



To evaluate the efficiency of a scheduled educational program regarding menstrual hygiene among young adolescent girls in a specific girls' high school located in Tirupati.

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ABSTRACT

AIMS AND OBJECTIVES:

This study was planned to evaluate the knowledge and sources of information regarding menstruation, and to understand the importance of menstrual hygiene among young adolescents, helping them to minimize the risks related to menstrual problems.

DESIGN:

A Quasi- Experimental Research design, utilizing a one-group pre-test and post-test approach, to assess the effectiveness of an educational program on menstrual hygiene among young adolescent girls at a Government Girls' high school in Tirupati. Purposive sampling was employed to select a sample of 50 young adolescent girls. Data analysis involved the utilization of descriptive and inferential statistics.

Out of 50 young adolescent girls, 14 (28%) had inadequate knowledge on personal hygiene, 22 (44%) on environmental sanitation, 22 (44%) on nutrition, and 24 (48%) on infection control about menstrual hygiene in the pre-test.

Out of 50 young adolescent girls, 30 (60%) had moderate knowledge on personal hygiene, 19 (38%) on environmental sanitation, 21 (42%) on nutrition, and 25 (50%) on infection control regarding menstrual hygiene in the pre-test.

Out of 50 young adolescent girls, 6 (12%) had adequate knowledge on personal hygiene, 9 (18%) on environmental sanitation, 7 (14%) on nutrition, and 1 (2%) on infection control regarding menstrual hygiene in the pre-test.

A scheduled educational program was conducted for 50 young adolescent girls. After 7 days, a post-test was conducted on the same samples, revealing that 9 (18%) had inadequate knowledge on personal hygiene, 11 (22%) on environmental sanitation, 5 (10%) on nutrition, and 2 (4%) on infection control regarding menstrual hygiene.

Out of 50 young adolescent girls, 13 (26%) had moderate knowledge on personal hygiene, 17 (34%) on environmental sanitation, 25 (50%) on nutrition, and 20 (40%) on infection control regarding menstrual hygiene in the post-test.

Out of 50 young adolescent girls, 28 (56%) had adequate knowledge on personal hygiene, 22 (44%) on environmental sanitation, 20 (40%) on nutrition, and 28 (56%) on infection control regarding menstrual hygiene in the post-test.

Regarding menstrual hygiene, in the pre-test, the mean scores of knowledge for personal hygiene were 5.08, for environmental sanitation were 3.42, for nutrition were 3.66, and for infection control were 3.58. The standard deviations for these categories were 1.209, 0.859, 0.772, and 0.859 respectively. In the post-test, the mean scores of knowledge for personal hygiene were 12.40, for environmental sanitation were 8.64, for nutrition were 8.32, and for infection control were 8.10. The standard deviations for these categories were 2.611, 0.772, 1.151, and 0.814 respectively. The t-values and corresponding p-values were as follows: for personal hygiene, t-value of 18.614 (p-value 0.000); for environmental sanitation, t-value of 32.66 (p-value 0.000); for nutrition, t-value of 21.677 (p-value 0.000); and for infection control, t-value of 31.366 (p-value 0.000). There is a significant association between the post-test knowledge among young adolescent girls with selected socio-demographic variables.

CONCLUSION:

The study shows that among young adolescent girls have improve their post test level of knowledge from Inadequate to adequate on personal hygiene, environmental sanitation, nutrition and infection control regarding menstrual hygiene. This study contributes , Information booklet given to all adolescent girls, it helps to know the importance of menstrual hygiene and also taken as a background for designing necessary interventions in the community ,so as to reduce its burden in family/primary care practice.

The study demonstrates that among young adolescent girls, there has been an improvement in their post-test level of knowledge from inadequate to adequate regarding personal hygiene, environmental sanitation, nutrition, and infection control concerning menstrual hygiene. This study contributes valuable insights, as information booklets provided to all adolescent girls aid in understanding the importance of menstrual hygiene. Furthermore, this study

serves as a foundation for designing necessary interventions within the community, aimed at reducing the burden associated with menstrual hygiene in family and primary care practices.

INTRODUCTION

Adolescence marks a period of significant development, commencing with the onset of puberty and extending into the mid-20s. This stage encompasses substantial changes across all developmental domains, including biological, cognitive, psychosocial, and emotional aspects³.

"Menstruation is a normal physiological process for females of reproductive age. Practicing good menstrual health and hygiene can prevent infections, minimize odors, and ensure adolescents remain comfortable during menstruation⁶

"Menstruation is often surrounded by social taboos and supernatural beliefs. Poor knowledge and understanding of menstruation can lead to unsafe hygienic practices, thereby increasing the risk of reproductive and genitourinary tract infections, cervical cancer, school dropouts, poor academic performance, and an overall diminished quality of life. Despite these clinical and academic consequences, the knowledge and hygienic practices of adolescent girls regarding menstruation are not adequately addressed within school settings⁴.

Understanding menstrual hygiene is a crucial component of health education to prevent the various adverse effects of inadequate menstrual hygiene practices, which can include reproductive tract infections, infertility, miscarriages, toxic shock syndrome, and cancer⁷.

"Many adolescent girls feel uncomfortable discussing menstruation, leading to limited access to adequate information about this social taboo.⁵

Furthermore, the lack of knowledge can significantly impact a girl's daily activities, attendance at school, and ultimately result in poor academic performance. The reproductive health decisions they make today will influence the health of future generations².

METHODS

1. **RESEARCH APPROACH:** The study employed a quasi-experimental approach with a single-group pre-test and post-test design, utilizing randomization to achieve its objectives."

2. **SETTING OF THE STUDY:** The study was conducted at Government Girls High School in Tirupati.

3. **POPULATION:** The study population consisted of young adolescent girls aged between 11 and 15 years.

4. **SAMPLE SIZE:** The sample consisted of 50 adolescent girls.

5. SAMPLING TECHNIQUE: The purposive sampling technique was employed.

6. INCLUSIVE CRITERIA:

- Young adolescent girls who understand and can read English and Telugu.
- Young adolescents who are willing to participate in the study.
- Young adolescents who are between the ages of 11 and 15 years.

7. DEVELOPMENT AND DESCRIPTION TOOL: A structured knowledge questionnaire and an information booklet were developed for the data collection procedure.

SECTION I: This includes socio-demographic data such as age, mother's education, family type, family income, mother's occupation, and the source of knowledge regarding menstrual hygiene.

SECTION II: It comprises multiple questions related to knowledge about personal hygiene, environmental sanitation, nutrition, and infection control during menstruation.

8. SCORE INTERPRETATION: The knowledge assessment on the scheduled educational program includes questions related to personal hygiene, environmental sanitation, nutrition, and infection control during menstrual hygiene. Each correct answer carries one mark, while incorrect answers are considered as zero marks. The total score reflects the knowledge level of adolescent girls.

The level of knowledge on menstrual hygiene scores is described as follows:

Less than 50%: Inadequate

Between 51% and 75%: Moderate

More than 76%: Adequate

9. DATA ANALYSIS AND INTERPRETATION

The data were tabulated, analyzed, and interpreted using descriptive and inferential statistics.

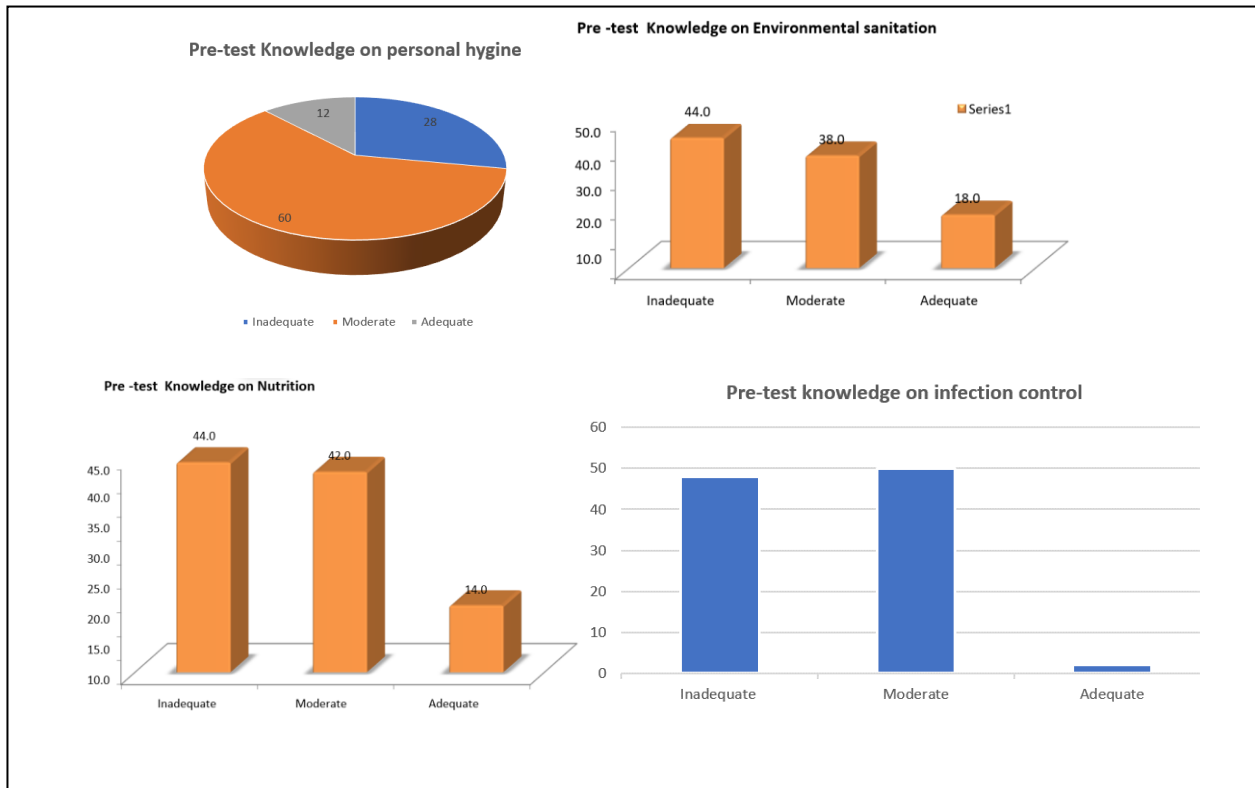
SECTION I: Frequency and Percentage Distribution of Demographic Variables Among Young Adolescent Girls Regarding Menstrual Hygiene.

| S.NO | SOCIODEMOGRAPHIC VARIABLES | | FREQUENCY | PERCENTAGE DISTRIBUTION(%) |
|------|----------------------------|--------------|-----------|----------------------------|
| 1 | Age | A)11-12Years | 17 | 34% |
| | | B)13-14Years | 7 | 14% |
| | | C)15-16Years | 18 | 36% |

| | | | | |
|---|---------------------------|-----------------------|----|------|
| | | D)Below18Years | 8 | 16% |
| | | TOTAL | 50 | 100% |
| 2 | Education Mother | A)Primary | 12 | 24% |
| | | B)Secondary | 17 | 34% |
| | | C)Graduate | 17 | 34% |
| | | D)Illiterate | 4 | 8% |
| | | TOTAL | 50 | 100% |
| 3 | Type of Famili y | A)Joint Family | 14 | 28% |
| | | B)Nuclear Family | 22 | 44% |
| | | C)Extended Family | 11 | 22% |
| | | D)Grand Parent Family | 3 | 6% |
| | | TOTAL | 50 | 100% |
| 4 | Incom e/Mont h | A)BelowRs.10000 | 10 | 20% |
| | | B)Rs10001–20000 | 22 | 44% |
| | | C)Rs.20001–30000 | 11 | 22% |
| | | D)AboveRs.30000 | 7 | 14% |
| | | TOTAL | 50 | 100% |
| 5 | Occupation Mother | A)Coolie | 6 | 12% |
| | | B)GovernmentJob | 11 | 22% |
| | | C)PrivateJob | 22 | 44% |
| | | D)Ownbusiness | 11 | 22% |
| | | TOTAL | 50 | 100% |

SECTION II: Frequency and Percentage Distribution of Personal Hygiene, environmental sanitation, nutrition, and infection control regarding Menstrual Hygiene Among Young Adolescent Girls in pre-test.

Research Through Innovation



Out of 50 young adolescent girls, 14 (28%) had inadequate knowledge on personal hygiene, 30 (60%) had moderate knowledge and 6 (12%) had adequate knowledge in the pre-test.

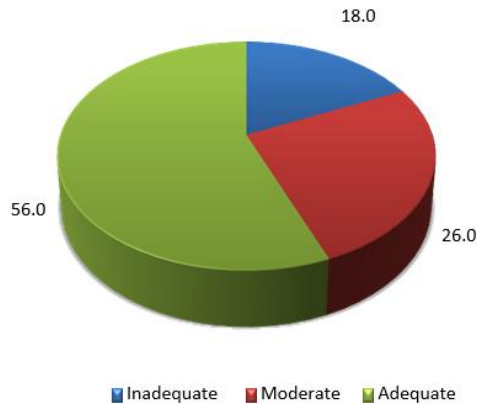
Out of 50 young adolescent girls, 22 (44%) had inadequate knowledge on environmental sanitation, 19 (38%) had moderate knowledge and 9 (18%) had adequate knowledge in the pre-test.

Out of 50 young adolescent girls, 22 (44%) had inadequate knowledge on nutrition, 21(42%) had moderate knowledge and 7 (14%) had adequate knowledge in the pre-test.

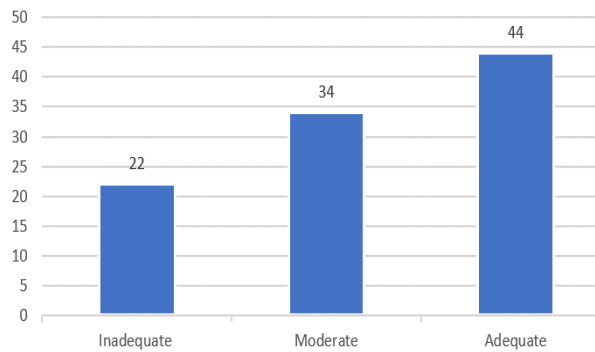
Out of 50 young adolescent girls, 24 (48%) had inadequate knowledge on infection control, 25 (50%) had moderate knowledge and 1 (2%) had adequate knowledge in the pre-test.

SECTION III: Frequency and Percentage Distribution of Personal Hygiene, environmental sanitation, nutrition, and infection control regarding Menstrual Hygiene Among Young Adolescent Girls in post-test.

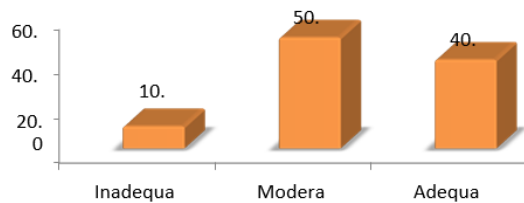
Post-test Knowledge on Personal hygiene



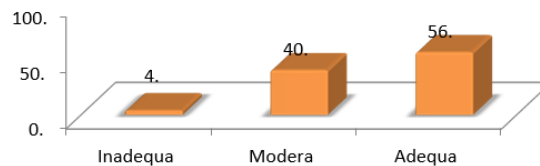
Post-test Knowledge on Environmental sanitation



Post -test Knowledge on nutrition.



Post -test Knowledge on Infection control.



Out of 50 young adolescent girls, 9 (18%) had inadequate knowledge on personal hygiene, 13 (16%) had moderate knowledge and 28 (56%) had adequate knowledge in the post-test.

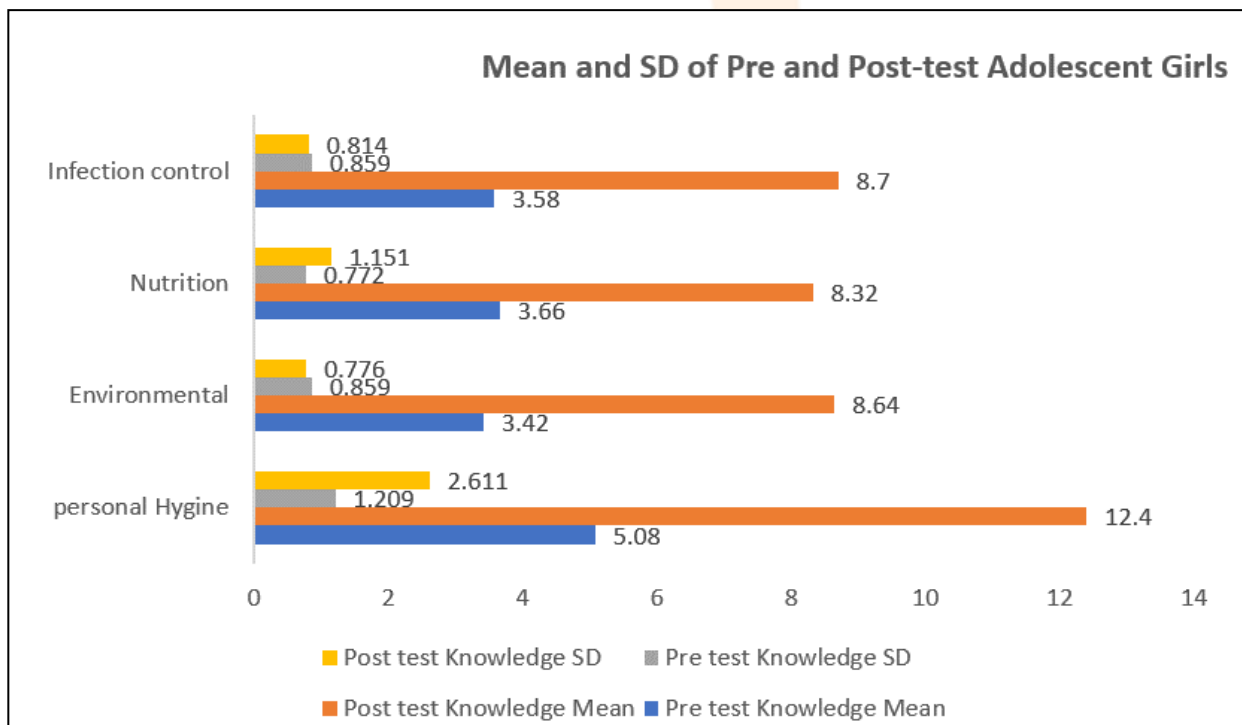
Out of 50 young adolescent girls, 11(22%) had inadequate knowledge on environmental sanitation, 17(34%) had moderate knowledge and 22(44%) had adequate knowledge in the post-test.

Out of 50 young adolescent girls, 5(10%) had inadequate knowledge on nutrition, 25(50%) had moderate knowledge and 20(40%) had adequate knowledge in the post-test.

Out of 50 young adolescent girls, 2(4%) had inadequate knowledge on infection control, 20(40%) had moderate knowledge and 28(56%) had adequate knowledge in the post-test.

SECTION IV: Distribution of Paired Samples T-test Regarding Menstrual Hygiene Among Young Adolescent Girls.

| Paired Samples Statistics | | | | | | t-value(p-value) |
|---------------------------|--------------------|----|-------|-------|----------|---------------------|
| | | N | Mean | S.D | S.E Mean | |
| Personal Hygiene | Pre-testKnowledge | 50 | 5.08 | 1.209 | 0.171 | 18.614** (0.000) |
| | Post-testKnowledge | 50 | 12.40 | 2.611 | 0.369 | |
| Environmental Sanitation | Pre-testKnowledge | 50 | 3.42 | 0.859 | 0.122 | 32.661** (0.000) |
| | Post-testKnowledge | 50 | 8.64 | 0.776 | 0.110 | |
| Nutrition | Pre-testKnowledge | 50 | 3.66 | 0.772 | 0.109 | 21.677** (0.000) |
| | Post-testKnowledge | 50 | 8.32 | 1.151 | 0.163 | |
| Infection Control | Pre-testKnowledge | 50 | 3.58 | 0.859 | 0.122 | 31.366** (0.000) |
| | Post-testKnowledge | 50 | 8.70 | 0.814 | 0.115 | |



There is a statistically significant association between personal hygiene regarding menstrual hygiene among young adolescent girls and the educational status of the mother, family income, and occupation of the mother,

significant at $p < 0.01$. Additionally, the age of adolescent girls also shows a significant association, significant at $p < 0.05$.

Furthermore, there is a statistically significant association between environmental

There is a significant association between the post-test knowledge on personal hygiene among young adolescent girls educational status of the mother, family income, and occupation of the mother, significant at $p < 0.01$. Additionally, the age of adolescent girls also shows a significant association, significant at $p < 0.05$.

Furthermore, there is a statistically significant association between environmental sanitation regarding menstrual hygiene among young adolescent girls and the educational status of the mother, type of family, and family income, significant at $p < 0.01$.

There is a statistically significant association between nutrition regarding menstrual hygiene among young adolescent girls and age, type of family, family income, and occupation of mother, significant at $p < 0.05$.

Additionally, there is a statistically significant association between infection control regarding menstrual hygiene among young adolescent girls age, type of family, Significant at $p < 0.01$, and occupation of mother, significant at $p < 0.05$.

SUMMARY AND CONCLUSION

Menstruation serves as a crucial indicator of reproductive health and development, underscoring the importance of menstrual hygiene practices. The study reveals that a majority of the participants initially had inadequate knowledge regarding personal hygiene, environmental sanitation, nutrition, and infection control. However, following the scheduled educational program on menstrual hygiene, knowledge levels improved to moderate to adequate among young adolescent girls. While a considerable proportion of the subjects had some knowledge of menstruation, a significant portion still lacked adequate information. Therefore, it is imperative to educate girls about the physiological aspects of menstruation, dispel misconceptions, and promote proper hygienic practices to prevent reproductive tract infections.

Family and school emerged as the primary sources of information for most participants. Significant associations were observed between menstrual hygiene and various factors, highlighting the need for attention from caregivers. Proper menstrual hygiene practices for young adolescent girls should be emphasized in primary care settings, with particular attention to the identified risk factors¹.

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