

Effectiveness of A Structured Teaching Programme on Knowledge and Practice Regarding Menstrual Hygiene among Adolescent Girls in a Government Girls High School, Mehsana

Madhavi Vyas

¹M.Sc. Nursing (Obstetrics and Gynecological Nursing), Nootan College of Nursing, Visnagar, Gujarat, India

Guide: Prof. Siva Subramanian, PhD (N), Principal, Nootan College of Nursing, Visnagar

Abstract: *Background: Menstrual hygiene is a fundamental component of adolescent reproductive health and wellbeing. Inadequate knowledge and poor hygienic practices during menstruation may contribute to reproductive tract infections, school absenteeism, psychosocial distress, and unhealthy restrictions. School-based health education is a practical strategy to improve menstrual hygiene awareness and behavior. Objective: To assess the effectiveness of a structured teaching programme (STP) on knowledge and practice regarding menstrual hygiene among adolescent girls studying in a Government Girls High School in Mehsana. Methods: A quantitative pre-experimental one-group pre-test post-test design was adopted. Fifty adolescent girls who had attained menarche were selected using non-probability convenient sampling. Data were collected using a structured knowledge questionnaire and an observation checklist on menstrual hygiene practices. Following the pre-test, the structured teaching programme was administered and the post-test was conducted after seven days. Results: The mean pre-test knowledge score was 6.62 (SD = 1.86), which increased to 17.96 (SD = 1.23) in the post-test. The paired t-value for knowledge was 38.339 ($p < .001$). The mean pre-test practice score was 6.48 (SD = 3.62), which increased to 15.52 (SD = 2.59) in the post-test. The paired t-value for practice was 13.504 ($p < .001$). Religion and age at menarche were significantly associated with post-test knowledge ($p < .05$). Conclusion: The structured teaching programme was highly effective in improving knowledge and practice regarding menstrual hygiene among adolescent girls. Regular menstrual health education should be incorporated into school health programmes.*

Keywords: menstrual hygiene, adolescent girls, structured teaching programme, school health, reproductive health, nursing education.

1. Introduction

Menstruation is a normal physiological process and an important milestone in the life of adolescent girls. Despite its biological significance, menstruation remains associated with myths, taboos, embarrassment, and misinformation in many communities. These socio-cultural barriers often prevent adolescent girls from obtaining accurate information and adopting healthy hygienic practices.

Menstrual hygiene management includes the use of clean absorbent materials, regular changing of absorbents, appropriate genital hygiene, and safe disposal of used menstrual products. Inadequate menstrual hygiene practices may increase the risk of reproductive tract infections and can negatively affect self-esteem, participation in school, and social wellbeing.

Evidence from India and other low- and middle-income settings shows that menstrual hygiene knowledge is often inadequate before menarche and improves significantly with targeted educational interventions. Studies have reported that school-based menstrual health education can improve awareness, acceptance of menstruation as a normal physiological process, and adoption of hygienic practices (Majeed et al., 2022; van Eijk et al., 2016).

The present study was undertaken to evaluate the effectiveness of a structured teaching programme on knowledge and practice regarding menstrual hygiene among

adolescent girls in a Government Girls High School in Mehsana.

2. Objectives

- To assess the existing knowledge regarding menstrual hygiene among adolescent girls.
- To assess the existing practice regarding menstrual hygiene among adolescent girls.
- To evaluate the effectiveness of the structured teaching programme on knowledge and practice regarding menstrual hygiene.
- To determine the association between selected demographic variables and post-test knowledge and practice scores.

Hypotheses

H1: There was a significant difference between pre-test and post-test knowledge scores regarding menstrual hygiene among adolescent girls after the structured teaching programme.

H2: There was a significant difference between pre-test and post-test practice scores regarding menstrual hygiene among adolescent girls after the structured teaching programme.

3. Methods

A quantitative research approach with a pre-experimental one-group pre-test post-test design was adopted for the study.

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The study was conducted among adolescent girls studying in a Government Girls High School in Mehsana, Gujarat, India.

The sample comprised 50 adolescent girls who had attained menarche. Participants were selected using a non-probability convenient sampling technique.

The tool consisted of three sections: socio-demographic variables, a structured questionnaire to assess knowledge regarding menstrual hygiene, and an observation checklist to assess menstrual hygiene practices.

The structured teaching programme was administered after the pre-test. The post-test was conducted seven days after the intervention.

Data were analyzed using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (paired t-test and chi-square test).

4. Results

In the pre-test, 48 (96%) participants had inadequate knowledge and 2 (4%) had moderately adequate knowledge.

In the post-test, 47 (94%) participants had adequate knowledge and 3 (6%) had moderately adequate knowledge. For practice, 42 (84%) participants had inadequate practice and 8 (16%) had moderately adequate practice in the pre-test. In the post-test, 33 (66%) participants had adequate practice, 12 (24%) had moderately adequate practice, and 5 (10%) had inadequate practice.

The mean knowledge score increased from 6.62 (SD = 1.86) in the pre-test to 17.96 (SD = 1.23) in the post-test. The paired t-value was 38.339, which was statistically significant at $p < .001$.

The mean practice score increased from 6.48 (SD = 3.62) in the pre-test to 15.52 (SD = 2.59) in the post-test. The paired t-value was 13.504, which was statistically significant at $p < .001$.

Among demographic variables, religion ($\chi^2 = 9.632$, $p = .008$) and age at menarche ($\chi^2 = 6.782$, $p = .034$) were significantly associated with post-test knowledge scores. No significant association was reported between demographic variables and post-test practice scores.

Table 1: Pre-test and post-test comparison of knowledge and practice scores

Variable	Pre-test Mean \pm SD	Post-test Mean \pm SD	Paired t-value	p-value
Knowledge	6.62 \pm 1.86	17.96 \pm 1.23	38.339	< .001
Practice	6.48 \pm 3.62	15.52 \pm 2.59	13.504	< .001

5. Discussion

The present study demonstrated a substantial improvement in both knowledge and practice regarding menstrual hygiene following the structured teaching programme. The marked increase in post-test scores indicates that school-based educational interventions can effectively address misinformation and improve menstrual hygiene management among adolescent girls.

The findings are consistent with prior evidence. Van Eijk et al. (2016) reported that menstrual hygiene management in India is influenced by social and structural barriers, and educational support is essential for improving outcomes. Majeed et al. (2022) similarly observed that knowledge and hygienic practices are strongly influenced by education, family environment, and access to menstrual hygiene resources.

The present study also identified significant associations of religion and age at menarche with post-test knowledge, suggesting that cultural and developmental factors may influence learning and adaptation to menstrual hygiene education. However, no significant association was observed between demographic variables and post-test practice, which may indicate that the intervention benefited participants across subgroups.

6. Implications for Nursing Practice

- Nurses and nursing educators can play a vital role in promoting menstrual health literacy among school-going adolescent girls.

- School health programmes should include regular structured teaching sessions on menstrual hygiene, reproductive health, and safe menstrual waste disposal.
- Community health nurses can involve mothers, teachers, and peer groups to reduce stigma and improve support systems for adolescent girls.

7. Limitations

The study used a one-group pre-test post-test design without a control group, which limits causal generalization.

The sample size was relatively small (N = 50) and selected through non-probability sampling, which may affect external validity.

The study was limited to one school setting in Mehsana district.

8. Conclusion

The structured teaching programme was highly effective in improving knowledge and practice regarding menstrual hygiene among adolescent girls studying in a Government Girls High School in Mehsana. The findings support the inclusion of structured menstrual health education within school health and adolescent reproductive health programmes. Similar interventions may contribute to improved health outcomes, reduced stigma, and better school participation among adolescent girls.

Conflict of Interest

The author declares no conflict of interest.

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