

# Knowledge and practices regarding menstruation among school going adolescents of rural Nepal

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## Abstract

**Background:** Adolescence is a transition period from childhood to adult life during which pubertal development and sexual maturation take place, thus making physiological development a challenge adolescents have to face. There is a substantial lacuna in the knowledge towards menstruation among adolescent girls. Menstrual hygiene and management is an issue that is insufficiently acknowledged and has not received adequate attention.

**Objective:** This study was done to assess the knowledge and practices regarding menstruation among school going adolescents.

**Methods:** A descriptive study was done among sixty-one female adolescents of Shree Himali Secondary School, Panchkanya, Sunsari, where data were collected from the adolescents meeting the inclusion criteria.

**Results:** It was found that 36.1% correctly reported about menstruation where most common informant was mother (39.3%). Dysmenorrhoea was the commonest problem faced during menstruation (78.7%) followed by back pain and excessive blood loss. More than half of respondents (54.1%) used sanitary pads and frequency of changing pads twice a day was highest (50.8%). Initial reaction was of fear/apprehension at menarche by 36.1% of girls whereas 44.3% perceived it as an expectant process. Girls still faced different types of restrictions like not being allowed to visit holy places, not being allowed to cook and touch male family member etc.

**Conclusion:** Traditional beliefs regarding menstruation still persist and menstrual hygiene among the adolescents was found to be unsatisfactory. It highlights the need of targeted interventions to raise awareness and provision of family health education package to all girls. Menstrual hygiene is an issue that needs to be addressed at all levels.

**Keywords:** Knowledge, Menstrual Hygiene, Restrictions, Traditional Practices

## INTRODUCTION

Adolescence in girls has been recognized as a special period which signifies the transition from girlhood to womanhood<sup>1</sup>. Adolescents are a large and growing segment of the world's population where more than half of the world's population is below the age of twenty five<sup>2</sup>. Menarche is the most important event in the life of an adolescent girl<sup>3</sup>. During puberty, hormonal,

psychological, cognitive and physical changes occur simultaneously and interactively making physiological development a challenge adolescents have to face, with emotional, social and behavioural dimensions<sup>4</sup>. More than just a physiological process, menstruation may be looked on as a restriction on women's religious and social traditions or as a taboo<sup>5</sup>.

Menstruation, the periodic vaginal bleeding that occurs with the shedding of the uterine mucosa is one of the signs of puberty, and occurs one or two years following appearance of secondary sexual characteristics<sup>6</sup>. Menstruation is generally considered unclean in Indian society<sup>7</sup>. For most girls menarche is a negative, frightening experience, or, at the best, a nuisance, or is

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something to fear or to be ashamed of<sup>8</sup>. Restrictions in daily activities such as not being allowed to take bath, change clothes, comb hair and enter holy places and dietary restrictions (taboo on consumption of food like rice, curd, milk, *lassi*, potato, onion, sugarcane etc.) during the menstrual period are also imposed<sup>9</sup>.

Although adolescence is a healthy period of life, many are often less informed, less experienced, and less comfortable in accessing reproductive health information and services<sup>5</sup>. This leads to culmination in repression of feelings which can cause intense mental stress and seek health advice from quacks and persons having inadequate knowledge<sup>10</sup>.

This study was planned to evaluate adolescent secondary school girls' knowledge of menstruation and menstrual hygiene, as well as their practices of menstrual hygiene. In many parts of the developing countries, a culture of silence surrounds the topic of menstruation and related issues<sup>11</sup>. As a result many young girls lack appropriate and sufficient information regarding menstrual hygiene. This may result in incorrect and unhealthy behavior during their menstrual period. Poor personal hygiene and unsafe sanitary conditions result in the girls facing many gynecological problems<sup>7</sup>.

Menstruation and its practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes<sup>6, 7</sup>. Our traditional society discourages open discussion on these issues. Such type of study will help to plan and implement necessary educational

program or interventions to create awareness and prioritize problems.

## METHODS

Descriptive cross sectional study was done. Panchkanya Village Development Committee (VDC) was chosen as per our convenience as it is the nearest VDC in teaching districts of BP Koirala Institute of Health Sciences (BPKIHS). The study was conducted in one school of Panchkanya VDC which was selected randomly. The study was done during the period of December 2011 to May 2012. Total 61 students from the age group 10 to 19 years and those who already had menarche were included in the study. Data were collected from students who were available at the time of data collection. A predesigned, pre-tested structured self-administered questionnaire was used for data collection. Approval for the research was obtained from Institutional Ethical Review Board of BPKIHS. Data were entered into Microsoft Excel and then transferred to Statistical Package for Social Sciences (SPSS) 20.0 version. Descriptive statistics like frequency, mean, standard deviation and percentage were used.

## RESULTS

The mean age of participants was 15.3±1.3 years (Range 10 to 19 years). Just over three among every four adolescents (75.4%) were in late adolescence. Most of the respondents, 73.8% (45) were Hindus followed by Kirants, 16.4% (10). The mean age at menarche was found to be 13.1± 0.9 years and when asked about the normal age at menarche they responded it as at the age 12.5±2.5 years (Mean±SD).

**Table 1: Socio-Demographic Characteristics of Respondents**

Characteristics	Categories	Frequency (n=61)	Percentage
Age in years	10-14	15	24.6%
	15-19	46	75.4%
Religion of Respondents	Hindu	45	73.8%
	Kirant	10	16.4%
	Christian	4	6.5%
	Buddhist	2	3.3%
Caste /Ethnicity	Disadvantaged Janajatis	50	81.9%
	Upper Caste Group	4	6.6%
	Dalits	5	8.2%
	Advantaged Janajatis	2	3.3%
Age at Menarche (Mean Age±SD )		13.1±0.9 years	
Perceived normal age at menarche		12.5±2.5 years	

**Table 2: Menstruation and Its Related Experiences**

Characteristics	Categories	Frequency (n=61)	Percent
<b>Knowledge Regarding Menstruation</b>	Monthly cycle where blood flows from vagina for 4-5 days in every female	22	36.0
	Blood coming from vagina	8	13.1
	Monthly flow of dirty blood from uterus or vagina	7	11.5
	Natural process occurring in every adolescent female	5	8.2
	A sign of maturity	2	3.3
	Flow of blood from urethra	2	3.3
	Do not know	15	24.6
<b>Source of Information</b>	Mother	24	39.3
	Sister	11	18.0
	Friends	11	18.0
	Elderly/Teachers	9	14.7
	Books/Reading Materials	5	8.2
	Health Worker	1	1.6
<b>First Sharing of Menarche</b>	Mother	46	75.4
	Other relatives	9	14.8
	Sisters	6	9.8
<b>Experience at Menarche</b>	Confusing	12	19.6
	Expectant	27	44.3
	Frightened	22	36.1
<b>Attitude Towards Menstruation</b>	Undesirable	12	19.7
	Unprepared	18	29.5
	Satisfactory	31	50.8
<b>Menstrual Problems</b>	Dysmenorrhoea	48	78.7
	Loss of appetite	2	3.3
	Tired/Back Pain	5	8.2
	Excessive Blood Loss	5	8.2
	Nothing	1	1.6
<b>Remedial Measures Adopted</b>	Maintain Personal Hygiene	15	26.2
	Do not Know	9	14.8
	Drink lots of Water/Eat Fruits	8	14.8
	Exercise	5	8.2
	Take Rest/ Sleep	9	14.8
	Seek for Health Care services	15	26.2

Regarding menstruation, 67.2% (41) knew about menstruation before menarche. Just over 36% (22) reported that it is a monthly cycle where blood flows from vagina for four to five days. Majority 39.3%, (24) responded that mothers were their source of information followed by sisters and friends (each accounting 18%).

Almost three fourth of the respondents, (75.4%, 46) had shared about their menarche to their mothers and 44.3% (27) claimed that they were expectant of menarche while 36.1% (22) were frightened with the experience

of menarche. As far as attitude towards menstruation is concerned, more than half of respondents (50.8%, 31) said it was satisfactory, however almost 30% (18) said they were not prepared. In addition to this, one out of every five respondents (19.7%, 12) responded that it was undesirable, thus showing negative attitudes towards menstruation. Among 61 respondents, almost all (98.4% 60) suffered from various types of menstrual problems, commonest being dysmenorrhoea (78.7%). Just over the quarter of respondents (26.2%, 15) said problems subsided by maintaining personal hygiene, similar proportion (26.2%) seek health services.

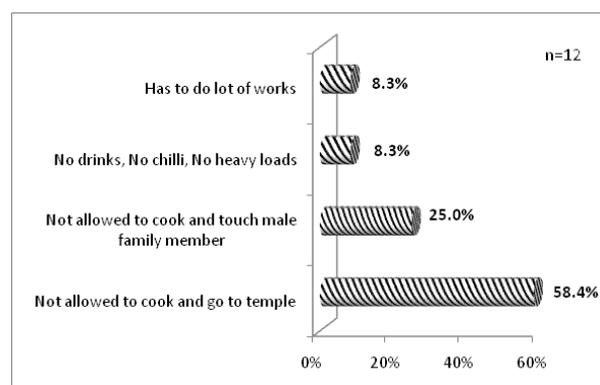
**Table 3: Practices Related to Menstruation**

Characteristics	Categories	Frequency (n=61)	Percent
Ideal Thing to Use During Menstruation	Sanitary Pad	41	67.2
	Cloth	6	9.8
	Both	14	23.0
Absorbents in Practice among the Respondents	Sanitary Pad	33	54.1
	Cloth	13	21.3
	Both	15	24.6
<b>Number of Absorbents changed in a day</b>	once a day (Scanty blood loss)	5	8.2
	twice a day (Normal Blood Loss)	31	50.8
	≥ 3 times a day (Excessive Blood Loss)	25	41.0
<b>Traditional Practices*</b>	Not allowed to go to temple/participates in religious activities	25	41.0
	Not allowed to see members from maternal side	5	8.2
	Not allowed to cook/touch utensils	34	55.7
	Not allowed to touch/sit/talk with male member of family	12	19.7
	Not allowed to stay/ go in other's house	5	8.2
	Use older cloths at the time of menstruation	3	4.9
	Take a bath at least one day	3	4.9
	After 4 days of menstruation, take bath and then only allowed to enter kitchen	4	6.5
	Keep in separate place(away from home/in corner)	10	16.4
	Not allowed to go to field	4	6.5
	Nothing such	2	3.3

\*multiple response questions, thus percentage does not equal to 100.

Majority (67.2%, 41) answered sanitary pad as the ideal thing to use during menstruation, while only 54.1% used it. Almost half of the girls (50.8%, 31) changed their pads two times a day meaning they have normal blood loss, in contrast to this, 40.9% (25) changed their pads more than three times a day indicating heavy blood loss. Several traditional practices are still prevailing in the society. More than half of the respondents (55.7%, 34), reported that menstruating ladies are not allowed to do household chores, followed by 41% (25) who said that menstruating ladies are not allowed to attend religious functions and go to temples. Almost one in every five respondents (16.4%) reported that still there is practice of keeping menstruating ladies away from home or in corner of room.

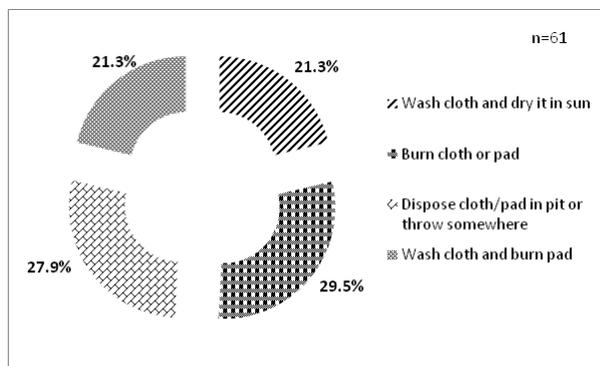
Figure 1 depicts that 19.7% (12) of the respondents practiced any restrictions while 80.3% (49) girls did not practice any restrictions during menstruation. Among



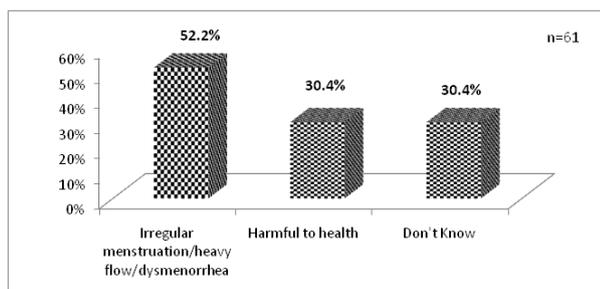
**Figure 1: Different Types of Restrictions Experienced By Respondents**

them, 58.4% (7) weren't allowed to cook and visit temples and 25.0% (3) girls were not allowed to do the household work (cooking) and touch male family member.

When they were asked about the way of disposal of



**Figure 2: Methods of Disposal of Absorbents after Use among Respondents**



**Figure 3: Perception of Menstruation Related Problems due to Poor Personal Hygiene**

absorbents after use 29.5% (18) said that they burn cloth or pad and 27.9% (17) replied that they disposed it in pit or throw somewhere (Figure 2).

Majority of the respondents, 62.3% (38) did not believe that maintaining personal hygiene is related to menstrual problems. However, among 37.7% (23) who reported that poor personal hygiene leads to menstrual problems, 52.2% (12) believed that poor hygiene can cause irregular menstruation, heavy flow or dysmenorrhoea.

## DISCUSSION

The mean age at menarche in current study was comparable with findings from studies<sup>5, 10, 12</sup>. It further supports the statement that age at menarche has largely decreased in most developed countries and seems stabilized at  $13 \pm 0.5$  years with variations between countries<sup>4</sup>. Several studies have shown that as reaction to the first menstruation, half of the girls were afraid by menstruation and remaining half felt anxiety and syncope<sup>6, 13</sup>. Similarly, a qualitative study carried out in rural Kenya showed that fear, distraction, confusion

and shame were the feelings of girls associated with menstruation<sup>13</sup>. Contradictory to this in our study, nearly half of the respondents (44.3%) were already prepared for the menarche and slightly lower proportion (36.1%) was anxious and nervous regarding menarche. Our finding supports that menstruation is a normal process and no longer a matter of fear and shame.

Majority (67.2%) were aware about the menstruation as a physiological process where blood flows from the vagina, which is significantly higher than findings from other studies<sup>9, 14, 15</sup>, and in accordance with several studies<sup>5, 7</sup>. Although majority of the students know about menstruation which might be attributed to the inclusion of reproductive health education in school curricula, still misperceptions in this topic persist. However, some girls even held false conception regarding menstruation, in accord with the findings from rural Nepal<sup>16</sup>. Though it is desirable to have a school teacher as first source of information, thus imparting right knowledge, majority were informed by mothers, which is in accordance with the findings from other studies<sup>5, 7, 10, 14</sup>. This brings out an important issue of the feasibility of involving parents in educating their children regarding reproductive health problems especially mother as young girls usually propound her emotional and psychological problems with her mother.

Dysmenorrhoea was the most common problem faced during menstruation, which is consistent to the findings from other studies<sup>9, 10, 12, 17</sup> and 21.3% seek for health care services similar to the study by Ali et al<sup>12</sup>. Most of the girls in our study felt anxious and embarrassed at the first episode of menstruation, and 45% suffered from various menstrual problems<sup>10</sup>. Most believe that maintaining personal hygiene will help to combat menstrual problems, which is in accord with other studies<sup>3, 17</sup>.

The hygiene related practices of women during menstruation are of considerable importance, as they affect their health by increasing their vulnerability to infections, especially infections of the urinary tract and the perineum<sup>18</sup>. In current study, only 37.7% reported that there is association between poor personal hygiene and menstrual problems, contradictory to findings from other studies<sup>5, 14</sup>. Although majority of respondents (67.2%) responded that sanitary pad is the ideal thing to use during menstruation, only 54.1% were actually using

it. This finding is in concurrence with other findings<sup>7,14</sup>. However, dissimilar to our findings, one study in South India showed higher proportion (68.9%) of young females use disposable pads during menstruation<sup>18</sup>. Repeated use of unclean napkins or the improperly dried cloth napkins before its reuse results in harboring of micro-organisms causing genital infections<sup>18</sup>. The type of absorbent material used is of primary concern since reusable material could be a cause for infection if improperly cleaned and poorly stored<sup>19</sup>. After use, almost similar proportions of girls either burn the absorbents (cloth/pad) or throw it in pit or somewhere else (29.5% and 27.9% respectively), consistent to other studies<sup>1,20</sup>. However, one study showed that significantly large number of young girls (88.5%) washed and buried the used cloth and it was religious practice that the cloth soaked with menstrual blood should not be buried directly<sup>9</sup>.

In accordance to the findings from our study majority of the respondents were not allowed to cook and visit religious places<sup>6, 9, 14, 16</sup>. Some also reported that there were traditional practices of posing restrictions on going to other's home, taking bath; which is consistent with the findings from Gujjar (tribal) community<sup>9</sup>. Similar restrictions were noted in one study done from North India<sup>11</sup>. One student reported of food taboos, while a study showed that nearly forty three percent avoid certain food items<sup>7</sup>. Still practices like keeping menstruating lady in

the corner or in separate places and using old cloths as absorbents are persisting in our society. This highlights that our society is still bounded by social, cultural taboos which lead to the negative attitude of adolescents towards menstruation. This demonstrates the urgency of the situation and needs effective interventions to address the restrictions which are imposed or practiced by adolescent girls.

## CONCLUSION

Adolescence is a transitional period marked with menarche, an important milestone. This study reveals that menstrual hygiene is not satisfactory among large proportion of the adolescents while ignorance, false perceptions, unsafe practices regarding menstruation continue to exist. Adolescent girls, their mothers and other family members can play a vital role, thus they need to be armed with correct and proper information regarding reproductive health. Various menstrual problems were identified in our study so further studies can be done to have detail exploration of phenomenon. Because of small sample size, the findings from the study cannot be generalized. However, despite of this limitation, the findings from this study could be the initiating point for other studies as this study pointed out that knowledge and practices regarding menstruation are not satisfactory among adolescents and there are several personal, behavioral and environmental factors which directly or indirectly influence these issues.

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