of Menstrual Cups increases, early recognition of improper placement is essential to prevent adverse outcomes such as hydronephrosis. [34]

A case report study was conducted, titled “Is the Menstrual Cup harmless? A case report of an unusual cause of renal colic,” Ramos and Varea explore a rare but clinically significant complication arising from Menstrual Cup use. The report presents the case of a woman who developed right-sided renal colic while using a Menstrual Cup. The patient experienced severe and persistent flank pain, which was notably unresponsive to conventional analgesics, prompting further diagnostic investigation. Imaging via plain abdominal X-ray revealed the Menstrual Cup situated deep within the pelvic cavity, occupying more than one-third of the pelvic minor diameter and showing a marked right-sided orientation. Additionally, ultrasound examination demonstrated right ureterohydronephrosis—a condition involving swelling of the ureter and kidney due to urine accumulation. Importantly, no intrinsic obstructive cause was detected on imaging, suggesting an extrinsic mechanical compression of the ureter by the Menstrual Cup. The patient's symptoms—including pain and hydronephrosis—resolved completely upon removal of the Menstrual Cup, strongly indicating a cause-effect relationship. The authors discuss that although Menstrual Cups are broadly considered safe, eco-friendly, and cost-effective alternatives to traditional menstrual products, rare mechanical complications such as ureteral compression can occur, particularly if the cup is improperly positioned or if

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the user's anatomy predisposes them to such risks. This case underscores the importance of clinician awareness regarding Menstrual Cup-related complications. Given the growing popularity and use of Menstrual Cups worldwide, the authors recommend that healthcare providers inquire about menstrual product usage when evaluating patients with unexplained pelvic or renal symptoms. They also emphasize the necessity for proper user education on insertion techniques and device positioning to prevent such rare but significant adverse events. [35]

2.6 SUMMARY

The study found that high School girls had limited knowledge about the Menstrual Cup as a menstrual hygiene option. Many were unaware of its benefits, usage, and safety aspects. After implementing a Structured Teaching Programme, there was a significant improvement in their knowledge regarding Menstrual Cups. The findings suggest that structured educational interventions are effective in increasing awareness and understanding of Menstrual Cups among adolescent girls, which can promote better menstrual hygiene practices and encourage sustainable alternatives.

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CHAPTER 3

RESEARCH METHODOLOGY

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CHAPTER 3

RESEARCH METHODOLGY

"Methodology is doing things in a way that others can replicate, understand, and trust."

– Anonymous

3.1 INTRODUCTION

Research methodology is a systematic and scientific approach that guides a researcher in planning, executing, and analyzing a study to answer a specific research question. It involves a detailed blueprint that includes the selection of appropriate tools, strategies, and procedures to gather and analyze data effectively and ethically.

In the context of this study, the research methodology outlines the procedures used to assess the effectiveness of a Structured Teaching Programme on improving knowledge regarding Menstrual Cup among high School girls. It includes the research approach, design, variables, population, sampling technique, tools used, and data collection and analysis methods.

Understanding research methodology not only enables the researcher to apply suitable techniques but also helps in interpreting the results accurately. It requires knowledge of when and how to apply methods such as statistical tests and data collection instruments, ensuring that the procedures are appropriate for the specific problem being investigated each research problem is unique, and therefore, the methodology must be carefully selected to match the objectives and nature of the study. [36]

3.2 RESEARCH APPROACH

A research approach is the overall plan used to conduct a study. It includes the steps followed to collect, analyze, and interpret data. For this study, a quantitative research approach was used. This means the study involved collecting numerical data from students through a questionnaire, both before and after a Structured Teaching Programme. The purpose was to measure how much their knowledge about the Menstrual Cup improved after the session. [36]

3.3 RESEARCH DESIGN

The research design is the plan used to carry out the study. This study used a one-group pre-test post-test design. It means the same group of students was tested before and after the teaching session. This design may be diagrammatically represented as below. [37]

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Group	Pre-test	Treatment	Post-test
Experimental Group	O_1	X	O_2

O_1-Pre-test knowledge assessment

X- Structured Teaching Programme on knowledge regarding Menstrual Cup

O_2-Post-test knowledge assessment

3.4 RESEARCH VARIABLES

Variables are qualities, properties or characteristics of person, things or situation that change or vary. Chin and Kramer stated that variables are concept at different level of abstraction that are concisely defined to promote their measurement or manipulation within the study.

3.4.1) Dependent Variable: It is presumed effect/ outcome or response due to effect of the independent variable, which researcher wants to predict or explain. In this study, the dependent variable is Knowledge on Menstrual Cup.

3.4.2) Independent Variable: It is presumed cause/stimulus or activity that is manipulated or varied by the researcher to create the effect on the dependent variable. In this study, the independent Variable is Structured Teaching Programme on Menstrual Cup.

3.4.3) Selected variables: Selected variables include age, type of family, residence, religion, family monthly income, attainment of menarche, type of feminine products used during menstruation.[37]

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3.5 SCHEMATIC REPRESENTATION OF THE STUDY

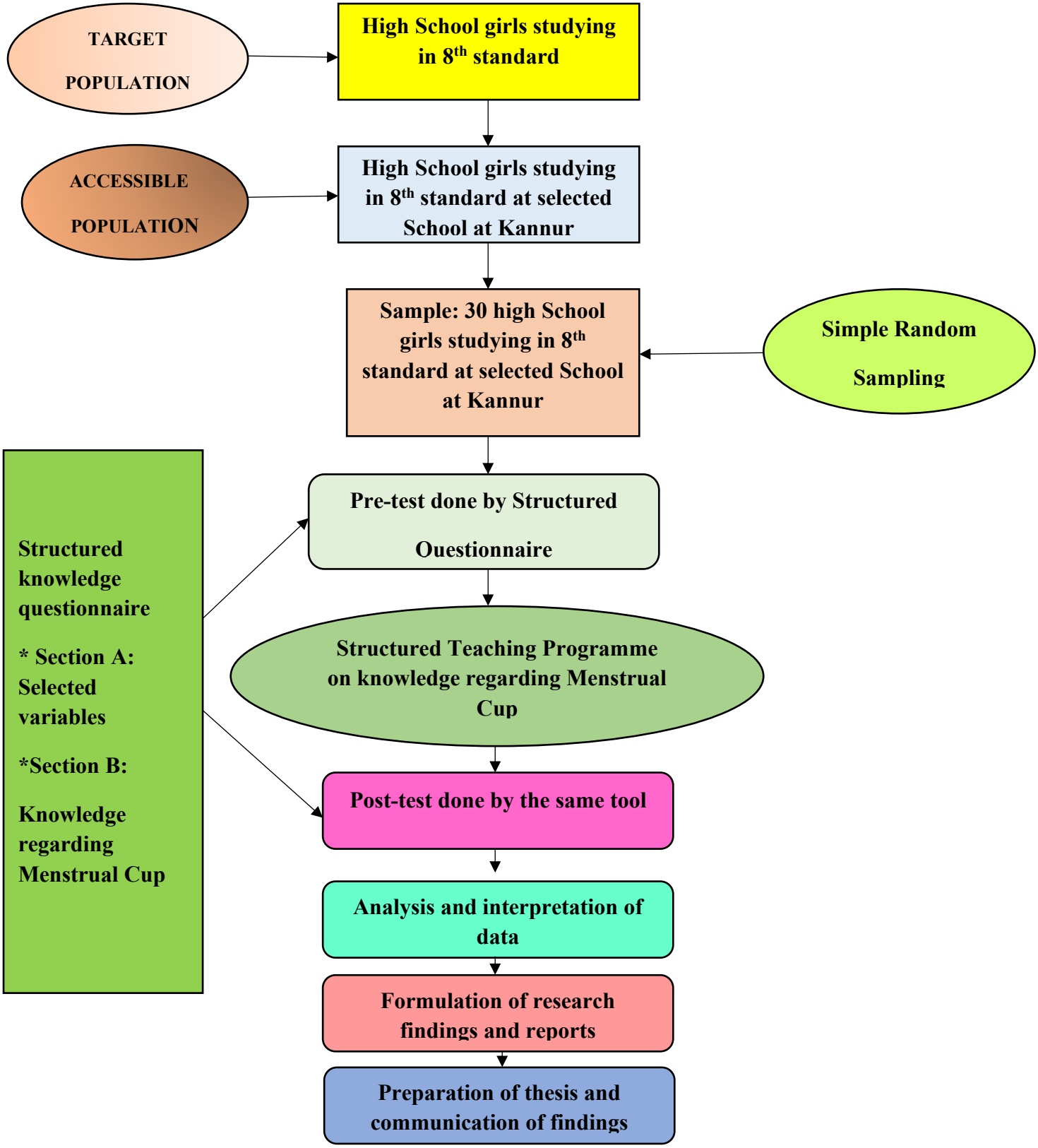

FIGURE 3.1 SCHEMATIC REPRESENTATION OF THE STUDY

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3.6 SETTING OF THE STUDY

Setting is a location for conducting research; can be natural, partially controlled or highly controlled. The main study and pilot study was conducted at selected institution. Reason for selecting there setting:

- The subjects were readily available and adequate for the study.
- The subjects are cooperative, easy to approach and convey the need.
- The selected setting is near and feasible.

The study was conducted at Anjarakandy Higher Secondary School which is 4kms away from College of Nursing. Kannur Medical College, Anjarakandy.

3.7 POPULATION

The population is the group of people the researcher wants to study.

Target Population: The target population comprises all high School girls aged 12-14 years who are studying in the 8th standard at the selected School at Kannur.

Accessible Population: The accessible population includes those students from the target group who were present and available during the data collection period. Informed consent was obtained from both the students and their guardians prior to participation**.** [36]

3.8 SAMPLE AND SAMPLING TECHNIQUE

3.8.1 SAMPLE:

The sample is a smaller group selected from the larger population. In this study, the sample includes 30 high School girls studying in the 8th standard at selected School at Kannur.

3.8.2 SAMPLE SIZE

Sample size means the number of people included in the study. Here, the sample size is **30 (**n = 30).

3.8.3 SAMPLING TECHNIQUE:

Sampling is the method used to choose people for the study. In this study, **a simple random sampling technique** was used, where each student had an equal chance of being selected.

3.9 SAMPLING CRITERIA

3.9.1 Inclusive criteria:

Girls;

- aged 12 to 14 years
- currently studying in the 8th standard

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- Willing to participate in the study and provide informed assent, along with parental or guardian consent.

3.9.2 Exclusive criteria:

- Girls who are absent during the data collection period

3.10 SELECTION OF THE TOOL

In this study, the researcher used a structured knowledge questionnaire to collect relevant data on the level of knowledge regarding Menstrual Cup among high School girls. The tool was selected after consulting Nursing experts, reviewing related literature, and ensuring it was suitable for the age group of 12 to 14 years.

The following steps were undertaken to prepare the tool:

- Review of literature: Books, journals and articles were reviewed and this provide adequate content for tool preparation
- Internet search
- Discussion with Nursing experts and Gynecologist
- Personal experience and discussion with friends
- Preparation of a blueprint of tool
- Content validity of tool by the experts of Obstetrical and Gynecology Department
- Pre-testing the tool by a group of adolescent girls to ensure that the content was understandable, age-appropriate, and accurate.
- Reliability of tool
- Development of final draft of the tool

3.11 DESCRIPTION OF TOOL

The final tool used in the study consisted of two sections:

3.11.1 Section A: Structured questionnaire to collect information regarding selected variables of high School girls, including age, type of family, residence, religion, family monthly income, attainment of menarche, type of feminine products used during menstruation

3.11.2 Section B: Structured knowledge questionnaire comprising 24 multiple-choice covering the following areas about Menstrual Cup

- Menstruation
- Normal Menstrual cycle
- Menstrual Cup
- Types and Materials
- Selection of the Cup according to size
- Insertion of Menstrual Cup
- Menstrual Cup folding techniques
- Checking After Wearing
- Removal of Menstrual Cup

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- Cleaning of Menstrual Cup
- Myths and Facts
- Advantages
- Managing problems with Menstrual Cups
- Menstrual Cup V/s Sanitary Pads
- Cost of Menstruation

Each correct answer carries one mark; incorrect answers carry zero mark. The maximum possible score is 24.

3.11.3 SCORE TABLE

SCORE	DESCRIPTION
0-8	Inadequate knowledge
9-16	Moderately adequate knowledge
17-24	Adequate knowledge
TOTAL SCORE	24

3.12 CONTENT VALIDITY

Content validity refers to the extent to which the tool adequately represents the construct it aims to measure. In this study, content validity was ensured by seeking expert opinions on the relevance, clarity, and adequacy of the items included in the structured knowledge questionnaire and teaching programme. To assess content and face validity, the tool was submitted to a panel of 7 experts from the field of Nursing, Obstetrics &Gynecology Department and Statistician. The experts reviewed the tool for relevance, clarity, and content coverage. Based on their feedback, minor modifications were made to the language for better understanding, and additional items were included to enhance comprehensiveness. These suggestions were incorporated into the final version of the questionnaire and Structured Teaching Programme by the investigators.

3.13 RELIABILITY OF THE TOOL

Reliability refers to the degree of consistency and accuracy with which an instrument measures the attribute it is intended to assess. It ensures that the results remain stable over repeated applications of the tool.

In this study, the split-half method was used to assess the reliability of the structured knowledge questionnaire on Menstrual Cup awareness. The tool was administered to a sample of 12 high School girls aged between 12 to 14 years prior to the pilot study. The obtained reliability coefficient (r value) was 0.93, indicating a high level of internal consistency. Since the

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reliability score was well above the acceptable level of 0.7, the tool was considered to be reliable for use in the main study.

3.14 PILOT STUDY

A pilot study is a small version of the main study done to check if the tool and method work well. This pilot study was done on June 5, 2025, at CHM Higher Secondary School, Elayavoor. Written permission was taken from the head of the institution, and consent was obtained from the guardians or guardians of the students. Six girls from 8th standard who met the criteria were selected using simple random sampling technique. The purpose of the study was explained to the students and confidentiality was assured.

The investigator collected details of selected variables and conducted a pre-test using structured knowledge questionnaire on June 5 2025. A structured teaching program was given on the same day. The post-test was done on the 6th day. The effect of the Structured Teaching Programme was calculated using paired't' test. There was a significant difference between pre-test knowledge score and post-test score, as the calculated 't' value 7.28 was greater than the table value (2.57) at 0.05 level of significance. Hence the research hypothesis H_1 was accepted and null hypothesis H_{01} was rejected.

The association of the pre-test knowledge score with selected variables was determined using Chi-square test .There was no significant association between pre-test knowledge score and selected variables.

The tool and the Structured Teaching Programme were found to be comprehensible, feasible, and acceptable by the samples. As there was no practical difficulty during pilot study, the investigators proceeded for the main study.

3.15 DATA COLLECTION PROCESS

Data collection is a systematic process of gathering relevant information to answer research questions and evaluate outcomes. In this study, data was collected to assess the knowledge level of high School girls regarding Menstrual Cups before and after an educational intervention. A structured questionnaire was used as the primary tool, with a pre-test conducted to evaluate baseline knowledge, followed by a structured teaching programme, and then a post-test to measure knowledge improvement. This method enabled the researchers to compare data before and after the intervention to determine its effectiveness. Simple random sampling technique was used to select participants, and informed consent was obtained to ensure ethical data collection.

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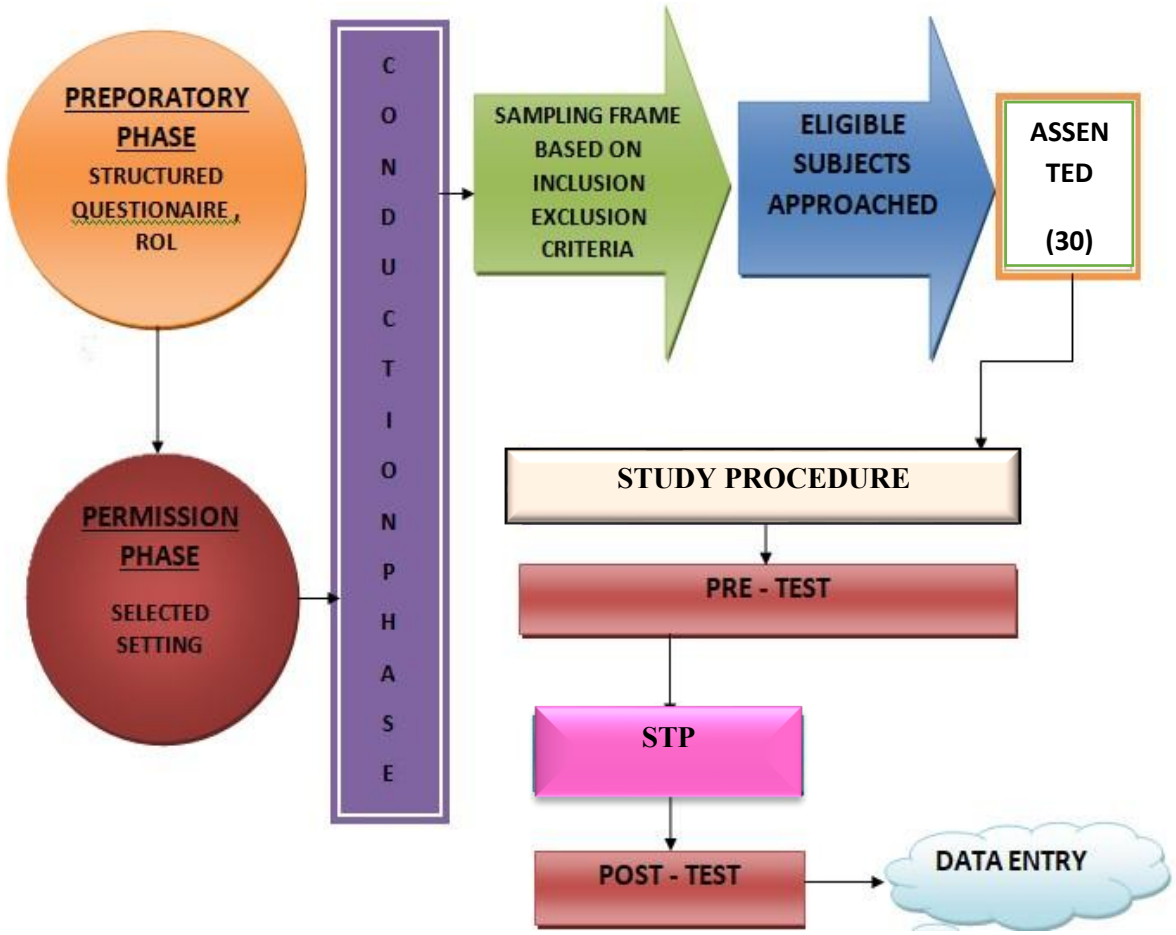

FIGURE 3.2: SCHEMATIC DIAGRAM OF DATA COLLECTION PROCESS

The investigator obtained written permission from the Headmaster of a selected School at Kannur to conduct the research study. Prior to data collection, written informed consent was obtained from the guardians of the participants, and assent was obtained from the students themselves. Ethical standards were strictly followed throughout the research process.

A total of 30 high School girls studying in 8th standard, including both menstruating and non-menstruating girls, were selected using the simple random sampling technique. The data collection began on 11th June 2025.

The data collection process consisted of the following phases:

a) Preparatory phase

The research proposal was discussed with the research guide, ethical committee members, and a Statistician. Valuable feedback was incorporated. A thorough review of literature was conducted, and a structured knowledge questionnaire was developed, consisting of:

- Section A: Selected variables
- Section B: Knowledge-based questions regarding Menstrual Cups

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The tool was validated by subject experts for content accuracy and relevance.

b) Permission phase

Formal approval was obtained from the Institutional Scientific Research committee, followed by ethical clearance from the institutional ethical review board. A No Objection Certificate (NOC) was also received from the selected School at Kannur to conduct the study.

c) Conduction phase

- The investigator introduced herself to the students and explained the purpose of the study. Confidentiality and voluntary participation were assured.
- All 30 participants were assessed at once without dividing them into groups.
- A pre-test was conducted using the structured knowledge questionnaire to assess baseline knowledge. It took approximately 30 minutes to complete.
- On the same day, a Structured Teaching Programme was delivered to all participants. The session lasted for about 45 minutes and included audiovisual aids and verbal methods lecture
- On the 6th day after the intervention, a post-test was conducted using the same questionnaire to evaluate knowledge improvement.

The investigator ensured that all activities were carried out without disrupting the regular School schedule. The data collection process concluded with appreciation extended to the participants and School staff for their cooperation. The data was then compiled, analyzed, and interpreted to assess the effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup.

3.16 PLAN FOR DATA ANALYSIS

Analysis is defined as the process of organizing and synthesizing data in such a way that

research questions can be answered and hypothesis tested. The data analysis for this study

will involve both descriptive and inferential statistical methods.

Data was planned to be analyzed on the basis of objectives and hypotheses.

1. To compute the data, a master data sheet was prepared by the investigator

2. Demographic was analyzed in terms of frequency and percentage,

3. The knowledge of the high School girls on knowledge regarding Menstrual Cup before and after administration of the Structured Teaching Programme would be calculated using frequency, mean and standard deviation.

4. Effectiveness of the Structured Teaching Programme would be calculated using paired't' test.

5. The association between selected variables and the pre-test knowledge score would be determined by the Chi-square test.

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The data would be presented in the form of tables and diagrams,.

3. 18 CONCLUSION

This chapter deals with the research approach, research design, variables. schematic representation of the study, settings of the study, population, sample and sampling technique, inclusion criteria, exclusion criteria, tools/instrument ,development selection of tool, description of tool, content validity, reliability of the tool and plan for data analysis. Research methodology helps the tool, pilot study, data collection process to investigator to shape the present study in a systematic pattern.

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CHAPTER 4

ANALYSIS AND INTERPRETATION

SL.NO	TITLE	PAGE NO.
4.1	INTRODUCTION	
4.2	STATEMENT OF THE PROBLEM	
4.3	OBJECTIVES	
4.4	HYPOTHES1S	
4.5	ANALYSIS AND INTERPRETATION	
4.6	SUMMARY	

.

CHAPTER 4

ANALYSIS AND INTERPRETATION

"Without data, you're just another person with an opinion."

— W. Edwards Deming

4.1 INTRODUCTION

Analysis is defined as 'the process of organizing and synthesizing the data so as to answer reach questions and test hypothesis.' The data analysis and interpretation helped the researchers to transform the collected data into credible evidence about the development of the intervention and its performance. The data collection is followed by the analysis and interpretation of data, where collected data are analysed and interpreted in accordance with study objectives. It also helps in editing, coding, classifying, and presenting the data.[37]

In this study, data analysis and interpretation helped the researcher transform collected raw data into meaningful evidence about the effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup. The data collected from high School girls at a selected School at Kannur were organized, classified, and statistically analyzed based on the objectives and hypotheses of the study. This analysis serves the following purposes:

1. To make raw data meaningful and interpretable.

2. To test the stated null hypotheses.

3. To determine the statistical significance of observed differences.

4. To draw inferences and make generalizations.

5. To estimate relationships between variables and evaluate programme impact.

4.2 STATEMENT OF THE PROBLEM

A study to assess the effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at Kannur.

4.3 OBJECTIVES OF THE STUDY

1. To assess the pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls at selected School at, Kannur

2. To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at, Kannur

3. To find the association between the pre-test level of knowledge regarding Menstrual Cup among high School girls with their selected variables

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4.4 HYPOTHESIS

H_{01} (Null Hypothesis 1): The mean post-test level of knowledge score will not be significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_{02} (Null Hypothesis 2): There is no significant association between the pre-test levels of knowledge score regarding Menstrual Cup among high School girls at selected School at Kannur with their selected variables.

H_1 (Alternative Hypothesis 1): The mean post-test level of knowledge score is significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_2 (Alternative Hypothesis 2): There is a significant association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables.

4.5 ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data collected from 30 high School girls studying in 8th standard through a structured knowledge questionnaire. Analysis is a process of organizing and synthesizing data in such a way that researcher questions can be answered and hypothesis can be tested. The aim of analysis was to reduce and organize data and give meaning to data. The purpose of the data analysis is to summarize, compare and test the proposed relationship and infer findings.

The collected were organized and presented under following sections:

SECTION A

Distribution of high School girls based on their selected variables.

SECTION B

Assessment of knowledge regarding Menstrual Cup among the high School girls through a structured knowledge questionnaire.

SECTION C

Effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls.

SECTION D

Association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables.

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4.5.1 SECTION –A: Distribution of high School girls based on selected variables.

This section deals with distribution of high School girls based on their selected variables. The data was analyzed using frequency distribution and percentage method.

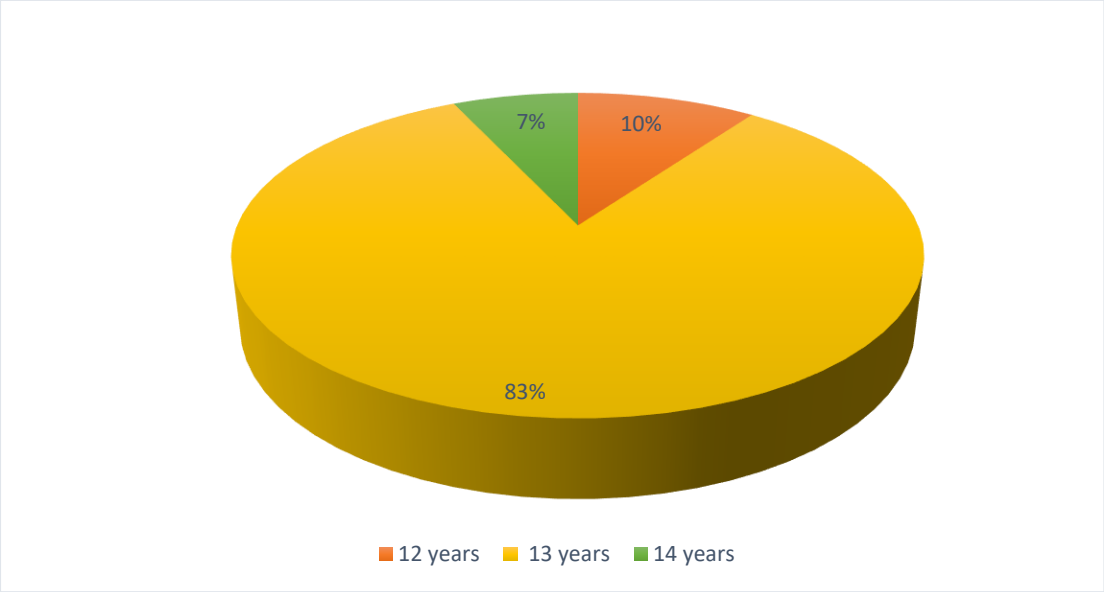
Table 4. 1: Frequency and percentage distribution table

N=30

SL NO:	VARIABLES	FREQUENCY	PERCENTAGE (%)
1.	Age		
	a) 12 years	3	10%
	b) 13 years	25	83%
	c) 14 years	2	7%
2.	Type of Family		
	a) Nuclear family	23	77%
	b) Joint family	7	23%
	c) Extended family	0	0%
	d) Other	0	0%
3.	Residence		
	a) Urban	11	37%
	b) Rural	19	63%
4.	Religion		
	a) Hindu	26	87%
	b) Muslim	4	13%
	c) Christian	0	0%
	d) Others	0	0%
5.	Family monthly income		
	a) <10000	6	20%
	b) 10,000-20,000	11	37%
	c) 21,000-30,000	9	30%
	d) >30,000	4	13%
6.	Attainment of menarche		
	a) Yes	19	63%
	b) No	11	37%
7.	Type of feminine products used during menstruation		
	a) Sanitary pad	19	63%
	b) Cloth	0	0%
	c) Menstrual Cup	0	0%
	d) Not applicable	11	37%

.

FIGURE 4.1: PERCENTAGE DISTRUBUTION OF SAMPLES ACCORDING TO AGE



Pie diagram showing percentage distribution of samples according to the age shows that highest percentage (83%)of the samples was in the age of 13years,10% of them were in age of 12years and the least percentage (7%) of them were in the age of 14 years

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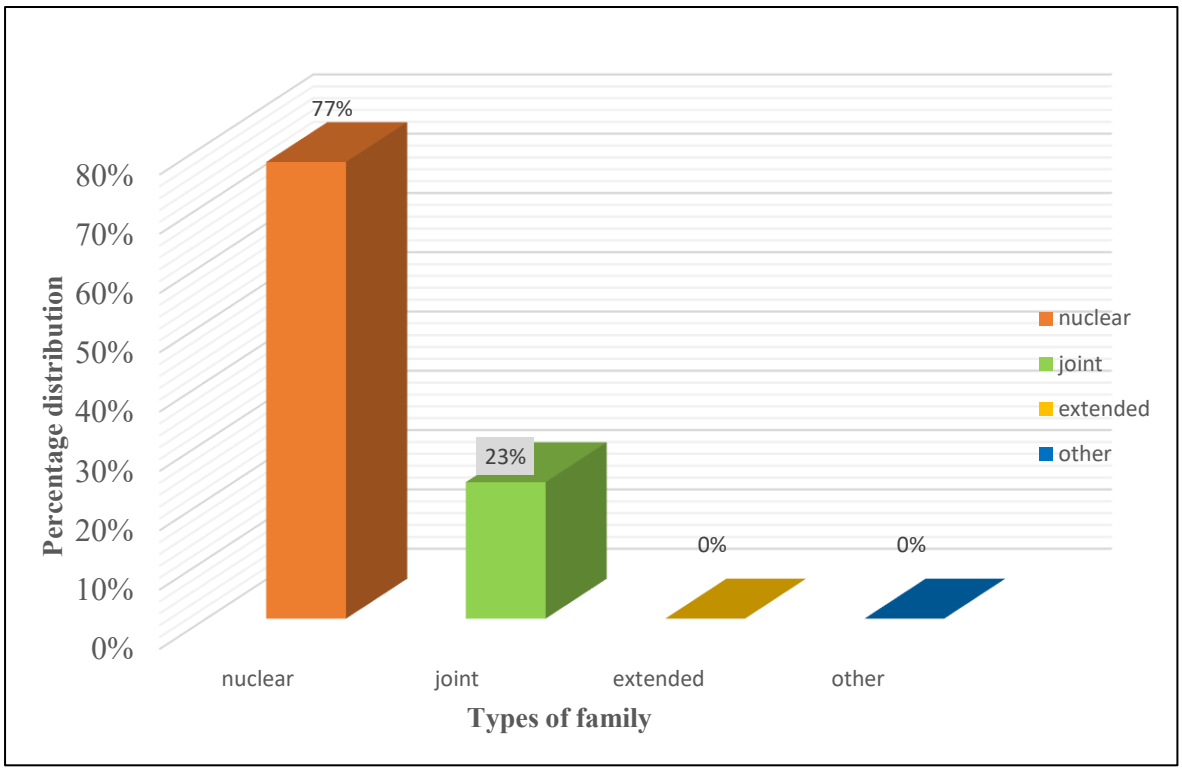
FIGURE4. 5: PERCENTAGE DISTRIBUTION OF SAMPLES ACCORDING TO TYPE OF FAMILY



Bar diagram showing percentage distribution of samples according to type of family represents that out of 30 high School girls ,23 high School girls (77%) belongs to nuclear family and 7 high School girls (23%) belongs to joint family.

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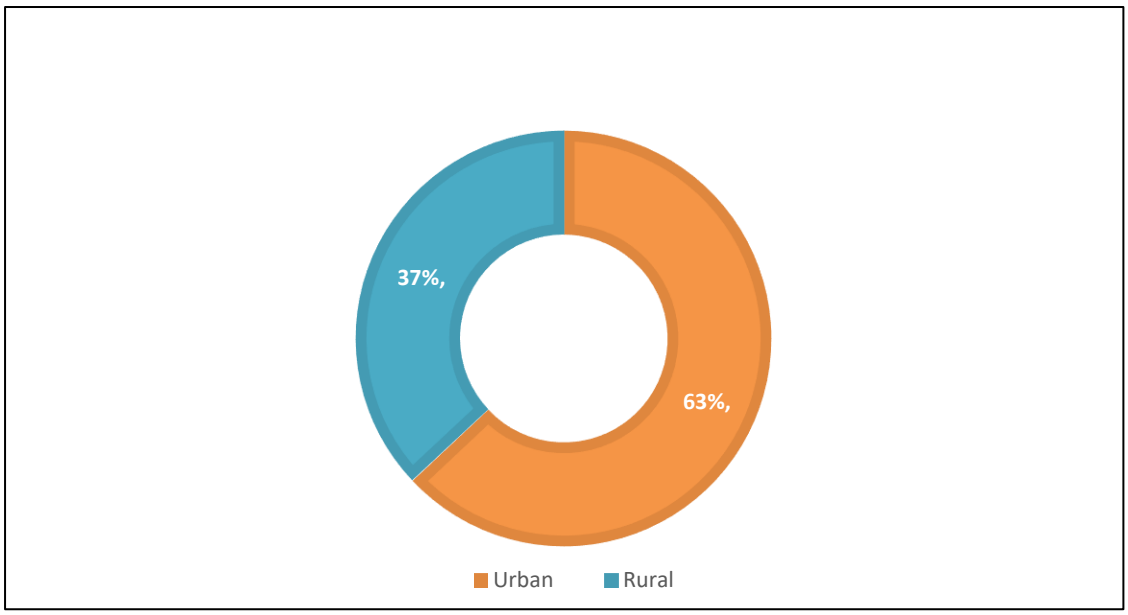
FIGURE4. 6: PERCENTAGE DISTRIBUTION OF SAMPLES ACCORDING TO RESIDENCE



Donut chart showing percentage distribution of sample according to residence shows that out of 30 high School girls, 11(37%) high School girls live in urban area .19(63%) high School girls live in rural area

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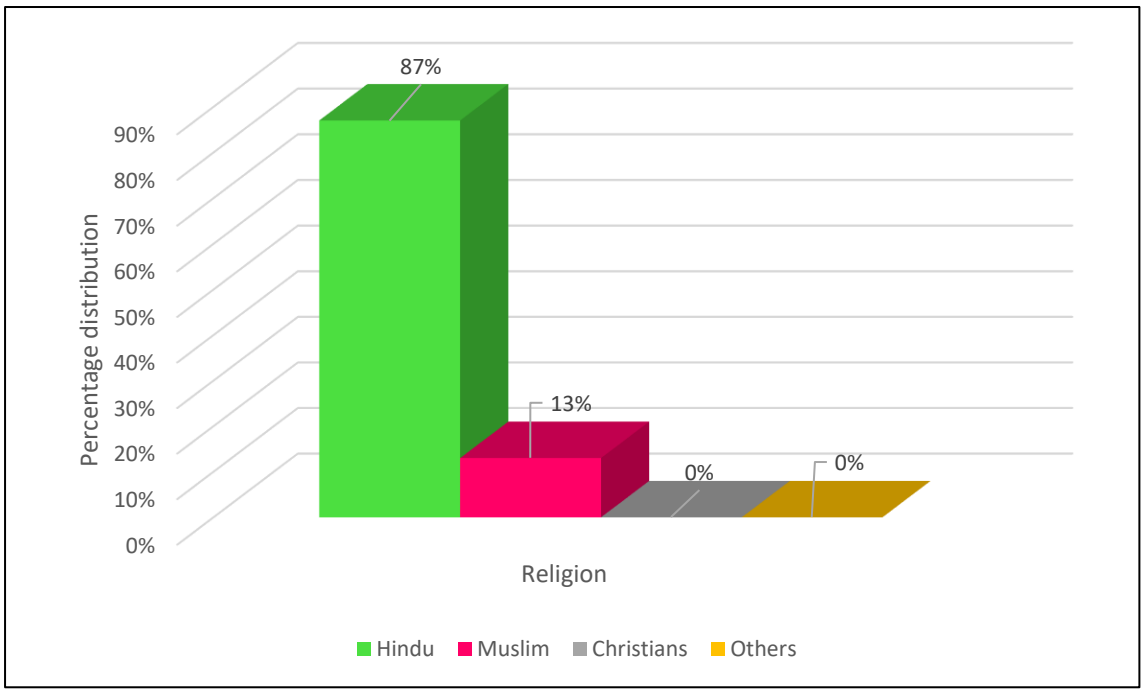
FIGURE4.7: PERCENTAGE DISTRIBUTION OF SAMPLE ACCORDING TO RELIGION



3D bar chart showing percentage distribution of samples according to religion depicts that out of 30 high School girls 26 high School girls (87%) belongs to Hindu religion and the rest 4 high School girls (13%) belongs to Muslim religion.

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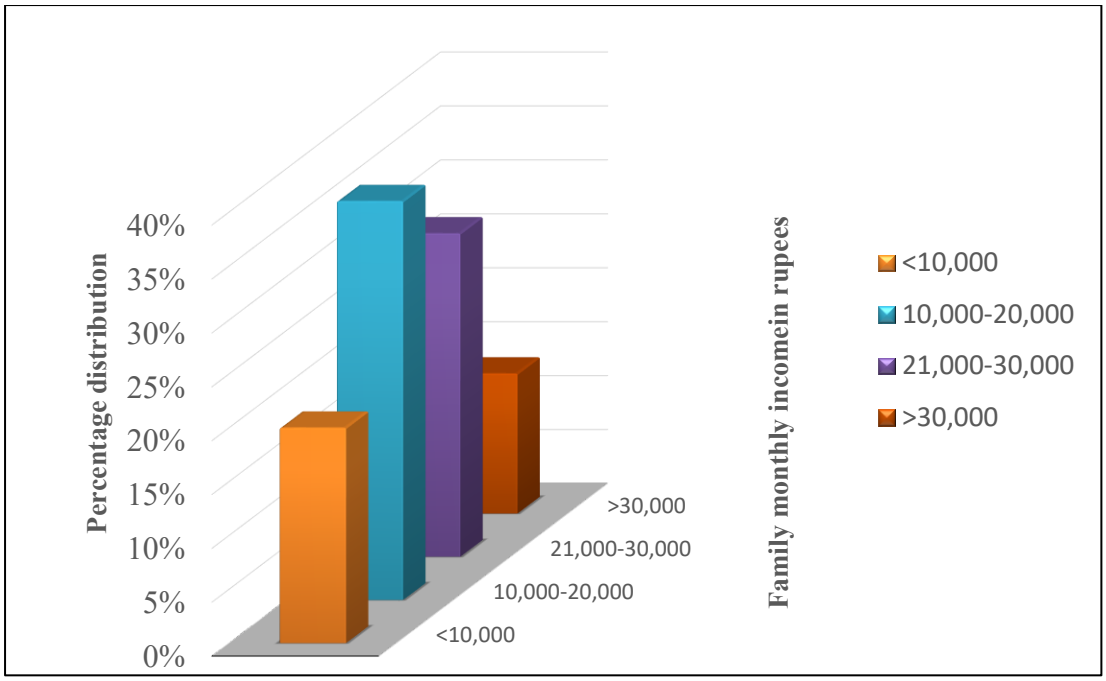
FIGURE 4.8: PERCENTAGE DISTRIBUTION OF SAMPLE ACCORDING TO FAMILY MONTHLY INCOME



3D bar diagram percentage distribution of sample according to monthly family income depicts that out of 30 high School girls, 6 (20%) high School girls have an income Rs <10,000, 11(37%) high School girls have an income Rs 10,000-20,000, 9 (30%) high School girls have an income Rs 21,000-30,000 and 4 (13%)high School girls have an income Rs >30,000.

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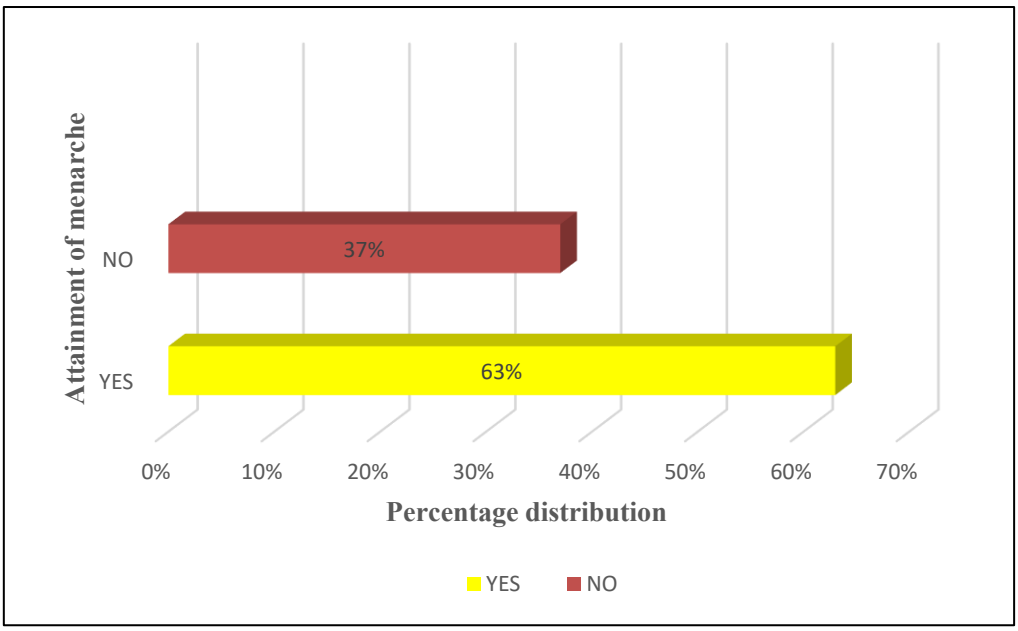
FIGURE4. 9: PERCENTAGE DISTRIBUTION OF SAMPLE ACCORDING TO ATTAINMENT OF MENARCHE



Horizontal 3D bar diagram showing percentage distribution of sample according to attainment of menarche shows that out of 30 high School girls,19(63%) high School girls has attained menarche and 11(37%) high School girls did not attain menarche .

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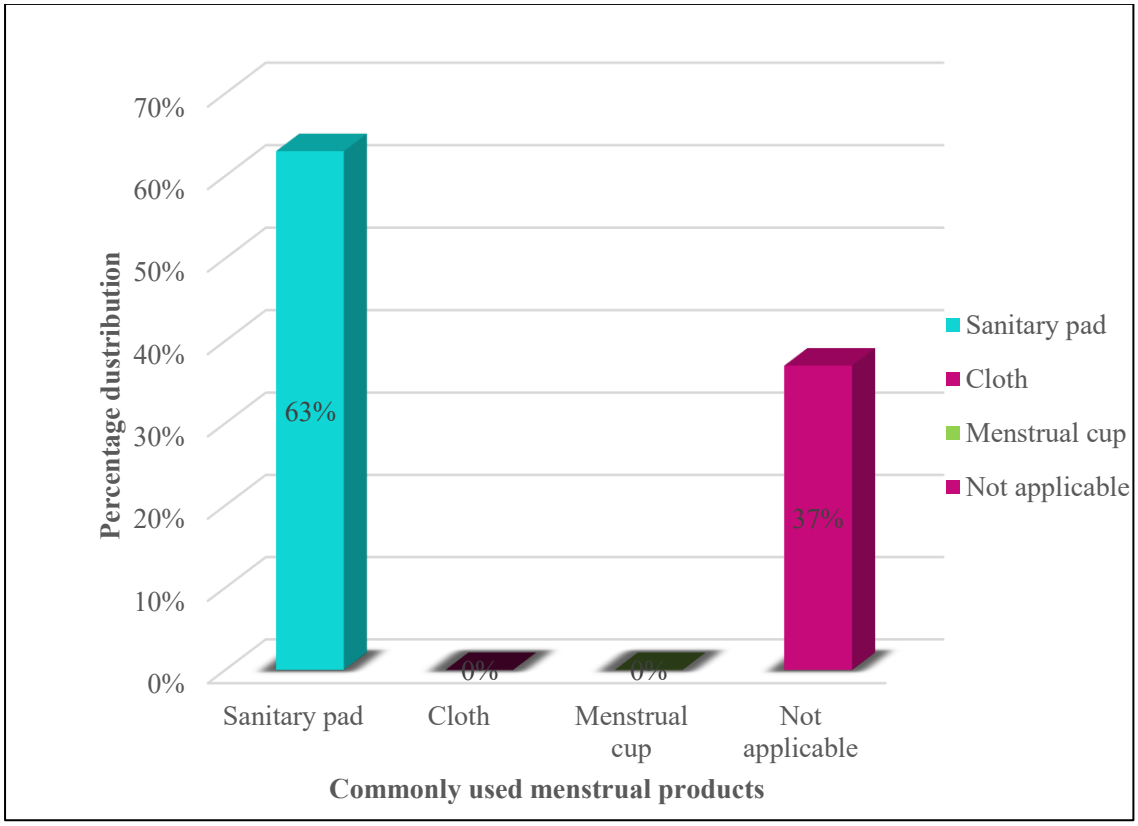
FIGURE4. 10: PERCENTAGE DISTRIBUTION OF TYPES OF FEMININE PRODUCTS USED DURING MENSTRUATION



Vertical 3D bar diagram showing percentage distribution of samples according to their commonly used menstrual products shows that out of 30 high School girls,19(63%) are using sanitary pad while the remaining 11(37%)high School girls.

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4.5.2 SECTION- B: Assessment of pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls through a structured knowledge questionnaire.

Knowledge of 30 high School girls assessed by using structured knowledge questionnaire and analyzed by using descriptive statistics as presented in the Tables. The total scores arbitrarily classified as inadequate (0-8), moderately adequate (9-16) and Adequate (17-24)

Table 4.2: Frequency and percentage distribution of high School girls according to the pre-test and post-test level of knowledge regarding Menstrual Cup

N=30

Sl .No	Level of knowledge	Range	Pre-test		Post-test	
			Frequency	Percentage	Frequency	Percentage
1.	Inadequate	0-8	1	3%	0	0%
2.	Moderately adequate	9-16	21	70%	0	0%
3.	Adequate	17-24	8	27%	30	100%

Table 4.2 shows that in the pretest 3% of the samples had inadequate knowledge, 70% had moderately adequate knowledge and 27% had adequate knowledge regarding Menstrual Cup among high School girls. In post-test, 100% of the high School girls have an adequate knowledge.

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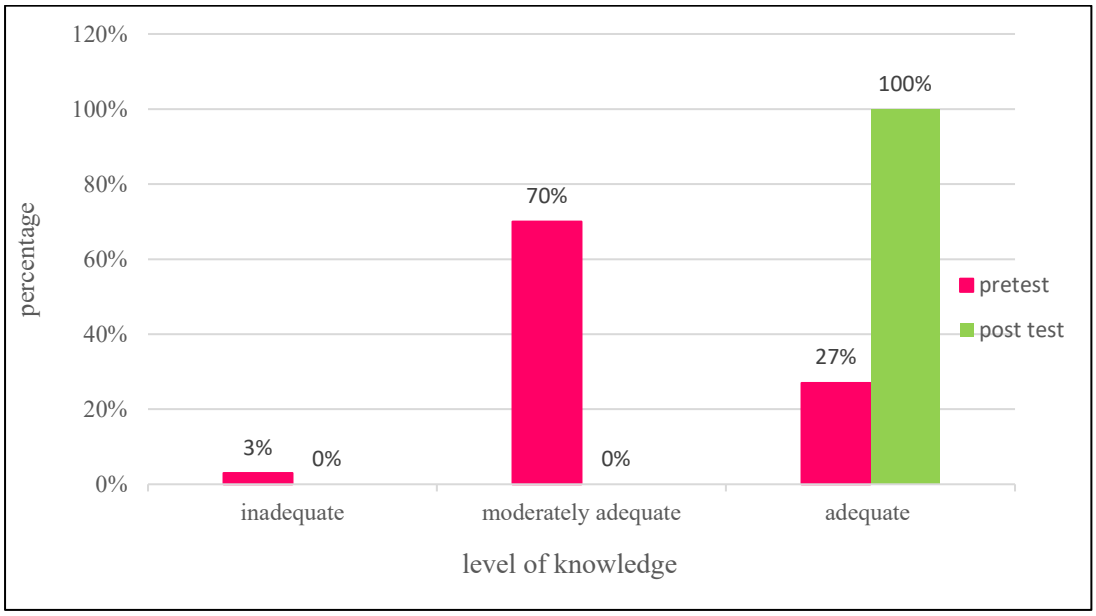
FIGURE 4. 11: FREQUENCY AND PERCENTAGE DISTRIBUTION OF HIGH SCHOOL GIRLS ACCORDING TO THE PRE-TEST AND POST-TEST LEVEL OF KNOWLEDGE REGARDING MENSTRUAL CUP



The data presented in the figure 4.11shows that in the pretest 3% of the samples had inadequate knowledge, 70% had moderately adequate knowledge and 27% had adequate knowledge regarding Menstrual Cup among high School girls. In post-test 100% of the high School girls have adequate knowledge.

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4.5.3 SECTION-C: Effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls

To find out significant difference between the mean pre–test and post–test level of knowledge score regarding Menstrual Cup among high School girls, paired 't' test was used. In order to test the statistical significances between the pre-test and post-test level of knowledge score, the following null hypothesis was formulated:

H_{01} (Null Hypothesis 1): The mean post-test level of knowledge score will not be significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

Table 4.3 : Comparison of pre-test and post-test level of knowledge score regarding Menstrual Cup among high School girls

(N=30)

Sl .No	Assessment	Mean	Mean Difference	Standard deviation	Calculated 't' Value	df	Critical 't' Value
1.	Pre-test	14.5	7.5	3.32	13.53	29	2.05
2.	Post-test	22		1.20			

*Significance at 0.05 level

The data presented in the table 4.3 shows that the mean post-test level of knowledge score 22 was higher than the pre-test knowledge score14.5. The calculated 't' value 13.53 was greater than the table value (2.05) at 0.05 level of significance. Hence the null hypothesis H_{01} was rejected and the research hypothesis was accepted.

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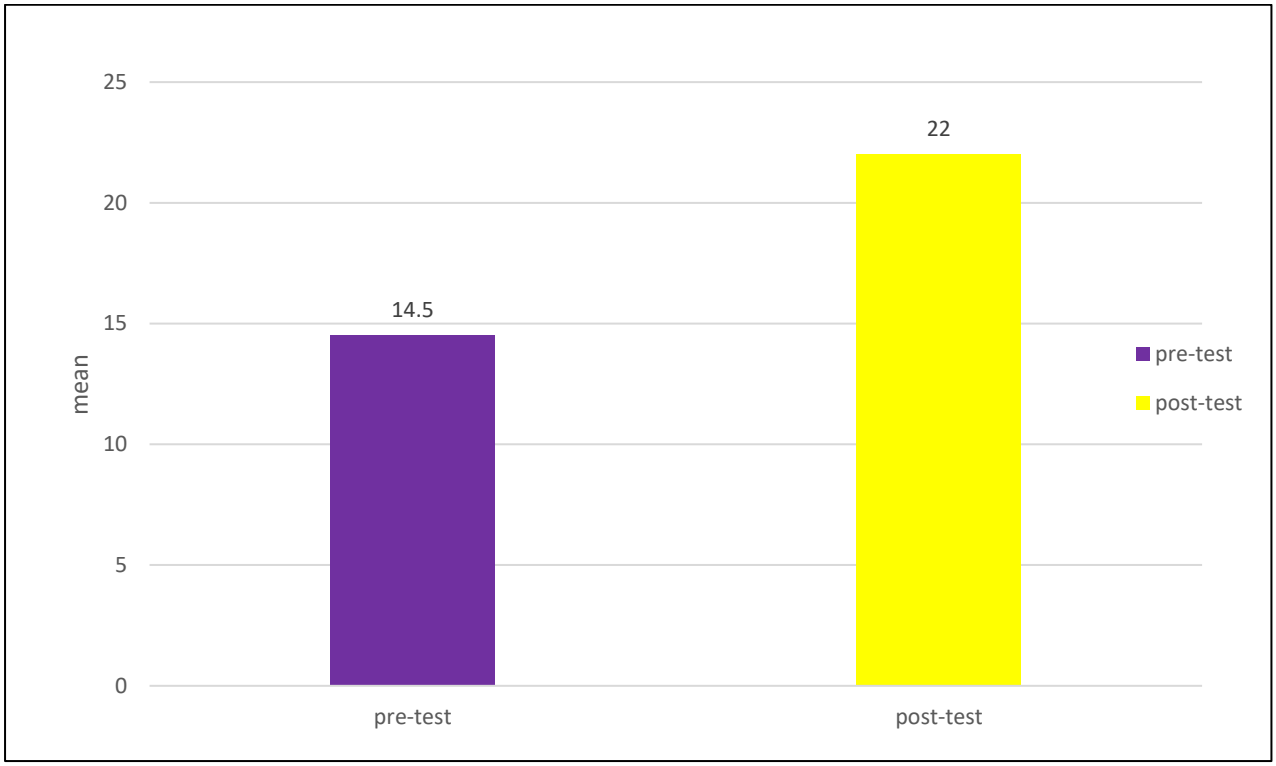
FIGURE 4. 12: DISTRIBUTION OF SAMPLES BASED ON THEIR OVERALL LEVEL OF KNOWLEDGE



The data presented in figure 4.12 shows that the mean post-test knowledge score (22) was higher than the pre-test knowledge score(14.5).

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4.5.4 SECTION –D: Association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables

This section deals with the association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables. Association of pre-test knowledge score with selected variables was determined using chi-square test.

Table 4.4: Association between pretest level of knowledge score with their selected variables

(N=30)

Sl No.	Selected variables	Calculated Chi-square value (X^2)	Degree of freedom (df)	Table chi-square value (X^2)	Level of significance	Inference
1	Age	17.163	4	9.49	P<0.05	*
2	Type of family	0.311	2	5.99	P>0.05	NS
3	Residence	1.395	2	5.99	P>0.05	NS
4	Religion	8.02	2	5.99	P<0.05	*
5	Family monthly income	10.75	6	12.59	P>0.05	NS
6	Attainment of menarche	1.449	2	5.99	P>0.05	NS
7	Type of feminine products used during menstruation	1.393	2	5.99	P>0.05	NS

*Significant NS: Not significant

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The data presented in the table 4.4 depicts that there was a significant association between ages the high School girls with the pre-test level of knowledge score as calculated chi-square value (χ^2 =17.163) was more than the table value (9.49) at 0.05 level of significance. Similarly there was a significant association between the pre-test knowledge score and religion as calculated chi-square value (8.02) was more than the table value (5.99) at 0.05 level of significance. So null hypothesis H_{02} is rejected for these variables and research hypothesis H_2 was accepted. However no significant association was found between type of family, residence, family monthly income, attainment of menarche, type of feminine product used during menstruation and the pre-test level of knowledge score. Hence the null hypothesis was accepted for these variables.

4.6 SUMMARY

In summary, when knowledge is made simple, understanding becomes powerful."

— Einstein

The study aimed to assess the effectiveness of a Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at Kannur. A total of 30 girls participated, most of whom were 13 years old, from nuclear families, and lived in rural areas. Before the teaching session, the majority had only moderately adequate knowledge about the Menstrual Cup. After the programme, all participants showed adequate knowledge, indicating a significant improvement. The statistical analysis confirmed the effectiveness of the teaching with a high t-value. A significant association was found between the pre-test knowledge and variables like age and religion, while no association was observed with other selected variables such as type of family, residence, family monthly income, attainment of menarche, type of feminine product used during menstruation. The study concluded that structured teaching is an effective way to improve awareness about Menstrual Cups among high School girls.

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CHAPTER -5

RESULTS

SL.NO	TITLE	PAGE NO.
5.1	INTRODUCTION	
5.2	OBJECTIVES OF THE STUDY	
5.3	HYPOTHESIS	
5.4	METHODS AND TECHNIQUES	
5.5	TOOLS	
5.6	RESULTS	
5.7	CONCLUSION	

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CHAPTER 5

RESULTS

The goal of education is not only to increase knowledge, but to create change.

— John Dewey

5.1 INTRODUCTION

This chapter presents the results of the study conducted to assess the effectiveness of a Structured Teaching Programme on knowledge about the Menstrual Cup among high School girls in a selected School at Kannur. The data was collected from 30 students using a questionnaire before and after the teaching session. The findings are shown in connection with the study's objectives and hypotheses. The results clearly show that the Structured Teaching Programme helped improve the students' knowledge about the Menstrual Cup.

5.2 OBJECTIVES OF THE STUDY

1. To assess the pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls at selected School at Kannur

2. To evaluate the effectiveness of Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls at selected School at Kannur

3. To find the association between the pre-test level of knowledge regarding Menstrual Cup among high School girls with their selected variables.

5.3 HYPOTHESIS

H_{01} (Null Hypothesis 1): The mean post-test level of knowledge score will not be significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_{02} (Null Hypothesis 2): There is no significant association between the pre-test levels of knowledge score regarding Menstrual Cup among high School girls at selected School at Kannur with their selected variables.

H_1 (Alternative Hypothesis 1): The mean post-test level of knowledge score is significantly higher than the mean pre-test level of knowledge scores regarding Menstrual Cup among high School girls at selected School, at Kannur

H_2 (Alternative Hypothesis 2): There is a significant association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables.

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5.4 METHODS AND TECHNIQUES

This study focused on improving knowledge about the Menstrual Cup among high School girls. Based on the review of literature, the investigator planned the study, selected the design, and prepared the questionnaire. A quantitative pre-experimental design with a one-group pre-test and post-test method was used. A total of 30 high School girls from a selected School at Kannur were chosen using the simple random sampling technique, based on specific inclusion and exclusion criteria. A Structured Teaching Programme was conducted to enhance their knowledge about the Menstrual Cup.

5.5 TOOL

The researcher developed a structured questionnaire to assess knowledge about the Menstrual Cup. The tool included two sections:

Section A: This section consisted of selected variables, which included questions on age, type of family, residence, religion, monthly income, attainment of menarche, and type of menstrual product used.

Section B: This section contained a structured knowledge questionnaire with 24 multiple-choice questions related to the Menstrual Cup. It was used to assess the level of knowledge before and after the Structured Teaching Programme.

5.6 RESULTS

5.6.1 Results related to distribution of high School girls based on their selected variables

This section deals with the distribution of high School girls based on their selected variables.it was analysed by frequency distribution and percentage method.

- A majority of the participants were 13 years old (83%), followed by 12 years (10%) and 14 years (7%).
- Most of the respondents came from nuclear families (77%), while the remaining (23%) were from joint families.
- A larger portion of the students resided in rural areas (63%), whereas 37% were from urban settings.
- The majority belonged to the Hindu community (87%), with a smaller portion (13%) from the Muslim community.
- In terms of monthly family income, 20% reported less than Rs10,000 , 37% had between Rs10,000-20,000, 30% between Rs21,000-30,000, and 13% above Rs30,000.
- More than half of the participants (63%) had attained menarche, while 37% had not.
- Regarding menstrual product use, 63% used sanitary pads, and 37% did not use any product. None reported using cloth or Menstrual Cups.

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5.6.2 Results related to assessment of knowledge regarding Menstrual Cup among high School girls through structured knowledge questionnaire.

The knowledge level of high School girls regarding Menstrual Cup was assessed before and after the Structured Teaching Programme using a structured questionnaire.

- Before the intervention, only 27% of participants had adequate knowledge, while 70% had moderately adequate knowledge and 3% had inadequate knowledge.
- After the Structured Teaching Programme, all participants (100%) demonstrated adequate knowledge about the Menstrual Cup.

5.6.3 Result related to effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls

The effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls was evaluated using a pre-test and post-test comparison.

- The mean post-test knowledge score (22) was significantly higher than the mean pre-test score (14.5).
- The calculated t value (13.525) was greater than the table value (2.05) at the 0.05 level of significance.
- This indicates a statistically significant improvement in knowledge after the Structured Teaching Programme.
- Hence, the null hypothesis was rejected, and the research hypothesis was accepted.
- The Structured Teaching Programme was effective in improving the knowledge of high School girls regarding Menstrual Cup.

5.6.4 Results related to association between the pre-test level of knowledge score with their selected variables

This section deals with the association between the pre-test level of knowledge score regarding Menstrual Cup among high School girls with their selected variables. Association of pre-test knowledge score with selected variables was determined using chi-square test.

- There was a significant association between age of the high School girls and the pre-test level of knowledge score.
- The calculated chi-square value was 17.163, which was greater than the table value (9.49) at 0.05 level of significance.
- Hence, the null hypothesis (H02) was rejected and the research hypothesis (H2) was accepted for this variable.
- There was a significant association between religion and the pre-test knowledge score.
- The calculated chi-square value was 8.02, which was greater than the table value (5.99) at 0.05 level of significance.
- Hence, the null hypothesis (H02) was rejected and the research hypothesis (H2) was accepted for this variable.
- No significant association was found between the pre-test knowledge score and variables such as type of family, area of residence, monthly family income, attainment

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of menarche, and type of feminine product used. Therefore, the null hypothesis was accepted and the research hypothesis was rejected for these variables.

5.7 CONCLUSION

The first two objectives, to assess the knowledge level before and after the Structured Teaching Programme and to evaluate its effectiveness, were achieved through pre-test and post-test assessments. The third objective, to find the association between pre-test knowledge and selected variables, was analyzed using the chi-square test at a 0.05 level of significance. The results showed a significant association between knowledge and the variables age and religion. Therefore, the research hypothesis was accepted for these two factors. For other variables such as type of family, area of residence, family monthly income, attainment of menarche, and type of feminine product used during menstruation , there was no significant association. This means these variables did not affect the pre-test knowledge score regarding Menstrual Cup.

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CHAPTER 6

DISCUSSION, SUMMARY AND CONCLUSION

SL.NO	TITLE	PAGE NO.
6.1	DISCUSSION	
6.2	SUMMARY	
6.3	CONCLUSION	
6.4	IMPLICATION OF THE STUDY	
6.5	LIMITATION OF THE STUDY	
6.6	RECOMMENDATION	

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CHAPTER 6

DISCUSSION, SUMMARY AND CONCLUSION

"Research is creating new knowledge. But true understanding comes in reflecting on what it means.

– Anonymous

6.1 DISCUSSION

The Menstrual Cup represents a revolutionary, sustainable, and cost-effective alternative in menstrual hygiene management. Despite its numerous benefits, awareness and acceptance among high School girls remain limited due to a lack of knowledge and prevailing taboos. Empowering adolescents through targeted education is essential to bridging this gap. The present study was undertaken to evaluate the effectiveness of a Structured Teaching Programme in enhancing knowledge about the Menstrual Cup among high School girls in a selected School at Kannur. This chapter encapsulates the findings of the study, aligns them with the set objectives, and contextualizes the outcomes with existing research in the field.

6.1.1 To assess the pre-test and post-test level of knowledge regarding Menstrual Cup among high School girls

At the inception of the study, it was apparent that the level of understanding among the participants regarding Menstrual Cup was moderate at best and insufficient at worst. The pre-test data revealed that only 27% of the student's possessed adequate knowledge, while a majority 70% fell into the category of moderately adequate knowledge, and 3% exhibited inadequate knowledge. This distribution underscores a concerning knowledge gap among adolescent girls on a subject fundamental to their health and well-being. However, the post-test findings following the Structured Teaching Programme were nothing short of transformational. A full 100% of the students achieved adequate knowledge in the post-test, eliminating the categories of inadequate and moderate understanding entirely. Such an absolute improvement is not merely indicative of effective content delivery, but a testament to the power of structured, contextually appropriate health education.

The magnitude of this transformation is corroborated by several prior studies, a study conducted in Nashik showed a significant post-test increase in knowledge levels from 25% to 66%, statistically validated with a p-value less than 0.00001. In a separate study conducted among Nursing students in Karnataka, pre-intervention knowledge was alarmingly low at 9.4%, which rose to 63.18% after educational input. Both studies demonstrate that structured teaching holds immense potential in bridging the menstrual knowledge gap, but our study sets a new benchmark by achieving universal knowledge adequacy. This unparalleled result can be attributed to the cultural sensitivity, clarity, and reliability embedded within the Structured Teaching Programme, tailored specifically for high School girls in the regional context of Kannur

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6.1.2 To evaluate the effectiveness of the Structured Teaching Programme on knowledge regarding Menstrual Cup

The effectiveness of the Structured Teaching Programme was clearly proven by the statistical results. The average knowledge score before the intervention was 14.5, which increased to 22 after the teaching session. This gives a mean difference of 7.5, showing a strong improvement in the students' knowledge levels. The paired t-test value of 13.53, which is statistically significant at $p < 0.05$, confirms that this improvement did not happen by chance, but as a direct result of the teaching programme. This significant gain highlights that the students not only gained factual information but also developed a better understanding and positive attitude towards the Menstrual Cup. They moved from uncertainty and limited knowledge to informed awareness, which is an important step in making better menstrual health choices.

Similar studies also support this finding. For instance, in Gujarat, a teaching programme increased knowledge scores from 4.95 to 17.15. Another study in Kerala found that 66.7% of participants had a positive change in attitude after being educated about the Menstrual Cup. However, our study stands out due to its particularly strong improvement, both in terms of knowledge scores and the effectiveness of the intervention. This proves that well-planned, age-appropriate, and culturally sensitive health education can have a major impact on high School girl’s awareness and decision-making.

6.1.3. To find the association between pre-test knowledge levels and selected variables

To understand whether certain personal characteristics were linked to the students’ knowledge about the Menstrual Cup before the teaching session, a Chi-square test was used.

The results showed that age had a significant relationship with the pre-test knowledge scores. The calculated Chi-square value for age was 17.163, which is higher than the table value of 9.49 at the 0.05 level of significance. This means that age influenced how much the students already knew about the Menstrual Cup. Religion also had a significant association with knowledge. The Chi-square value was 8.02, which is more than the table value of 5.99 at the 0.05 significance level. This suggests that religious background may affect students’ awareness or attitudes toward the Menstrual Cup. However, other variables such as type of family, residence, family monthly income, attainment of menarche, and type of menstrual product used did not show any significant relationship with pre-test knowledge. Their calculated Chi-square values were lower than the required table values, meaning that these factors did not affect the level of knowledge before the teaching programme.

These findings are supported by a similar study conducted in a corporation School in Coimbatore, which found that age and education were significantly linked to knowledge about iron and folic acid deficiency anemia. The results of both studies highlight the importance of age and possibly cultural background in determining what adolescents know about health topics like menstrual hygiene and the Menstrual Cup. Therefore, the study concluded that age and religion were significantly associated with pre-test knowledge, while the other variables were not.

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6.2 SUMMARY

The present study was conducted to assess the effectiveness of a Structured Teaching Programme on knowledge regarding Menstrual Cup among high School girls in Kannur district.

A quantitative research approach was used, and the study followed a quasi-experimental one group pre-test post-test design. The dependent variable was the knowledge level of high School girls regarding Menstrual Cup, and the independent variable was the Structured Teaching Programme. A structured knowledge questionnaire consisting of 24 questions was used as the data collection tool. The tool was developed based on literature review, expert consultation, preparation of blueprint, construction of items, content validation, pretesting, and testing for reliability. The reliability coefficient of the structured knowledge questionnaire was found to be 0.93, indicating high reliability.

The conceptual framework for the study was based on the modified Pender's Health Promotion Model.

A pilot study was conducted at CHM Higher Secondary School, Elayavoor, in June 5, 2025 with a sample of 6 high School girls. The pilot helped to test the feasibility and clarity of the tool and method. No major modifications were required after the pilot.

The main study was carried out at Anjarakandy Higher Secondary School, Kannur, on June 11 2025 with 30 high School girls selected using simple random sampling technique. During the main study, pre-test knowledge was assessed first. This was followed by a structured teaching session on the Menstrual Cup on the same day. A post-test was conducted on June 17 2025, 6th day using the same questionnaire. The results showed that in the pre-test, 27 % of participants had adequate knowledge, 70% had moderately adequate knowledge, and 3% had inadequate knowledge. In the post-test, 100% of participants demonstrated adequate knowledge. Statistical analysis revealed a significant increase in the post-test knowledge scores compared to the pre-test, indicating the effectiveness of the Structured Teaching Programme. There was also a significant association between the pre-test knowledge levels and selected variables such as age and religion.

The study concluded that the Structured Teaching Programme was highly effective in improving knowledge about the Menstrual Cup among high School girls. The findings emphasize the importance of including menstrual health education in School settings to promote awareness and acceptance of safe, sustainable menstrual hygiene options like Menstrual Cup.

6.2.1 Distribution of Samples Based on Selected variables

1. Majority (83%) of the adolescent girls were 13 years old, followed by 10% who were 12 years old and 7% who were 14 years old.

2. Most of the adolescent girls (77%) belonged to nuclear families, while 23% were from joint families, with none from extended or other family types.

3. A majority of the participants (63%) were from rural areas, while 37% resided in urban locations.

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4. Most girls followed the Hindu religion (87%), followed by 13% who were Muslim, with no representation from Christian or other religions.

5. Regarding monthly family income, 20% had income less than Rs10,000, 37% between Rs.10,000– 20,000, 30% between Rs 21,000–30,000, and 13% above Rs 30,000.

6. 63% of the girls had attained menarche, whereas 37% had not yet attained menarche.

7. Among those who had attained menarche, 100% used sanitary pads, and none used cloth or Menstrual Cups, while 37% of the total sample were not applicable for this category.

6.2.3 Major findings of the study

- Knowledge of 30 samples was assessed. In the pre-test, 27% of the participants had adequate knowledge, 70% had moderately adequate knowledge, and 3% had inadequate knowledge regarding Menstrual Cup. After administering the Structured Teaching Programme, post-test results showed that 100% of the participants had adequate knowledge. These findings indicate a significant gain in knowledge after the Structured Teaching Programme.
- To find the significant difference between the mean pre-test and post-test knowledge scores, a paired't' test was used. The mean post-test knowledge score was 22, which was higher than the pre-test score of 14.5. The calculated't' value was 13.525, which was greater than the table value at the 0.05 level of significance. Hence, the research hypothesis H_1 was accepted. Therefore, the Structured Teaching Programme was found to be effective in improving knowledge regarding Menstrual Cup among high School girls.
- Association between pre-test knowledge and selected variables showed that there was a significant association between age and religion with pre-test knowledge level, as the calculated chi-square values were greater than the table value at the 0.05 level of significance. Therefore, the research hypothesis H_2 was accepted. There was no significant association between other selected variables such as type of family, monthly family income, area of residence, attainment of menarche, type of menstrual product used during menstruation and the level of knowledge regarding Menstrual Cup.

6.3 CONCLUSION

The main aim of the study was to assess the knowledge of high School girls regarding Menstrual Cup and to improve their awareness through a Structured Teaching Programme. The educational session provided clear information about the use of the Menstrual Cup, its advantages, safety, hygiene, and helped in clarifying common myths and doubts.

The following conclusions were drawn based on the findings of the study:

1. In the pre-test, most high School girls had moderately adequate or inadequate knowledge about the Menstrual Cup. After the Structured Teaching Programme, 100% of the participants showed adequate knowledge, which indicates that there was a remarkable improvement in their awareness.

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2. There was a significant association between the pre-test knowledge scores and selected variables such as age and religion. These factors had an influence on the girls' level of knowledge before the teaching was given.

3. The Structured Teaching Programme was found to be an effective and useful method for improving the knowledge of high School girls regarding Menstrual Cup. It helped to promote correct menstrual hygiene practices, addressed misconceptions, and encouraged acceptance of eco-friendly menstrual products.

6.4 IMPLICATIONS OF THE STUDY

The implications of the study are discussed under the following categories

- Nursing practice
- Nursing education
- Nursing administration
- Nursing research

6.4.1 Nursing Practice

- Nurses can educate high School girls specifically about Menstrual Cups.
- The teaching plan used in this study can serve as a guide for nurses in Schools.
- Nurses can help clear doubts and remove fears about inserting or using the Menstrual Cup.
- Health workers can introduce Menstrual Cups during School health checkups or awareness days.

6.4.2 Nursing Education

- Nursing students should be trained to talk confidently about Menstrual Cups.
- Teaching methods like models, videos, and group discussions can be used in Nursing education.
- Menstrual Cup education should be part of Nursing curriculum under adolescent health or reproductive health topics.

6.4.3 Nursing Administration

- Nursing supervisors can arrange Menstrual Cup awareness programs in Schools.
- School health nurses should be given resources to teach about Menstrual Cups.
- Administrative support can help include Menstrual Cup education in School health policies.

6.4.4 Nursing Research

- Future research can explore the long-term use and acceptance of Menstrual Cups by adolescent girls.
- Comparative studies can be done between Menstrual Cups and other menstrual products.
- Research can also focus on barriers, myths, and cultural beliefs around Menstrual Cups.

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6.4.5 General Education

- Menstrual Cup education should be introduced in School life-skills or health education classes.
- Awareness materials such as posters, leaflets, and videos about Menstrual Cups can be shared in Schools.
- Guardians and teachers should also be given basic knowledge to support girls in trying Menstrual Cups confidentiality

6.5 LIMITATIONS OF THE STUDY

- The study was limited to 8th standard high School girls in a selected School at Kannur.
- The sample size was small (only 30 students).
- The study was conducted only in one School, so the findings cannot be generalized.
- There was no control group used for comparison.
- The study focused only on knowledge, not on attitude or practice.

6.6 RECOMMENDATIONS

- A similar study can be repeated with a larger sample and in different School settings.
- Comparative studies can be conducted between rural and urban School students.
- Future research can include both attitude and practice, not just knowledge.
- A follow-up study can assess whether students begin using Menstrual Cups after education.
- Similar educational programmes can be provided to guardians and teachers.
- More awareness programmes can be organized at Schools and in the community

Summary

This chapter described the study's limitations and suggested areas for future research. The study showed that a Structured Teaching Programme was effective in improving knowledge about the Menstrual Cup among 8th standard high School girls. Further studies in varied settings can help promote Menstrual Cup awareness and acceptance more widely.

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ANNEXURES

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APPENDEX A

C ERTIFICATION OF APPROVAL

SCIENTIFIC RESEARCH COMMITTEE
KANNUR MEDICAL COLLEGE
ANJARAKANDY, KANNUR, KERALA

CERTIFICATE OF APPROVAL

No . KMCSRC/ 09/2025 **Date: 02 June 2025**

This is to certify that the study titled **EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING MENSTRUAL CUP AMONG HIGH SCHOOL GIRLS AT SELECTED SCHOOL AT KANNUR** was reviewed by the Scientific Research Committee, Kannur Medical College, Anjarakandy on 30 May 2025 and was approved on 02 June 2025.

Secretary
DR-SHARMILA-K

Chairman

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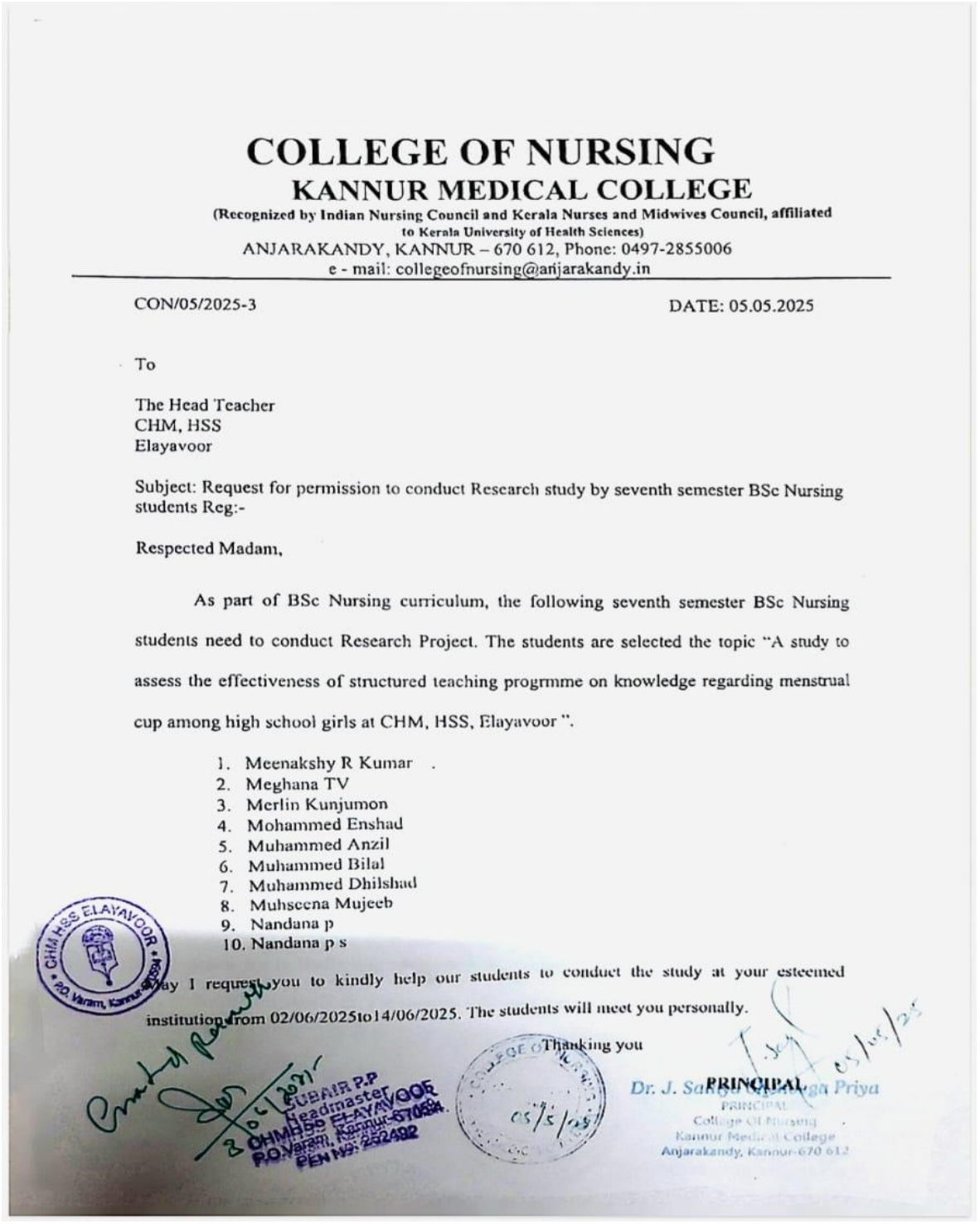
APPENDEX B

LETTER GRANTING PERMISSION TO CONDUCT RESEARCH STUDY



COLLEGE OF NURSING
KANNUR MEDICAL COLLEGE
(Recognized by Indian Nursing Council and Kerala Nurses and Midwives Council, affiliated to Kerala University of Health Sciences)
ANJARAKANDY, KANNUR – 670 612, Phone: 0497-2855006
e - mail: collegeofnursing@anjarakandy.in

CON/05/2025-3 DATE: 05.05.2025

To

The Head Teacher
CHM, HSS
Elayavoor

Subject: Request for permission to conduct Research study by seventh semester BSc Nursing students Reg:-

Respected Madam,

As part of BSc Nursing curriculum, the following seventh semester BSc Nursing students need to conduct Research Project. The students are selected the topic "A study to assess the effectiveness of structured teaching progrmme on knowledge regarding menstrual cup among high school girls at CHM, HSS, Elayavoor ".

1. Meenakshy R Kumar
2. Meghana TV
3. Merlin Kunjumon
4. Mohammed Enshad
5. Muhammed Anzil
6. Muhammed Bilal
7. Muhammed Dhilshad
8. Muhseena Mujeeb
9. Nandana p
10. Nandana p s

May I request you to kindly help our students to conduct the study at your esteemed institution from 02/06/2025to14/06/2025. The students will meet you personally.

Thanking you

PRINCIPAL
Dr. J. Sa... Priya
PRINCIPAL
College Of Nursing
Kannur Medical College
Anjarakandy, Kannur-670 612

CHM HSS ELAYAVOOR P.O. Varam, Kannur-670594

SUBAIR P.P
Headmaster
CHMHSS ELAYAVOOR
P.O.Varam, Kannur-670594
PEN NO: 252492

COLLEGE OF NURSING
KANNUR MEDICAL COLLEGE

(Recognized by Indian Nursing Council and Kerala Nurses and Midwives Council, affiliated to Kerala University of Health Sciences)
ANJARAKANDY, KANNUR – 670 612, Phone: 0497-2855006
e - mail: collegeofnursing@anjarakandy.in

CON/05/2025-1 DATE: 03.05.2025

To

The Head Teacher
Anjarakandy Higher Secondary School
Anjarakandy

Subject: Request for permission to conduct Research study by seventh semester BSc Nursing students Reg:-

Respected Madam,

As part of BSc Nursing curriculum, the following seventh semester BSc Nursing students need to conduct Research Project. The students are selected the topic "A study to assess the effectiveness of structured teaching progrmmes on knowledge regarding menstrual cup among high school girls at Anjarakandy Higher Secondary school ".

1. Meenakshy R Kumar
2. Meghana TV
3. Merlin Kunjumon
4. Mohammed Enshad
5. Muhammed Anzil
6. Muhammed Bilal
7. Muhammed Dhilshad
8. Muhseena Mujeeb
9. Nandana p
10. Nandana p s

May I request you to kindly help our students to conduct the study at your esteemed institution from 02/06/2025to14/06/2025. The students will meet you personally.

Permitted.
03/05/2025
SALIM. T.K
HEADMASTER
Anjarakandy Higher Secondary Sch...
(P.O.) Mamba - 670611, Kannur (Dist.)

ANJARAKANDY HIGHER SECONDARY SCHOOL
P.O. MAMBA
PIN: 670611
KANNUR DISTRICT

Thanking you

COLLEGE OF NURSING
KANNUR MEDICAL COLLEGE
03/5/2025

03/05/2025
PRINCIPAL
Dr. J. Sathya Shenbega Priya
PRINCIPAL
College Of Nursing
Kannur Medical College
Anjarakandy, Kannur-670 612

.

ANJARAKANDY HIGHER SECONDARY SCHOOL

KANNUR, MAMBA (PO), 670611, KANNUR DISTRICT

Email id: AnjarakandyHss@gmail.com

From

Head Master
Anjarakandy,HSS
Mamba (P.O)

To
The principal
College of Nursing
Kannur Medical College
Anjarakandy

Sub:- Permission to conduct research study on Menstrual Cup by seventh semester BSc. Nursing Students.

Respected Madam,

As per received letter from College of Nursing, Kannur Medical College , Anjarakandy , we permit the students mention in the letter to take class on 11/08/2025 and _____ related to the research study.

ANJARAKANDY HIGHER SECONDARY SCHOOL P.O. MAMBA PIN: 670611 KANNUR DISTRICT

Head Master
Anjarakandy HSS

SALIM. T.K
HEADMASTER
Anjarakandy Higher Secondary Sc
(P.O.) Mamba - 670611, Kannur (D

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ANNEXURE C

LETTER REQUESTING THE OPINION OF EXPERTS ON CONTENT VALIDITY OF THE TOOL

From,

Research group 4

VIIth semester BSc Nursing

College of Nursing, Kannur medical college

Respected Mam,

We VIlth Semester BSc Nursing students conducting a research program on the statement "A study to assess the effectiveness of structured teaching program on knowledge Regarding Menstrual Cup among high School girls at selected School at Kannur "on first Week of June by using a structured knowledge questionnaire as tool for the study.

We would like to get your valuable suggestion about the tool that was prepared by us.

Kindly go through our questionnaire and validate the tool."

Your's sincerely,

VIIth semester students

Group-4 of Research and statistics,

College of Nursing,

Kannur Medical College,

Place: Anjarakandy.

Date:

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ANNEXURE D

CERTIFICATION OF VALIDATION

I_____ hereby certify that I have validated the tool of 7th Semester BSc Nursing – Group 4, who is undertaking the following study:

Title of the Study:

"A study to assess the effectiveness of Structured Teaching Programme on Knowledge regarding Menstrual Cup among high School girls at selected School at Kannur."

Place

Date

Name of the expert

Signature

Designation and seal

.

ANNEXURE E

LIST OF EXPERT FOR CONTENT VALIDITY

SL.NO	NAME	DESIGNATION
1.	Dr. Aswathy Ashok	Asst.prof , MS Dept of OBG Kannur Medical College, Anjarakandy
2.	Dr. Sathya Shenbega Priya	Principal College of Nursing Kannur Medical College, Anjarakandy
3	Mrs Simi K	Asst.prof Dept of OBG Nursing Dhanalakshmi , College of Nursing Kannur
4	Mrs Lakshmi K	Assoc. prof Department of OBG Nursing E.S College of Nursing,Villupuram
5	Mrs Neethuna K K	Senior Lecturer Department of OBG Nursing A K G Memorial Co Operative College of Nursing,Kannur
6	Mrs Aswathi SN	Asst. Prof Department of OBG Nursing Canossa College of Nursing
7	Ms Chaithanya	Statistician Dept. Community Medicine Kannur Medical College

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ANNEXURE F

INFORMED CONSENT FORM IN ENGLISH

I, Mr/Mrs_____, as the father/mother/guardian of_____, who is studying in Class VIII, hereby give my full consent for my daughter to participate, with the permission of the Headmaster/Headmistress, in the awareness class on “Menstrual Cup” conducted by the 7th semester B.Sc. Nursing students of College of Nursing, Kannur Medical College, aimed at increasing awareness about menstrual cups among high school students. I also give consent for her to participate in the subsequent questionnaire.

Name:

Signature:

Date:

Phone Number:

.

ANNEXURE G

INFORMED CONSENT FORM IN MALAYALAM

<u>സമ്മതപത്രം</u>

ഞാൻ, ശ്രീ./ശ്രീമതി _____, എട്ടാം ക്ലാസ്സിൽ പഠിക്കുന്ന വിദ്യാർത്ഥിനിയായ _____യുടെ അച്ഛൻ/അമ്മ/ഗാർഡിയൻ എന്ന നിലയിൽ, ഹൈസ്കൂൾ വിദ്യാർത്ഥിനികളിൽ മെൻസ്ട്രുയൽ കപ്പ് സംബന്ധിച്ച അറിവ് വർധിപ്പിക്കുന്നതിനായി കോളേജ് ഓഫ് നേഴ്സിംഗ്, കണ്ണൂർ മെഡിക്കൽ കോളേജ് ഏഴാം സെമസ്റ്റർ ബി.എസ്.സി നഴ്സിംഗ് വിദ്യാർത്ഥികൾ നടത്തുന്ന "മെൻസ്ട്രുയൽ കപ്പി"നെ കുറിച്ചുള്ള ബോധവൽക്കരണ ക്ലാസ്സിൽ പങ്കെടുക്കുന്നതിനും, തുടർന്നുള്ള ചോദ്യാവലിയിൽ പങ്കെടുക്കുന്നതിനും, ഹെഡ്മാസ്റ്റർ/ഹെഡ്മിസ്ട്രസിന്റെ അനുമതിയോടെ പങ്കാളിയാകുന്നതിന് എനിക്ക് പൂർണ്ണ സമ്മതമാണെന്നു അറിയിച്ചുകൊള്ളുന്നു.

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ANNEXURE H

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SECTION A: Structured questionnaire on demographic and menstrual history about high school girls

INSTRUCTIONS
Read all the questions carefully and put ☑ tick mark on the appropriate one in the space provided

- *Don't give more than one answer for a question*
- *Respond to all questions*
- *Your response will kept confidential*

1) Age in years
   a) ☐12 years
   b) ☐ 13 years
   c) ☐ 14 years

2) Type of family
   a) ☐Nuclear family
   b) ☐joint family
   c) ☐Extended family
   d) ☐Other

3) Residence
   a) ☐Urban
   b) ☐Rural

4) Religion
   a) ☐Hindu
   b) ☐Muslim
   c) ☐Christian
   d) ☐Others

5) Family Monthly income
   a) ☐<10000/-
   b) ☐10'000 - 20,000/-
   c) ☐21,000 - 30,000/-
   d) ☐> 30000/-

6) Did you attain menarche
   a) ☐yes
   b) ☐no

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SECTION -2 Structured Knowledge Questionnaire on knowledge regarding the Menstrual Cup among high school girls

General instructions:

**Put tick mark on the appropriate answer*

**Read all questions carefully*

**Do not give more than one answer for a question*

**Each right answer carriers 1 mark and wrong answer carriers 0 mark*

**Try to respond to all question*

1) What is menstruation?

a) ☐ The process of egg fertilization in females
b) ☐ The monthly shedding of uterine lining in females
c) ☐ The development of placenta in females
d) ☐ A disease that need immediate treatment

2) What is a Menstrual Cup?

a) ☐ A sanitary napkin
b) ☐ A reusable device used to collect menstrual blood
c) ☐ A disposable pad
d) ☐ A medicine

3) What material is usually used to make a Menstrual Cup?

a) ☐ Plastic
b) ☐ Silicon &Rubber
c) ☐ Cotton
d) ☐ Metal

4) What are the different size of Menstrual cup available?

a) ☐M, L, XL
b) ☐ Small, Medium, Large
c) ☐ L,XL,XXL
d) ☐ XS, XL, XXL

5) What is the typical holding capacity of a small-sized(S) Menstrual Cup?

a) ☐ 10-15 ml
b) ☐ 20-25 ml
c) ☐ 30-35 ml
d) ☐ 40-45 ml

6) Which of the following factors does not depend on the size of the Menstrual Cup?

a) ☐ Age
b) ☐ Menstrual flow
c) ☐ Length of the cervix
d) ☐ Color of the cup

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7) Where is Menstrual Cup placed in the body?
a) ☐ Urethra
b) ☐ Rectum
c) ☐ Stomach
d) ☐ Vagina

8) Which of the following is the recommended methods for inserting Menstrual Cup?
a) ☐ Fold and insert
b) ☐ Crush and insert
c) ☐ Roll and push
d) ☐ Pull and push

9) Which of the following is not a correct method of folding a Menstrual Cup for insertion?
a) ☐ C-fold
b) ☐ Punch down fold
c) ☐ 7-fold
d) ☐ Twist and push fold

10) When should a Menstrual Cup be emptied on average?
a) ☐ Every 2 hours
b) ☐ Every 4-12 hours
c) ☐ Every 24 hours
d) ☐ Only at night

11) What should you do if your Menstrual Cup starts leaking?
a) ☐ Leave it and wait
b) ☐ Take it out ,clean it and put it back
c) ☐ Reinsert it without cleaning
d) ☐ Switch to a bigger size

12) What should you with a Menstrual Cup during urination?
a) ☐ Remove it
b) ☐ Leave it in
c) ☐ Adjust it
d) ☐ Clean it

13) Which part of the Menstrual Cup helps with easy removal?
a) ☐ The rim at the top
b) ☐ The soft body of the cup
c) ☐ The stem at the bottom
d) ☐ The suction holes around the cup

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14) Which of the following is not a comfortable position to remove a menstrual cup ?
a) ☐ Squatting
b) ☐ Sitting on the toilet
c) ☐ Standing with one leg on a raised surface
d) ☐ Lying flat on your back

15) Which of the following is the correct way to dispose blood in Menstrual Cup?
a) ☒ Disposing along with household waste
b) ☐ Flushing in toilet
c) ☐ Throwing in dustbin
d) ☐ Pour it in sink

16) What is the best method to clean a Menstrual Cup when your periods begin?
a) ☐ Wiping it with a tissue
b) ☐ Washing it with scented soap
c) ☐ Boiling menstrual cup in water
d) ☐ Cleaning it with bleach

17) When should Menstrual Cup sterilized (boiling)?
a) ☐ Beginning and end of the cycle
b) ☐ Everyday
c) ☐ Alternate days
d) ☐ After each cycle

18) Where should a Menstrual Cup be stored?
a) ☐ A plastic bag
b) ☐ Bare tight container
c) ☐ Cotton pouch
d) ☐ Open space

19) How should a used Menstrual Cup be disposed of?
a) ☐ Throw it in a plastic recycling bin
b) ☐ Burn it
c) ☐ Flush it
d) ☐ Bury it

20) How long can a Menstrual Cup typically last if used properly?
a) ☐ 1 month
b) ☐ 6 month
c) ☐ 1-2 years
d) ☐ 5-10 years

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21) Which age group can use Menstrual Cup?
a) ☐ Only adults above 30
b) ☐ Only married women
c) ☐ Any menstruating person
d) ☐ Only athletes

22) What will happen if you insert Menstrual Cup incorrectly?
a) ☐ Improved comfort
b) ☐ Reduce leakage
c) ☐ Discomfort and leakage
d) ☐ It will stop periods

23) Which of the following is a benefit of using Menstrual Cup?
a) ☐ Single use
b) ☐ Save money and reusable
c) ☐ Expensive
d) ☐ Cause more leakage than pads

24) What is the risk if you share a Menstrual Cup?
a) ☐ Risk of uterine prolapse (uterus may fall)
b) ☐ Risk of infection
c) ☐ Risk of infertility
d) ☐ Risk of heavy flow

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ANSWER KEY FOR STRUCTURED KNOWLEDGE QUESTIONNAIRE

QUESTION NUMBER	CORRECT OPTION
1	b
2	b
3	b
4	b
5	a
6	d
7	d
8	a
9	d
10	b
11	b
12	b
13	c
14	d
15	b
16	c
17	a
18	c
19	a
20	d
21	c
22	c
23	b
24	b

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ANNEXURE I

STRUCTURED TEACHING PROGRAMME ON MENSTRUAL CUP

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Group : Research group 4

Course : Bsc Nursing 7th semester

Subject : Research- Obstetrics and Gynaecology Nursing

Topic : Menstrual cup

Method of teaching: Lecture cum discussion

Previous knowledge: Audience may have some knowledge regarding menstrual cup

Teaching aids: Slides , demonstration, charts, flashcards

Number of participants: 30

Name of evaluator: Ms. Jeyachitra S

Venue:
Time:
Date :
Duration: 45 minutes
Group: high school girls

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General objectives: At the end of the class the participants will be able to gain adequate knowledge regarding menstrual cup, its usage and demonstrate knowledge to proper usage and apply this knowledge in their daily lives with positive attitude.

***Specific objectives*:**

At the end of the class the participants will able to understand

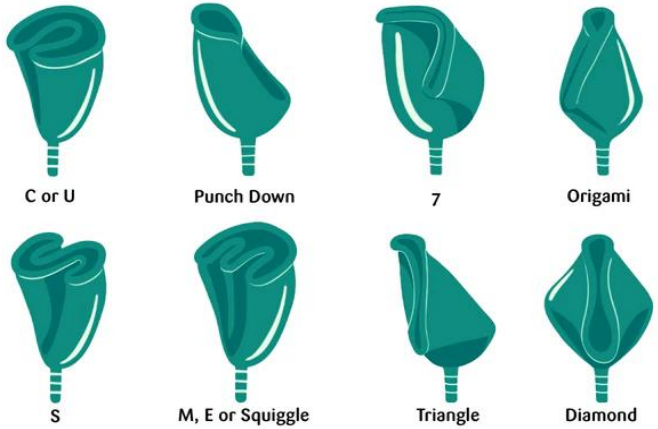
- define menstruation
- list the normal menstrual cycle
- define menstrual cup
- list the types and materials used in menstrual cup
- identify the factors to consider when selecting menstrual cup
- demonstrate the correct way to insert menstrual cup
- enlist the name and techniques of menstrual folding
- describe how to check proper placement after wearing
- state the typical duration of menstrual cup
- demonstrate the removal of menstrual cup
- describe the after care of menstrual cup
- differentiate between common myth and scientific fact of menstrual cup
- list the benefits of using menstrual cup
- list the disadvantages and management of menstrual cup
- identify the challenges between menstrual cup and sanitary pads
- estimate the cost of menstruation

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
1.	1min	introduce the topic	**INTRODUCTION** Dealing with periods can be a new and sometimes tricky experience for young girls. Most people use pads or tampons, but there is another option called a menstrual cup. A menstrual cup is a small, soft, reusable cup that collects the blood instead of absorbing it. It is safe, good for the environment, and can save money over time.	Lecturing	Listening	Slide	
2.	1min	define menstruation	**WHAT IS MENSTRUATION** .Menstruation is the monthly shedding of the lining inside a woman's uterus (womb). Blood and tissue come out through the vagina. This happens about every 28 days and is a normal part of growing up for girls and women, unless they are pregnant or have reached menopause.	Lecturing	Listening	Slide	What is menstruation?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
3.	1 minute	list the normal menstrual cycle	**NORMAL MENSTRUAL CYCLE** • The menstrual cycle happens every month in girls and women. • It is the body's way of preparing for a possible pregnancy. • If there is no pregnancy, the body releases blood through the vagina — this is called a period. • A period usually comes once a month. • The amount of blood lost is about 2 to 3 tablespoons (around 30 ml). • This is a normal and healthy part of growing up.	Lecture cum discussion	Listening and taking notes	Slide	What is normal menstrual cycle?
4	1minute	define menstrual cup	**MENSTRUAL CUP** • A menstrual cup is a small, soft cup made of silicone or rubber. • It is worn inside the body to collect period blood instead of absorbing it. • The cup can be taken out, emptied, washed, and used again. • It can be worn for up to 12 hours, depending on how heavy the flow is. • Menstrual cups are safe to use and can last for many years. • * They are also good for the environment because they reduce waste.	Lecture cum discussion	Listening and taking notes	Slide	What is menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
5	1 minute	list the type and material of menstrual cup	**TYPES AND MATERIAL** • Most menstrual cups are bell-shaped and soft. • They are usually made from medical-grade silicone, which is safe for the body. • Some are also made from latex or rubber, but these are less common. • Silicone menstrual cups can usually last 1 to 5 years if used properly. • Most menstrual cups are reusable, not made for one-time use	Lecture cum discussion	Listening	Slide	What are the type and material used for menstrual cup
6 .	5 minutes	identify the factors to consider when selecting the menstrual cup	**HOW TO CHOOSE A CUP** Menstrual cups come in three sizes: small, medium, and large. • Small (about 17 ml): Best for teenagers under 18 who are not married • Medium (about 25 ml): For those who have not given birth or had a C-section • Large (about 30 ml): For women who had a normal vaginal birth and are over 18	Lecturing	Listening	Slide	How to choose a cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
7.	2 minutes	demonstrate correct way to insert menstrual cup	 • Your age, • The length of your cervix, • Whether your menstrual flow is heavy or low, • The capacity of the cup, • The flexibility and firmness of the cup, • Your pelvic floor muscle's strength **HOW TO INSERT A MENSTRUAL CUP** 1. Wash your hands well with soap and water. 2. Wet the rim of the cup with clean water or a water-based lubricant (gel). 3. Fold the cup tightly in half and hold it in one hand. The open part (rim) should face up. 4. Gently insert the folded cup into your vagina. It should sit just below your cervix.	Demonstration	Re-demonstration	Slide	How to insert the menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
8.	3 minutes	enlist the name and techniques of menstrual cup folding	Positions: • Squatting • Standing with one leg on a chair or toilet • Sitting on the toilet with knees apart 5. After the cup is inside, slowly turn (rotate) it. This helps the cup open fully and form a seal, so there are no leaks. **CUP FOLDING TECHNIQUES**  	Demonstration	Re demonstration	Slide , real object	How to fold the cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
9.	3 Minutes	describe how to check proper placement after wearing?	**HOW TO CHECK AFTER WEARING** • After putting the cup inside, you may feel it open up. • Some people let it open first and then push it a little more inside. This helps stop leaking. • If the cup doesn't open, relax your muscles. • Use your finger to check if the cup has opened all around. • You can turn the cup a little to help it fit better. • The cup should stay lower than a tampon. • It should not touch your cervix (the small opening inside). • If the cup is placed properly, you won't feel it. It will be comfortable.	Lecturing	Listening	Slide	How to check after wearing?
10.	3 minutes	state the typical duration of menstrual cup	**WHEN TO REMOVE MENSTRUAL CUP** • You can wear a menstrual cup for up to 12 hours. • If your period flow is heavy, you may need to remove and empty it earlier. • It is safe to wear the cup at night, but make sure to remove it within 12 hours. • If the cup gets full or starts leaking, remove it, wash it with clean water, and put it back in. You can also check if the size fits you well. • When you urinate (pee), you do not need to remove the cup. You can leave it in.	Lecturing	Listening	Slide	When to remove menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION

11..	3 minutes	demonstrate removal of menstrual cup	**HOW TO TAKE MENSTRUAL CUP OUT**
			• First, wash your hands well with water and soap.
			• Find a comfortable position:
			  o You can stand,
			  o Sit on the toilet,
			  o Squat
			• Or keep one leg up on a chair or toilet.
			• Use your thumb and finger to feel the bottom of the cup (called the stem or knob).
			• Slide your fingers up and gently pinch the base of the cup.
			• Squeeze and tilt the cup a little to one side. This helps release the air and makes it easier to pull out.
			• Take the cup out slowly.
			• Pour the blood into the toilet.
			• Wash the cup with clean water or a cup wipe**.**
				Lecturing	Listening	Slide	How to remove menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
12.	1 minutes	describe the after care of menstrual cup	**HOW TO CLEAN MENSTRUAL CUP** **During your period**: • Wash the cup with clean water (hot or cold). • Use a special menstrual cup wipe with dry hands. • Rub the wipe on the cup to make soap bubbles (lather). • Rinse the cup well with water. **At the start and end of your period:** • Boil the cup in water for 20 minutes to clean it fully (sterilize). **If you are traveling or can't boil:** • Clean the cup well before using it again. **How to store the cup:** • After cleaning and drying, keep the cup in the cotton bag it came with. • Do not keep it in plastic bags or closed containers **How to throw away the cup:** • A menstrual cup can last 1 to 10 years if you take good care of it. • When you need to replace it, throw the old cup away carefully. • If your cup can be recycled, put it in the plastic recycling bin.	Lecturing	Listening	Slide	How to take care of menstrual cup?

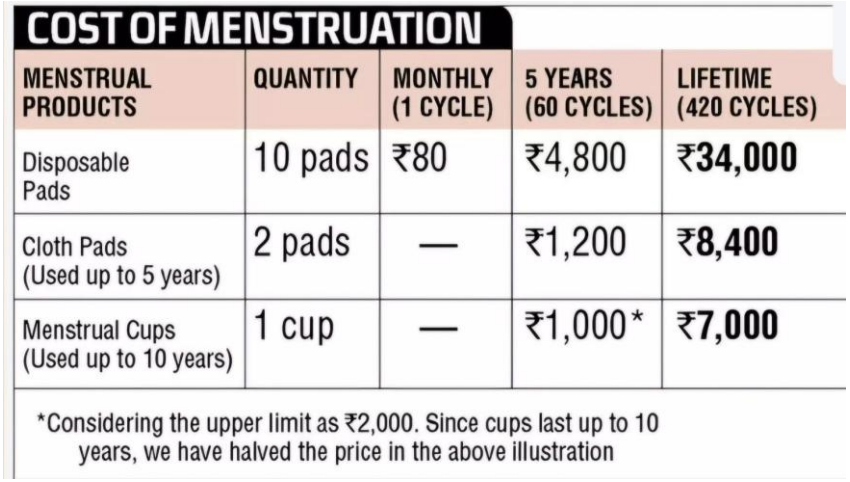
SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
13	2 minutes	differentiate between common myth and scientific facts of menstrual cup	**MYTHS AND FEAR ABOUT MENSTRUAL CUP** **1**. **Will the cup get lost inside me**? * **Myth**: The cup can get lost inside your body. * **Fact**: No, the vagina is small, and the cervix stops the cup from going too far. You can always take it out by holding the stem or pinching the cup's base. **2**. **Can I use a menstrual cup only after marriage**? * **Myth**: Only people who have had sex can use it. * **Fact**: Anyone who has periods can use a menstrual cup, no matter if they had sex or not. Just choose the right size and learn how to put it in properly. **3. Does it hurt or break the hymen?** * **Myth**: Using a cup will break the hymen. * **Fact**: The hymen can stretch or tear from many activities like sports, tampons, or cups. It does not only show if someone had sex.	Lecturing	Listening	Slide	What are the myth and facts of menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
			4. Is it hard to use and uncomfortable? * **Myth**: Menstrual cups are difficult and painful to use. * **Fact**: With practice and the right size, cups are easy and comfortable to wear. You can wear them up to 12 hours depending on your flow. **5. Will it leak or spill?** * **Myth**: Menstrual cups always leak. * **Fact**: If you put the cup in the right way and use the right size, it makes a seal and stops leaks. Leaks are rare if used correctly.				

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
14	2 minutes	list the benefits of menstrual cup	**ADVANTAGES** • Cost-effective (Lasts 5-10 years) • Longer Wear Time (Up to 12 hours) • Odour -free • Comfortable & Invisible • Safe & Hygienic • Less Risk of Toxic Shock Syndrome (TSS) • Easy to Use & Maintain	Lecturing	Listening	Slide	What are the benefits of menstrual cup?
15.	3 minutes	list disadvantages and management of menstrual cup	**MANAGING DISADVANTAGES OF MENSTRUAL CUP** 1. Hard to put in or take out? Keep practicing! Try different positions like squatting or sitting on the toilet. 2. Leakage? Make sure the cup is put in the right way and empty it often. 3. Need to empty and clean often? Carry wipes or water to wash your hands and cup when needed.	Lecturing	Listening	Slide	How to manage the disadvantages of menstrual cup?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
			4. Feeling pain or discomfort? Use the right size and type of cup. Try different positions. 5. Messy to empty? Be careful when taking out the cup and have wipes ready. 6. Hard to find the right size? Try different sizes and types until you find the one that fits best. 7. Irritation or allergies? Use cups made from safe materials and clean them well. 8. Hard to buy? Look online or ask friends where to get a menstrual cup.				

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
16.	1 minutes	identify challenges between menstrual cup and sanitary pads	**MENSTRUAL CUP v/s SANITARY PADS**  	Lecturing	Listening	Slide	How menstrual cup is different from sanitary pads?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
17.	2 minutes	estimate the cost of menstruation	**COST OF MENSTRUATION** 	Lecture cum discussion	Listening and taking notes	slide	What is the estimated cost of menstrual cup over sanitary pads ?

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
18. 19.			**SUMMARY** So far we discussed about Menstruation, its cycle, menstrual cup, types and material used ,how to choose menstrual cup, insertion of cup ,folding techniques, checking, removal, after care ,myths and facts,advantages, disadvantages and its management, menstrual cups vs sanitary pads, cost of menstruation **RECAPITALIZATION** • What is menstruation? • what is menstrual cup ? • what are types and material used in cup? • How to choose menstrual cup ? • How to put the menstrual cup ? • How to fold the cup ? • How to check cup after wearing ? • How to remove menstrual cup ? • When to take out menstrual cup ? • How to take menstrual cup ?				

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
20			• How to take care menstrual cup after use? • What are the Myths and facts about menstrual cups? • What all are the advantages of menstrual cups? • What are the benefits of menstrual cups over sanitary pads? • How much is the cost for menstruation? **CONCLUSION** Menstrual cups offer a sustainable, healthy, and cost-effective option for high school girls to manage their menstruation. By understanding the benefits, proper use, and maintenance of menstrual cups, young women can take control of their menstrual health, reduce environmental impact, and promote overall well-being.				

SL.NO	TIME	SPECIFIC OBJECTIVES	CONTENT	TEACHERS ACTIVITY	LEARNERS ACTIVITY	AV AIDS	EVALUATION
21			**REFERENCES** 1. Bany, N. (2020). The Ultimate Guide to Menstrual Cups. Green Living Publishing. 2. Nelson, L., & Johnson, H. (2018). Menstrual Cups: A Sustainable Alternative To Pad and Tampons. Journal of Women's Health, 29(7), 945-950**.** 3. Mills, R. (2019). Eco-Friendly Menstruation: The Benefits of Menstrual Cups. Environmental Science and Technology, 53(11), 7014-7021. 4. Clarke, R. (2021). Menstrual Cups: A Global Overview of Usage, Benefits, and Myths. Global Health Perspectives, 42(3), 223-230. 5. Women's Health Organization. (2022). Menstrual Cups: Myths vs. Facts. Women's Health Education Series.				