

Menstrual Knowledge and Hygiene Management of Adolescent Girls

ABSTRACT

The study ~~is to measure~~ the menstrual knowledge and ~~hygiene practices~~ of adolescent girls of low socio income group. Purposive sampling method was used for ~~the~~ selection of ~~study participantssample~~. A self-developed Questionnaire was used to measure the knowledge and hygiene practice among the adolescent girls. Results showed that the levels of knowledge regarding the menstrual health is low among the respondents as ~~this was the subject was~~ rarely discussed in homes. ~~Menstrual hygiene because of it being is~~ surrounded by social taboos and restrictions..... The hygiene practices and management of menstruation was ~~also~~ very low. There exists a positive correlation ~~among between~~ menstrual knowledge and hygiene management ~~by of~~ adolescent girls which clearly indicates that if the menstrual knowledge of the adolescent girls increases ~~then at~~ there can be improvement in the hygiene practices ~~as well by the same group of the adolescent girls~~.

Comment [a1]: How does one measure practices? Clarity needed on the aim of the study

Comment [a2]: Not clear- how do practices become low in terms of measurement

KEYWORDS

Adolescent, Menstruation, Menarche, Knowledge, Hygiene

INTRODUCTION

Adolescence is a unique phase of human development that spreads between the age of 10 and 19 years. Accelerated growth in reproductive organs is the most significant change during adolescent period. The girls attain puberty and their menstrual cycle starts. Menstruation is a normal and unique phenomenon to the females. It is ~~the a~~ natural process of the reproductive cycle in which blood from the uterus exits through the vagina. Menstruation knowledge and its hygiene practices are clouded by taboos and socio cultural restrictions resulting in adolescent girls remaining ignorant of the scientific practices, ~~and~~ facts and hygienic health practices, which sometimes result ~~into~~ adverse health outcomes. Hygienic practices of women during menstruation are of considerable importance, as ~~it has they have~~ a health impact and ~~it~~ can cause reproductive tract infections. The menstruation knowledge and hygiene practices are rarely discussed at home or in schools, because of ~~it the~~ phenomenon being ~~marked clouded~~ by taboos and social restrictions. Lack of information given to adolescent girls about the menstruation knowledge and the hygienic practices to be followed, leads to adverse health outcomes like reproductive tract infection, UTIs etc. ~~Inadequate hygienUnhygienic menstrual e~~ practices and management among adolescent girls increase susceptibility to infection. It is assumed that the risk of infection (including sexually transmitted infection) is higher than normal during menstruation because the blood coming out of the body creates a pathway for bacteria to travel back into the ~~uterus~~.

Comment [a3]: Law of first mention

Comment [a4]: Any background information to the study? What you have is generally accepted knowledge..... Enrich your background information as it relates to the area of study.

MATERIALS AND METHODS

The study was carried out in Hyderabad, ~~(district, country)~~ mainly focusing the low socio ~~income group~~ economic ~~households, status~~. A ~~self-developed~~ questionnaire, structured and closed ended questions ~~was were~~ used to assess the menstruation knowledge ~~levels~~ and hygiene practices of the adolescent girls of low socio income groups. The knowledge questions consisted of questions such as process of menstruation, cause, source, duration of menstruation along with menarche. The hygiene practice question included use of absorbent material in menstruation, about personal hygiene during menstruation, and frequency of changing pads. The information collected was tabulated and statistically analyzed by using percentages, frequencies and correlation. ~~What was the study design?~~

Comment [a5]: Population, sampling procedures and sample sizes not given. , Research design not clear

RESULTS AND DISCUSSION

Menstruation Process Knowledge

Table 1 Knowledge levels ~~on the for~~ process of menstruation ~~in amongst~~ Adolescent Girls

Menstruation process is a	Frequency	Percentage
Physiological process	7	23.33%
Pathological process	2	6.66%
Don't know	21	70.00%
Cause of Menstruation		
Hormones	16	53.33%
Caused by the disease	4	13.33%
Don't know	10	33.33%
Source of Menstrual blood		
Uterus	2	6.66%
Vagina	8	26.00%
Don't know	20	66.66%
Duration of Normal Menstrual cycle		
20-28 days	10	33.33%
28-40 days	2	6.66%
Don't know	18	60.00%
Heard about Menstruation before attaining menarche		
Yes	3	10.00%
No	27	90.00%

54 The above table indicates that about 3/4th of the adolescent girls in the study "Don't know"
 55 What is menstruation process is, 23.33% of adolescent girls pointed out that menstruation is
 56 physiological process and 6.66 % said-indicated that menstruation process is pathological process.
 57 Physiological process refers to the process that occurs naturally in the human body, this process is
 58 the vital function for the human body. On the other hand, pathological process refers to the disease
 59 due to invasion of the body by pathogenic microorganisms and their multiplication which can lead to
 60 tissue damage and disease. Significance of these figures?

61 Majority (53.33%) of the adolescent girls were aware of the fact that menstruation process is
 62 caused due to by hormonal process in the female human body. Hormones are the chemical
 63 messenger of the body. It was very depressing to see note that 13.33% of the adolescent girls in the
 64 study have a believed that menstruation is caused by the a disease. As much as 33.33% of the
 65 adolescent girls don't did not know the cause of menstruation. This figure indicates that menstrual
 66 knowledge is poor among the adolescent girls, probably because no proper information channels are
 67 is available for themadequate and proper information. Menstruation is still a social taboo in our
 68 society. This might be because nobody talks much about the menstruation. There is gap in the
 69 educational system where reproductive health is not taught because either it is considered non-
 70 important or unsocial. It is assumed that knowledge regarding menstruation will come gradually by its
 71 own.

72 The above table shows that knowledge about the source of the menstruation blood was
 73 answered as largely the vagina, by only 26.66% clearly indicated ed low knowledge and information
 74 about the menstruation cycle. It is also to be indicated that 66.66% of adolescent girls "Don't know"
 75 the source of menstruation blood.

76 The duration of normal menstruation cycle of 20-28 days was indicated correctly by less than
 77 50 % of the adolescent girls. Menstrual cycle is the normal 28 days cycle of the girls who have
 78 attained menarche. This normal cycle indicates the normal and healthy life of the girls. This cycle is
 79 the normal cycle of the all females

80 Prior information about menarche before its attainment was not available to 90% of the
 81 adolescent girls in the present study. A more population of 10% had heard about menarche and
 82 menstruation cycle before they actually experienced it. The prior information is not given to
 83 adolescent girls before they actually experience it because of the social taboos and belief that is still

Comment [a6]: Whos?

Comment [a7]: No evidence in the table

Comment [a8]: Re-word this paragraph, meaning is a bit clouded.

Comment [a9]: Find an appropriate word

prevailing in the ~~study present~~ society. Thakre *et al* [4] found that only 36.95% of the girls were aware of menstruation before menarche. The major source of information about menstruation ~~for them was found to be~~ their mothers. More than three fourth of the girls in the study were not aware of the cause and the source of the bleeding.

Mahajan and Kaushal [1] pointed out that that 29% had adequate knowledge about menstrual hygiene, and 71% had inadequate knowledge about menstrual hygiene. Composite practice scores showed that 19%, 69%, and 12% samples had poor, fair, and good score of practices regarding menstrual hygiene, respectively. It was further pointed that, significant positive association between good knowledge of menstruation and educational status of the mother only.

Menstrual Hygiene Practices

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Table 2. ~~P~~To assess the practices regarding menstrual hygiene among adolescent girls

n=30

Statements	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Uses absorbent materials during menstruation	30	100	–	–
Uses commercially made sanitary pad as absorbent material during menstruation	12	40.00	22	73.33
Clean clothes with soap and water	15	68.00	07	31.81
Dry cloths in sunlight	14	63.36	8	36.36
Changing pads or cloths more than three times and above during menstruation	10	33.33	20	66.66
Do you change /reuse the cloth for every cycle	14	46.66	16	53.33
Disposes used sanitary pads in dustbin	17	56.66	13	43.33
Uses paper to dispose the pads by wrapping	9	30.00	21	70.00
Takes bath daily with soap during menstruation	18	60.00	12	40.00
Clean external genitalia during menstruation	16	53.33	14	46.66
During Menstrual cycle, I use undergarment separately	4	13.33	26	86.66

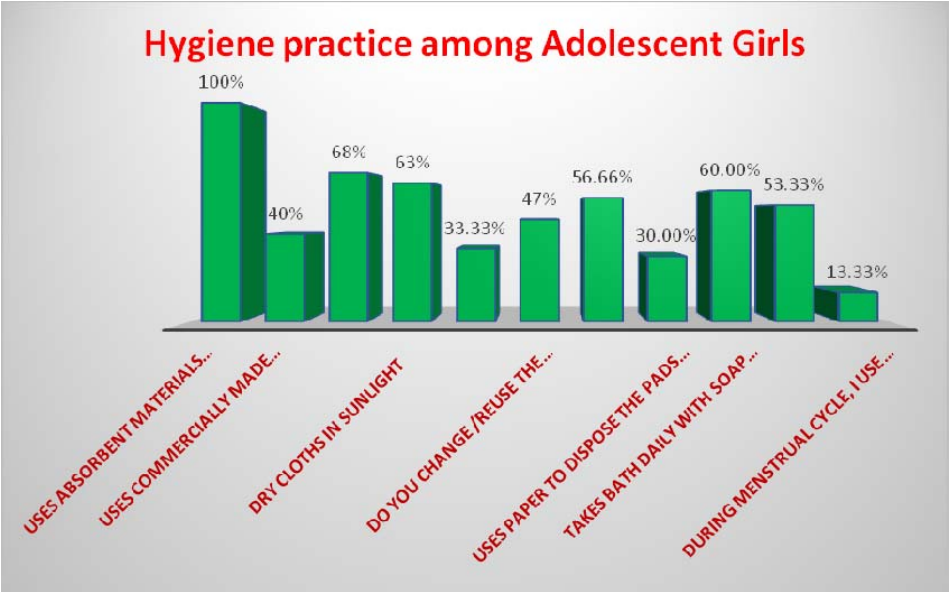
~~The above table 2~~ revealed ~~the~~ menstrual hygiene practices among adolescent girls. All the adolescent girls in the study used absorbent cloth during their periods. The commercially available pads were used by only 40 % of the adolescent girls and more than half (60%) adolescent girls used old clothes during their periods. Use of the old clothes by the majority of the adolescent girls was due to ~~lack of~~ affordability and accessibility ~~challenges of the sanitary pads made commercially~~. Sharma *et al* [2] found that majority of the girls preferred cloth pieces rather than sanitary pads as menstrual absorbent. Apparently, poverty, high cost of disposable sanitary pads and to some extent ignorance discouraged the girls from using the menstrual absorbents available in the market.

As much as 70.00% of the adolescent girls used soap and water to clean their used sanitary pads. This figure is noteworthy and indicates some good practice ~~among the adolescent girls in them~~. A majority of the adolescent (63.36%) dried the clothes in sunlight. Discussion!

The percentages clearly indicated low hygiene practices in the adolescent girls. Majority of the adolescent girls did not change their pads or cloths more than three times ~~or more and above~~ during menstruation and, hence indicated low hygiene practice during menstruation. ~~The M~~majority of the adolescent girls (56.66%) did not ~~d~~isposes used sanitary pads in dustbins. Moreover, 70.00% of the respondents did not wrap the pads with papers to dispose ~~them~~. ~~The m~~Majority of the adolescent girls (~~i.e.~~ 86.66%) ~~during Menstrual cycle~~, did not ~~have practice of using~~ undergarment separately for period during menstruation.

114 Ramchandra *et al* [3] revealed that around 34% participants were aware about menstruation prior
 115 to menarche, and mothers were the main source of information among both groups. Overall, 69% of
 116 adolescent girls were using sanitary napkins as menstrual absorbent, while 6% ~~were using~~ both
 117 cloth and sanitary napkins. Almost half of the rural participants dried the absorbent cloth inside their
 118 homesrooms.

119 Varghese *et al* [5] pointed out the average level of menstrual hygiene practices was 75 %, meaning ~~of~~ proper menstrual hygiene was high. Factor analysis on menstrual hygiene showed
 120 highest scores on frequency of changing the pad, bath during menstruation, absorbent cloth used and
 121 access to water. Average level of hygiene practices was comparatively more among girls who
 122 belonged to higher socio-economic groups (Pvalue = 0.003) and those who had access to a covered
 123 toilet (P value = 0.000).
 124



125
 126
 127
 128

129 **Table 3. Testing of Hypothesis**

130 **Null Hypothesis**

131 There will be no association between menstrual health knowledge and hygiene practices of

132 adolescent girls.

133 **Alternate Hypothesis**

134 There will be a significant association between menstrual health knowledge and hygiene practice of

135 adolescent girls.

136

	Knowledge	Hygiene Practices
Pearson Correlation	.626	
Sig. (2-tailed)		

Comment [a10]:

Comment [a11R10]: These should also have been briefly described in your research methods

	N	
	Pearson	
	Correlation	
Hygiene practice	Sig. (2-tailed)	
	N	

Fig 1:*significant at 0.05% level of probability

An inference could be drawn from the above table that knowledge about menstruation and menstrual hygiene practice have a positive correlation with each other, This correlation clearly indicates that if the menstrual knowledge of the adolescent girls increases that there can be improvement in the hygiene practices of the adolescent girls.

CONCLUSION and Recommendations

The main problem areas identified in this study were poor knowledge of menstruation, and hygiene practices. This study has highlighted the need of-for adolescent girls to have accurate and adequate knowledge about menstruation and its appropriate hygiene management. Formal as well as informal channels of communication such as mothers, sisters and friends need to be emphasized empowered for the delivery of such knowledge.

Schools should be another entry point for improving menstrual health by integrating menstrual hygiene into curriculum. Menstrual health is an important part of the life cycle approach to women's health, so loud and clear messages and services on this issue must reach adolescent girls.

There is a need to provide education and equip them with skills regarding safe and hygienic practices and to make appropriate choices so as to enable them to lead a healthy reproductive lives and prevent the risk for reproductive tract infections. There is also a need to empower mothers and teachers to function as primary sources of information on menstruation including reproductive health as they are accessible to handle adolescent issues and facilitate referrals as the need arises.

Education has been the key stone in propagating menstrual hygiene practices. Although there is repeated sensitization and reinforcement of all these components among adolescent school girls, certain components are not being practiced. Strategies such as access to water, sanitation, hygiene of external genitalia and access to covered toilets are still deficient and it plays a major role in promoting the adoption of safe menstrual hygiene practices.

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