

Effectiveness of Interventional Package on Knowledge and Attitude Regarding Menstrual Hygiene and Menstrual Health Among Adolescent Girls.

Received: 21 February 2023, **Revised:** 23 March 2023, **Accepted:** 28 April 2023

Neha Singh

Department of Obstetrics and Gynecological Nursing, TMU Moradabad, India
Email: neha3159819@gmail.com

Prof. Viji Mol

(HOD of Obstetrics and Gynaecological Nursing) Teerthanker Mahaveer College of Nursing, India TMU, Moradabad.

Corresponding author: Neha Singh

Department of Obstetrics and Gynecological Nursing, TMU Moradabad, India
Email: neha3159819@gmail.com

Keywords:

Knowledge, Attitude, Menstrual hygiene, Menstrual health, Adolescent girls

Abstract

Only women of reproductive age get periods, which begin at puberty, often between the ages of 10 and 14. Girls' ages at menarche are influenced by a number of factors, such as their environment, food, and level of intense activity. Acc to World Bank - around 500 million women worldwide are not able to menstruation product or proper menstrual hygiene management (MHM) facilities. The main goal of research to determine the effectiveness interventional package on knowledge and attitude related to menstrual hygiene and menstrual health. The research accomplished with pre-experimental (one group pre-test post-test design). This research was carried out at selected schools of Moradabad. 80 respondents were chosen as sample by simple random sampling technique with lottery method. According to the study findings, out of 80 adolescent girls in pre-test 90% had inadequate knowledge & 10% had moderate knowledge then after the intervention 70% had adequate knowledge and 30% had moderate knowledge. Score of 23.38 mean, was found more than the pretest 10.86 with 't' value 35.16. In level of attitude data analysis predicts among 80 respondents, in pre-test 86.2% were under unfavourable attitude and 13.8% favourable attitude then in post-test 100% had favourable attitude. The mean score 38.10 was found more than the pretest 22.47 with 't' value 36.39. Therefore, there is need to impart educate young females related to managing menses sanitation and avoiding various difficulties. The research outcomes suggested that interventional package was constructive & improving their awareness and attitude of adolescent girls.

1. Introduction

The uterine lining lost on a monthly basis while menstruating. Menstruation is sometimes known as menses, period, and cycle. The monthly blood escapes the body via the vagina after exiting the uterus through the cervix and is partly blood with some uterine tissue. The empowerment and wellbeing of women and girls globally depend on good menstrual hygiene. It involves more than simply having access to sanitary napkins and the adequate toilet facility, while these are crucial. It also involves making sure that girl and women can manage their periods with dignity in a society that recognises and supports them. Adolescent girls and

their carers must be aware of what to anticipate from regular menstrual cycles. As adolescent females transition into adulthood, recognising atypical periods may help detect and manage potential health risks. Girls in their adolescence should also be taught about the several kinds of period products available (such as pads, tampons, and menstrual cups), as well as how to use them properly. To maintain girls' and women's health and dignity, menstruation hygiene must be maintained properly. In terms of females' personal comfort, maintaining menstrual hygiene is crucial. Additionally, it lessens the possibility of infections brought on by bad menstrual hygiene. Adolescent girls must therefore acquire the necessary knowledge about

Journal of Coastal Life Medicine

menstruation and its products as it will aid them in keeping them hygiene during menstruation and preventing from numerous complications like genitourinary tract infections, yeast infections, and in the long run, hepatitis B infection and cervical cancer. So, the awareness of menstruation is also very crucial for their health and disbeliefs.

OBJECTIVE

- 1) To assess the pre-test and post-test level of knowledge regarding menstrual hygiene and menstrual health among adolescent girls.
- 2) To assess the pre-test and post-test level of attitude regarding menstrual hygiene and menstrual health among adolescent girls.
- 3) To evaluate the effectiveness of interventional package on knowledge and attitude regarding menstrual hygiene and menstrual health among adolescent girls.
- 4) To find out the association between the pre-test knowledge and attitude regarding menstrual hygiene and menstrual health among adolescents girls with the selected demographic variables.

ASSUMPTIONS

Researcher assumes -

- The girls may have some knowledge regarding menstrual hygiene and menstrual health.

- Intervention package may help to increase the level of knowledge in the adolescent girls.

HYPOTHESES

All hypotheses were evaluated at 0.05 level of significance

H₁ – There were significant difference within pre-test and post-test knowledge scores related to menstrual hygiene & menstrual health.

H₂- There were significant difference within pre-test and post-test attitude scores related to menstrual hygiene & menstrual health.

H₃ - There were significant association within pre-test level of knowledge of adolescent girls related to menstrual hygiene & menstrual health among adolescent girls with socio-demographic variables.

H₄ - There were significant association within pre-test level of attitude of adolescent girls related to menstrual hygiene & menstrual health among adolescent girls with socio-demographic variables.

2. Materials & Methods

Research Approach - Quantitative Research

Research Design – Pre-Experimental (One group pre-test post-test design)

Table 1 – Illustration of study design

Group	Pre-test	Intervention	Post-test
One group (Adolescent girls)	O1	X	O2

KEY'S

O1- Pre-test implementation, self-structured questionnaire & Modified Five-point Likert Scale amongst adolescent girls of selected government schools.

X- Administration of Educational programme

O2- Post-test to evaluate the effectiveness by using the same Self-Structured questionnaire and Modified Five-Point Likert Scale after 7 days of administration of the Educational Programme.

VARIABLES -

Journal of Coastal Life Medicine

Dependent Variable: Knowledge and attitude

Independent Variable: Interventional Package on Menstrual hygiene & Menstrual health.

Demographic variables : age, type of family, education qualification, mothers education, religion, family income, occupation of mother, source of information, place of residence.

SAMPLE: Adolescent girls within the age 13-15 years who attained menarche.

SAMPLING TECHNIQUE: Simple Random with Lottery method.

SAMPLE SELECTION CRITERIA

Inclusion Criteria

Adolescent girls who were:

- Ready to take part in the research.
- 13-15 years of age and who have attained menarche.
- Who understand Hindi and English language

Exclusion Criteria

Adolescent girls who were:

- Not there when data was collected.
- Less than 12 years of age.

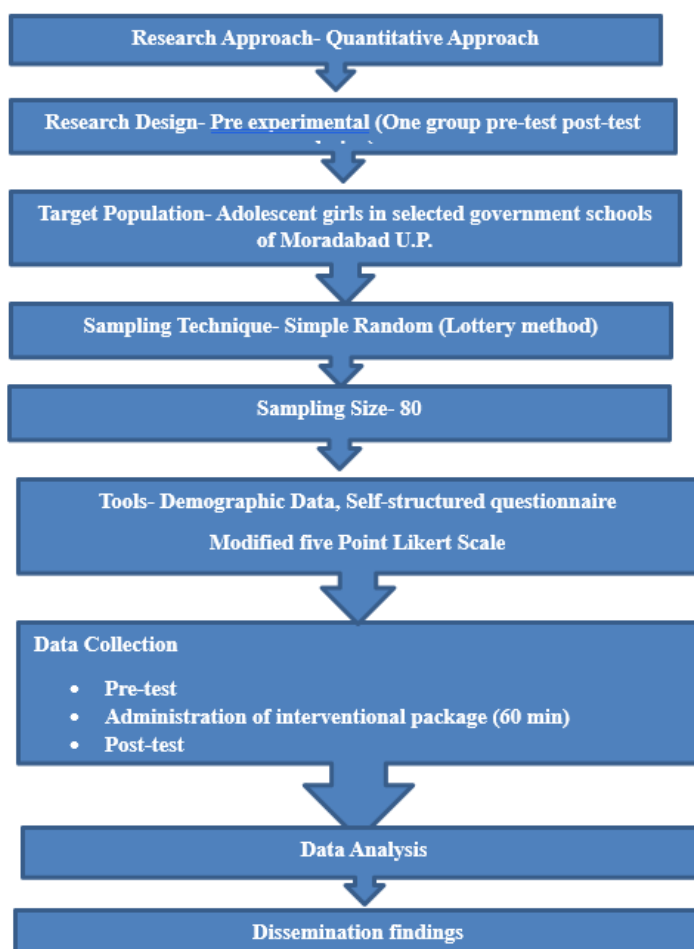
DESCRIPTION OF THE TOOL

Tool I - Demographic Data

Tool II - Self-Structured questionnaire

Tool III - Modified five Point Likert Scale

Figure 1: Diagrammatic depiction of study methodology



Journal of Coastal Life Medicine

3. Findings

The information collected was structured and displayed under subsequent divisions:

Section I: Frequency & percentage dispersion of Socio demographic characteristics.

Section II: Findings related to pre-test & post-test level of knowledge related to menstrual hygiene and menstrual health.

Section III : Findings related to the pre-test & post-test level of attitude related to menstrual hygiene and menstrual health.

Section IV : Findings related to effectiveness of interventional package on knowledge and attitude related to menstrual hygiene and menstrual health.

Section V : Findings related to Association within knowledge & attitude about menstrual hygiene & menstrual health within respondents with their chosen demographic variables.

SECTION I : Description & Dispersion of Socio demographic characteristics by frequency & proportion.

S.No	Socio-demographic characteristics	Frequency	Percentage
1.	Age -		
	13 years	29	36.3%
	14 years	26	32.5%
	15 years	25	31.2%
2.	Education Qualification -		
	7 th class	10	12.5%
	8 th class	26	32.5%
	9 th class	22	27.5%
10 th class		22	27.5%
3.	Type of family -		
	Joint family	62	77.5%
	Nuclear family	18	22.5%
4.	Religion -		
	Hindu	18	22.5%
	Muslim	62	77.5%
5.	Mothers Education -		
	No formal education	73	91.2%
	Primary	3	3.8%
Secondary	4	5%	

6.	Monthly income of family -		
	Below Rs.10000	57	71.2%
	Rs. 10001 to Rs. 20000	20	25%
	Rs. 20001 to Rs. 30000	3	3.8%
7.	Occupation of Mother -		
	Home maker	73	91.2%
	Self-employee	7	8.8%
8.	Source of information -		
	Mother	76	95%
	Friends	4	5%
9.	Place of residence -		
	Rural	72	90%
	Urban	8	10%

Table 2: Frequency & percentage of dispersion of demographic characteristics.

Majority of respondents were 29 (36.3%) were in the age of 13 years, 26 (32.5%) were 14 years age and 25 (31.3%) were 15 years age, as per Education qualification majority of 26 (32.5%) were from 8th class, 22 (27.5%) were from 9th class, 22 (27.5%) were from 10th class and 10 (12.5%) were from 7th class, as per type of family majority 62 (77.5%) were from joint family and 18 (22.5%) belongs to nuclear family, & majority 62 (77.5%) were Muslim, and 18 (22.5%) were Hindu, as per Mother's Education majority of adolescent mothers education 73 (91.3%) were having no formal education, 4 (5%) were completed secondary education and 3 (3.8%) were having primary education,

as per Monthly Income of the family most of 57 (71.3%) having below Rs.10000, 20 (25%) were having Rs.10001 to Rs.20000 and 3 (3.8%) were having Rs.20001 to Rs.30000, as per Occupation of Mother majority 73 (91.3%) were home maker, and 7 (8.8%) were self-employee, as per source of information majority 76 (95%) from mother and 4 (5%) from friends and as per Place of Residence 72 (90%) belong from rural and 8 (10%) from urban.

SECTION II – Findings related to pre-test & post-test level of knowledge.

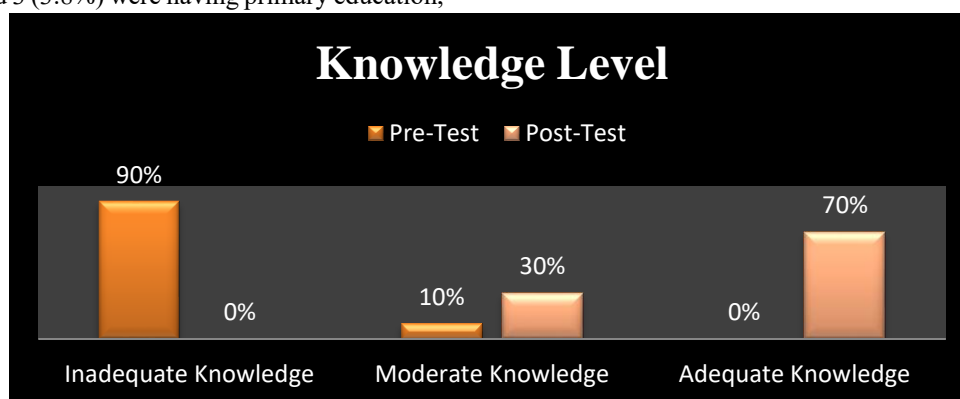


Figure 2 - Bar graph indicates the percentage of knowledge

Journal of Coastal Life Medicine

Data displays that pre-test majority of 72 (90%) were inadequate knowledge and 8 (10%) were moderate knowledge but after the intervention. There was substantial increase in the post-test score that the majority of 56 (70%) were adequate knowledge and 24 (30%) were moderate knowledge Also, the post-test score the knowledge mean is 23.38 is overcoming the

pre-test score the knowledge of mean 10.86. Hence it shows the efficacy of intervention on knowledge on menstrual hygiene & menstrual health.

SECTION III – Findings related to pre-test & post-test level of attitude.

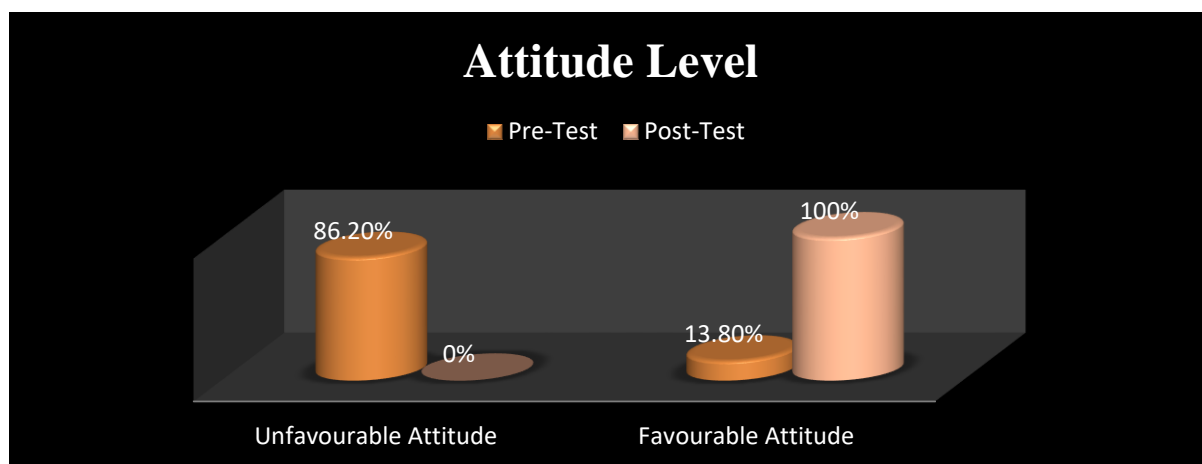


Figure 3 - Bar graph displays the percentages of attitude.

It projects that 80 participants in pre-test (69) 86.2% belonged to a unfavourable attitude, (11) 13.8% belonged to a favourable attitude, and participants in the post-test (0) 0% were belongs to a unfavourable attitude, (80) 100% were belongs to a favourable

attitude.

SECTION IV - Results related to effectiveness of interventional package about knowledge & attitude.

Table 3 Shows over all differences of Knowledge.

S.No	Assessment	Mean (\bar{x})	SD (σ)	Mean Difference	df	Paired t test value	P value
1	Pre-test	10.86	2.94	12.52	79	35.16	0.000*
2.	Post-test	23.38	2.08				

It projects the mean post-test knowledge scores (23.38) were more afterward the mean pre-test score of (10.86) with a mean difference of (12.52), estimated 't' value

35.16 & p value 0.000* which shows interventional package was effective among adolescent girls.

Table 4 Shows over all differences of Attitude.

S.No	Assessment	Mean (\bar{x})	SD (σ)	Mean Difference	Df	Paired t test value	P value
1	Pre-test	22.47	2.95	15.63	79	36.39	0.000*
2.	Post-test	38.10	2.94				

Data depicted that post-test attitude score (38.10) were more than mean pre-test attitude score of (22.47) with a mean variation of (15.63), determined 't' value 36.39 & p value 0.000* which shows that interventional package was effective.

SECTION V –

- Association within Pre-test knowledge scores within selected Socio Demographic characteristics

The result projected that statistically significant was found relationship between the knowledge level for the pre-test with age ($\chi^2=0.01$) and education-qualification ($\chi^2=0.01$) of their selected socio-demographic variables.

- Association within Pre-test attitude scores within selected Socio Demographic characteristics.

According to outcome, no statistically significant association within the pre-test attitude level & chosen socio-demographic characteristics..

4. Conclusion

The study calculated that the knowledge related to menstruation amongst adolescent girls was generally inadequate as the attitude was also unfavourable. Most of the adolescent girls beliefs that it was a curse from the god, as also they have lack of awareness about the menstruation, its cause, pre-menstrual symptoms, menstrual products and its consequences. The result from this study shows that the interventional package was way effective in educating adolescent girls. It

helped to enhance the awareness and approach of menstrual sanitation & healthy menstrual life within young females, reduced all the misconceptions, myths, false beliefs about menstruation.

References

- [1] Pramodha M. S. et al, Knowledge, attitude and practice of menstrual hygiene among adolescent schoolgirls of rural area, Dakshina Kannada, India. *Int J Reprod Contracept Obstet Gynecol.* 2021 May . 10(5) : 1788-1794. DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20211492>
- [2] Garg Suneela, Anand Tanu . **Menstruation related myths in India: strategies for combating it** . *Journal of family medicine and primary care* . (2022) . 4(2): 184–186. doi: [10.4103/2249-4863.154627](https://doi.org/10.4103/2249-4863.154627)
- [3] Naol Daniel, Gemechu Kejela . Menstrual hygiene management practice and its associated factors among in-school adolescent girls in Western Ethiopia . *Contraception and Reproductive Medicine* . (2023), 8 (1):1-12. <https://doi.org/10.1186/s40834-022-00196-7>
- [4] Sachdev Rohan, Garg Kriti . “Menstrual marks: An evaluative study to assess knowledge and practices among urban and rural adolescent young females of Kanpur, India” , *BLDE University Journal of Health Sciences*, (2022), 5(1) : 68-72. [10.4103/bjhs.bjhs_75_19](https://doi.org/10.4103/bjhs.bjhs_75_19)
- [5] Mubarick Nungbaso Asumah et al. Perceived factors influencing menstrual hygiene management among adolescent girls: a qualitative

Journal of Coastal Life Medicine

- study in the West Gonja Municipality of the Savannah Region, Ghana . *Pan African Medical Journal* , (2022), 41(146). at: <https://www.panafrican-med-journal.com//content/article/41/146/full>
- [6] “Isano Sandra et al”, “Assessing the knowledge and attitude of menstrual hygiene among high school students, and menstrual practices among high school girls in rural Rwanda” , *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, (2022)11 (3), 696-703. DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20220547>
- [7] Borkar Sonali. k, et al. Study of Menstrual Hygiene Practices Among Adolescent Girls in a Tribal Area of Central India . *Cureus* (2022), 14:10, 2-8. DOI: 10.7759/cureus.30247
- [8] Majeed et al. Menstrual hygiene practices and associated factors among Indian adolescent girls: a meta-analysis . *Reproductive Health*, 2022, 19:148. <https://doi.org/10.1186/s12978-022-01453-3>
- [9] Absar Ahmad et al . Knowledge and practices related to menstruation among Lucknow college students in North India: results from cross-sectional survey . *medRxiv* , 2021 feb, doi: <https://doi.org/10.1101/2021.02.10.21251460>
- [10] Sonowal Pranjal et al. Sociodemographic factors and their association with menstrual hygiene practices among adolescent girls in Urban slums of Dibrugarh town, Assam . *Journal of Family Medicine and Primary Care* . 2021 , 10:(12). 4446-51. doi: [10.4103/jfmpe.jfmpe_703_21](https://doi.org/10.4103/jfmpe.jfmpe_703_21)
- [11] Joshi Jaladhi et al . a quasi-experimental study to assess the effectiveness of structured teaching programme on knowledge regarding menstruation and menstrual hygiene among adolescent girls of selected sr. Sec. School, jodhpur . *EPRA International Journal of Research and Development (IJRD)*, 2021 , 6 : (7) :73-79. DOI: <https://doi.org/10.36713/epra7556>
- [12] Tshomo T, Gurung, MS, Shah S et al. Menstrual Hygiene Management—Knowledge, Attitudes, and Practices Among Female College Students in Bhutan . *Front. Reprod. Health* , 2021 . 3:703978. doi: 10.3389/frph.2021.703978
- [13] Aggarwal Sumit . Ambalkar Deepti, et.al. Menstrual Hygiene Practices of Adolescent Girls in Rural Maharashtra. *Indian Journal of Gender Studies* . 2021 , 28(1):127–137. DOI: 10.1177/0971521520974879.
- [14] Maharjan S et.al . Effectiveness of Structured Teaching Program On Knowledge And Practices On Menstrual Hygiene Among Adolescent Schoolgirls In Government Schools Of Lalitpur . *Birat Journal of Health Sciences*, 2020, 5 (3):1181-1185. DOI:[10.3126/bjhs.v5i3.33691](https://doi.org/10.3126/bjhs.v5i3.33691)
- [15] Yaliwal Rajasri G., Biradar Aruna M., et.al. Menstrual Morbidities, Menstrual Hygiene, Cultural Practices during Menstruation, and WASH Practices at Schools in Adolescent Girls of North Karnataka. India: A Cross-Sectional Prospective Study . *Obstetrics and Gynecology International* . 2020 16;2020:6238193. doi: 10.1155/2020/6238193.
- [16] Mamilla Sarada , Goundla Sandhya et al. Knowledge about menstrual hygiene, sexual health, and contraception in educated late adolescent age girls . *J Family Med Prim Care* 2019 . 8 (2) : 610-613. doi: [10.4103/jfmpe.jfmpe_320_18](https://doi.org/10.4103/jfmpe.jfmpe_320_18)
- [17] B. Jyothi, Hurakadli Kirthi et al . Knowledge, practice and attitude of menstrual hygiene among school going adolescent girls: An interventional study in an urban school of Bagalkot city *Medica Innovatica*, Jan - Jun 2019, 8 (1) :16-20.