

Knowledge and Practice of Menstrual Hygiene among Adolescent School Girls in Rural Area of Surat District - A Cross - Sectional Study

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Abstract: *Background:* Menstruation is a normal physiological process in females. Menstruation begins during the adolescent stage, which is characterized by major physiological and emotional changes. However, due to a lack of proper information, the majority of teenage girls (girls between the ages of 10 to 19) approach their puberty period (maturity) without adequately preparing themselves. The main purpose of this study was to check the awareness about menstrual hygiene and to spread the awareness regarding menstrual hygiene among adolescent school girls. *Methodology:* A cross - sectional study was conducted among 260 adolescent school girls, aged between 13 to 18 years, who had attained menarche from different schools of rural area of surat district. Self - administrated pre - designed pre tested structured questionnaire was used for data collection. *Result:* It was marked that 37.3% participants attained their menarche at the age of 13 and most important source of information was mother in 72.3%, 87.3% participants are using sanitary napkin during menstruation, 81.5% change absorbent 1 - 2 times in a day. *Conclusion:* This study is concluding that majority of the girls had attained menarche at the age of 13 and they had used the sanitary pad as material. Relevant information regarding disposal of sanitary pads and maintenance of menstrual hygiene was given. We have also tried to spread awareness regarding it, including different government sector who are providing free pads and we had also explained them the technique to use and disposal of material and maintain proper hygiene.

Keywords: Adolescents, Menstrual hygiene, Knowledge and Practice

1. Introduction

A menarche is a normal event for females, but it also marks the start of their physical and social development ⁽¹⁾. Menstruation is typically understood to be the regular shedding of the uterus' inner lining, which is regulated by hormones produced by the hypothalamic - pituitary axis. Teenage girls frequently lack awareness about reproductive health, such as menstruation ⁽²⁾.

The period of growth and development are known as adolescence occurs between childhood and maturity. Any person between the ages of 10 to 19 is considered an adolescent by the World Health Organization (WHO) ⁽³⁾. However, due to a lack of proper information, the majority of teenage girls (girls between the ages of 10 to 19) approach their puberty period (maturity) without adequately preparing themselves. Due to the societal taboo around "menses," most women find it awkward to talk about it, and teenage girls may not have access to reliable information. Even the scant information they frequently obtain from religious organizations, their classmates, and family members is sometimes biased and surrounded by misconceptions ⁽⁴⁾.

When a woman is bleeding vaginally, the uterine osseous is exposed and ready to receive bacteria from the vagina and carry them to the uterus's body and fallopian tube, where they might cause an infectious disease ⁽⁵⁾.

During the menstrual cycle, it is crucial to maintain good hygiene habits, such as using sanitary pads and bathing the vaginal areas thoroughly. Girls and women of reproductive

age must have access to sanitary goods that are hygienic, soft, and absorbent because these items will ultimately protect their health from various infections. As a result, maintaining proper menstrual hygiene lowers the risk of developing a reproductive tract infection (RTI). As a result, RTIs can have serious effects on a woman's health, including chronic pelvic pain, dysmenorrhea (painful periods), and in extreme circumstances, infertility. Poor menstrual hygiene is intimately associated to reproductive tract infections, which have turned into a silent epidemic that affects women's lives. ⁽⁶⁾

The term "practice of utilizing clean materials to absorb menstrual blood that can be changed discretely, safely, hygienically, and as often as necessary throughout the monthly cycle" is used to describe menstrual hygiene ⁽³⁾.

Teenage girls typically feel awkward and hesitant to discuss menstruation and menstrual problems with their parents, friends, and teachers, which can have a negative impact on their health. Many research has revealed that many adolescent girls have incorrect menstrual practices and inadequate and unsuitable knowledge of menstruation, its physiology, and how to maintain hygiene. According to studies, young girls who are unaware of menstruation are more likely to experience gynecological issues. ⁽⁷⁾

Menstrual hygiene, or the proper control of menstrual bleeding by women and girls, is a crucial component of reproductive health. If not handled properly, it can result in vaginal thrush, pelvic inflammatory diseases, infections of the urinary tract, bad odor, soiled clothing, and ultimately shame, which infringes on the girl's dignity ⁽⁴⁾. Inadequate

menstrual hygiene can impact one's health and result in reproductive problems⁽⁸⁾.

However, the severity of menstrual hygiene management issues varies from place to place due to differences in economic standing, personal preferences, cultural traditions, and beliefs, geographic variation, the diversity of available natural resources, and the presence or absence of interventional measures. Young girls can or cannot practice proper menstrual hygiene practices depending on the information sources they use. For very young girls, accurate information can be provided by the media, the internet, friends, and relatives—mothers in particular⁽⁵⁾.

In the worst - case scenario, menstruation and menstrual hygiene are still shrouded in taboos, cultural and social restrictions, myths, and misconceptions, which prevent girls from seeking information and even from hiding their menstruation because they must be kept apart from others while they are menstruating⁽⁵⁾. Many of them, particularly in developing nations, lack accurate or adequate information about the menstrual cycle, as well as the physical and psychological changes and menstrual hygiene, which can lead to negative outcomes like unhealthy behavior, negative body image, vulnerability to reproductive tract infections (RTI) and pelvic inflammatory diseases (PID), infertility, anxiety, and lowered self - esteem, among others⁽⁵⁾. Menstruation is still seen as something unclean or dirty in India, especially in rural areas where people still live in conservative societies⁽¹⁰⁾. Therefore need arise to check knowledge about menstrual hygiene and also to spread the awareness regarding menstrual hygiene.

2. Methodology

A cross - sectional study was conducted among 260 adolescent school girls, aged between 13 to 18 years, who had attained menarche from different schools of rural area of surat district.

Outcome measure:

Pre-designed pre - tested self - administrated close ended structure questionnaire.

Procedure:

Prior to data collection all participations were informed about the study purpose and questionnaire and written consent was taken. All the components of questionnaire were explained first and then questionnaire (translated in Gujarati) was given to participants. If any participant would find difficulty in understanding, then one to one explanation was given.

3. Result

The demographic data of the participants was analyzed using frequency analysis and multiple data analysis as data were in categories. The present study included 260 adolescent school girls with age ranging from 13 to 18 years.

Characteristics	Groups	Frequency	Percent
Age (years)	13	14	5.4%
	14	77	29.6%
	15	111	42.7%
	16	34	13.1%
	17	22	8.5%
	18	2	0.8%
	Total	260	100.0%
Mother's education	Illiterate	18	6.9%
	Literate	96	36.9%
	School education	143	55.0%
	Higher education	3	1.2%
	Total	260	100.0%
Occupation of mother	House wife	193	73.9%
	Agriculture	18	6.9%
	Job/Non - agriculture	50	19.2%
	Total	261	100.0%
Age of menarche	11	7	2.7%
	12	54	20.8%
	13	97	37.3%
	14	72	27.7%
	15	26	10.0%
	16	4	1.5%
	Total	260	100.0%
Experience of menstrual interval by participation	24 to 26 days	57	21.9%
	27 to 28 days	46	17.7%
	29 to 30 days	61	23.5%
	31 and above days	19	7.3%
	Missing system	77	29.6%
	Total	260	100.0%
Duration of menstrual cycle during each period	1 - 2 days	135	51.9%
	3 - 5 days	95	36.5%
	6 - 7 days	9	3.5%
	8 and above days	17	6.5%
	Do not know	4	1.5%
	Total	260	100.0%
Source of knowledge	Mother	211	72.3%
	Father	1	0.3%
	Sister	20	6.8%
	Teacher	40	13.7%
	Friends	10	3.4%
	Mobile/ TV	10	3.4%
	Total	292	100.0%
Belief regarding causes of menstruation	Physical process	93	35.8%
	Natural process	117	45.0%
	Maturity cause	44	16.9%
	God	6	2.3%
	Total	260	100.0%
Menstrual hygiene knowledge	Changing pad	213	70.5%
	Bath	37	12.3%
	Wearing clear undergarments	20	6.6%
	Balance diet	32	10.6%
	Total	302	100.0%
Use of material during menstruation	Sanitary napkin	227	87.3%
	Old clothes	24	9.2%
	new clothes	9	3.5%
	Total	260	100.0%
Frequency of changing material	1 - 2 in a day	212	81.5%
	3 - 4 in a day	36	13.8%
	More than 5 in a day	12	4.6%
	Total	260	100.0%
Method of	Thrown	1	0.4%

disposal	Bury in ground	6	2.3%
	Dispose in dustbin	194	74.6%
	Disposed by burning	59	22.7%
	Total	260	100.0%
Time taking to reach place to buy pad	Less than 15 min	226	86.9%
	30 - 45 min	25	9.6%
	More than 45 min	9	3.5%
	Total	260	100.0%
Reason for not using sanitary pad	NO	231	88.8%
	Costly	7	2.7%
	Easily not to get	2	0.8%
	Difficult to dispose	16	6.2%
	Cloths are cheap	4	1.5%
	Total	260	100.0%
Symptoms	Pain in abdomen	230	84.2%
	Over bleeding	27	9.9%
	Headache	10	3.7%
	Vomiting	3	1.1%
	Nausea	3	1.1%
	Total	273	100.0%

4. Discussion

In this present study it is noted that majority of the girls got the information from the mother about the menstruation which is, 66.8% answered that source of information is mothers and same study was found in Tanhanu district conducted by Khanal, Prabha (2019) ⁽¹¹⁾ findings have been reported for source of information, majority were informed by mother whereas father and friends played a very little role in providing knowledge.

In this study it was observed that 87.3% use sanitary pad during menstruation and 81.5% girls change material (sanitary pad, clothes) 1 - 2 in day during menstruation, where the study done by Karki S et al. (2018) found 65.5% same study was conducted in rural Kheda district in India by Prajapati et al. (2015) ⁽¹²⁾ found only 10.5 percent were using sanitary pad. The similar type of study in Bhutan done by UNICEF (2018) found that every nine out of ten (91.9 %) schoolgirls used sanitary pad. Study of Jaipur city conducted by Nikita Sharma et al (2019) ⁽²⁾ observed that 13.55% use new clothes and 6.32% use old clothes.

The knowledge of menstrual cycle and flow of menstrual cycle in present study shows that 29.6% adolescent girls had missing system and 29 - 30 days 23.6% followed by 24 - 26 days 21.9% followed by 27 - 28 days 17.7% followed by 31 days and above 7.3%, Whereas previous study of Tanhanu district conducted by Khanal, Prabha. (2019) ⁽¹¹⁾ shows that 57% adolescent girls had 29 - 30 days cycle followed by 27 - 28 days 24%.

Duration of flow of menstruation during each cycle is 51.9% in 1 - 2 days and 36.5% in 3 - 5 days and 6.5 % 8 and above days.6.2% girls not using sanitary pad because they found that it is difficult to dispose and 2.7% not using because it is costly and 1.5% girls found that clothes are cheap and 0.8% girls not using because it is difficult to get, study done before which shows that there is a usually 3 - 5 days physiology, menstrual cycle which is conducted by Thiyagarajan DK et al. in 2022.

Present study found that disposed pad is disposed in dustbin is 74.6% and disposed by burning is 22.7%, bury in ground is 2.35 and thrown is 3%. in our study 84.2% girls feel the pain in abdomen during menstruation which is most common menstrual problem followed by over bleeding 9.9% followed by headache 3.7% followed by nausea /vomiting 1.1%, In previous study of public healthcare institute of Quetta, Pakistan which is conducted by Judy Michael et al (2022) ⁽¹⁾ disposed in dustbin is 75.0% and burning is 11.6%.

In present study found that menstrual hygiene knowledge is changing pad which is 70.5% and taking bath during menstruation is 12.3% which they believe to maintain menstrual hygiene followed by 10.6% balance diet, followed by 6.6% wearing clean undergarments.

During data collection we had also spread the awareness regarding this menstrual hygiene like change pad in every 5 - 6 hours in a day and take bath twice or thrice a day to maintain proper hygiene and the girl who has not able to use sanitary pad due to some reason than there are several government sector who are providing free pad and there are also reusable pad in market that can also buy and use and also used various technique to dispose that pad that all thinks would be explained and Girls who' menstrual cycle is not regular they should concert to the doctor regarding same.

5. Limitation

- Small sample size has been collected
- Due to consent issue, age group below 13 years were not included

6. Conclusion

This study is concluding that majority of the girls had attained menarche at the age of 13 and they had used the sanitary pad as material. Relevant information regarding disposal of sanitary pads and maintenance of menstrual hygiene was given. We have also tried to spread awareness regarding it, including different government sector who are providing free pads and we had also explained them the technique to use and disposal of material and maintain proper hygiene.

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