

Knowledge and Practice of Menstrual Hygiene by Adolescent Girls in Rural Tamil Nadu

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Abstract

Imparting right knowledge about menstruation and menstrual hygiene to adolescent girls is very important to protect them from various reproductive tract infections and reproductive health. This cross sectional study was conducted in adolescent girls studying in Government School (GS) (n=50) and Private School (PS) (n=50) school (N=100) to know about the knowledge and practice of menstrual hygiene among the adolescent girls in Barugur, Tamil Nadu before and after an education program. Among the selected girls, 14 to 15 years old were 55 per cent. Hindus were more than 90 percent. Nearly 58 per cent of PS and 40 per cent of GS belonged to Class III of Prasad's economic classification. PS had significantly more knowledge about menstrual hygiene and better practice before attending the education program and there was a significant improvement ($P>0.05$) in the knowledge and practice of GS and PS after the program. Periodical conduct of many such education programs is essential for practice of proper menstrual hygiene by rural adolescent girls.

Keywords: Adolescent Girls, Education Program, Menstrual Hygiene, Menstrual Knowledge

1. Introduction

India has 113 million adolescent girls which is nearly 10 per cent of its population. Adolescent girls constitute a vulnerable group not only with respect to their social status but also their health that is why it is recognized as a period that requires specific and special attention¹. Due to unavailability of health counsellor, adolescent girls at the age of menarche usually seek information either from mother or elder sister². Social prohibition and strong bondage with the taboos and traditional beliefs during menstruation and hesitation of parents not discussing the related issues openly to their adolescent daughters has blocked the access to get the right kind of information regarding menstrual hygiene³. Because of lack of knowledge, these girls end up with repeated use

of unclean menstrual absorbent resulting in harboring of microorganisms that increases susceptibility to urinary, vaginal and pelvic infections. If these infections are left untreated that will lead to several consequences like infertility, ectopic pregnancy, fetal wastage, prenatal infections, low birth weight babies, toxic shock syndrome etc⁴. Efforts have to be put into ensuring that adolescents are well educated on meaning of menstruation, importance of good hygienic practice both in schools and at home. Hence the present study was carried out with the objectives to assess the knowledge and menstrual hygienic practice of rural adolescent girls, to conduct an education program to rural adolescent girls regarding menstrual hygiene and to study the impact of education program on the knowledge of the adolescent girls.

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2. Methodology

Study area: Barugur taluk in Krishnagiri district of Tamil Nadu.

Subjects: The early adolescent girls studying in Class VII to X in a GS (n=50) and a PS (n=50) making up the total population (N) to 100.

Sampling method: Purposive sampling method.

Study design: Cross sectional survey followed by education program using multimedia.

Data collection: Using self-administered questionnaire before and after the education program.

Data collected: General information and socio economic status, details of menstruation and knowledge and practice of menstrual hygiene before and after education program.

3. Results and Discussion

3.1 Age Distribution of the Selected Adolescent Girls

Of the total 100 adolescent girls selected for the study, 55 per cent were 14 to 15 years old. As shown in Figure 1,

16 to 17 years old girls were forming 36 per cent of the selected population. Only 9 per cent of the girls were 12 to 13 years old.

3.2 Socio Economic Status of the Girls

Table 1 indicates the socio economic status of the selected adolescent girls. More than 90 per cent of the selected girls were Hindus. For the girls studying in GS, 64 per cent of the fathers were farmers, whereas 48 per cent of fathers of girls studying in PS were doing business. In PS, only 26 per cent of the fathers were farmers and another 24 per cent were employed. A significant difference was found in father's occupation between GS and PS ($P < 0.05$). As far as mothers were concerned, 60 per cent of mothers of GS and 68 per cent of mothers of PS were unemployed. Around 36 per cent of mothers of GS were also involved in farming. More than 50 per cent of the total girls (52%) were living in joint family without any significant difference between GS and PS.

According to Prasad's socio economic classification (Pandey *et al.*, 2018)⁵, 58 per cent of girls in GS and 40 per cent of girls in PS belonged to Class III. But 34 per cent of GS belonged to Class IV and V. But 56 per cent of PS was in Class I (16%) and Class II (40%) category (Figure 2).

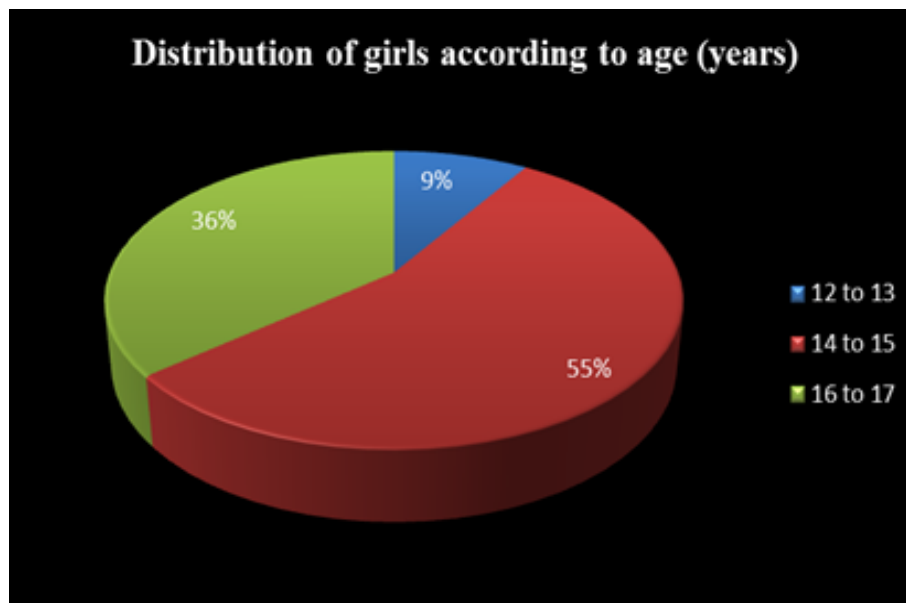


Figure 1. Distribution of selected adolescent girls according to age.

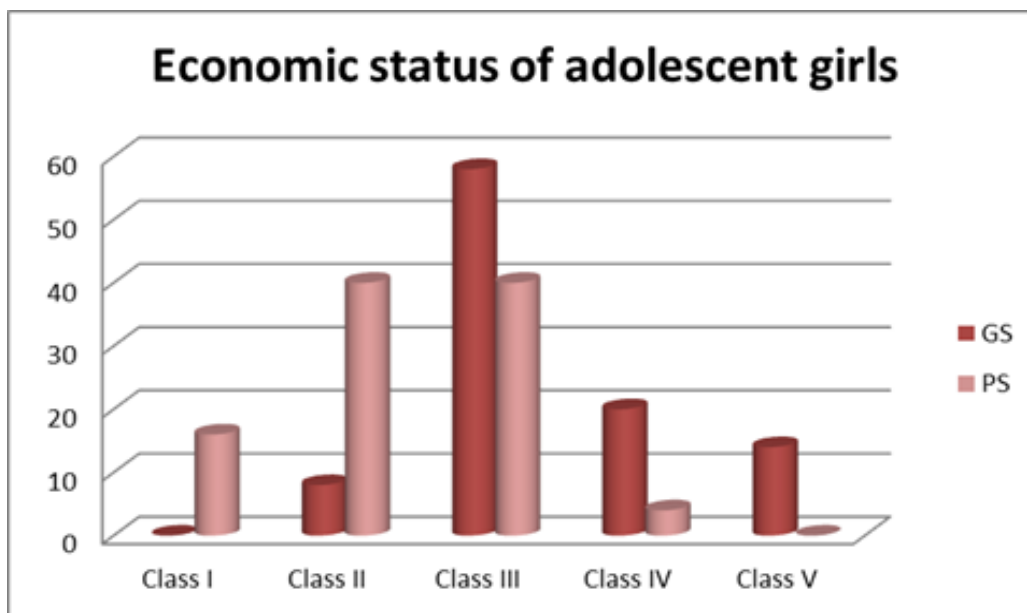


Figure 2. Economic status of adolescent girls.

Table 1. Socio economic status of rural adolescent girls

Variables	Government School (n=50)		Private School (n=50)	
	Number	Percentage	Number	Percentage
Religion				
Hindu	47	94	45	90
Father's occupation				
Employee	08	16	12	24
Farmer	32	64	13	26
Business	04	08	24	48
Unemployed	06	12	01	02

3.3 Details of Menstrual Cycle

The menstrual cycle was regular for 84 per cent of GS and 92 per cent of PS. According to Deshpande *et al.*, (2018)⁶, 82 per cent of the adolescent girls had regular menstrual cycle. But for 78 per cent of GS, the cycle length was 21 to 27 days and for 74 per cent of PS it was 28 to 35 days ($P < 0.05$). The duration of menstrual bleeding was 4 to 6 days and there was moderate menstrual blood loss for more than 70 per cent of the total girls. Longer days of

menstrual flow was significantly associated with poor menstrual hygiene practice by Belayneh and Mekuriaw (2019)⁷.

3.4 Knowledge of the Girls about Menstrual Hygiene

The knowledge of the rural adolescent girls about menstrual hygiene before and after attending education program is presented in Table 2.

Table 2. Knowledge of the adolescent girls about menstrual hygiene

Knowledge	GS (n=50)		PS (n=50)	
	Before	After	Before	After
Personal hygiene is necessary	39 (78)	49 (98)	47 (94)	50 (100)
Poor hygiene leads to infection	34 (68)	50 (100)	38 (76)	50 (100)
Menstruation is not a lifelong process	46 (92)	50 (100)	50 (100)	50 (100)
Cause of menstruation				
Physiological	31 (62)	42 (84)	44 (88)	50 (100)
Disease	04 (08)	08 (16)	06 (12)	-
Don't know	15 (30)	-	-	-
Menstrual blood comes from				
Uterus	30 (60)	48 (96)	38 (76)	50 (100)
Bladder	06 (12)	02 (04)	12 (24)	-
Don't know	04 (08)	-	-	-
Menstruation does not occur during pregnancy	41 (82)	48 (96)	50 (100)	50 (100)

In India, school-based interventions on health education have resulted in improvement in understanding post-intervention (Nemade *et al.*, 2009)⁸. The knowledge of the adolescent girls about menstrual hygiene was compared between girls studying in Government school and in private school before and after the education program. From the Table 2, it is clear that PS had significantly higher knowledge about menstrual hygiene when compared with GS even before attending the education program ($P < 0.05$). In GS also, more than 50 per cent of the girls had given correct answers to all the questions before attending the education program. There was a significant improvement in the knowledge of GS after attending the education program which was evident by the significant increase in the percentage of students giving correct answer to each question after the program ($P < 0.05$). In PS also there was a good response which is understood by perfect score of girls for almost all the questions after attending the education program. Deshpande *et al.*, (2018)⁶ reported that only 16 per cent of the girls in their study knew the origin of menstrual blood

loss but 68 per cent of the total girls in our study knew this even before attending the education program.

3.5 Hygienic Practice Followed by Adolescent Girls during Menstruation

In contrast to Choudary and Gupta's (2019)⁹ study in Rajasthan where only 26 percent of girls used sanitary napkins, higher percentage of students in our study (83%) used sanitary napkins. There was a considerable increase in the use of sanitary napkins by GS and PS after attending the education program (92%). From Table 3 it is evident that the frequency of changing menstrual absorbent and its proper disposal was also increased in all the girls similar to the findings of Choudary and Gupta (2019)⁹ and Hossain *et al.*, (2017)¹⁰. Deshpande *et al.*, (2018)⁶ observed that only 22 per cent girls used water and no soap for hand washing where as it was 92 per cent and 36 per cent in GS and PS respectively before education program. More girls tended to wash hands with soap after attending the program (GS – 88% and PS – 92%). Satisfactory cleaning of external genitalia was

Table 3. Hygienic practice of adolescent girls during menstruation

Hygienic practice	GS (n=50)		PS (n=50)	
	Before	After	Before	After
Menstrual absorbent used				
Homemade cloth napkin	06 (12)	03 (06)	08 (16)	04 (08)
Sanitary napkin	41 (82)	46 (92)	42 (84)	46 (92)
Old cotton cloth	03 (06)	01 (02)	-	-
Change menstrual absorbent after				
2 hours	24 (48)	30 (60)	02 (04)	01 (02)
4 hours	16 (32)	15 (30)	48 (96)	49 (98)
6 hours	08 (16)	05 (10)	-	-
8 hours	02 (04)	-	-	-
Disposal of menstrual absorbent				
Throw in open area	11 (22)	05 (10)	08 (16)	02 (04)
Throw in dust bin	39 (78)	45 (90)	42 (84)	48 (96)
Wash hands with				
Water	46 (92)	06 (12)	18 (36)	04 (08)
Water and soap	04 (08)	44 (88)	32 (64)	46 (92)
Cleaning of external genitalia	32 (64)	48 (96)	46 (92)	49 (98)

also reported by more girls in GS and PS. Choudary and Gupta (2019)⁹ also reported that “60.9 per cent of rural girls had satisfactory cleaning of external genitalia in Rajasthan. Food intake during menstruation had also become normal in more percentage of total girls after the program”. Kansal *et al.*, (2016)¹¹ had revealed the relationship between economic classes with practice of menstrual hygiene which is similar to our findings where Class I and Class II were more in PS and the hygienic practice was also more in this group.

4. Conclusion and Recommendation

The rural adolescent girls studying in government schools had less knowledge about hygienic menstrual practices when compared with the adolescent girls studying in private school. The education program conducted was very beneficial to the rural adolescent girls to impart knowledge and to bring about essential hygienic practices during menstruation. Many such programs may be conducted in all the schools periodically to protect our girls from the consequences of untreated infections.

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