REPORT

A study of menstrual hygiene and impact of pad incinerator

A comparative study in Bharatpur, Guleria, Tikapur and Butwal



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Abstract

Menstrual hygiene and management are neglected issues of Nepal. SWASHTHA project has built pad incinerator in some school of Nepal to address the need of adolescent girls. Study has been carried out in order to assess the impact of pad incinerator among school girls of four municipalities viz Bharatpur, Guleria, Tikapur and Butwal. It has also compared the differences between the situation of knowledge, practice and hygiene behavior between schools where pad incinerator were built and not built.

The study is descriptive, cross sectional where both qualitative as well as quantitative methods were applied. The study was carried out with 200 adolescent girls who had menarche already, 140 girls were from the school where pad incinerator was built and 60 girls were from the school where pad incinerator was not built. The age of respondent was from 12 to 18. The mean age of girls was 15. Students were from class 5 to 10.

Seventy one percent girls from Guleria, (69%) from Bharatpur, (63%) from Butwal and (43%) from Tikapur knew about reproductive health. Forty three percent girls from Bharatpur, (37%) from Butwal, (26%) from Guleria and (17%) from Tikapur knew that blood comes from uterus during menstruation. In Bharatpur, (17%) use only sanitary pad, (49%) use clothes and sanitary pad and (34%) use only clothes. In Guleria, (9%) use sanitary pad, (54.3%) use both sanitary pad and clothes and (37%) use clothes. In Tikapur, (6%) use sanitary pad and (46%) use clothes and sanitary pad and (46%) use clothes. In Butwal, (40%) use sanitary pad and (37%) use sanitary pad and clothes and (23%) use clothes. Seventy three percent girls from Tikapur, (49%) from Butwal another (49%) from Guleria and (14%) from Bharatpur leave school if they menstruate in school. In case of school where pad incinerator was not built, (93%) from Guleria, (80%) from Bharatpur another (80%) from Tikapur and (60%) from Butwal leave school if they menstruate at school. Seventy seven percent girls from Guleria, (73%) from Butwal (65%) from Bharatpur and (41%) from Tikapur used pad incinerator at school. In school where pad incinerator was not built (87%) from Butwal, (73%) from Guleria, another (73%) from Bharatpur and (60%) from Tikapur preferred pad incinerator. Similarly in school where pad incinerator was not built (100%) students are willing to buy sanitary pad, except in Guleria where (73%) were willing to buy sanitary pad.

The major things achieved from this study were girls lack adequate knowledge about menstruation hygiene. Few students have access of sanitary pad. Construction of sanitary pad is not only the reason of increase attendance and decrease drop out of girls from school instead availability of pad is the major cause. However use of pad incinerator has helped students to change their pad at school which is successful to create user friendly environment.

Background

Menstruation hygiene issues have received little attention from the water, sanitation and hygiene sector as well as from the reproductive health sector in Nepal. Girl's absenteeism rate is high in schools because of lack of menstrual management at schools. Girls don't attain school either, or don't have proper disposal facility.

Literature review indicates that the practices coupled with poor knowledge and gender unfriendly toilets are responsible for a significant proportion of school absenteeism, illness and infection associated with female reproductive health of school going adolescents in developing countries. Though many of the health programmes have taken significant steps forward, particularly as they ensured community participation in developing sustainable and effective hygiene and sanitation programme, usually these have failed to include the issues related to menstrual hygiene and management. The SACOSAN (South Asian Conference on sanitation) III, has stated that special sanitation needs of women (e.g. menstrual hygiene management) will be integrated in planning, implementation, monitoring and measurement of program outcomes. Currently some organization in Nepal has started giving awareness on menstrual hygiene.

About SWASHTHA Project

SWASHTHA (Strengthening Water, Air, Sanitation and Hygiene Treasuring Health) project focuses to improve the health and well being of the urban and peri urban settlements of Bharatpur, Butwal, Gularia, Ramgram, Ratnagar, Sidharthanagar and Tikapur municipalities. The project also focuses on the few urban environmental problems of small towns like Bardaghat, Kawasoti and Sunawal. The project has also been working with 36 local public schools with special focus on SLTS (School Led Total Sanitation) promotion. This promotion aims to advocate local communities to stop open defecation and to build and use latrines with certain hardware subsidies set.

Physical improvements have been made in the conditions of water and sanitation facilities in 36 public schools with a focus on the sensitivity towards gender need and students with special abilities. Besides, the programme has also made the promotion of hygiene education in schools.

About the study

This study has assessed the impact of pad incinerator among gilrs of government schools of four municipalities viz Bharatpur, Guleria, Tikapur and Butwal. It has also compared the difference between the situation of hygiene between schools where pad incinerator were built and not built. Study has also worked as monitoring and evaluation tool to measure the project's success. It will help to take further steps to run the project successfully. Study finally helps duty bearer to take necessary steps at local and national level and also make people accountable toward their promise. Moreover study will work for successful implementation of the project.

Objectives

The major objective of the study is to make the intensive study on outcome of Pad incinerator, its appropriateness, acceptance and sustainability on school environment with special focus on female students' academic performance.

Specific objective:

- 1. To find out the performance of pad incinerator at concerned school at different municipalities within SWASHTHA Project
- 2. To assess the knowledge, belief and practice regarding menstrual hygiene among girls within project area
- 3. To compare the difference between the situation of hygiene between schools where pad incinerator were built and not built.
- 4. To find out the perception on Pad Incinerator and its management from teachers and students
- 5. To observe the attitude and behavior change on students
- 6. Demand Projection and cost estimation of Pad for appropriate use. The projection might vary at respective municipalities.
- 7. To plan for the modification options and recommendation measures for its sustainability

Methodology

The study was carried out between April 2012 to July 2012.

Study site and population

The study was conducted in four municipality of Nepal viz Bharatpur, Guleria, Tikapur and Butwal. The study unit was school of these municipalities, 3 schools (2 schools which had pad incinerator and one school which did not have pad incinerator) selected from each municipality purposively. The total study population is 200 girls as well as their head teacher, health teacher, female teacher and pad incinerator operator of school. Among 200 students, 140 students were selected from school where pad incinerator was built and 60 students were selected where pad incinerator was not built. Thirty five girls were interviewed from each municipality where pad incinerator was built and 15 girls were interviewed from each school where pad incinerator was not built. The girls were from class 5 to 10 who have already menarche. Interview was also taken with field coordinator of SWASHTHA project.

Study design, techniques and tools

The study was descriptive, cross sectional where both qualitative as well as quantitative methods were applied. In depth interview and FGD were done with girls where as in depth interview were done with teachers at school and staffs of SWASHTHA project. Questionnaire, in-depth interview guideline and FGD guideline were prepared to collect the information. All the tools were

prepared in Nepali and were translated in English later. Questionnaire was pretested with school girl at Kathmandu and was revised accordingly.

Data Collection

Data collection was carried out in schools at school running hour with verbal consent of principle of respective schools. In-depth interview and FGD were taken with girls at separate place where male were not allowed to come. Head teacher and other teacher were interviewed in their free time. Before collecting information purpose of study was well explained to all the respondents.

Data analysis

Data were first translated in English and analyzed in SPSS 16.

Ethical consideration

Informed verbal consent was taken with principle of respective schools before collecting information. Rights, anonymity, confidentiality were respected in all phases of study. To preserve anonymity, findings were presented without ascribing name of the respondents.

About the project sites

Bharatpur

Bharatpur is one of the most growing municipalities of Nepal. It is in the central-southern part of Nepal. Located in Chitwan Valley, Bharatpur is the district headquarters of the Chitwan District, as well as a separate Municipal authority, and is the seventh largest city of Nepal with the population of 89,323 (census 2001). City is populated by people migrated from all over the country.

Guleria

Guleria municipality is situated in Bardiya district of Nepal. It is a district headquarter located at 35 km east from Nepalgunj municipality, regional headquarter of mid western region. Guleria being district headquarter, is a main administrative location of most of the I/NGO's. The major ethnic groups are janajati mainly Tharu.

Tikapur

Tikapur is a municipality in Kailali District in the Seti Zone of western Nepal. At the time of the 1991 Nepal census it had a population of 25639 living in 3804 individual households. It is surrounded by Karnali river at east, Manuwa and Thapapur VDC at west, Darkauli VDC at North and Narayanpur VDC at South. The major ethnic groups are janajati mainly Tharu.

Butwal

Butwal is one of the most developing municipalities. It is a large town in southern Nepal in Rupandehi District, in Lumbini Zone of which Butwal is the administrative center. It is located 240 kilometres west of Kathmandu and 22 kilometers north of Bhairahawa, at the northern edge of the Terai plain below the Siwalik Hills. Its name is derived from *Batauli Bazaar* in the town's oldest district. Through highway and air links, Butwal connects western Nepal to the capital Kathmandu. It has highway connections to the Indian Border at Sunauli and to hill towns Tansen and Pokhara. Butwal is a major gateway to Nepal.



Result

Characteristics of population

The study was carried out with 35adolescent girls who had menarche already. The age of respondent was from 12 to 18. The mean age of girls was 15. Students were from class 5 to 10.

Knowledge

In Bharatpur, the study reveals that among total population, (68%) of the participants could answer the question of what is reproductive health, (20%) were unknown about it and (12%) gave wrong answer.

In Guleria, among total, (71%) of the respondents could answer the question of what is reproductive health, (26%) were unknown about it, (3%) gave wrong answer.

In case of Tikapur, among total participants (51%) of the participants were unknown about reproductive health, (43%) could give write answer and remaining (6%) gave wrong answer.

In case of Butwal, (63%) of the participants could answer the question of what is reproductive health. Seventeen percent could not answer the question and (20%) were unknown about reproductive health.

Table 1: Knowledge, Definition of reproductive health (n=35)

Definition of reproductive health	Bharatpur	Guleria	Tikapur	Butwal
Write answer	68.6%	71.4%	42.9%	62.9%
Wrong answer	11.4	2.9%	5.7%	17.1%
Unknown	20%	25.7%	51.4%	20.0%
Total	100%	100%	100%	100%

Table 2: Knowledge, Definition of reproductive health (n=15)

Definition of reproductive health	Bharatpur	Guleria	Tikapur	Butwal
Write answer	53.3%	46.7%	0.0%	60.0%
Unknown	46.7	53.3%	100.0%	40.0%
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur among total respondents (53%) gave right answer and remaining were unknown, in Guleria (47%) gave write answer and remaining were unknown, in Tikapur all of them were unknown about the topic and in Butwal (60%) gave right answer and remaining were unknown about the topic.

The study reveals that in Bharatpur, (43%) respondents said blood comes from uterus, in Guleria (26%), in Tikapur (17%) and in Butwal (37%) respondents said blood comes from uterus remaining respondents said blood comes from vagina.

Table 3: Knowledge, Menstrual blood comes from (n=35)

Menstrual comes from	blood	Bharatpur	Guleria	Tikapur	Butwal
Uterus		42.3%	25.7%	17.1%	37.1%
Vagina		57.1%	74.3	82.9%	62.9%
Total		100.0%	100.0%	100.0%	100.0%

Table 4: Knowledge, Menstrual blood comes from (n=15)

Menstrual comes from	blood	Bharatpur	Guleria	Tikapur	Butwal
Uterus		33.3%	26.7%	26.7%	20.0%
Vagina		66.7	73.3%	73.3%	80.0%
Total		100%	100%	100%	100.0%

In case of school where pad incinerator was not built, in Bharatpur (33%) told that blood comes from uterus, in Guleria (27%), in Tikapur again (27%) and in Butwal only (20%) said blood comes from uterus. Rest of the respondents said blood comes from vagina.

In Bharatpur, (97%) percent respondents said they were taught the topic reproductive health, among them (88%) told that their teacher taught the topic well. In Guleria, (49%) told that they were taught the topic, among them (84%) told that they were taught the topic well. In Tikapur, (91%) told that they were taught the topic, among them, (97%) told that they were taught well. In Butwal, (97%) told that they were taught the topic, among them (97%) told that they were taught well by their teacher.

Table 5: Knowledge, Class in reproductive health (n=35)

Class in	Bharatpur	Guleria	Tikapur	Butwal
reproductive health				
Yes	97.1%	48.6%	91.4%	97.1%
No	2.9%	51.4%	8.6%	2.9%
Total	100.0%	100.0%	100.0%	100.0%

Table 6: Knowledge, How well described the topic reproductive health

How well described	Bharatpur (n=34)	Guleria(n=1 9)	Tikapur(n=3 2)	Butwal(n=3 4)
Well described	88.2%	84.2%	96.9%	97.1%
Satisfactor	11.8%	15.8%	3.1%	2.9%
Total	100.0%	100.0%	100.0%	100.0%

Table 7: Knowledge, Class in reproductive health (n=15)

Class in reproductive health	Bharatpur	Guleria	Tikapur	Butwal
Yes	86.7%	100.0%	100.0%	66.7%
No	13.3%	0.0%	0.0%	33.3%
Total	100.0%	100.0%	100.0%	100.0%

Table 8: Knowledge, How well described the topic reproductive health

How well described	Bharatpur (n=13)	Guleria(n=6)	Tikapur(n =15)	Butwal(n=10)
Well described	86.7%	40.0%	100.0%	90.0%
Satisfactor v	13.3%	60.0%	0.0%	10.0%
Total	100.0%	100.0%	100.0%	100.0%

As shown in above table, study reveals that, in Bharatpur (87%) told that they were taught the topic reproductive health, in Guleria, Tikapur and Butwal the entire respondent told that they were taught the topic reproductive health. Among them who told so, in Bharatpur, (87%) told that they were taught well, in Guleria (40%), in Tikapur 100% and in Butwal (90%) told that they were taught the topic reproductive health well by their teacher.

In Bharatpur, sixty percent respondents told that they have discussed the topic reproductive health in children club, among those respondents who said so, (76%) could remember the exact topic they have discussed i.e menstrual management. In Guleria, (40%) respondents said they have discussed the topic reproductive health in children club among them (93%) told that they

have discussed the topic menstrual management. In tikapur, (46%) told that they have discussed the topic reproductive health in children club, among them all of them said they have discussed the topic menstruation management. In Butwal, (11%) said they have discussed the topic reproductive health in children club among them all of them said they have discussed the topic menstruation management.

Figure 1: Discussion of reproductive health in children club

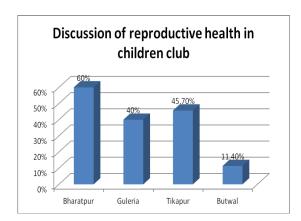
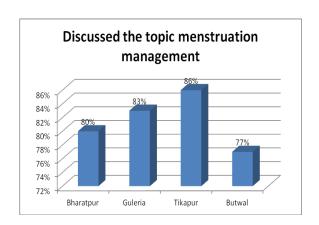


Figure 2: Discussion on topic menstruation management



In case of school where pad incinerator was not built, all of the respondents said they have not discussed the topic reproductive health in children club.

In Bharatpur, most of the student (97%) said they knew about pad, in Guleria (94%), in Tikapur (100%) and in Butwal also (100%) said they knew about pad and all of the respondents who knew about pad, could also answer that pad is material used during menstruation.

Table (9): Knowledge, know about pad (n=35)

Heard about pad	Bharatpur	Guleria	Tikapur	Butwal
Yes	97.1%	94.3%	100.0%	100.0%
No	2.9%	5.7%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Table (10): Knowledge, know about pad (n=15)

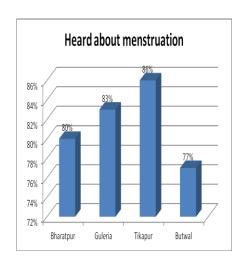
Heard about pad	Bharatpur	Guleria	Tikapur	Butwal
Yes	100.0%	100.0%	100.0%	100.0%
No	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

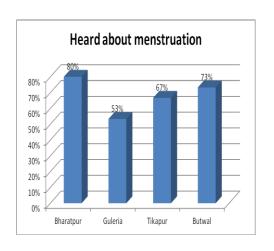
In case of school where pad incinerator was not built, as shown in above table the entire respondents from all municipalities told that they have heard about pad.

In Bharatpur, (80%) of the participants told that they have heard about menstruation before their menarche. Among those respondents, (57%) told that they have heard from their sister/sister in law/aunty, (21%) told that they have heard from mothers, (18%) told that they have heard from friends and (4%) told that they have heard from teachers.

Fig (3): Heard about Fig menstruation (n=35) mens

Fig (4) Heard about menstruation (n=15)





In Guleria, (83%) said that they have heard about menstruation before their menarche. Among them, (41%) said that they have heard from sister/sister in law/aunty, (35%) said that they have heard from their mother, 14% said that they have from teachers and 10% said that they have heard from friends.

In Tikapur, (86%) said that they have heard about menstruation before their menarche. Among them (37%) said that they have heard from sister/sister in law/ aunty, (33%) said that they have heard from their mothers.

In Butwal, (77%) said that they have heard about menstruation before their menarche. Among them (33%) said that they have heard from their mother, another (33%) said that they have heard from sister/sister in law/ aunty, (26%) said that they have heard from their friends.

Table 11: Knowledge, Source of information

Source of informatio	Bharatpur(n= 28)	Guleria(n= 29)	Tikapur(n =30)	Butwal(n=27)
n				
Mother	21.4%	34.5%	26.7%	33.3%
Sister/sister	57.1%	41.4%	36.7%	33.3%
in law/aunty				
Friends	17.9%	10.3%	33.3%	25.9%
Teachers	3.6%	13.8%	0.0%	7.4%
TV/Radio	0.0%	0.0%	3.3%	0.0%
Total	100.0	100.0	100.0	100.0

Table 12: Knowledge, Source of information

Source information	of	Bharatpur(n =12)	Guleria(n =8)	Tikapur (n=10)	Butwal(n= 11)
Mother		50.0%	62.5%	10.0%	63.6%
Sister/sister law/aunty	in	33.3%	25.0%	50.0%	36.4%
Friends		0.0%	0.0%	40.0%	0.0%
Teachers		16.7%	12.5%	0%	0.0%
TV/Radio		0.0%	0.0%	3.3%	0.0%
Total		100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur (80%) have heard about menstruation before menarche among them (50%) have heard from their mother, (33%) from sister/sister in law/aunty, (17%) from teacher.

In Guleria (53%) have heard about menstruation before menarche among them (63%) have heard from their mother, (25%) from sister/sister in law/aunty and 12% from teacher.

In Tikapur (67%) have heard about menstruation before menarche among them (50%) from have heard from their sister/sister in law/aunty (40%) from friends (10%) have heard from their mother.

In Butwal (73%) have heard about menstruation before menarche among them (64%) have heard from mother and (36%) have heard from sister/sister in law/aunty.

The study reveals that among total respondents in Bharatpur, Guleria and Tikapur (89%) said that they knew about pad incinerator. In Butwal, (86%) knew about pad incinerator built in their school.

Table13: Knowledge, know about pad incinerator (n=35)

Know pad incinerator	Bharatpur(n= 28)	Guleria(n= 29)	Tikapur(n=30)	<i>Butwal(n</i> = 27)
Yes	88.6%	88.6%	88.6%	85.7%
No	11.4%	11.4%	11.4%	14.3%
Total	100.0%	100.0%	100.0%	100.0%

Table 14: Knowledge, know about pad incinerator (n=15)

Know incinerator	pad	Bharatpur	Guleria	Tikapur	Butwal
Yes		86.7%	100.0%	100.0%	100.0%
No		13.3%	0.0%	0.0%	0.0%
Total		100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur, (87%) have not heard about pad incinerator, in Guleria, Tikapur and Butwal none of the respondents have heard about pad incinerator.



Fig 5: Interview with girl at Guleria

Belief

Untouchability

In Bharatpur, of the respondents, (67%) told that they cannot worship god only during menstruation, (13%) told that they cannot touch anything during menstruation, another (13%) told that they didn't have such beliefs and (7%) told that they cannot enter in kitchen and worship god.

In Guleria, (60%) told that they cannot touch anything, (33%) told that they cannot touch god only and (7%) told that they cannot enter in kitchen and worship god.

In Tikapur, (53%) told that they cannot touch anything and remaining (47%) told that they cannot worship god only.

In Butwal, (73%) told that they cannot touch anything, (20%) told that they cannot worship god only and (7%) told that they cannot enter in kithchen and worship god.

Beliefs of Bharatpur Guleria Tikapur Butwal untouchability Cannot touch 13.3% 60% 46.7% 73.3% anvthing 6.7% 6.7% Cannot enter in 0.0% 6.7% kitchen and worship god Cannot worship 66.7% 33.3% 53.3% 20.0% god only Don't have 13.3% 0.0% 0.0% 0.0% such belief Total 100.0% 100.0% 100.0% 100.0%

Table 15: Belief, Untouchability (n=35)

In case of school where pad incinerator was not built, in Bharatpur, (52%) told that they cannot worship god only during menstruation, (34%) told that they cannot touch anything, (14%) told that they cannot enter in kitchen and worship god.

In Guleria, (54%) told that they cannot touch anything, (20%) told that they cannot touch god only, (11%) told that they cannot enter in kitchen and worship god and (15%) told that they don't have such belief in their home.

In Tikapur, (37%) told that they cannot touch anything, another (37%) told that they cannot worship god only, (11%) told that they cannot enter in kitchen and worship god and 15% told that they don't have such belief in their home.

In Butwal, (73%) told that they cannot touch anything, (20%) told that they cannot worship god only and (7%) told that they cannot enter in kitchen and worship god.

Beliefs of untouchability were stronger among Brahmin and Chhetri in all municipalities.

Table 15: Belief, Untouchability (n=15)

Beliefs of untouchability	Bharatpur	Guleria	Tikapur	Butwal
Cannot touch anything	34.3%	54.3%	37.1%	40%
Cannot enter in kitchen and worship god	14.3%	11.4%	11.4%	85.7%
Cannot worship god only	51.4%	20.0%	37.1%	94.3%
Don't have such belief	0.0%	14.3%	14.3%	0.0%
Total	100.0%	100.0%	100.0%	100.0%



Fig 6: Interview with girl at Tikapur

Practices

Isolation during menstruation

In Bharatpur, the study reveals that (40%) of the respondents were isolated inside room where no male can see, among those who were isolated, (79%) said that they were isolated for 5-10 days, (14%) said they were isolated for 10-15 days and (7%) said that they were isolated for 1-5 days.

In Guleria (37%) of respondents were isolated inside room where no male can see, among those who were isolated, (65%) said that they were isolated for 1-5 days, (21%) said they were isolated for 5-10 days and (7%) said that they were isolated for 10-15 days and remaining (7%) said they were isolated for 20-25 days.

In Tikapur, the study reveals that (11%) of respondents were isolated inside room where no male can see, among those who were isolated, (50%) said that they were isolated for 5-10 days, (25%) said they were isolated for 10-15 days and next (25%) said that they were isolated for 1-5 days.

In Butwal, the study reveals that (60%) of respondents were isolated inside room where no male can see, among those who were isolated, (62%) said that they were isolated for 5-10 days, (33%) said they were isolated for 1-5 days and (5%) said that they were isolated for 5-10 days.

Table 16: Practice, Isolation during first menstruation (n=35)

Isolation during first menstruation	Bharatpur	Guleria	Tikapur	Butwal
Yes	40.0%	37.1%	11.4%	60.0%
No	60.0%	62.9%	88.6%	40.0%
Total	100.0%	100.0%	100.0%	100.0%

Table 17: Practice, duration of isolation during first menstruation

Duration of	Bharatpur(n= 14)	Guleria(n=14)	Tikapur(n=4)	Butwal(n=21)
isolation(i n days)				
1-5	7.1%	64.3%	25.0%	33.3%
5-10	78.6%	21.4%	50.0%	61.9%
10-15	14.3%	7.1%	25.0%	0.0%
15-20	0.0%	7.1%	0.0%	0.0%
20-25	0.0%	0.0%	0.0%	4.8%
Total	100.0%	100.0%	100.0%	100.0%

Table 18: Practice, Isolation during first menstruation (n=15)

Isolation during first menstruation	-	Guleria	Tikapur	Butwal
Yes	33.3%	53.3%	26.7%	86.7%
No	66.7%	46.7%	73.3%	13.3%
Total	100.0%	100.0%	100.0%	100.0%

Table 19: Practice, Duration of isolation during first menstruation

Duration of isolation(i n days)	Bharatpur(n =5)	Guleria(n=8)	Tikapur(n=5)	Butwal (n=13)
1-5	0.0%	25.0%	40.0%	23.1%
5-10	33.3%	75.0%	60.0%	61.5%
10-15	0.0%	0.0%	0.0%	0.0%
15-20	0.0%	0.0%	0.0%	0.0%
20-25	0.0%	0.0%	0.0%	15.4%
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur the study reveals that (33%) respondents said they were isolated in hidden place for 5-10 days.

In Guleria, (53%) were isolated, among them (75%) said they were isolated for 5-10 days, remaining (25%) said they were isolated for 1-5 days.

In Tikapur(27%) were isolated among them (60%) were isolated for 5-10 days, remaining (40%) said they were isolated for 5-10days.

In Butwal, (87%) were isolated among them, (62%) were isolated for 5-10 days, (23%) for 1-5 days, (15%) were isolated for 20-25 days.

Use of absorbent

In Bharatpur, the study reveals that (49%) use sanitary pad as well as clothes (especially piece of old cotton sari) as an absorbent during menstruation. Thirty four percent told that they use clothes and (17%) told that they use sanitary pad as an absorbent material during menstruation.

In Guleria, (54%) use sanitary pad as well as clothes as an absorbent during menstruation, (37%) told that they use clothes only and (9%) told that they use sanitary.

In Tikapur, (49%) use clothes, 46% told that they use clothes and (6%) told that they use sanitary pad as an absorbent material during menstruation.

In Butwal (40%) use sanitary pad, (37%) told that they use both sanitary pad and clothes and (23%) told that they use only clothes as an absorbent material during menstruation.

Table 20: Practice, Use of absorbent (n=35)

Use of absorbent	Bharatpur	Guleria	Tikapur	Butwal
Clothes	34.3%	37.1%	48.6%	22.9%
Sanitary pad	17.1%	8.6%	5.7%	40.0%
Both	48.6%	54.3%	45.7%	37.1%
Total	100.0%	100.0%	100.0%	100.0%

Table 21: Practice, Use of absorbent (n=15)

Use of absorbent	Bharatpur	Guleria	Tikapur	Butwal
Clothes	20.0%	66.7%	66.7%	53.3%
Sanitary pad	33.3%	0%	6.7%	26.7%
Both	46.7%	33.3%	26.7%	20.0%
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, among total respondents, (47%) said they use both sanitary pad and clothes as an absorbent during menstruation, (33%) said they use sanitary pad only and (20%) said they use clothes.

In Guleria (67%) said they use clothes as an absorbent during menstruation, 33% said they use sanitary pad as well as clothes.

In Tikapur (67%) said they use clothes as an absorbent during menstruation, (26%) said they use sanitary pad as well as clothes and (7%) said they use sanitary pad.

In Butwal (53.3%) said they use clothes as an absorbent during menstruation, (27%) said they use sanitary pad as well as clothes and (20%) said they use sanitary pad as an absorbent.

In Bharatpur among those respondents who use clothes as an absorbent material during menstruation, (37%) told that they don't use sanitary pad because its expensive to buy and they don't have money when they menstruate, (27%) told that they don't have culture of using sanitary pad in

their home, (18 %) told that they don't feel comfortable to use sanitary pad and remaining (18%) told that they feel shy to buy sanitary pad.

In Guleria among those students who use clothes as an absorbent material during menstruation, (39%) told that they don't have culture of using sanitary pad in their home, (31%) told that they don't use sanitary pad because its expensive to buy and (30%) told that they feel uncomfortable to use sanitary pad.

In Tikapur Among those students who use clothes as an absorbent material during menstruation, (60%) told that they don't use sanitary pad because its expensive to buy and they don't have money when they menstruate, (30%) told that they don't have culture of using sanitary pad in their home, (10%) told that sanitary pad is not available to buy.

In Butwal among those students who use clothes as an absorbent material during menstruation, (38%) told that they don't use sanitary pad because its expensive to buy, (37%) told that they feel uncomfortable to use sanitary pad and (25%) told that they don't have culture of using sanitary pad in their home.

Table 22: Practice, Reason for not using sanitary pad

Reason for not using sanitary pad	Bharatpu r(n=11)	Guleria(n=13)	Tikapur(n=2 0)	Butwa I(n=8)
Expensive	36.4%	30.8%	60.0%	37.5%
Feel uncomfortable to use	18.2%	30.7%	10.0%	37.5%
Don't have culture	27.3%	38.5%	30.0%	25.0%
Feel shy to buy	18.2%	0.0%	0.0%	0.0%
Total	100%	100.0%	100.0%	100.0%

Table 23: Practice, reason for not using sanitary pad

Reason for not using sanitary pad	Bharatpu r(n=4)	Guleria(n=11)	Tikapur(n=7)	Butwal (n=8)
Expensive	50.0%	54.5%	57.1%	62.5%
Feel uncomfortable to use	25.0%	36.4%	42.9%	87.5%
Don't have culture	0.0%	9.1%	0.0%	0.0%
Pad has got negative effect on body	25.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, (50%) said it was expensive to buy sanitary pad, (25%) feels uncomfortable to use sanitary pad and another (25%) said sanitary pad has got negative effect on body.

In Guleria, (55%) told that it is expensive to buy sanitary pad, (36%) said they feel uncomfortable to use and (9%) don't have culture of using sanitary pad.

In Tikapur, (57%) of the respondent said it is expensive to buy and (43%) said it is uncomfortable to use sanitary pad.

In Butwal, (63%) told that it is expensive to buy sanitary pad, (25%) said they feel uncomfortable to use sanitary pad and (12%) don't have culture of using sanitary pad.

Hygiene practice

Use of absorbent material

In Bharatpur, among 29 students who use clothes as an absorbent material during menstruation study shows that, all of them said they wash after using it, (59%) told that they dry in direct sunlight, (24%) told that they dry inside room where no one can see, and (17%) told that they dry in sunlight but covering by other clothes.

In Guleria, among 32 respondents who use clothes as an absorbent material during menstruation study shows that, all of them said they wash after using it, (59%) told that they dry in direct sunlight, (19%) told that they dry inside room where no one can see, and (22%) told that they dry in sunlight but covering by other clothes.

In Tikapur among 33 students who used clothes as an absorbent during menstruation study shows that, (97%) of them said they wash after using it,

(3%) told that they throw after using it. Among those respondents who wash clothes after using it, (59%) said they dry in sunlight but by covering by other material, (25%) said they dry in direct sunlight and other (16%) said they dry inside room where no one can see.

Among 20 students who used clothes as an absorbent during menstruation study shows that, (97%) of them said they wash after using it, (3%) told that they throw after using it. Among those respondents who wash clothes after using it, (37%) said they dry in sunlight but by covering by other material, (32%) said they dry in direct sunlight and (31%) said they dry inside room where no one can see.

Table 24: Hygiene Practice, What you do after using clothes (n=35)

What you do after using clothes	Bharatp ur	Guleria	Tikapur	Butwal
Wash	100.00%	100.00%	97.0%	95.0%
Throw Total	0.0% 100.0%	0.0% 100.0%	3.0% 100.0%	5.0% 100.0%

Table 25: Hygiene practice, where you dry clothes

Where you dry clothes	Bharatpu r(n=29)	Guleria(n= 32)	Tikapur(n =32)	Butwal(n =19)
Direct sunlight	58.6%	59.4%	25.0%	31.6%
Inside room where no one can see	24.1%	18.8%	15.6%	31.6%
In sunlight but by covering by other clothes	17.2%	21.9%	59.4%	36.8%
Total	100.0%	100.0%	100.0%	100.0%

Table 26: Hygiene practice, what you do after using clothes (n=15)

What you do after using clothes	Bharatpur	Guleria	Tikapur	Butwal
Wash	100.0%	100.0%	100.0%	100.0%
Throw	0.0%	0.0%	0.0%	0.0%
Total	100%	100.0%	100.0%	100.0%

Table 27: Hygiene practice, where you dry clothes

Where you dry clothes	Bharatpu r(n=11)	Guleria(n= 15)	Tikapur(n =14)	Butwal(n=1 3)
Direct sunlight	54.5%	66.7%	71.4%	46.2%
Inside room where no one can see	45.5%	26.7%	14.3%	23.1%
In sunlight but by covering by other clothes	0.0%	6.7%	14.3%	30.8%
Total	100%	100%	100%	100%

In case of school where pad incinerator was not built, in Bharatpur, all of the respondents said they wash clothes and use again, (55%) respondents said they dry in direct sunlight and (45 %) respondents said they dry inside room where no one can see.

In Guleria, all of the respondents said they wash clothes and use again, (67%) respondents said they dry in direct sunlight, (27 %) respondents said they dry inside room where no one can see, (6%) said they dry in sunlight but by covering other clothes.

In Tikapur all of the respondents said they wash it and use again, (72%) respondents said they dry in direct sunlight, and (14%) said they dry inside room where no one can see and another (14%) said they dry in sunlight covering by other clothes.

In all of the respondents said they wash it and use again, (46%) respondents said they dry in direct sunlight, (31%) said they dry in room where no one can see, (23%) said they dry inside room where no one can see.

In Bharatpur, among total population, (29%) respondent told that they change absorbent material as per required, (27%) told that they change three times, (26%) said they change two times, (9%) said that they change four times and remaining (9%) said that they change ones in a day.

In Guleria among total respondents, (43%) respondent told that they change absorbent three times a day, (26%) told that they change two times a day and (17%) said they change as per required, (11%) said that they change four times and remaining (3%) said they change ones in a day.

In Tikapur, among total population, (34%) respondent told that they change absorbent thrice in a day, (29%) told that they change two times, (17%) said they change ones in a day, (11%) said they change as per required, (9%) said that they change four times a day.

In Butwal, among total population, (34%) respondent told that they change absorbent thrice in a day, another (34%) said they change two times, (28%)

said they change four times a day, (3%) said that they change four times a day.

Table 28: Hygiene practice, frequency of changing pad (n=35)

Frequency of changing absorbent	Bharatpur	Guleria	Tikapur	Butwal
Ones in a day	8.8%	2.9%	17.1%	2.9%
Twice in a day	26.5%	25.7%	28.6%	34.3%
Three times a day	26.5%	42.9%	34.3%	34.3%
Four times a day	8.8%	11.4%	8.6%	28.6%
As per required	29.4%	17.1%	11.4%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Table 29: Hygiene practice, frequency of changing pad (n=15)

Frequency of changing absorbent	Bharatpur	Guleria	Tikapur	Butwal
Ones in a day	0.0%	13.3%	0.0%	0.0%
Twice in a day Three times a day	33.3% 46.7%	26.7% 46.7%	33.3% 46.7%	33.3% 46.7%
Four times a day	13.3%	0.0%	20.0%	20.0%
As per required Total	6.7% 100.0%	13.3% 100.0%	0.0% 100.0%	0.0% 100.0%

In case of school where pad incinerator was not built, in Bharatpur, among total population, (47%) respondents told that they change absorbent three times a day, (33%) said they change two times, (13%) said that they change four times and remaining (7%) said that they change as per required.

In Guleria among total respondents, (47%) respondent told that they change absorbent three times a day, (27%) told that they change two times a day and (13%) said they change as per required and (13%) said they change ones in a day.

In Tikapur, among total population, (60%) respondent told that they change absorbent thrice in a day, (20%) told that they change four times and (20%) said they change as per required.

In Butwal, among total population, (47%) respondent told that they change absorbent thrice in a day, (33%) said they change two times and (20%) said they change four times a day.

In Bharatpur, the study reveals that among total respondents, all of them clean their urethra during menstruation. Fifty four percent said they wash 4 times a day, (26%) said they wash five times a day, (11%) said they wash three times a day and remaining (9%) said they wash only two times a day.

In Guleria, (94%) clean their urethra during menstruation. Among the respondents who clean their urethra, (55%) said they wash 4 times a day, (18%) said they clean three times a day, (15%) said they clean ones a day and remaining (9%) said they clean five times a day and remaining (3%) said two times a day.

In Tikapur, (97%) clean their urethra during menstruation. Among them (27%) said they wash 4 times a day, another (27%) said they clean two times a day, (24%) said three times a day and remaining (23%) said they wash two five times a day.

In Butwal, all of them clean their urethra during menstruation. Sixty three percent said they clean 4 times a day, (20%) said they clean two times a day, (14%) said they clean three times a day and remaining (9%) said they clean only two times a day.

Table 30: Hygiene practice, frequency of washing urethra during menstruation (n=35)

Frequency of washing urethra	Bharatpur	Guleria	Tikapur	Butwal
Ones in a day	0.0%	15.2%	0.0%	0.0%
Twice in a day	8.6%	3.0%	26.5%	20.0%
Three times a day	11.4%	18.2%	23.5%	2.9%
Four times a day	54.3%	54.5%	26.5%	62.9%
Five times a day	25.7%	9.1	23.5%	14.3%
Total	100.0%	100.0%	100.0%	100.0%

In Bharatpur upon asking how many times you bath during menstruation, (66%) said they bath in every alternative day till 5^{th} day of their menstruation, (31%) said that they take bath daily and remaining (3%) said they take bath on 4^{th} and 5^{th} day of their menstruation.

In Guleria (74%) said they bath daily, (11%) said they take bath in every alternative day, (14%) said they bath on 4^{th} and 5^{th} day of their menstruation.

In Tikapur upon, (66%) said they bath in every alternative day till 5^{th} day of their menstruation, (31%) said that they take bath daily and remaining (3%) said they take bath on 4^{th} and 5^{th} day of their menstruation.

In Butwal, (66%) said they bath in every alternative day till 5^{th} day of their menstruation, (31%) said that they take bath daily and remaining (3%) said they take bath on 4^{th} and 5^{th} day of their menstruation.

Table 31: Hygiene practice, frequency of taking bath during menstruation (n=35)

Frequency of bathing	Bharatpur	Guleria	Tikapur	Butwal
Daily	31.4%	74.3%	88.6%	80.0%
1 st ,3 rd ,5 th day 4 th & 5 th day	65.7% 2.9%	11.4% 14.3%	8.6% 2.9%	14.3% 5.7%
Total	100.0%	100.0%	100.0%	100.0%

Disposal of sanitary pad

Pad Disposal at school

In Bharatpur, upon asking where you dispose pad at school, (65%) said they throw in pad incinerator and remaining (35%) said they never throw pad in school.

In Guleria, (77%) said they throw in pad incinerator and remaining (23%) said they never throw pad in school.

In Tikapur, (41%) said they throw in pad incinerator and remaining (59%) said they never throw pad in school.

In Butwal, (73%) said they throw in pad incinerator and remaining (27%) said they never throw pad in school.

Figure (7): Disposal of pad at school (school having incinerator)

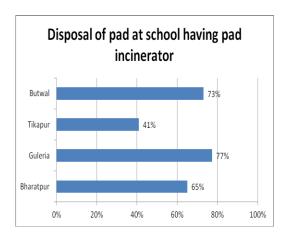
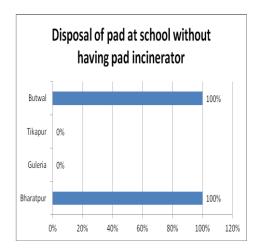


Figure (8): Disposal of pad at school (school not having incinerator)



In case of school where pad incinerator was not built, as shown in above figure, in Bharatpur 100% respondents said they throw pad at school in dust bin, in Guleria and Tikapur all respondents said they don't throw pad at school, in Butwal all of the respondents said they throw in dust bin at school. In Guleria and Tikapur there was no disposal facility.

Pad disposal at home

In Bharatpur among total respondents who use sanitary pad (57%) said they collect and burned it, (22%) said they dug a pit and bury there, (13%) said they throw in toilet pan (4%) said they throw in open place .

In Guleria among total respondents who use sanitary pad (70%) said they dug a pit and bury there (20%) said they collect and burned it, (5%) said they throw in toilet pan and remaining (5%) said they throw in open place.

In Tikapur among total respondents who use sanitary pad (50%) said they dug a pit and bury there (33%) said they throw in river/bush, (11%) said they throw in toilet pan and remaining (6%) said they collect in one place and burned there.

In Butwal among total respondents who use sanitary pad (35%) said they collect in one place and burned there, (27%) said they throw in river/bush, another (27%) said they give it to waste collector, (7%) said they dig a pit and bury there and (4%) said they throw in toilet pan.

Table 32: Disposal of pad at home (n=35)

Pad disposal	Bharatpur	Guleria	Tikapur	Butwal
Pit	21.7%	70.0%	50.0%	7.7%
River/bush	4.3%	0.0%	33.3%	26.9%
Open place	4.3%	0.0%	0.0%	0.0%
Flush in toilet	13.0%	5.0%	11.1%	3.8%
Burned	56.5%	20.0%	5.6%	34.6%
Waste collector	0.0%	5.0%	0.0%	27.0%
Total	100.0%	100.0%	100.0%	100%

Table 33: Disposal of pad at home (n=15)

Pad disposal	Bharatpur	Guleria	Tikapur	Butwal
Pit	69.2%	100.0%	83.3%	0.0%
River/bush	7.7%	0.0%	0.0%	0.0%
Open place	0.0%	0.0%	0.0%	0.0%
Flush in toilet	7.7%	0.0%	0.0%	0.0%
Burned	15.4%	0.0%	0.0%	50.0%
Waste collector	0.0%	0.0%	16.7%	50.0%
Total	100%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur among total respondents who use sanitary pad (69%) said they dig a pit and bury there, (15%) said they collect in one place and burn it, (8%) said they throw in toilet pan, another (8%) said they throw in river.

In Guleria among total respondents who use sanitary pad (100%) said they dig a pit and bury there.

In Tikapur among total respondents who use sanitary pad (83%) said they dig a pit and bury there and (17%) said they give it to waste collector.

In Butwal among total respondents who use sanitary pad (50%) said they collect in one place and burned there another (50%) said they give it to waste collector.

School attendance

In Bharatpur study reveals that most of the student (80%) always attend school during menstruation, (17%) girls left school during class if they have problem and (3%) student never attend school during their menstruation because of heavy bleeding.

In Guleria (80%) always attend school during menstruation, (8%) respondents never come school on first day of their menstruation because of heavy bleeding, (6%) respondents said they remained absent sometime

because of dysmenorrhoea and remaining (5%) they returned home if they get any problem.

In Tikapur the study reveals that (86%) girls always attend school during menstruation, (9%) girls left school during class if they have problem and (5%) respondents said they remained absent sometime if they get any problem.

In Butwal (88%) girls always attend school during menstruation, and (6%) respondents said they remained absent sometime if they have problem and remaining (6%) said they always remained absent during menstruation because they cannot touch books since it is regarded as god.

Table 34: School attendance at school having pad incinerator (n=35)

Attend school	Bharatpur	Guleria	Tikapur	Butwal
Always present	80.0%	80%	85%	88.6%
Absent sometime	3.0%	6.0%	6.0%	94.3%
Always absent on	0.0%	9.0%	0.0%	0.0%
first day				
Go back to home	17.0%	5.0%	9.0%	0.0%
Always absent	0.0%	0.0%	0.0%	6.0%
Total	100.0%	100.0%	100.0%	100.0%

Table 35: School attendance at school without having pad incinerator (n=15)

Attend school	Bharatpur	Guleria	Tikapur	Butwal
Always present	86.7%	66.5%	93.3%	86.7%
Absent sometime	6.7%	26.7%	6.7%	0.0%
Always absent on	6.7%	0.0%	0.0%	0.0%
first day				
Go back to home	0.0%	6.7%	0.0%	6.7%
Always absent	0.0%	0.0%	0.0%	6.7%
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, in Bharatpur among total respondents (86%) said they always attend school, (7%) said they remained absent sometime because of dysmenorrhea and other (7%) said she remained absent on first day of menstruation because of dysmenorrhea. In Guleria among total respondents (67%) said they always attend school, (27%) said they remained absent sometime because of dysmenorrhoea and remaining (7%) they came back home if they have any problem.

In Tikapur among total respondents (93%) said they always attend school, (7%) said they remained absent sometime because of dysmenorrhoea.

In Butwal, among total respondents (86%) said they always attend school, (7%) said they remained absent sometime because of dysmenorrhea and other (7%) remained absent on first day of menstruation because of dysmenorrhea.

Menstruation at school

In Bharatpur upon asking what you do if you menstruate during class at school, (69%) told that they buy sanitary pad at school and use it, (14%) told that they leave school and go home another (14%) told that they take clothes/pad from home and use it and (3%) told that they use sanitary pad which was provided in free of cost.

In Guleria, (48%) told that they leave school and go home, (31%) buy sanitary pad at school and use it, (9%) said that they buy pad outside school and use it, (6%) told that they take clothes/pad from home and use it and next (6%) said they go home and come back.

In Tikapur, (74%) respondents said they leave school and go home, (11%) said they buy pad at school and use it, another (11%) told they go home and come back and (3%) told they take clothes/pad from home and use it.

In Butwal, (48%) respondents said they leave school and go home, (31%) said they buy pad at school and use it, (9%) said they use sanitary pad provided in free of cost at school, (6%) said they take clothes/pad from home, another (6%) said they go home and come back.

Table: 36 If menstruate at school (n=35)

Pad disposal	Bharatpur	Guleria	Tikapur	Butwal
Leave school	14.3%	48.6%	74.3%	49%
Take clothes	14.3%	5.7%	2.9%	5.7%
from home				
Buy pad at	68.6%	31.4%	0.0%	0.0%
school				
Buy pad at	0.0%	8.6%	11.4%	31.4%
outside the				
school				
Use pad in free	2.9%	0.0%	0.0%	8.6%
Go home and	0.0%	5.7%	11.4%	5.7%
come back				
Total	100.0%	100.0%	100.0%	100.0%

Table 37: If menstruate at school (n=15)

Pad disposal	Bharatpur	Guleria	Tikapur	Butwal
Leave school	80.0%	93.3%	80.0%	60.0%
Take clothes	13.3%	0.0%	0.0%	33.3%
from home				
Buy pad at	6.7%	0.0%	0.0%	33.3%
outside the				
school				
Go home and	0.0%	6.7%	20.0%	5.7%
come back				
Total	100.0%	100.0%	100.0%	100.0%

In case of school where pad incinerator was not built, upon asking what you do if you menstruate at school, among total respondents (80%) respondents said they leave school and go home, (13%) told they bring pad/clothes from home and use it, and remaining (7%) said they buy pad outside school and use it.

In Guleria, (93%) respondents said they leave school and go home, (7%) said they go home and come back.

In Tikapur, (80%) respondents said they leave school and go home, (20%) said they go home and come back.

In Butwal, (60%) respondents said they leave school and go home, (33%) said they take pad/clothes from home and (7%) said they go home and come back.

Use of Pad Incinerator

Among total respondents, (46%) told that it is easier to use pad incinerator, other (46%) told that they have not used pad incinerator yet, and (9%) respondents told that they don't feel comfortable to use pad incinerator.

In Guleria among total respondents, (51%) told that they have not used pad incinerator yet, and (49%) respondents told that it is easier to use pad incinerator.

In Tikapur, (40%) students told that it is easier to use pad incinerator, other (54%) told that they have not used pad incinerator yet, and (6%) students told that they don't feel comfortable to use pad incinerator. Some of the students said that it is not good to throw blood in that way.

In Butwal, (51%) students told that it is easier to use pad incinerator, other (43%) told that they have not used pad incinerator yet, and (6%) students

told that they don't feel comfortable to use pad incinerator. Some of the respondents said that it is not good to throw blood in that way.

Table 38: Use of incinerator (n=35)

Use of incinerator	Bharatpur	Guleria	Tikapur	Butwal
Feel easier	45.7%	48.6%	40.0%	51.4%
Feel	8.6%	0.0%	5.7%	5.7%
uncomfortable				
Not used yet	45.7%	51.4%	54.3%	42.9%
Total	100.0%	100.0%	100.0%	100.0%



Fig 9: View of toilet with hole of pad incinerator at Butwal



Fig 10: View of pad incinerator at Tikapur

Benefits of pad incinerator

In Bharatpur, among total respondents who knew about pad incinerator, (31%) told that it is easier to change pad after building pad incinerator at school, (29%) told that sanitation of school has been improved than before, (19%) told that they did not have to leave school, (10%) respondents were unknown about the benefits of pad incinerator, (7%) respondents told there is no change and remaining (2%) told pad incinerator cause air pollution.

In Guleria, (50%) told that there is improvement in sanitation, (25%) told it is easier to change pad, (10%) said they didn't have to leave school, (7%) said that there is no benefits at all, (5%) were unknown about the benefits, (2%) told students attendance has been increased and remaining (2%) said there is air pollution due pad incinerator.

In Tikapur, (47%) told that it is easier to change pad after building pad incinerator at school, (43%) told that sanitation of school has been improved, (7%) told that there is no change at all and (3%) respondents were unknown about the benefits of pad incinerator.

In Butwal, (47%) told that sanitation of school has been improved than before, (35%) told that it is easier to change pad after building pad incinerator at school, (6%) told that they couldn't find any change, other (6%) respondents were unknown about the benefits, (3%) said school attendance has been increased and remaining (3%) told that they didn't have to leave school.

Table 39: Benefits of Pad Incinerator

Benefits of pad incinerator	Bharatpur (n=42)	Guleria (n=41)	Tikapur (n=30)	Butwal (n=32)
Easier to change pad	31.0%	24.4%	46.7%	34.4%
Improvement in sanitation	28.6%	48.8%	43.3%	46.9%
Increased in attendance	2.4%	2.4%	0%	3.1%
No need to leave school	19.0%	9.8%	0%	6.2%
No change at all	7.1%	7.3%	6.7%	6.2%
Unknown	9.5%	4.9%	3.3%	0.0%
Air pollution	2.4%	2.4%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%



Fig11: View of pad incinerator at Guleria

Change in culture

In Bharatpur, among total respondents (50%) respondents told that there is no change on culture on menstruation after building pad incinerator at school, (47%) told that they have started talking about menstruation openly with friends and with teachers and (3%) respondents told that students using sanitary pad has been increased.

In Guleria, (54%) respondents told that they have started talking about menstruation openly with friends and teachers and remaining respondents said there is no change on perception on menstruation.

In Tikapur, (63%) students told that there is no change on perception on menstruation, (33%) students told that they have started talking about menstruation openly among students and with teachers and (3%) respondents told that students using sanitary pad has been increased.

In Butwal, (74%) students told that there is no change on perception on menstruation, (26%) students told that they have started talking about menstruation openly among students and with teachers.

Table 40: Change in culture after installing pad incinerator

Change in perception	Bharatpur (n=32)	Guleria (n=41)	Tikapur (n=30)	Butwal (n=32)
Student have started talking about menstruation	46.9%	54.3%	33.3%	25.9%
No change at all	50.0%	45.7%	63.0%	74.1%
Student using pad has increased	3.1%	0.0%	3.7%	0.0%
_Total	100.0%	100.0%	100.0%	100.0%

Problem during menstruation

Students from school where pad incinerator was not built were interviewed regarding problem they faced during menstruation. In Bharatpur (47%) respondents said they don't have any problem, (33%) student said they have problem related with dysmenorrhea and only 20% student said they have problem to change pad and dispose them.

In Guleria, (47%) respondents said they don't have any problem, (46%) respondents said they have problem related with dysmenorrhea, and only 7% student said they have problem to change pad and dispose them.

In Tikapur, (67%) respondents said they don't have any problem and (33%) respondents said they have problem related with dysmenorrhoea.

In Butwal, (67%) respondents said they have problem related with dysmenorrhea and (33%) respondents said they don't have any problem.

Table 41: Problem during menstruation (n=15)

Problem during	Bharatpur	Guleria	Tikapur	Butwal
menstruation				
Problem to change pad	20.0%	6.7%	0.0%	0.0%
Dysmenorrhoea	33.3%	46.7%	33.3%	66.7%
No problem	46.7%	46.7%	66.7%	33.3%
Total	100.0%	100.0%	100.0%	100.0%

Pad in sell at school

In Bharatpur, the study reveals that among total respondents, (94%) respondents said pad is sold in their school, remaining students told that they didn't know whether pad is sold in school or not.

In Guleria, (69%) respondents told that pad is sold in their school, (14%) respondents said pad is not sold in their school, remaining (17%) respondents told that they didn't know whether pad is sold in school or not.

In Tikapur, (20%) respondents told that pad is sold in their school,(71%) respondents said pad is not sold, remaining (9%) respondents told that they didn't know whether pad is sold in school or not.

In Butwal, (20%) told that pad is sold in their school,(71%) said that pad is not sold in their school remaining (9%) students told that they didn't know whether pad is sold in school or not.

Table 42: Pad sell in school (n=35)

Pad sell in school	Bharatpur	Guleria	Tikapur	Butwal
Yes	94.3%	68.6%	8.6%	20.0%
No	0%	14.3%	77.1	71.4%
Don't know	5.7%	17.1%	14.3%	8.6%
Total	100.0%	100.0%	100.0%	100.0%

Preference of pad and pad incinerator

In Bharatpur, the school where pad incinerator is built, (77%) respondents preferred pad incinerator, (13%) preferred washing area, (3%) preferred both and (6%) respondents could not say which one is suitable for them.

In Guleria, (77%) respondents preferred pad incinerator, (13%) preferred washing area, (3%) preferred both and (6%) respondent said they didn't know which one is suitable for them.

In Tikapur (73%) respondents preferred pad incinerator, (13%) students preferred washing area and (7%) preferred both and other (7%) respondent said they didn't know which one is suitable for them.

In Butwal the school where pad incinerator is built, (86%) respondents preferred pad incinerator and (13%) preferred washing area.

Table 43: Preference of pad incinerator (n=35)

Preference	Bharatpur	Guleria	Tikapur	Butwal
Pad incinerator	77.1%	77.1%	68.6%	85.7%
Washing area	14.3%	11.4%	22.9%	14.3%
Both are appropriate	2.9%	2.9%	5.7%	0.0%
Unknown	5.7%	8.6%	0.0%	0.0%
Both are not appropriate	0%	0%	2.9%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Table 44: Preference of pad incinerator (n=15)

Preference	Bharatpur	Guleria	Tikapur	Butwal
Pad incinerator	73.3%	73.3%	60.0%	86.7%
Washing area	13.3%	26.7%	40.0%	6.7%
Both are appropriate	6.7%	0.0%	0.0%	6.7%
Unknown	6.7%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%

Similarly in school where pad incinerator is not built in Bharatpur, among total respondents, (73%) respondents preferred pad incinerator, (13%) preferred washing area and (7%) preferred both and other (7%) could not say anything.

In Guleria, (73%) respondents preferred pad incinerator and (27%) preferred washing area.

In Tikapur, (60%) respondents preferred pad incinerator and (40%) preferred washing area.

In Butwal, (86%) respondents preferred pad incinerator and (14%) preferred washing area.

Interviews

Head Teacher

Head teachers were interviewed about the project SWASHTHA. All the teacher have heard about the project SWASHTHA and they also told that there is significant progress in sanitation of the school whereas one of the teachers of Tilottama Secondary School said that there was no change at all. None of the teacher said the major problem faced by student is related with menstrual hygiene. Girls never come to share their problem of menstruation to male teacher but they share with female teacher. One of the head teacher pointed out that the project SWASHTHA has helped school especially in improving sanitation. The changes felt by teachers after building pad incinerator was, its easier for girls to change pad at school, girls drop out from school has been significantly changed, and they also felt slight increase in girls school attendance. Most of the head teachers said that there is slight change in hygienic behavior of community by the activities of school. They told that, the rally and campaign conducted by students in community have helped to create awareness in community people and students have also helped to transfer the knowledge which they have gained to their family and community. Pad was not sold in khadga smriti, Banglamukhi, Shree Saraswoti and Tilottama School and all head teacher of these school said that they don't have any plan to sell pad.

Health teacher

Health teacher were asked whether they have taken class in menstrual management/reproductive health, all of them said they have taken the class, and they also told that they described the topic very well. Regarding student participation, girls felt shy to raise question but these days the young generation are pretty forward. All of them said they didn't have any problem to take class in menstruation as well to deal with the topic reproductive health.

Female teacher

Female teacher were interviewed whether they attend school during menstruation, all of them said they attended school. Most of the female teacher said they use sanitary pad as an absorbent whereas one of the teacher said she had never used sanitary pad because she felt uncomfortable to use it. Teacher were asked whether they use pad incinerator at school, few of them said they use pad incinerator sometime, in saraswoti school at Tikapur, female teacher even didn't know that pad incinerator was built at school.

Pad incinerator operator

Office assistant were pad incinerator operator. They said they burned pad when the incinerator gets filled. Most of them said pad incinerator gets filled ones a month, some time twice a month. Most of the operator said they didn't have any problem to burn pad, whereas in Shree Ma Vi School, Bharatpur, office assistant told that its problematic in rainy season because pad gets wet. They throw ash which comes after burning pad at ground.

Interview with trainee of local pad

Interview was taken with two members of Project Management Committee (PMC) at Butwal. They have taken training a month ago. One of the members has started selling pad but another has not yet started, she has only received order for pad. They have given training to some of the women in community. Pad is being sold at Rs 40 for small size and Rs 50 for large size. According to their experience, it is easy to use the locally made pad.



Fig 12: Interview with teacher at Tikapur

Discussion

The findings of the study reflect that the most of the student said they have studied the topic reproductive health however most of them lack appropriate knowledge which shows either they were not taught the topic properly or students themselves have not taken the issue as an important one. Among the four municipalities, knowledge level is comparatively low in Tikapur, which shows that program could not be much effective at this municipality. Most of the students from children club have better knowledge about menstrual management as compared to the other students.

Majority of the respondents knew about menstruation before their menarche. Sister/sister in law/aunty and friends were regarded as the important source of information in the study, the trend is different in the study carried out by water aid (Is Menstrual hygiene and management an issue for adolescent girl) where mother were regarded as important source of information.

Regarding seclusion and exclusion, respondents of caste Bramin and Chhteri who were migrated from hilly region have got stronger belief on seclusion and exclusion but study was carried out in Terai region populated with madhesi and janajati people, so most of the respondents said they don't have such practices of seclusion and exclusion. However, menstruating female is regarded as impure in all caste among Hindu and Muslim.

Study reflects that students found using pad in case when it is made available at school. Therefore girls drop out is less in school where pad is available. Therefore we can conclude that availability of pad incinerator is not the reason of student attending school but availability of pad is the important reason for student's less drop out and increased attendance.

Most of the students used reusable cloth as an absorbent during menstruation. This figure is comparable with the study of water aid. The reason pointed out was most of the respondents didn't know about the use of sanitary pad, its high cost and limited availability. If we compare two municipalities Tikapur and Butwal, the respondents using sanitary pad is significantly higher in Butwal as compare to Tikapur.

Girls drying their clothes secretly are less than drying in direct sunlight but still in significant numbers. This shows that awareness on hygiene is not sufficient. However frequency of washing genitalia, taking bath and changing pad are fairly okay.

Those students who accessed pad incinerator are disposing pad at school and those who don't have any facilities of disposing pad (neither pad incinerator nor dust bin) are not disposing pad at school. This shows that students changed pad at school where disposal facilities are available. So we can say that pad incinerator is promoting hygiene of students.

Most of the girls said that it's easier to use pad incinerator, and it has helped to improve the sanitation of school. However in the school where pad incinerator is not built few respondents pointed out that they have problem in disposing pad and used pads are scattered everywhere in toilet. As a problem during menstruation, some girls pointed out that they have problem of dysmenorrea, because of which it's difficult to seat in class and concentrate in study. Majority of the students said there is no change in belief of people after building pad incinerator however some students in significant number says students have started talking about menstruation openly as compare to earlier. The reason behind this is not only the pad incinerator but the frequent program conducted by SWASHTHA project on menstrual hygiene and management.

Majority of the respondents have preferred pad incinerator as an option to decompose pad as well as most of the students have said that pad should be made available at their school. However some girls also pointed that washing area should be made since they never use pad.

In the interview with head teacher, teacher have pointed out that the program of SWASHTHA project has helped students to raise their knowledge on menstrual hygiene. Students drop out has been drastically decreased after selling pad and building pad incinerator. In the school where pad is not sold, teacher said that it's hard to sell pad at school, they don't have any donor who is willing to donate them pad nor can they buy and sell.

Most of the respondents are willing to pay Rs 5 per piece to sanitary pad.

Building pad incinerator is not only the option for increasing student's attendance. Pad should be made accessible, and knowledge of using pad should be given. Teachers are the main focal person who can change the knowledge level and can teach the student about the proper hygiene. So they should include these issues while teaching health education.

SWASHTHA project should focus on promoting menstrual hygiene, use of pad and pad incinerator and training on making alternative pad at the school based on need.

Recommendation and Conclusion

Based on the finding of the study followings recommendations were made:

- 1. The study has highlighted the insufficient knowledge of the students about the reproductive health, about pad, about pad incinerator so teacher should focus more about issues related with menstrual hygiene while teaching health education. SWASHTHA project should also focus on these issues.
- 2. Menstruating girl is still regarded as impure and girl still hesitate to share their problem in family, therefore formal and informal program should be conducted to aware family.
- 3. Pad should be made accessible to all students in all school. For that school should also search for sustainable option to sell pad at school. If this is not possible then hygienic way of using clothes, and construction of washing area should be focused rather than constructing pad incinerator.
- 4. Students are eager to learn about the alternative method of making pad, so training of making alternative pad should be given to students.
- 5. Condition of toilet in some school seems pathetic, there is no water supply and cleanliness part is worse and pad incinerator is full with pad and clothes. So school should give attention in cleanliness of toilet. SWASHTHA should also conduct sanitation program in such school including teacher and students.

In conclusion, menstruation hygiene is an issue which is insufficiently addressed in Nepal. SWASHTHA has taken a worthy step to address the situation. The work of project has been highly appreciated by the stakeholders. In order to make the project more successful, a frequent monitoring should be done at schools. Pad should be made accessible at all schools or students should be given training on making alternative pad. Society, family and all individual should given the education through some channel of communication about the menstruation in order to change its perception. Teachers are the main person who can teach student about the menstruation hygiene and use of pad incinerator.

Annexes

Annexure I

Name of the person contacted in the field

	Name of the person contacted in the neid			
S.N	Name	Position		
1	Mr Prasanna Shrestha	Project Coordinator		
2	Ms Srijana Karki	Field Coordinator, Butwal		
3	Mr Sushil Nhemaphuki	Field Coordinator, Bharatpur		
4	Mr Ash Kumar Khaitu	Field Coordinator, Guleria		
5	Ms Basu Gharti	Field Coordinator, Tikapur		
4	Mr Bhola Nath Chhetri	Principle, Banglamukhi Radhakrishna Higher Secondary School		
5	Mr Benu Pd Gimire	Principle, Shree Mahakavi Higher Secondary School		
6	Mr Prem Bdr Basnet	Principle, Navin Aauhdogik Khadar Bdr Higher Seconday School		
7	Ms Bimala Dhaiba Gautam	Principle, Shree Tilottama Ma Vi		
8	Ms Tulasi Kunwar	Principle, Khadka Ma Vi		
9	Ms Yog Maya Gurung	Teacher, Shree Kiran Ma Vi		
10	Mr Maita Sing Tamang	Principle, Shree Kiran Ma Vi)		
11	Mr Santa Ram mahato	Principle, Shree Ma Vi		
12	Ms Sunita Mahato	Local Volunteer, Bharatpur		
13	Ms Chabi Suryabansi	Member of PMC, Butwal		

Annexure II

Some important issue raised by FGD

Miss A told that, when she went toilet for urination, she saw blood in her inner ware, then she changed it. After one hour her sister told that there was a red stain on her dress and her sister told to Ms A that she had menstruation, then Ms A felt really bad and started to cry. Ms A said first menstruation was a great fearful event to her.

Miss B told that when she saw blood in her inner ware then, she was shocked and felt shy to say to others. Even she hesitated to share with her mother. She thought that menstruation is a bad thing and if she said to her parents then they might scold to her. Then she didn't say anything to her family and friends till one year. After one year, when her mother saw her washing clothes (piece of sari which was used during menstruation) at tap, then only her mother knew that Ms B had menarche a year ago.

Miss C told that we don't have culture of using pad in our home. Our mother scolds us if we use pad. It's even not good to throw pad in that way. Burning pad is against our religion. Fire is a god so we cannot burn blood in that way.

Miss D said, she didn't know that pad is being sold in her school. Once a member of child club told her that pad is being sold but she has not seen anyone buying pad."

Miss E told that she didn't like to buy at school. Some time teacher distribute in free, some time they charge Rs 10 and sometime Rs 5. There is no similarity in price. But she felt that it's reasonable to sell pad at Rs 5 and even free to those student who cannot afford it.

Miss F told that she is quite eager to take training of making local pad and she is also eager to take training on reproductive health issues.



Figure 13: FGD with girls at Tikapur

Survey Tools Interview Guideline

In school where pad incinerator is built

- 1) What do you mean by reproductive health?
- 2) What happens during menstruation?

Bleeding from uterus bleeding from vagina

3) Did your teacher teach menstruation management/ reproductive health in your school?

Yes No

If yes, how openly your teacher dealt about the issues?

Satisfactory well described

4) Have you ever discussed the topic reproductive health in your children club?

Yes No

If yes what were the topic you discussed?

5. What are the beliefs people have regarding menstruation in your community?

Cannot touch anything cannot enter kitchen and worship god cannot

sleep inside home

6. Do you know about pad?

Yes No

If yes, then what is pad?

Material used during menstruation others

Material used in wound

7. What do you use during menstruation as an absorbent?

Clothes Pad

8 If you don't use pad, what is the reason behind of not using pad?

Expensive not available Feel shy to buy don't have culture of using pad Feel odd to buy pad from shop

9. If you use clothes, what you do after using it?

Wash Throw

10. Where you dry it after washing?

Outside in sun rays inside room where no one can see in sun rays but hiding by other clothes Others

11. During menstruation period how many times you change pad/clothes? Once a day Twice a day Three times a day Four times a day As per necessity

12. Do you wash your inner part during menstruation? Yes No

If Yes, How many times?

13 Do you take bath during menstruation?

Yes No

If yes, how many times?

14. Do you go to school during periods?

Yes No

- 15. Yes, but if any problem occurs I will go to home
- 16. What do you do then your period starts during school?

 Leave class and go home use clothes/pad brought from home buy pad at school and use it buy pad outside the school and use it
- 17. If you don't go to school, why?

Because of cultural belief Cannot touch anything There is no proper

toilet at school

Because of desmenorrhea Others

- 18. Do you bring pad/clothes before your menstruation starts? Yes No

If yes, who told you?

Mother Sister/sister in law/aunty Teacher TV/radio/newspaper Friends Others

20. Were you kept isolated (hidden) when you had your first menstruation? Yes No

If yes, for how long?

1-5 days 5-10 days 5-15 days 20-25 days

- 21. Do you have any facilities of pad management at your school? If yes what you have? What is the function of pad incinerator?

 Pad is collected first and burned later

 Don't know
- 22. Where you throw pad at school during menstruation? Pad incinerator Never throw at school
- 23. Where you throw pad at home?

Pit River/bush burned it

throw in toilet pan

24. What are the benefits you get after building pad incinerator at your school?

Its easier to change pad Improvement in sanitation of school increase in school attendance No change at all don't know

25. What sort of changes you felt on perception after building pad incinerator at your school?

Students have started talking about menstruation openly Students easily put their problem to teachers

More students have

started using pad

No need to leave school No change at all Don't know

26. Is pad sell at your school?

Yes No

27. Which one do you feel easier to use? Pad incinerator washing area

In school where pad incinerator is not built

- 1. What do you mean by reproductive health?
- 2. What happens during menstruation?

 Bleeding from uterus bleeding from vagina
- 3. Did your teacher teach reproductive health in your school?

 Yes No

If yes,

How openly your teacher dealt about the issues?

Satisfactory well described

4. Have you ever discussed the topic reproductive health in your children club?

Yes No

If yes what were the topic you discussed?

5. What are the beliefs people have regarding menstruation at your community?

Cannot touch anything cannot enter kitchen and worship god cannot not sleep inside home

6. Do you know about pad?

Yes No

If yes, then what is pad?
Material used during menstruation
Others

Material used in wound

7. What do you use during menstruation as an absorbent? Clothes Pad

If you don't use pad, what is the reason behind not using pad?

Expensive not available Feel shy to buy Don't have culture of using pad Feel odd to buy pad from shop

I f you use clothes, where you dry it after washing?

Outside in sun rays Inside room where no one can see In sun rays but hiding by other clothes

Others

8. How many times you change pad/clothes during menstruation?
Once a day Twice a day Three times a day Four times a day As per necessity

Do you wash your inner part during menstruation? Yes No

If Yes, How many times?

Do you take bath during menstruation? Yes No

If yes, how many times?

9. Do you go to school during periods?

Yes No

Yes, but if any problem occurs I will go to home

10. What do you do then your period starts during school?

Leave class and go home use clothes/pad brought from home buy pad at school and use it buy pad outside the school and use it

If you don't go to school, why?

Because of cultural belief Cannot touch anything There is no proper toilet at school Because of desmenorrhea Others

Do you bring pad/clothes before your menstruation starts? Yes No

11. Had anyone told you about menstruation before your first menstruation?

Yes No

If yes, who told you?

Mother Sister/sister in law/aunty Teacher TV/radio/newspaper Friends Others

12. Were you kept isolated (hidden) when you had your first menstruation? Yes No

If yes, for how long?

1-5 days 5-10 days 5-15 days 20-25 days

13. What are the difficulties that you face during menstruation periods? Difficult to change pad Dysmenorrhoea Others

14. Have you ever heard about pad incinerator?

Yes No.

Have you ever seen it?

Yes No

15. Is pad sell at your school?

Yes No

16. Which one do you feel easier to use?

Pad incinerator Washing area

Interview guideline with Head teacher/Health teacher/Female teacher/Pad Operator Head teacher

- 1. Have you heard about the project SWASHTHA Yes No
- 2. What are the changes you felt after SWASHTHA started working at your school?

Improvement in sanitation decrease in girls absenteeism No change at all

- 3. What is the major problem faced by your student?
- 4. Is there any change in community by the activities of your school? If yes then what sort of changes?
- 5. Do you sell pad at school? If not then do you have any plan to sell pads at your school?

Health Teacher

- 1. Have you taught the topic menstruation management/reproductive health?
- 2. How was the participation of student?
- 3. Do you have any problem in dealing with such topic at class?

Female Teacher

- 1. Do you attend school during your monthly cycle?
- 2. What you use as an absorbent?
- 3. Where you decompose pad?

Pad Incinerator

- 1. Who burn pad at school?
- 2. At what interval you burn pad?
- 3. Do you have any problem to burn pad?
- 4. Where you throw ash which comes after burning?