RES MILITARIS
REVUE EUROPEENNE D ETUDES EUROPEAN JOURNAL OF MILITARY STUDIES
Social Science Journal

A Quasi Experimental Study To Assess The Effectiveness Of Planned Educational Programme On Knowledge And Practice Regarding Menstrual Hygiene Among The Adolescents Girls In Selected Urban And Rural Community Area Of Almora, Uttarakhand

By

Ms Preeti Pal
Ms Preeti Pal, PhD Nursing Scholar, Department of Child Health Nursing, Bareliy International University, Bareliy, Uttar Pradesh

Dr. Vijay Laxmi Verma
Dr. Vijay Laxmi Verma, Associate professor, Department of Mental Health Nursing, Aligarh Muslim University, Aligarh, Uttar Pradesh

Ms Preeti Pal
Ms Preeti Pal, PhD Nursing Scholar, Department of Child Health Nursing, Bareliy International University, Bareliy, Uttar Pradesh

Abstract

Background

Menstrual Health and Hygiene (MHH) was essential for the well-being and empowerment of women and adolescent girls. On any given day, more than 300 million women worldwide are menstruating. In total, an estimated 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management (MHM). To effectively manage their menstruation, girls and women require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a supportive environment where they can manage menstruation without embarrassment or stigma.[1]

Credit Author Contributions (Author Initials)

Preeti Pal (PP): Conceptualization; Data curation; Resources; Roles/Writing - original draft; & editing. Dr. Vijay Laxmi Verma (VLV): Project administration; Visualization; Writing – review; Validation.All persons entitled to authorship are listed as authors.

Funding Sorces

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. Girls and women who had periods faced common issues such as lack of resources, infrastructure, and knowledge about menstruation causing unsanitary and unhealthy menstrual patterns, as well as physiological difficulties, irrational beliefs, and unfavourable attitudes that encourage, among other things, bullying, shaming, and even gender-based violence.[1] The researcher in this study statesgirls and women require access to water, sanitation, and hygiene facilities, menstrual hygiene products that really are accessible and appropriate, education on healthy practices and a welcoming environment where they may manage their periods without embarrassment or stigma.[1]

Material &Method

The researcher has opted for Quantitative research approach to achieve the objectives of the present study. One group pre-test and post-test design, quasi experimental design without

control group, was conducted by the researcher. Non probability purposive sampling technique was used in the present study. Descriptive & inferential statistics has done for analyzed the data in rural and urban community of almora; data was collected using structured questionnaire.

Results

The results revealed that overallpre-intervention mean score of knowledge regarding menstrual hygiene among adolescent girls in the urban area was 18.68±3.34 and the post – interventional mean score was 25.50±1.93. The mean difference knowledge score was 6.82 and the mean difference percentage was 22.7%. The calculated paired 't' test value of t = 6.864 was statistically significant at p<0.001 level in the urban area. Similarly, in the rural area it was 14.12±1.71 and the post – interventional mean score was 24.87±2.18. The mean difference knowledge score was 10.75 and the mean difference percentage was 35.8%. The calculated paired't' test value of t = 15.951 was statistically significant at p<0.001 level. The pre-intervention mean score of practice regarding menstrual hygiene among adolescent girls in the urban area was 7.43±1.50 and the post – interventional mean score was 12.93±1.23. The mean difference knowledge score was 5.50 and the mean difference percentage was 36.7%. The calculated paired 't' test value of t = 11.188 was statistically significant at p<0.001 level in the urban area. Whereas in the rural area it was 8.00±0.63 and the post – interventional mean score was 13.68±1.40. The mean difference practice score was 5.68 and the mean difference percentage was 37.9%. The calculated paired't' test value of t = 15.237 was statistically significant at p<0.001 level. A positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.01 level. This clearly shows the effectiveness of planned teaching programme in the urban area. Further, moderate positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.05 level in the rural area. The association between demographic variables and pre-interventional knowledge scores regarding menstrual hygiene among adolescent girls in the urban area showed educational status of the mother (t=7.268, p=0.0001) and occupational status of the father (F=11.762, p=0.0001) had statistically significant association at p<0.001 level. Occupational status of the mother (F=8.083, p=0.003) had statistically significant association at p<0.01 level. Furthermore, education (F=4.595, p=0.031), type of family (F=2.842, p=0.022), educational status of father (t=2.842, p=0.022), family income (F=2.842, p=0.022) had statistically significant association at p<0.05 level. The demographic variables did not show statistically significant association with pre-interventional knowledge score regarding menstrual hygiene among adolescent girls in the rural area. The demographic variables did not show statistically significant association with pre-interventional practice score regarding menstrual hygiene among adolescent girls in both urban and rural areas.

Conclusion

The purpose of the study was to assess the knowledge and practice of adolescents girls regarding menstrual hygiene and give them STP regarding menstrual and menstrual hygiene. Researcher was given on-hand health instruction in needed areas. The whole study was cost effective, simple and carried out in an acceptance way to explore the problems during the menstruation. After the intervention there are huge developments in both rural and urban area. The researcher made one self help group including social worker ASHA and adolescents girls to increase their knowledge and practice in rural area cause researcher found that in rural area girls haven't any actual source to gathered their knowledge and practice. On the other hand urban girls having their source of information like teachers, educated parents.

Keywords: assess, knowledge, practice, effectiveness, adolescents, menstrual hygiene

Background

Girls and women are affected by menstruation in a variety of ways, including emotional and self-image problems. In the United States, the average age at menarche (the start of menstruation in females) was 12.8 years with a range between 8 to 18. Genetics were the most important factor in determining the age at which menarche starts, but geographic location, nutrition, weight, general health, and psychological factors are also important (Shelby & Ruocco,2007).[2]

According to Dasra and News and Events, India's population data in March India will have a 1.35 billion-person population by the year 2020, having 46% of the population between the ages of 10 and 19. There still are 355 million menstruating women and girls in India, although they confront numerous obstacles to using Menstrual Hygiene Management (MHM) due to social and economic constraints. Only 12% of women and girls in India have access to sanitary napkins, based on the most recent data compiled by the ministry of health, and the bulk of them use antiquated, filthy techniques to deal with their periods.9 According to the census 2020, the current population of Uttarakhand was 1.01 crore. National Family Health Survey 4 state that 55 percent of women between the age of 15 -24 in Uttarakhand.[3]

Pratibha Singh, Shivani Bhardwaj, et.al., (2017) conducted a Study on hygiene and sanitary practices during menstruation among adolescent girls of Udham Singh Nagar district of Uttarakhand. The present study was carried out on 2135 girls from class 9th to 12th from three different government schools. A questionnaire was formulated for the study related to practices, knowledge and restricted activities practiced during menstruation, the age of menarche, type of absorbent used, its disposal and the frequencies of changing them, bathing during menses etc. The data was collected through personal interview. The result showed that there was an inappropriate knowledge and hygiene practice during menstruation among school-going adolescent girls. Only 35.28% of girls were aware of menstruation before menarche. It was also seen that 92.50% of girls don't change pads in school which leads to the long gap between changing pads and may lead to UTIs and cancer-like diseases.[4]

Girls and women have a smaller amount or no knowledge about reproductive tract infections caused due to unawareness of personal hygiene during menstruation time. Even many Studies have shown that girls lack knowledge about menstruation and due to lack of hygiene they are likely to suffer from UTI's.[5]

Menstrual practices still face many societal cultural and religious limitations which are a large barrier in the pathway of the menstrual hygiene management. Rural areas, girls are not aware of menstruation so they face lots of difficulties and face up at home schools, and workplaces. In rural areas, women do not have the right to use sanitary products or they know very small knowledge about the types and methods of using them or are not capable to afford to buy such products due to more cost. As a result, they largely rely on washable, reusable cloth pads.[6]

The capacity to manage menstruation hygienically was fundamental to the dignity and safety of women and constitutes an integral part of basic hygiene, sanitation, and reproductive health services. Poor knowledge of physiology unscientific attitudes mythology and misconception including the belief that menstruating women are contaminated dirty and impure badly affect their health and community lives.[6]

Analysis and Interpretation

Table 1: *Frequency and percentage distribution of demographic variables of adolescent girls in urban and rural community* N = 32(16+16)

Demographic Variables		Urban		Rural	
		Frequency	Percentage	Frequency	Percentage
Age in year	10 – 12	7	43.8	0	0
	13 – 15	9	56.2	0	0
	16 – 19	0	0	16	100.0
Education	7 – 8 standard	7	43.8	0	0
	9 – 10 standard	3	18.8	0	0
	11 – 12 standard	6	37.5	16	100.0
Religion	Hindu	13	81.2	16	100.0
	Christian	3	18.8	0	0
	Muslim	-	-	-	-
	Others	-	-	-	-
Type of family	Nuclear family	6	37.5	16	100.0
	Joint family	10	62.5	0	0
	Extended family	-	-	-	-
Educational status of the father	Illiterate	-	-	-	-
	High school	-	-	-	-
	Intermediate	6	37.5	16	100.0
	Others	10	62.5	0	0
Educational status of the mother	Illiterate	-	-	16	100.0
	High school	3	18.8	0	0
	Intermediate	13	81.2	-	-
	Others	-	-	-	-
Occupational status of the father	Employed	-	-	-	-
	Unemployed	3	18.8	14	87.6
	Self employed	7	43.8	1	6.2
	Others	6	37.4	1	6.2
Occupational status of the mother	Employed	3	18.8	14	87.5
	Unemployed	3	18.8	1	6.2
	Self employed	7	43.8	0	0
	Others	3	18.8	1	6.2
Family income	<5000	6	37.5	15	93.8
	5001 – 7500	-	-	-	-
	7501 – 10000	10	62.5	0	0
	More than 10000	0	0	1	6.2
Number of sibling	1	2	12.5	4	25.0
	2	-	-	-	-
	3	10	62.5	0	0
	4	4	25.0	12	75.0
Source of information	Mother	10	62.5	15	93.8
	Relatives	3	18.8	1	6.2
	Media	-	-	-	-
	Others	3	18.8	0	0

The table 1 shows that most of the adolescent girls in the urban area, 9(56.2%) were aged between 13 – 15 years, 7(43.8%) were studying 7 – 8 standard, 13(81.2%) were Hindus,

10(62.5%) belonged to joint family, 10(62.5%) of fathers had other type of education, 13(81.2%) of mothers had high school education, 7(43.8%) of fathers and mothers were self employed, 10(62.5%) had family income of 7501 – 10000, had 3 siblings and received information through their mothers. Further, Table 1 shows that most of the adolescent girls in the rural area, 16(100%) were aged between 16 – 19 years, studying 11 – 12 standard, were Hindus and belonged to nuclear family, 16(100%) of fathers had intermediate education, 16(100%) of mothers were illiterates, 14(87.6%) of fathers were employed, 14(87.5%) of mothers were employed, 15(93.8%) had family income of <5000, 12(75%) had 4 siblings and 15(93.8%) had received information through their mothers.

AIMS

The aim of the study was to explore the factor influencing the knowledge practice understanding experience of menstrual hygiene among adolescent girls.

Objective

- To assess the pre-interventional level of knowledge and practice on menstrual hygiene among adolescent girls in selected rural and urban community.
- To assess the post- interventional level of knowledge and practice on menstrual hygiene among adolescent girls in selected rural and urban community.
- To compare the pre and post- interventional level of knowledge and practice on menstrual hygiene among adolescent girls in selected rural and urban community.
- To compare the post –interventional level of knowledge and practice on menstrual hygiene among adolescent girls in selected rural and urban community.
- To find out the association of the pre- interventional knowledge and practice with selected demographic variables.
- To find out the co-relation between the pre and post interventional knowledge and practice score

Methodology

- Study Design: One group pre-test and post-test design was used in the current study
- Study Setting: Rural and Urban community of Almora
- Sample: Adolescents' girls who were aged 10-19 years
- Sampling Technique: Non probability purposive sampling technique was used in the present study

Table 2: *Effectiveness of planned educational programme on knowledge regarding menstrual hygiene among adolescent girls in urban area* **N=16**

Knowledge	Mean	S.D	Mean Difference & %	Paired 't' test value
Pre-intervention	18.68	3.34	6.82	t=6.864
Post-intervention	25.50	1.93	(22.7%)	p=0.0001, S***

The table 2 shows that the pre-intervention mean score of knowledge regarding menstrual hygiene among adolescent girls in the urban area was 18.68±3.34 and the post – interventional mean score was 25.50±1.93. The mean difference knowledge score was 6.82 and the mean difference percentage was 22.7%. The calculated paired 't' test value of t = 6.864 was statistically significant at p<0.001 level which infers that the administration of planned

teaching programme on knowledge among adolescent girls found to be effective in improving the level of knowledge regarding menstrual hygiene among the adolescent girls in the post – intervention in the urban area.

Table 3: *Effectiveness of planned educational programme on knowledge regarding menstrual hygiene among adolescent girls in rural area* N=16

Knowledge	Mean	S.D	Mean Difference & %	Paired 't' test value
Pre-intervention	14.12	1.71	10.75	t=15.951
Post-intervention	24.87	2.18	(35.8%)	p=0.0001, S***

***p<0.001, S – Significant

Table 3 shows the pre-intervention mean score of knowledge regarding menstrual hygiene among adolescent girls in the rural area was 14.12±1.71 and the post – interventional mean score was 24.87±2.18. The mean difference knowledge score was 10.75 and the mean difference percentage was 35.8%. The calculated paired 't' test value of t = 15.951 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on knowledge among adolescent girls found to be effective in improving the level of knowledge regarding menstrual hygiene among the adolescent girls in the post – intervention in the rural area.

Table 4: *Effectiveness of planned educational programme on practice regarding menstrual hygiene among adolescent girls in urban area* N=16

Practice	Mean	S.D	Mean Difference & %	Paired 't' test value
Pre-intervention	7.43	1.50	5.50	t=11.188
Post-intervention	12.93	1.23	(36.7%)	p=0.0001, S***

***p<0.001, S – Significant

Table 4: shows that the pre-intervention mean score of practice regarding menstrual hygiene among adolescent girls in the urban area was 7.43±1.50 and the post – interventional mean score was 12.93±1.23. The mean difference knowledge score was 5.50 and the mean difference percentage was 36.7%. The calculated paired 't' test value of t = 11.188 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on practice among adolescent girls found to be effective in improving the level of practice regarding menstrual hygiene among the adolescent girls in the post – intervention in the urban area.

Table 5: *Effectiveness of planned educational programme on practice regarding menstrual hygiene among adolescent girls in rural area* N=16

Practice	Mean	S.D	Mean Difference & %	Paired 't' test value
Pre-intervention	8.00	0.63	5.68	t=15.237
Post-intervention	13.68	1.40	(37.9%)	p=0.0001, S***

***p<0.001, S – Significant

Table 5: shows that the pre-intervention mean score of practice regarding menstrual hygiene among adolescent girls in the rural area was 8.00±0.63 and the post – interventional mean score was 13.68±1.40. The mean difference practice score was 5.68 and the mean difference percentage was 37.9%. The calculated paired 't' test value of t = 15.237 was statistically significant at p<0.001 level which infers that the administration of planned

teaching programme on practice among adolescent girls found to be effective in improving the level of practice regarding menstrual hygiene among the adolescent girls in the post – intervention in the rural area

Table 6: *Correlation between pre – interventional and post – interventional knowledge and practice regarding menstrual hygiene among adolescent girls in the urban area* N=16

Intervention	Variables	Mean	S.D	Karl Pearson's Correlation 'r' test value
Pre-intervention	Knowledge	18.68	3.34	**r= -0.488**
	Practice	7.43	1.50	**p=0.055, N.S**
Post – intervention	Knowledge	25.50	1.93	**r= 0.711**
	Practice	12.93	1.23	**p=0.002, S****

**p<0.01, S – Significant

Table 6: shows that a negative correlation was observed between the pre-intervention knowledge and practice scores which were not found to be statistically significant in the urban area. Further, Table 5: also shows that a positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.01 level. This clearly shows the effectiveness of planned teaching programme which had improved the knowledge level regarding menstrual hygiene among the adolescents which ultimately resulted in the improvement in the practice on menstrual hygiene among them in the urban area.

Table 7: *Correlation between pre-interventional and post – interventional knowledge and practice regarding menstrual hygiene among adolescent girls in the rural area* N=16

Intervention	Variables	Mean	S.D	Karl Pearson's Correlation 'r' test value
Pre-intervention	Knowledge	14.12	1.70	**r= -0.370**
	Practice	8.00	0.63	**p=0.158, N.S**
Post – intervention	Knowledge	24.87	2.18	**r= 0.509**
	Practice	13.68	1.40	**p=0.044, S***

*p<0.05, S – Significant

Table 7: shows that a negative correlation was observed between the pre-intervention knowledge and practice scores which were not found to be statistically significant in the rural area. Further Table 6: also shows that a moderate positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.05 level. This clearly shows the effectiveness of planned teaching programme which had improved the knowledge level regarding menstrual hygiene among the adolescents which ultimately resulted in the improvement in the practice on menstrual hygiene among them in the rural area.

Discussion

The current study shows that most of the adolescent girls in the urban area, 9(56.2%) were aged between 13 – 15 years, 7(43.8%) were studying 7 – 8 standard, 13(81.2%) were Hindus, 10(62.5%) belonged to joint family, 10(62.5%) of fathers had other type of education, 13(81.2%) of mothers had high school education, 7(43.8%) of fathers and mothers were self employed, 10(62.5%) had family income of 7501 – 10000, had 3 siblings and received information through their mothers. Further, most of the adolescent girls in the rural area, 16(100%) were aged between 16 – 19 years, studying 11 – 12 standard, were Hindus and

belonged to nuclear family, 16(100%) of fathers had intermediate education, 16(100%) of mothers were illiterates, 14(87.6%) of fathers were employed, 14(87.5%) of mothers were employed, 15(93.8%) had family income of <5000, 12(75%) had 4 siblings and 15(93.8%) had received information through their mothers.

The pre-intervention mean score of knowledge regarding menstrual hygiene among adolescent girls in the urban area was 18.68±3.34 and the post – interventional mean score was 25.50±1.93. The mean difference knowledge score was 6.82 and the mean difference percentage was 22.7%. The calculated paired 't' test value of t = 6.864 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on knowledge among adolescent girls found to be effective in improving the level of knowledge regarding menstrual hygiene among the adolescent girls in the post – intervention in the urban area.

The pre-intervention mean score of knowledge regarding menstrual hygiene among adolescent girls in the rural area was 14.12±1.71 and the post – interventional mean score was 24.87±2.18. The mean difference knowledge score was 10.75 and the mean difference percentage was 35.8%. The calculated paired 't' test value of t = 15.951 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on knowledge among adolescent girls found to be effective in improving the level of knowledge regarding menstrual hygiene among the adolescent girls in the post – intervention in the rural area.

The pre-intervention mean score of practice regarding menstrual hygiene among adolescent girls in the urban area was 7.43±1.50 and the post – interventional mean score was 12.93±1.23. The mean difference knowledge score was 5.50 and the mean difference percentage was 36.7%. The calculated paired 't' test value of t = 11.188 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on practice among adolescent girls found to be effective in improving the level of practice regarding menstrual hygiene among the adolescent girls in the post – intervention in the urban area.

The pre-intervention mean score of practice regarding menstrual hygiene among adolescent girls in the rural area was 8.00±0.63 and the post – interventional mean score was 13.68±1.40. The mean difference practice score was 5.68 and the mean difference percentage was 37.9%. The calculated paired 't' test value of t = 15.237 was statistically significant at p<0.001 level which infers that the administration of planned teaching programme on practice among adolescent girls found to be effective in improving the level of practice regarding menstrual hygiene among the adolescent girls in the post – intervention in the rural area

A positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.01 level. This clearly shows the effectiveness of planned teaching programme which had improved the knowledge level regarding menstrual hygiene among the adolescents which ultimately resulted in the improvement in the practice on menstrual hygiene among them in the urban area.

A moderate positive correlation was observed between the post – interventional knowledge and practice score which was statistically significant at p<0.05 level. This clearly shows the effectiveness of planned teaching programme which had improved the knowledge level regarding menstrual hygiene among the adolescents which ultimately resulted in the improvement in the practice on menstrual hygiene among them in the rural area.

The association between demographic variables and pre-interventional knowledge scores regarding menstrual hygiene among adolescent girls in the urban area showed

educational status of the mother (t=7.268, p=0.0001) and occupational status of the father (F=11.762, p=0.0001) had statistically significant association at p<0.001 level. Occupational status of the mother (F=8.083, p=0.003) had statistically significant association at p<0.01 level. Furthermore, education (F=4.595, p=0.031), type of family (F=2.842, p=0.022), educational status of father (t=2.842, p=0.022), family income (F=2.842, p=0.022) had statistically significant association at p<0.05 level.

The demographic variables did not show statistically significant association with pre-interventional knowledge score regarding menstrual hygiene among adolescent girls in the rural area.

The demographic variables did not show statistically significant association with pre-interventional practice score regarding menstrual hygiene among adolescent girls in both urban and rural areas.

The study was supported by a study conducted by Tata groups article from the village of Chopriyalgaon in the Tehri Garhwal region of Uttarakhand (2022); where they discovered that the people, particularly the women, are not educated about menstruation and are unaware of the dangers of being unhygienic while menstruating. Initiating Menstrual Hygiene Management (MHM) Himmotthan, a Tata Trusts affiliate organization, offers a forum for the exchange of knowledge, the discussion of safe menstrual health products, and the modification of menstruation-related social attitudes and behaviours. Women's self-help groups are usually formed for the MHM training session. They occasionally come across unexpected behaviours that show how people know about the negative effects of neglecting menstruation health. Women who participated in the courses gained a better understanding of the significance of washing and sun-drying the sanitary products used to manage menstruation both before and after usage. Additionally, they discover how crucial it were to practice good hygiene and cleanliness throughout their periods, just like it was to eat well. "Safe MHM practices have benefited the community and improved health in our village,"[7]

Conclusion

The purpose of the study was to assess the knowledge and practice of adolescents girls regarding menstrual hygiene and give them STP regarding menstrual and menstrual hygiene. Researcher was given on-hand health instruction in needed areas. The whole study was cost effective, simple and carried out in an acceptance way to explore the problems during the menstruation. After the intervention there are huge developments in both rural and urban area. The researcher made one self help group including social worker ASHA and adolescents girls to increase their knowledge and practice in rural area cause researcher found that in rural area girls haven't any actual source to gathered their knowledge and practice. On the other hand urban girls having their source of information like teachers, educated parents.

References

World Bank report. https://www.worldbank.org/en/topic/water/brief/menstrual-health-and-hygiene.

Susan Scott Ricci "Essentials Of Maternity, Newborn & Women, Health Nursing (Second Edition), Publication By Lippincott Williams& Wilkins,Page No 52.

Health and family welfare statistics in India, department of health and family welfare. Health SurveryCensus, population of women in uttarakhand 2020.

https://main.mohfw.gov.in/sites/default/files/HealthandFamilyWelfarestatisticsinIndia201920.pdf.

Pratibha Singh, Shivani Bhardwaj, Shalu et.al. Study on hygiene and sanitary practices during menstruation among adolescent girls of Udham Singh Nagar district of Uttarakhand. International Journal of Home Science. 2017; 3(3): 21-23. https://www.homesciencejournal.com/archives/2017/vol3issue3/PartA/3-3-13-636.pdf.

Outlook. Menstrual hygiene in India. Outlook Web Bureau. 11thFeb 2018. https://www.outlookindia.com/website/story/menstrual-hygiene-in-india/308166

The Indian Express. About 50 per cent of women aged 15-24 years still use cloth for menstrual protection: latest National Family Health Survey report. 11-May-22. https://indianexpress.com/article/lifestyle/health/about-50-per-cent-of-women-aged-15-24-years-still-use-cloth-for-menstrual-protection-latest-national-family-health-survey-report-7911145/.

The Menstrual Hygiene Management. A new period of menstrual health for rural Uttarakhand. 17 January, 2022. https://www.tatatrusts.org/our-stories/article/a-new-period-of-menstrual-health-for-rural-uttarakhand.