Knowledge of Menstrual Hygiene among Adolescent Chepang School Girls in Makwanpur District Nepal

Rojina Bhurtel[1], Pramila Devkota[2], Anu Nepal[3]

[1]MSc. Nursing in Medical Surgical Nursing, sub- speciality Critical Care Nursing, Lecturer, [2]Master in Nursing in Adult Health Nursing, Lecturer, Manmohan Memorial Institute of Health Sciences, Soalteemode Kathmandu Nepal, [3]BSc. Nursing, Nursing Officer, Manmohan Memorial Institute of Health Sciences, Soalteemode Kathmandu Nepal, Hetauda Hospital, Hetauda Makwanpur

Abstract

Background: Menstruation is a periodic discharge of blood, mucus lining of uterus through vagina which occurs monthly from menarche till menopause for reproductive age women. Menstrual hygiene is an important part of basic hygiene, sanitation and reproductive health. It is a vital aspect for health education for adolescent girls to prevent the risk of reproductive tract infections.

Objective: To assess the effectiveness of educational intervention on knowledge of menstrual hygiene among adolescent chepang school girls.

Methodology: Evaluative research approach with pre -experimental (one group pretest- posttest) research design was used for the study. The study population was adolescent Chepang girls of chepang school of Makwanpur district. Sample size of the study was 52. Non probability purposive sampling technique was used to select the schools of Chepang girls. For data collection firstly pretest knowledge was assessed using self-developed structured questionnaire and then structured teaching program was administered. After 7 days of teaching program, post test was conducted to assess the effectiveness of structured teaching program. Semi-structured Self-administered questionnaire was used for data collection. Data was analyzed via SPSS software version 16.

Result: During pretest 13.5% of girls had high knowledge on menstrual hygiene; 78.8% girls had medium knowledge and 7.7% had poor knowledge, whereas in posttest 96.2% had high knowledge and 3.8% of girls had medium knowledge. Mean score in pretest is 15.2308, whereas in posttest mean score is 23.2692.

Conclusion: Educational intervention on knowledge on menstrual hygiene was effective. So information and education programme should be planned in a regular basis in backward community targeting to school girls to improve knowledge on menstrual hygiene.

***Key words**: Knowledge, Menstrual hygiene, Adolescent Chepang girls.*

Corresponding details:
Pramila Devkota
Nursing Lecturer, Manmohan Memorial Institute of Health Sciences, Soalteemode Kathmandu Nepal
Postal Address: Manmohan Memorial Institute of Health Sciences, Soalteemode, Kathmandu Nepal.
Phone No: +9779840250125
Email: pdevkota235 @gmail.com

Introduction

Menstrual hygiene is an important part of basic hygiene, sanitation and reproductive health services for which every woman and girl has a right. However, menstruation is often seen as taboo, with many negative cultural attitudes associated with it, including the idea that menstruating women and girls are contaminated, dirty and impure. Menstrual hygiene is a vital aspect for

health education for adolescent girls to prevent the risk of reproductive tract infections[1]. Unhygienic menstrual practices may affect the health resulting increase vulnerability to Reproductive Tract Infections (RTI's), Pelvic Inflammatory Diseases (PIDs) and many other complications[2].

Chepangs are the earliest known inhabitants of Nepal and one of the most backward indigenous nationalities of Nepal. Nepal Federation of Indigenous Nationalities (NEFIN) has categorized. Total population of Chepang is 68,399 out of which male population is 34,620 and that of female population is 33,779 (National Population and Housing Census, 2011) [3]. Chepangs "as the second most backward/marginalized community" from the bottom list from among the 59 marginalized Indigenous Communities Almost 90 percent of Chepangs are living under utter poverty earning around 6,000 Nepali rupees per capita annually. They have no land as their own, no citizenship and more over they struggle for food which is a very basic need Further while only 23 percent of them are literates, literacy rate among Chepang women is only 1 percent[4].As chepang community literacy rate suggest that illiteracy directly impact about knowledge on menstrual hygiene. So, educational intervention about menstrual hygiene is essential in this community.

About 82% of Nepali women living in rural area, the use of unhealthy, unhygienic and possibly dangerous menstrual hygiene management methods push Nepali women deeper into marginalization and reproductive health morbidity. Adolescent girls often lack knowledge on reproductive health including menstrual hygiene due to various socio-cultural barriers prevalent within the society they live.[5] In the context of Nepal menstruation is surrounded with various restrictions such as prohibition from religious activities, cooking, attending various functions. These taboos create ignorance on the physiology of menstruation and therefore the experience of menstruation creates a fear, shame and disgust among young girls. Due to these reasons girl's attitude and expectations about menstruation have become negative leading to poor menstrual hygiene which is associated with high prevalence of Reproductive Tract Infections.[6]

Menstrual hygiene is a great challenge faced by girls in low income countries and is receiving increasing attention as a public health issue. It is difficult for girls to hygienically and confidently take care of themselves during menstruation when they have poor access to adequate facilities, or they cannot access appropriate sanitary materials because of financial or supply issue in rural areas [7]. Adolescent girls often lack the knowledge regarding reproductive health including menstruation due to various prevailing socio-cultural barriers of the society. These knowledge gaps create various problems in the life of adolescents (Kamath, Ghosh, Lena, & Chandrasekaran, 2013).[5]

A study conducted on adolescent girls in 3 schools including students of 8, 9 and 10 class of Shivanagar and Patihani VDC of Chitwan district concluded with only 40.6% with overall knowledge on menstrual hygiene. So, the study concluded girls should be educated about the process of menstruation, use of proper pads or absorbents and its proper disposal (Adhikari, Kadel, Dhungel, & Mandal, 2007)[8]. Another study among the adolescent girls of Sunsari found that various traditional beliefs on menstruation still persist and menstrual hygiene was found to be unsatisfactory among adolescents. The need of interventions regarding awareness on menstrual hygiene was also highlighted. Further the study also concluded the menstrual hygiene as an issue that needs to be addressed at all levels[9]

A school-based intervention study was conducted among adolescent girls in Bangladesh revealed that in pretest the knowledge score was 51% which increased in 82.4% in posttest. This shows that there was an increase in knowledge score after an educational program [10].

Overall menstrual hygiene is an important aspect on a life of a girl to determine her reproductive health. With the beginning of the menstruation the knowledge and education intervention on menstrual hygiene is necessary. The chepang being economically deprived, backward and illiterate, so education intervention on knowledge on menstrual hygiene is necessary.

Methodology

Evaluative research approach with pre – experimental-one group pretest- posttest research design was used to assess the effectiveness of educational intervention on Knowledge on menstrual hygiene among Chepang girls studying in grade 6, 7 and 8 at Shree Praia Basic School which is the school of Chepang community. The Sample size was 52 and Non Probability purposive sampling technique was used. Data was collected by using structured Self-administered questionnaire. Validity of the research instrument was established by consulting with the subject experts and extensive review of literature. Reliability of the research instrument was

maintained by pretesting it with 10% of sample of Chepang girls and modification was done. Those girls were excluded in data collection.

Data collection was completed in 3 phases. In first phase educational package was prepared which includes introduction to menstruation, menarche, menopause, and hygiene during menstruation, materials usage/disposal, complications associated with poor hygiene, myths and misconception regarding menstruation. Structured questionnaire developed with 24 items to assess the knowledge of adolescent Chepang girls regarding menstrual hygiene. The questionnaire was divided into three parts: socio demographic information, Questions related to menstrual experience and questions related to knowledge on menstruation and menstrual hygiene.

Each question has 2 or 4 alternative responses. A score value of 1 was allotted to each correct response and 0 was given for wrong responses. Total score ranges from 0-24. The scoring was then divided as: <40% : poor knowledge 40-70% : medium knowledge >70%: high knowledge.[10] In second phase Pretest was done on 21 July 2017 with the structured knowledge questionnaire to assess the level of knowledge on menstrual hygiene. Consent was taken and explained the objectives of the educational intervention. It took 20-25 min for the completion of the questionnaire. Educational intervention was provided by using educational package after pretest. As per lesson plan intervention took almost 60 min. Educational intervention was provided with the help of different audio visual aids. In the last phase post-test was done after 7 days of the intervention on 28 July 2017 with the same questionnaire which was used for pretest. The data obtained from the study was analyzed using Statistical Package for Social Sciences (SPSS) version 20.Data was presented by using descriptive statistics that is percentage, frequency, and median and by inferential statistics, Wilcoxon Sign Rank test.

Results

Table 1: Frequency and percentage distribution of Knowledge on Menstruation

n=52

Variables	Pretest		Posttest	
	Correct response		Correct response	
	Frequency	Percentage	Frequency	Percentage
Definition of menstruation	49	94.2	52	100
Cause of menstruation	31	59.6	52	100
Bleeding organ during menstruation	37	71.2	52	100
Age of menarche	46	88.5	52	100
Normal duration of menstrual flow	45	86.5	52	100
Duration of menstrual cycle	38	73.1	49	94.2

Table 1 shows that majority of the respondents 94.2% know that the menstruation is a physiological process in pretest which increased to 100% in posttest. similarly 71.2% of respondents gave uterus to be the bleeding organ during menstruation which increases to 100% in posttest. Similarly 73.1% of respondents gave correct answer of 25-35 days as normal duration of menstrual cycle which increases to 94.2% on posttest.

Table 2: Frequency and percentage distribution of Knowledge on menstrual hygiene n=52

Variables	Pretest Correct response		Posttest Correct response	
	Frequency	Percentage	Frequency	Percentage
Definition of menstrual hygiene	39	75	52	100
Menstrual blood unhygienic	26	50	48	92.3
Poor menstrual hygiene lead infection	42	80.8	51	98.1
General measures for menstrual hygiene	28	53.8	50	96.2
Bathing during menstruation period	32	61.5	47	90.4
Cleaning of external genitalia during menstruation	33	63.5	52	100
Hand washing during menstruating period	41	78.8	52	100
Heavy bleeding lead to anemia	11	11.2	48	92.3
Food containing Iron	38	73.1	51	98.1
Complication of poor menstrual hygiene	19	36.5	49	94.2
Menstruating girls aren't foul smelling	31	59.6	48	92.3

Table 2 shows that about the menstrual hygiene 50% girls know that poor menstrual hygiene leads to infection and only 11% answered heavy bleeding lead to anemia which increased to 92 %,similarly 36.5% answered about complication of poor menstrual hygiene, after the intervention it increased to 94.2%

Table 3: Knowledge on materials used during menstrual n=52

Variables	Pretest		Posttest	
	Correct response		Correct response	
	Frequency	Percentage	Frequency	Percentage
Material used during menstruation period	14	26.9	51	98.1
Kind of pad used during menstruation	37	71.1	49	94.2
Frequency of changing pad	20	38.5	49	94.2
Washing of clothes pad	51	98.1	52	100
Drying of clothes pad	33	63.5	51	98.1
Time period for using same cloth as a pad	3	5.8	49	94.2
Disposal of pad	48	92.3	52	100

Table 3 shows that only 26.9% of respondents gave correct answer on the materials that can be used during menstruation in pretest which increases to 98.1% .Likewise 71.1% respondents gave correct answer on the type of cloth that can be used as a pad which increases to 94.2% in posttest. 38.5% of the respondents had correct answer on the frequency of changing pad in pretest which increases to 94.2% after the intervention.

Table 4: Overall knowledge scores on menstrual hygiene before and after educational intervention according to grade **n=52**

Grade	Knowledge level	Pretest		Posttest	
		Frequency	Percentage	Frequency	Percentage
	High knowledge	-	-	10	19.24
Six	Medium knowledge	8	15.38	2	3.84
	Poor knowledge	4	7.69	-	-
Seven	High knowledge	1	1.9	19	36.54
	Medium knowledge	18	34.62	-	-
	Poor knowledge	-	-	-	-
Eight	High knowledge	6	11.56	21	40.38
	Medium knowledge	15	28.85	-	-
	Poor knowledge	-	-	-	-

Table 4 shows knowledge score on menstrual hygiene is increased alone with the increment of grade in the pre-test and posttest. Overall knowledge increased after the educational intervention in all grade.

Table 5: Overall knowledge scores on menstrual hygiene before and after educational intervention

n=52

Knowledge level	Pre test		Post test	
	Frequency	Percentage	Frequency	Percentage
High knowledge	7	13.5	50	96.2
Medium knowledge	41	78.8	2	3.8
Poor knowledge	4	7.7	-	-

In pretest 7.7% had poor knowledge, 78.8% had medium knowledge and 13.5% had high knowledge regarding knowledge on menstrual hygiene while in posttest 3.8% had medium knowledge and 96.3% had high knowledge.

Table 6: Effectiveness of educational intervention regarding knowledge of menstrual hygiene n=52

Variables	Pre-test			Post-test			P value
	Median	SD	IQR	Median	SD	IQR	
Knowledge	16.00	3.70805	16(18-12)	24.00	1.4966	24(24-22)	.000

***Wilcoxon signed rank test**

The difference between respondents' pretest and posttest knowledge on menstrual hygiene was calculated by Wilcoxon signed rank test and the calculated p-value was highly significance ($p<0.05$). Hence, null hypothesis is rejected and alternative hypothesis is accepted, that is there is significant difference in knowledge on menstrual hygiene after educational intervention.

Discussion

The present study revealed that 94.2% respondents had knowledge on menstruation as a physiological process in pretest which increased to 100% in posttest. This result is supported by study conducted in Mumbai which reported increased in knowledge in posttest in comparison to pretest.[11] Likewise 59.6% respondents had the knowledge on cause of menstruation before intervention which increases to 100%. The finding of this study is supported by another study which reported 52.1% in pretest and 96% in posttest. This study shows that 73.1% respondents had correct knowledge on duration of menstrual cycle in pretest which increased to 94.2% in posttest. The finding is similar to the another study which reported 78.5% in pretest and 95% in posttest.[6]

Regarding the cleaning of external genitalia 63.5% had proper knowledge which increased to 100% in posttest. The finding of the study is congruent with the study which reported 43.33% knowledge on pretest which increased to 97.33% in posttest.[12]

Similarly present study revealed that 11.2% respondents had knowledge on heavy bleeding during menstruation leads to anemia before intervention which increased to 92.3% after intervention. The finding of this study is congruent with the another study which reported 12.91% respondents with the knowledge in pretest and 99.54% in posttest.[2]Present study revealed that only 38.5% respondent had correct knowledge on frequency of changing pad in pretest which increased to 94.2% in posttest.

Present study found that there was highly significance between pretest and posttest knowledge scores ($p<0.05$). after educational intervention which was calculated by Wilcoxon sign rank test. The finding of this study is supported by a study which concluded significance difference between pretest and posttest knowledge score.[13]

The study was conducted in small sample size of the respondents of only 52, so the results cannot be generalized in whole population.

Conclusion

Thus it can be concluded that educational intervention plays an important role in improving the knowledge on menstrual hygiene. Education program with effective teaching strategy motivates adolescent girls to follow healthy practices in day to day life and prevent morbidity and mortality related to lack of hygienic practices.

Recommendations

School curriculum can include menstrual hygiene management in the subject book to increase the knowledge on menstrual hygiene among adolescent school girls and awareness program can be lunched.

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