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Awareness about Menstruation among School Going Adolescent Girls in District Patiala, India

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Abstract

Objective

The objective was to study the socio-economic profile and the awareness about menstruation among school going adolescent girls.

Methods

From four selected senior secondary schools, a sample of 120 adolescent girls of 11th and 12th class was drawn for the purpose of the study. Pre-tested, semi-structured questionnaire was used along with observation method to get quantitative and qualitative information from the respondents. Percentage analysis was used to represent the findings of the study.

Results

The study highlights that majority of the respondents i.e. 93.33 were of 16 years and 17 years of age. And, most of the mas 62.5 percent were from rural areas. 22.5 percent mothers and 21.67 percent fathers of the respondents were illiterate. About one third of respondents' parents were either in government job, or in private job, or were having their own business and remaining were farmers, shop keepers, mechanics, labourers or were unemployed. More than half (56.67 percent) of the respondents' families were having income less than Rs. 6215 per month.The study further highlights that 99.17 percent of the respondents attained menarche between 11-15 years and 75 percent of the respondents were aware of menstruation before it occurred. It is observed that 68.33 percent of the respondents knew that menstruation in early adolescence is normal while 31.67 percent thought menstruation in early adolescence is not normal.

Conclusion

Most of the respondents belong to poor families and parents with low income and more likely to have poor educational status. Majority of them attained menarche at pre-adolescent period. Three-fourth respondents were aware of menstruation before it occurred yet, one-third of the respodents think menstruation in early adolescence is not normal. Awareness is one the major concerns that needs immediate attention to promote the use of sanitary napkins during the time of menstruation to prevent the adolescent girls from RTIs.

Keywords: Adolescent, Menstruation, Awareness.

Introduction

Menstruation is a natural biological phenomenon among all females and most of the times females are neither aware nor prepared for menarche i.e. onset of menstruation. It is of utmost importance among the girls during adolescent years. During menstruation periodic vaginal bleeding occurs with the shedding of the uterine lining as described by the medical science. It is one of the signs of puberty, and occurs one or two years following appearance of secondary sexual characteristics such as hair growth in armpit and pubic region, increase in height, and acne and pimples (Oyebola, 2002). The menstrual cycle lasts from 3-7 days. Each menstrual cycle starts approximately every 28 days. The onset of menstruation varies with race and family but the average age for most girls ranges between10-14 years (Adhikari, Kadel, Dhungel, & Mandal, 2007). Menarche may be either exciting or terrifying to young girls whereas for family and community members they may choose to ignore the moment completely or make it a celebratory moment (Kirk & Sommer, 2005). In most societies, menarche is an indication of a girl's developing sexuality. In various cultures all over the world including some parts of India, menarche

is related with 'puberty rites'. There are studies which highlight that families in rural Tamil Nadu and in the slums of Mumbai openly celebrate rite of passage at menarche (Dharmalingam, 1994).

Review of Literature

The first menstruation is often horrifying and traumatic to an adolescent girl because it usually occurs without her knowing about it. The lack of knowledge about the physiological process of menstruation makes girls unable to link it to sexual development and fertility and they feel ashamed and hesitant to ask or discuss what they are experiencing. The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. According to various studies girls explain their first experience of menarche as being horrifying and traumatic because they did not have adequate information and knowledge prior to menarche (Dasgupta & Sakar, 2008; Gupta & Gupta, 2001).

Results

Age

Age is an important variable especially when studies are related with menstrual and reproductive health issues. The age of the respondents determines if the respondents are in their pre-menarche age or post-menarche age. In the present study, the respondents' age taken has been 16 years, 17 years, 18 years and 18 years and above. The reasons for taking up respondents of 16 years and above is that these age groups are most likely to have attained their menarche and are able to provide insight into different practices and how respondents eventually develop their menstrual hygiene practices. Along with this, the respondents in these age groups are also still in the early years of their menstruation and are in the process of learning and adopting different menstrual hygiene practices. The data pertaining to the age of the respondents is presented in Table 1. The data reveals that majority of the respondents i.e. 60.83 percent were 16 years of age, followed by 32.50 percent who were 17 years of age. Only five percent of the respondents were of 18 years and a very small percentage i.e. 1.67 percent were above 18 years of age.

Residential Area

Residential area affects the accessibility of services like quality and variety of menstrual hygiene management products as well as exposure to new information which ultimately affects the maintenance of menstrual hygienic practices of adolescent girls as well as their level of awareness. Menstrual hygienic practices are better in urban areas in comparison to rural areas (Arumugam, Nagalingam, Varma, Ravi, & Ganesan, 2014; Subhash et al., 2011). Therefore, the data obtained about residential area has been presented in Table 1, and it reveals that majority of the respondents i.e. 62.5 percent were from rural areas whereas 37.5 percent of the respondents belonged to urban areas.

Mother's Education Level

Education is an important tool that helps an individual to keep oneself up to date and helps in maintaining pace with the changing environment and socio cultural milieu. Taking note of mothers' education is important because they are primary care givers and play a significant role in the socialization of their children. This is more so in case of menstruation and puberty where girls feel comfortable discussing these issues with their mothers only. Values and beliefs that mothers have towards menstruation are being inculcated in their daughters which in turn affect the perception and attitude of the girls towards issues related to menstruation. Similarly, educational status of the father also influences to some extent his perception and attitude of the father towards menstruation. This is more so in a patriarchal society where mostly decision making and allocation of resources are influenced by men. Also fathers who are well informed and educated can help in changing cultural norms and taboos around menstruation as well as being more lenient on enforcing restrictions on their menstruating daughters. Table 1 highlights the data regarding educational status of respondents' parents. In the present study, 27.5 percent respondents' mothers had completed their primary school followed by 22.5 percent who were illiterate, 18.33 percent had completed senior secondary, 14.17 percent had attained education up to elementary level, and 13.33 percent of the respondents had completed their high school. Only 4.17 percent of the respondents were graduates or postgraduates. These findings more or less correspond with those of a study conducted by Suhasini and Chandra (2016) in Belgaum where 22.6 percent of the respondents' mothers were illiterate, 15.4 percent have completed primary level, 36 percent up to high level, 11.5 percent senior secondary level and 14.5 percent graduate/postgraduate level. The major difference in these findings is the percentage of mothers who have attained education level of up to graduate/ postgraduate level. This difference could be attributed to the fact that the study was conducted precisely in an urban setting where literacy levels tend to be higher as compared to rural areas.

Education of Respondents' Fathers

As far as educational status of respondents' fathers is concerned, 26.67 percent were senior secondary pass, 22.5 percent had education up to primary school, 21.67 percent were illiterate, 15 percent had completed high school, 12.5 percent elementary school and only 1.67 percent has attained graduation/postgraduate level. These findings were not consistent with those of a study conducted by Upa sheet al. (2015) where majority i.e. 35.5 percent had reached elementary level, followed by 32.5 percent having primary level of education, 17.6 percent had attained secondary level. However, 11.1 percent had their educational qualification up to senior secondary level, 8percent were illiterate and only 0.9 percent have attained graduate/postgraduate level.

Fathers' Occupation

Occupation of the head of the family is an important for determining the economic status and

family income of the family which ultimately affects the availability of basic amenities in the house as well as in some way the affordability of menstrual hygiene management products as well. The data obtained regarding occupation of the head of the family reveals that 25 percent of the respondents' fathers were in private job, followed by 20 percent being farmers, 18.33 percent being shop owners, 15 percent constituting of other occupations (mechanic and laborers), 7.5 percent were in business and government job, and 2.5 percent clerks. However, 4.17 percent were unemployed.

Family Income

Family income is an important determinant of the affordability of quality menstrual hygiene management products. Men who are head of families may have a difficult time when family income is low in allocating money and when menstrual hygienic management products are costly. As a result menstrual hygiene is compromised. Family income also affects the access to most basic amenities in the house like water, sanitary toilets, and bathroom which are essential in the maintenance of menstrual hygiene. Family income is an important variable and for the purpose of the present study criteria for monthly family income has been chosen by following Kuppu swamy's socio economic scale (Sharma, 2017). The data illustrates that majority of the respondents, i.e., 32.5 percent are earning less than Rs. 2091 per month, followed by 24.17 percent of the respondents who are earning an income between Rs. 2092-6213, 13.33 percent have earnings between Rs. 6214-10356, 11.67 percent having an income between Rs. 10357-15535 per month, 8.33 percent are having income between Rs. 20715-41429, and 4.17 percent having an income of between Rs. 15536-20714 per month. However, only 5.83 percent of the respondents are having family income of more than Rs. 41430/- per month.

Table 1 Socio-Economic Variables of The Respondents

Age	**Number**	**Percentage**
16 Years	73	60.83
17 Years	39	32.50
18 Years	6	5
More than 18 Years	2	1.67
Total	**120**	**100**
Residential area		
Rural	75	62.5
Urban	45	37.5
Total	**120**	**100**
Education level of the respondents' mothers		
Illiterate	27	22.5
Primary school	33	27.5
Elementary	17	14.17
High school	16	13.33
Senior secondary	22	18.33
Graduate/ postgraduate	5	4.17
Total	**120**	**100**
Education level of the respondents' fathers		
Illiterate	26	21.67
Primary school	27	22.5
Elementary	15	12.5
High school	18	15
Senior secondary	32	26.67
Graduate/postgraduate	2	1.67
Total	**120**	**100**
Occupation of head of the family		
Clerk	3	2.5
Shop owner	22	18.33
Farmer	24	20
Government job	9	7.5
Private job	30	25
Business	9	7.5
Unemployed	5	4.17
Any other	18	15
Total	**120**	**100**
Monthly income of the families of the respondents		
Less than 2091	39	32.5
2092-6213	29	24.17
6214-10356	16	13.33
10357-15535	14	11.67
15536-20714	5	4.17
20715-41429	10	8.33
More than 41430	7	5.83
Total	**120**	**100**

Awareness about Menstruation

Awareness about menstruation as a natural physiological phenomenon is needed for girls to be able to handle the onset of menstruation and maintain their menstrual hygiene. It is all the more important in a culture where parents hesitate to talk about it, teachers are reluctant to discuss and counsellors are not available to deal with these issues and if at all are available, trend of going to counsellor is not there. Therefore, it is essential to know their awareness level about menarche as well as respondents' source of information. Because source of information in case of studies on menstruation is indicative of culture of silence if it prevails; along with the cultural and educational changes taking place in the current social scenario. The information pertaining to awareness about menarche and their source of information has been presented in Table 2.

Table 2 highlights that majority of the respondents, i.e., 59.17 percent attained their menarche in the age group of 11-13 years, 40 percent at the age group of 13-15 years and 0.83 percent of the respondents reported to have onset of menstruation in the age group of 15-16 years. As far as prior information about menarche is concerned, 75 percent of the respondents were aware of menstruation before it occurred while 25 percent were not aware. These findings correspond more or less with those of Omidvar & Begum (2010) where 64.2 percent were aware of menstruation before it occurred. The most important source of information was mother 82.22 percent followed by friends 11.11 percent and teachers/school 2.22 percent. These could be due to the fact that the literacy level of the mother was high. Apart from mothers' education, there are more factors responsible for increased level of awareness about menarche such as media, friends, teachers and curriculum also to some extent. Time

has changed when school teachers would skip chapters on reproductive health.

Awareness about Duration and Regularity of Menstrual Cycle

The duration of the menstrual cycle is 3-7 days and each period starts approximately every 28 days. This period may not be the same every month and differ from one woman to another. Menstrual cycle can be light, moderate or heavy (Lawan, Yusuf, & Musa, 2010). The average normal length of a female menstrual cycle is 28 days which may vary between individuals. However, irregular menstruation is when the menstrual cycle is more than 35 days but may vary between individuals. Irregular menstruation in early adolescence may be due to the fact that biologically, it takes two years once menstruation starts to establish a regular cycle and after puberty most females' menstrual cycle become regular (Creinin, Keverline, & Meyn, 2004). The data in the present study highlights that 68.3 percent of the respondents knew that menstruation in early adolescence is normal while 31.67 percent thought menstruation in early adolescence is not normal. These findings differ from those of study carried out in Kano, North-western Nigeria where only a few (6.5 percent) knew menstruation in early adolescence is normal. This may be due to the fact that majority of the respondents (85 percent) in the current study were in their early adolescent years (10-15 years). Empirical evidence shows association between age group ($p<0.05$) and their knowledge of menstruation and menstrual hygiene (Lawan et al., 2010). On being asked about the duration of menstrual cycle, more than half 58.33 percent of the respondents knew the duration of normal period and reported that it extends from 1-7 days. This could be due to the fact that the respondents were all from senior secondary schools and the majority of them were in their mid-adolescence. However, 41.67 percent did not know the duration of a normal period. When asked about having irregular menstrual cycle, majority of the respondents (55 percent) reported of never having irregular menstrual cycle while 45 percent reported of experiencing irregular menstrual cycle sometimes during their cycle.

Table 2. Awareness regarding Menstruation in Early Adolescent, Duration and Regularity of Menstrual Cycle

Age at menarche (years)	**Number**	**Percentage**
11-13	71	59.17
13-15	48	40
15-16	1	0.83
More than 16	0	0
Total	**120**	**100**
Awareness about Menstruation Before it Occurred		
Yes	90	75
No	30	25
Total	**120**	**100**
If yes, The Source of Information (n=90)		
Mother	74	82.22
Friends	10	11.11
Television	0	0
Magazines	0	0
Newspaper	0	0
Teachers/school	2	2.22
Others	4	4.44
Total	**90**	**100**
Do you think menstruation in an early adolescent age is normal?		
Yes	82	68.33
No	38	31.67
Total	**120**	**100**
Do you know the duration of the normal period?		
Yes	70	58.33
No	50	41.67
Total	**120**	**100**
If yes, what is the duration of the normal period? (in days) (n=70)		
1-3	6	8.57
3-5	38	54.29
5-7	26	37.14
More than 7	0	0
Total	**70**	**100**
Have you ever had irregular menstrual cycle?		
Yes	54	45
No	66	55
Total	**120**	**100**

Discussion & Conclusion

The age of the respondents is extremely important because it highlights the initiation of menstruation and menstrual hygienic practices among adolescent girls. The data pertaining to age of the respondents in the present study reveals that majority of the respondents were of 16 years of age followed by 17 years of age. The high percentages in the ages of 16 years and 17 years could be attributed to the fact that the sample was selected from 11th class and 12th class who constitute majority of that age group and the low percentages in age group of 18 years and above could be because most girls at this age have already passed this level of education. Findings of the study conducted by Lawan et al. (2010) in Keno, North-western Nigeria, with 400 adolescent female students between the age group of 10-19 years highlight that majority of the respondents 65.5 percent were in their mid-adolescence, i.e., between the ages of 14-15 years. The high percentage in these age groups could be because this study was conducted among students of secondary education level.

Residential area of the respondents is a major key influencer for awareness and maintenance of menstrual hygienic practices of the adolescent girls. Only a few numbers of girls from the rural areas used sanitary napkins which were available in the market possibly due to their low socioeconomic status, lesser availability of the napkins in the rural areas and lack of awareness among the respondents (Subhash et al. 2011). It was also observed among 550 adolescent girls that use of sanitary napkin is higher in the urban area (75.9 percent) as compared to rural participants (65 percent) (Kamath, Ghosh, Lena, & Chandrasekaran, 2013). However, the findings of the present study demonstrate more percentage of rural participants.

The probable cause for this could be that the locale of the study was predominantly rural therefore a high percentage of rural respondents were found in the current study. In the current study, majority of the respondents are aware about and are maintaining menstrual hygienic practices that are contradictory to the findings of the above quoted studies.

The educational status of respondents' mothers is of utmost importance as it influences the maintenance of menstrual hygiene like bathing and changing napkins regularly. In the present study, most of the mothers (75.5 percent) have attained at least a primary level of education with 35.83 percent having completed high school level and above. More educated mothers are more likely to inculcate better menstrual hygienic practices to their daughters and be more open to talking about menstruation especially before menarche. More over they are in a better position to provide more supportive and conducive environment, and share experiences without any hesitation so that young girls view menstruation as part of the natural biological change important for reproduction in every women. On the other hand, mothers with less knowledge may instil the notion of taboo or curse in their daughters. Kansaland Kumar (2016) in a study among 650 adolescent girls in Varanasi highlighted that respondents with less educated and illiterate mothers were more likely to engage in unhygienic menstrual practices. Suhasini and Chandra (2016) carried out a study in Belgaum and revealed that there is a significant increase ($p<0.001$) in a number of sanitary napkins used with an increase in mother's literacy status.

Similarly fathers' education is equally important as it helps creating an enabling environment for girls and a culture where misconceptions and ignorance are eliminated. In the present study, 43.34 percent have attained education level above secondary school. Educated fathers have adequate knowledge and awareness about menstruation could be helpful in developing positive outlook and for providing necessary basic resources like financial support for maintaining menstrual hygiene. Men who are unaware of menstruation and sanitary napkins creates problems for the girls when they ask for money from male relatives to buy napkins (Pillitteri, 2011). Lack of information proves to be problematic when efforts are made to challenge taboos and misconceptions about menstruation especially by men and women of low educational status (George, 1994).

Occupation is the source of livelihood and is directly associated with the exposure one gets. Exposure plays an important role in understanding the issues related to adolescent girls particularly related to menstrual hygiene. Occupation determines the family income also and in turn affects standard of living of the family, and purchasing power. It also determines the availability and access to the basic amenities; as a result the quality of life is compromised. Thus, occupation is an important parameter though indirectly in determining the maintenance of menstrual hygiene. In the current study, nearly one third of the respondents were either in government job, or in private job, or were having their own business. Rest of the respondents were farmers, shop keepers mechanics, labourers or were unemployed. These findings differ with those of the study carried out by Gupta and Gupta (2001) where the majority of the fathers i.e. 65 percent were in service (executives, teachers, bank officials) and 36 percent were in business. The ses difference could be due to differences in study location and in socio-economic background of the respondents.

Family income is directly associated with the affordability of purchasing sanitary napkins products to maintain their menstrual hygiene. Because it becomes secondary need for the families with lesser income which they tend to ignore. Over all, more than half (56.67 percent) of the respondents' families were having income less than Rs. 6215 per month. These findings are more or less consistent with the finding of the study carried out by Parameaswari et al. (2014) in his study in Chennai where the family income of majority of the respondents (76 percent) was less than Rs. 5000 and purchase of sanitary napkins to maintain menstrual hygiene was least priority for them.

Awareness about menstruation affects girls' attitudes and beliefs towards menstruation. In a culture where myths and misconceptions exist, adequate information and knowledge is needed for girls to overcome such dogmas and embrace menstruation as a natural process. Otherwise, it comes as a trauma and adolescent girls are unable to handle menarche adequately due to limited information. A study conducted by Kumar (1988) among adolescent girls in Delhi, India found that mothers do not teach their daughters about menstruation or maintenance of menstrual hygiene and consequently, lack of information leads to undue fear, anxiety and false ideas among adolescents. In the current study, 99.17 percent of the respondents attained menarche between 11-15 years. These findings correspond with the findings of a study conducted by Lawan et al. (2010) in Kano, north western Nigeria where the majority of the respondents (85 percent) attained their menarche between 11-15 years of age. Although, the age at menarche may vary with race and family, yet the average age for most of the girls is between 10-14 years (Adhikari et al., 2007).

Data on awareness about menarche states that nearly three fourth of the respondents were already informed about it and their source of information had been their mothers. Studies show that there is a significant increase ($p= 0.001$) in the level of awareness with the literacy status of mothers (Suhasini and Chandra, 2016). These findings correspond with various studies where mothers of respondents had been the major source of information about menstruation before it occurred (Omidvar, & Begum, 2010; Subhash et al., 2011).

References

Adhikari, P., Kadel, B., Dhungel, S. I., & Mandal, A. (2007). Knowledge and practice regarding menstrual hygiene in rural adolescent girls of Nepal. Kathmandu University medical journal (KUMJ), 5(3), 382-386.

Arumugam, B., Nagalingam, S., Varman, P. M., Ravi, P., & Ganesan, R. (2014). Menstrual hygiene practices: Is it practically impractical? International Journal of Medicine and Public Health, 4(4), 472-476

Creinin, M. D., Keverline, S., &Meyn, L. A. (2004). How regular is regular? An analysis of menstrual cycle regularity. Contraception, 70(4), 289-292.

Dasgupta, A., & Sarkar, M. (2008). Menstrual hygiene: how hygienic is the adolescent girl?Indian journal of community medicine, Preventive & Social Medicine, 33(2), 77-80.

Dharmalingam, A. (1994). The implication of menarche and wedding ceremonies for the status of women in South Indian village. Indian Anthropologist. 24(1), 31-43.

George, A. (1994). It happens to us. Menstruation as perceived by poor women in Bombay. J.Gittelsohn, M.E. Bentley, P.J.Pelto. Listening to women talk about their health: Issues and evidence from India. Har-Anand publication: New Delhi. 168-183.

Gupta, J., & Gupta, H. (2001). Adolescents and menstruation. Journal of Family Welfare, 47(1), 1-13.

Kamath, R., Ghosh, D., Lena, A., & Chandrasekaran, V. (2013). A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk, Manipal, India. Global Journal of Medicine and Public Health,2(4), 1-9.

Kansal, S. and Kumar, A. (2016). Menstrual hygiene practices in context of schooling. A community study among rural adolescent girls in Varanasi. Indian Journal of Community Medicine,41(1), 33-44.

Kirk, J., & Sommer, M. (2005). Menstruation and body awareness: critical issues for girls' education. EQUALS, Beyond Access: Gender, Education and Development, 15, 4-5.

Lawan, U.M., Yusuf, N. W., & Musa, B. L. (2010). Menstruation and menstrual hygiene amongst adolescent school girls in Kano, Northwestern Nigeria. African Journal of Reproductive Health, 14(3), 201-207.

Omidvar, S. & Begum, K. (2010). Factors influencing hygienic practices during lenses among girls from South India: A cross sectional study. International Journal of Collaborative Research on Internal Medicine and Public Health, 2(12), 411-423.

Oyebola, D.O. (2002). Female reproduction. Essential physiology for students of medicine, pharmacy and related disciplines.Nihort Press, Ibadan.

Pillitteri, S. (2011). School menstrual hygiene management in Malawi: More than toilets. WaterAid Report. Cranfield University.

Sharma, R. (2017). Revised Kuppuswamy's socioeconomic status scale: Explained and updated. Indian pediatrics, 54(10), 867-870.

Subhash, B., Thakre, S., Sushama, S., Monica, R., Nidhi, R., Ketaki, P. & Suresh, U. (2011). Menstrual hygiene: Knowledge and practice among adolescent girls of Saoner, Nagpur district. Journal of Clinical and Diagnostic Research,5(5), 1027-1063.

Suhasini, K., & Chandra, M. (2017). Factors influencing menstrual hygiene practice among late adolescent girls in an urban area of Belgaum.Annals of Community Health, 4(4), 20-24.

Upashe, S. P., Tekelab, T., &Mekonnen, J. (2015). Assessment of knowledge and practice of menstrual hygiene among high school girls in Western Ethiopia. BMC women's health, 15(1), 84.