

A Study to Assess the Knowledge Regarding Menarche Among School Age Girls in Selected Schools of Bhuj – Kutch Gujarat with A View to Develop an Informational Booklet

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Abstract

Introduction: Menarche is the onset of the first menstrual cycle, is a key milestone in female adolescence and an important indicator of reproductive health and overall well-being. The age at menarche is influenced by a combination of genetic, nutritional, socioeconomic, and environmental factors. Globally, there has been a trend toward declining age of menarche, which raises concerns about early puberty and its association with physical and psychological health issues such as obesity, risk of reproductive disorders, and emotional stress. Conversely, delayed menarche may be linked with nutritional deficiencies or chronic health conditions. Understanding the age of onset, patterns, and associated factors is essential for designing health education, nutritional guidance, and reproductive health programs for adolescent girls.

Materials and Methods: To assess the knowledge regarding menarche among school age girls. To assess the knowledge score regarding menarche among 100 school age girls of selected schools. The data were collected with a structured knowledge questionnaire and variable included age, type of family, diet, previous knowledge regarding menarche, menarche status, and residential area. The obtained data was analyzed in terms of the objectives using descriptive and inferential statistics. After assessing the knowledge regarding menarche among school age girls, an informational booklet was developed.

Results: the chi square value of two demographic variables, (age and menstrual status) the chi square value of age is 11.94 * and chi square value of menstrual status is 6.64*. According to that these two demographic variables are significant. As per knowledge score, 18% (18) of school aged girls had adequate knowledge, 49% (49) of school aged girls had moderately adequate knowledge and 33% (33) of school aged girls had inadequate knowledge.

Conclusion: Informational booklet will help school age girls to improve their knowledge regarding menarche.

Keywords: Knowledge; Menarche; School Age Girls

Introduction

Menarche, the first menstrual bleeding, marks a crucial milestone in a girl's transition from childhood to adolescence. It signifies the onset of reproductive capability and is one of the earliest indicators of puberty. Globally, the average age of menarche ranges between 10 and 15 years, but this age may vary depending on genetic, environmental, nutritional, and socio-economic factors. In India, studies have reported the average age of menarche to be approximately 12–13 years. However, despite being a natural physiological process, menstruation and menarche are often surrounded by silence, myths, taboos, and misinformation, especially in rural and semi-urban regions.

In Bhuj, a region recovering from socio-economic challenges and natural disasters, there is limited documentation of efforts to improve menstrual health awareness among school age girls. This lack of targeted educational interventional Create a compelling need to assess the existing level of knowledge about menarche in this demographic. A structured, evidence-based approach such as the development and distribution of an informational booklet could serve as an effective tool to bridge the knowledge gap, empower young girls with scientifically accurate information, and promote healthy menstrual practices.

The proposed study aims to assess the current level of knowledge regarding menarche among school age girls in selected schools of Bhuj – Kutch, identify gaps and misconceptions, and develop an educational booklet that can be used by students, teachers, and even parents to promote open discussion and informed understanding of menstruation. This initiative not only supports adolescent health and well-being but also aligns with national objectives like the Rastriya Kishor Swasthya Karyakram (RKSK) and Menstrual Hygiene Scheme (MHS), both of which emphasize adolescent health education.

By addressing this vital but often neglected aspect of adolescent development, the study hopes to contribute meaningfully toward building a generation of confident, healthy, and informed young women.

Objectives of The Study

- To assess the knowledge regarding menarche among the school age girls of selected schools of Bhuj Kutch.

- To find out association of knowledge score with demographic variable
- To develop & provide informational booklet regarding menarche.

Materials & Methods

A methodology is collection of procedure, technique, tools and documentation aids, supported by a philosophy, which will help the system developers in their efforts to implement a new information system can be called as methodology.

Research Approach: The research approach used for the study that was Quantitative approach accomplish the objectives of the descriptive study as it was design to assess the knowledge of school age girls regarding the menarche in selected schools of Bhuj Kutch Gujarat.

Research Design: A research design is a framework or blueprint for conducting the research project. This study refers to Descriptive Research Design focuses on obtaining information regarding the knowledge of school age girls with structured knowledge questionnaire of sample of respondent.

Variables of The Study

Demographic Variables: In this study demographic variables are knowledge of school age girls, age, type of family, diet, previous knowledge regarding menarche, menarche status, residential area.

Dependent Variable: In this study the dependent demographic variable is the knowledge of school age girls regarding menarche.

Independent Variable: In this study the independent demographic variables are age, type of family, diet, previous knowledge regarding menarche, menarche status, residential area.

Settings of The Study

The study was conducted in two different settings for pilot study and main study. Pilot was conducted in Matruchhaya Kanya Vidhyalaya Bhuj it has about 5.4 km away from SKLP Nursing College. The main study was conducted in Haripar Prathmik Shala school Bhuj it has about 1.2 km away from SKLP Nursing College, Anachorwala School Bhuj, it has about 2.6 km away from SKLP Nursing College, Jain Acharya Ajramarji Schools Bhuj it has about 5.4 km away from SKLP Nursing College and Shree Swaminarayn Kanya Vidhya Mandir Bhuj which is about 6.2 km away from SKLP Nursing College and Shree Kutchi Leva Patel

Kanya Vidhya Mandir Haripar – Bhuj which is about 500 meters away from SKLP Nursing College.

Population: Population is the aggregation of cases which the researcher would like to make generalization. It refers to group of individual with some common characteristic and it is important to make difference between the target population and accessible population.

Target Population: In this study was all school age girls studying in selected schools of Bhuj Kutch Gujarat.

Accessible Population: In this study the accessible population were those School-age girls (10–16 years) studying in selected schools of Bhuj, Kutch during the data collection period.

Study Population: All school-going girls aged 10–16 years enrolled in the selected schools of Bhuj Kutch during the data-collection period.

Sample and Sample Size

Sample: In this study samples were school age girls at selected schools of Bhuj Kutch Gujarat.

Sample Size: In this study sample size was 100 school age girls.

Sampling Technique: In this study sampling technique is Non probability in that Purposive Sampling was used to select the sample.

Sample Criteria

Inclusive criteria

Girls who are willing to participate.

- Girls who are present on the day of data collection.

Exclusive criteria

Those who are absent on the day of data collection

Development and Description of the Tool

The instrument used in this study were demographic variable, informational booklet, self-structured questionnaire for the knowledge.

Method of Development of the Tool

Tool 1: Demographic variable

Tool 2: Structured knowledge questionnaire

Description of Tool

Tool 1: Demographic Variables: It deals with the demographic variable of school age girls in selected schools such as age, type of family, diet, previous knowledge regarding menarche, menarche status,

residential area.

Tool 2: Structured Knowledge Questionnaire: It deals with 30 structured knowledge questionnaires to assess the level of knowledge regarding menarche among the school age girls. There is four option that for each correct answer a score is “1” for each wrong answer a score is “0” was awarded. Maximum score is “30” and minimum score is “0”. There is no negative marks.

The subject classified in three group based on their score

Adequate knowledge: $\geq 76 - 100\%$

Moderately adequate knowledge : -75%

Inadequate knowledge: $\leq 50\%$

Results

The chi square value of two demographic variables, (age and menstrual status) the chi square value of age is 11.94 * and chi square value of menstrual status is 6.64*. According to that these two demographic variables are significant. As per knowledge score, 18% (18) of school aged girls had adequate knowledge, 49% (49) of school aged girls had moderately adequate knowledge and 33% (33) of school aged girls had inadequate knowledge.

Discussion

The present study under taken to assess the knowledge regarding Menarche Among school age girls of Jainacharya Shree Ajaramarji primary school, Shree Haripar prathmik shala, Shree Kutchi Leva Patel Kanya Vidyamandir, Matushree Umarbai Lalji Velji Anchorwala Saraswati Vidhyamandir, Swaminarayan Kanya Vidhyamandir at Bhuj-Kutchh, Gujarat. The data collected from Menarche Among school age girls. The data collected by using structured knowledge questionnaires to assess knowledge Menarche among school age girls.

Major Findings of the Study:

Demographic variables:

Study results show that,

- 56%(56) of school age girls were 13-15 year.
- 53%(53) of school age girls have joint family.
- 88%(88) of school age girls are taking vegetarian diet.
- 65%(65) of school age girls are living in rural area.
- 51%(51) of school age girls has not got periods.
- 65%(65) of school age girls have previous

knowledge on menarche.

Level of knowledge:

Study result show that

Nursing Implication:

- The finding of the recommended the implication on nursing education, nursing administration and nursing research.

Nursing Education:

- With the emergency health care trends nursing education must focus on innovations of theory is a vital need and it is important in nursing education, nursing curriculum. The assessment of knowledge regarding Menarche among school age girls. Therefore, the student should introduce Menarche.

Nursing Administration:

- Nursing Administration should take initiative step in creating policies or plan in providing education to nurses in hospital.
- Nursing personnel should be motivated and provided the time for development of education materials like flip chart, poster, power point presentation and pamphlet.
- Provision should be made access of education material which are already developed.

Nursing Research:

- The findings of the study contribute to the body of knowledge to the body of knowledge effectiveness regarding Menarche among school age girls. In future the researcher can use the findings and the methodology as reference materials. It highlights the area that requires futures exploration. Other researchers conducting further studies in the same field can utilize the studies suggestions and recommendations.

Further Recommendation:

- A similar study can be done on a large sample and to generalize the findings to a large population of school age girls.
- An experimental study can be done to assess the level of knowledge regarding Menarche among school age girls.
- A comparative study can be done on school age girls to assess the level of knowledge regarding Menarche.
- A structured teaching program can be done to

improve the level of knowledge among the school age girls regarding Menarche.

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Conflicts of interests: There is no conflict of interest

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