



Comparison of Menstrual Distress in Adolescent Girls Across Residential Area

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ABSTRACT

Menstruation is an important indicator of reproductive health and development. In spite of a biological fact, menstrual distress is rooted in psychological and socio-cultural realities of the life of adolescent girls and women. The purpose of this study was to better understand the challenges girls face due to menstruation in the form of menstrual distress adolescent girls in Haryana State. The study was conducted on 240 adolescent girls in the age group of 10-14 years and 15-19 years belonging to rural and urban areas of Hisar district. The study found that more than one fourth adolescent girls irrespective of area of residence reported higher physical distress and socially imposed impurity and restriction distress. Rural girls were more distressed than urban counterparts. Regarding facilities at school in terms of MHM, girls reported lack of proper disposal system for sanitary materials and lack of availability of changing rooms. Nearly half of respondents reported lack of open discussion from family on MHM issues. Results indicated that menstrual experiences were very painful and made adolescent girls distressed both at physiological and psychological levels. Rural adolescents had higher distress in all the aspects as compared to urban adolescents except positivity on womanhood.

Key word: Menstrual distress; Adolescent girls; Menstrual hygiene management;

Menarche is the most important event in the life of an adolescent girl. During this transition, girls will experience menarche and significant changes in lifestyle, behavior, growth, and development (McMahon *et al.*, 2011; Sommer, 2010). Although menstruation is celebrated in many parts of India, cultural taboos exist which regularly limit girls from activities during menstruation, including religious restrictions, and freedom to leave the house (Van Eijk *et al.*, 2016).

Menstruation is generally considered as unclean in India. Social prohibitions 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 hygiene (Mudey *et al.*, 2010). Rural areas often have limited public transportation, and inhabitants must travel greater distances to access health care, social opportunities, healthy food options, and other necessities (Khatri *et al.*, 2022). If the menstruation should occur during the school

days, it means the menstruating girl may have to pass through a stressful period which may likely put her at a disadvantage during teaching-learning process. However, some research on the performance of well academically qualified women has shown that they were less likely to be negatively affected by menses (Bodat *et al.*, 2013). The limited role of women in decision making, education, training and poor nutritional status becomes a challenge in economic growth (Sandhu, 2017). The findings of the study carry out the significant implications for health professional, policy makers, psychologists and researchers. Some intervention programmes may also be developed for overcoming menstrual distress and providing positive support for adolescent girls. Keeping in view the need of such studies, the present investigation is planned with the following objectives: The present investigation is planned with the following objectives:

- Comparison the menstrual distress among adolescent girls across residential area.
- To study the menstrual distress and its associated factors among adolescent girls.

METHODOLOGY

The study was conducted purposively in Hisar district of Haryana state as the study required frequent visits to each selected school for data collection. One district was selected randomly. From selected district, to draw rural sample two villages was selected randomly and from selected villages two schools was randomly selected affiliated to Board of School Education Haryana and Central Board of Secondary Education. For urban sample similar procedure was adopted to draw the sample from schools located in city area. From the selected schools of rural locations, a total of 120 adolescent girls which comprise 60 early adolescents (10-14 years) and 60 late adolescents (15-19 years) were selected randomly. Similar procedure was adopted for selection of urban sample. Hence, a total of 240 adolescent girls (120 rural and 120 urban) constituted the sample for the study. Self- developed questionnaire was used to obtain information on personal and socio-economic variables. Menstrual distress was assessed with the help of Comprehensive Menstrual Distress scale (Jain, et al., 2018). Information on facilities at school and home in terms of MHM was collected with the help of self -developed interview schedule.

To draw the inferences as per different objectives data analyzed using appropriate statistical tests— frequency and percentage, mean, Standard Deviation. chi-square test, z test and Anova.

RESULTS AND DISCUSSION

Level of menstrual distress of adolescent girls : Data presented in Table 1 depicted the level of menstrual distress and its sub aspects against area of residence. Table reveals that 45.8 percent adolescent of rural area had average level of physical distress followed 37.5 per cent adolescents who were physically highly distressed. Low distress was reported by 16.7 percent rural girls. Further distribution urban sample reflects that more than half of adolescents (56.7%) reported average level of physical distress during menstrual cycle while more than one fourth (27.5%) reported low distress and rest 15.8 per cent girls experienced high physical distress. Regarding, distress due to socially imposed impurity and restriction table shows that in rural girls. 46.7 per cent had average level of socially imposed impurity and restriction stress followed 40.8 per cent girls having high level of distress and rest 12.5 percent girls had low distress. Whereas in urban

Table 1. Level of menstrual distress of adolescent girls

Area	Rural (n=120) No. (%)	Urban (n=120) No. (%)	Total (N=240) No. (%)
<i>Physical distress</i>			
Low (31-40)	20 (16.7)	33 (27.5)	53 (20.1)
Average (41-50)	55 (45.8)	68 (56.7)	123 (51.2)
High (51-60)	45 (37.5)	19 (15.8)	64 (26.7)
<i>Socially imposed impurity and restriction</i>			
Low (12-18)	15 (12.5)	56 (46.7)	71 (29.6)
Average (19-25)	56 (46.7)	54 (45)	110 (45.8)
High (26-32)	49 (40.8)	10 (8.3)	59 (24.6)
<i>Psychological distress</i>			
Low (13-19)	30 (25)	42 (35)	72 (30)
Average (20-26)	71 (59.2)	58 (48.3)	129 (53.7)
High (27-33)	19 (15.8)	20 (16.7)	39 (16.3)
<i>Positivity on womanhood</i>			
Low (18-23)	16 (13.3)	55 (45.8)	71 (29.6)
Average (24-29)	78 (65.0)	49 (40.8)	127 (52.9)
High (30-35)	26 (21.7)	16 (13.4)	42 (17.5)
<i>Overall menstrual distress</i>			
Low (88-101)	22 (18.3)	41 (34.2)	63 (26.3)
Average (102-115)	68 (56.7)	61 (50.8)	129 (53.7)
High (116-129)	(25.0)	(15.0)	48 (20.0)

area 45 per cent had average level of distress and same percentage 46.7 per cent of the adolescents had low distress girls followed a small percentage of girls (8.3%) had high level of distress.

With regard to psychological distress data further showed that in rural area more than half of adolescent (59.2%) had average distress level followed by one fourth adolescents who had low level and 15.8 per cent who had high level of psychological distress. In urban sample 48.3 per cent of adolescents had average level of psychological distress and followed by one third of girls (35%) who had low distress and 16.7 per cent had high level of distress. Meaning to positivity on womanhood distress Table 1 illustrated that in rural area majority (65%) of adolescents experienced average level of stress followed by 13.3 per cent who experienced had low stress and 21.7 per cent experienced to high level of positivity on womanhood distress. Comparative distribution in rural area reveals that 45.8 per cent of adolescents faced low distress. In case of average level 40.8 per cent girls were observed and 13.4 per cent of girls' high level of positivity on womanhood distress. Finally, frequency distribution of adolescents on components it was seen that maximum rural girls (56.7%) had average menstrual distress followed by 25

Table 2. Mean difference in menstrual distress on the basis of area (N=240)

Area	Rural (n=120) Mean±SD	Urban (n=120) Mean±SD	Total (n=240) f (%)
Physical distress	48.92± 7.89	44.25±7.02	4.67*
Socially imposed impurity and restriction	25.42± 5.18	20.71± 5.04	7.14*
Psychological distress	24.13± 5.88	21.39± 5.34	3.78*
Positivity on womanhood	26.95±5.08	26.09±5.34	1.28
Overall menstrual distress	112.43±17.10	107.01±16.45	2.50*

*Significant at 0.05 level

per cent girls who had high level of distress and rest of the girls were seen in low distress category. Further in urban area that half of girls (50.8%) had average distress level while 34.2 per cent adolescent had low level followed by above high level 15.0 per cent.

Mean difference in menstrual distress on the basis of area : The mean scores obtained by respondents of rural and urban area on menstrual distress and its aspects have been presented in Table 2. Statistically significant difference was observed in physical distress ($Z=4.67^*$) at 0.05 level of significance. Mean scores depicted that rural adolescent ($M=48.92$) had more physical distress than urban adolescents ($M=44.25$). Statistically significant difference was observed in socially imposed impurity and restriction ($Z=7.14^*$) at 0.05 level of significance. Mean score revealed that rural adolescent ($M=25.42$) had more socially imposed impurity and restriction distress than in urban adolescents ($M=20.71$). Statistically significant difference was observed in psychological distress ($Z=3.78^*$) at 0.05 level of significance. Mean score pointed out that rural adolescents ($M=24.13$) had more psychological distress than urban adolescents ($M=21.39$). Statistically significant difference was observed in overall menstrual distress ($Z=2.50^*$) at 0.05 level of significance. Mean scores found that rural adolescents ($M=112.43$) had more overall stress than urban adolescents ($M=107.01$). Statistically non-significant differences were observed in aspect of positivity on womanhood distress against area.

Association of menstrual distress and facilities at school in terms of MHM : The results present in the Table 3 that association of menstrual distress and

Table 3. Association of menstrual distress and facilities at school in terms of MHM (N=240)

School facilities/ Menstrual distress	Unsatisfactory (n=84)	Satisfactory (n=156)	χ^2 test
<i>Physical distress</i>			
Low (53)	5 (5.9)	48 (30.8)	22.11*
Average (123)	47 (55.9)	76 (48.7)	
High (64)	32 (38.2)	32 (20.5)	
<i>Socially imposed impurity and restriction</i>			
Low (71)	17 (20.2)	54 (34.6)	26.62*
Average (110)	30 (35.7)	80 (51.3)	
High (59)	37 (44.1)	22 (14.1)	
<i>Psychological distress</i>			
Low (72)	02 (2.4)	70 (44.9)	49.25*
Average (129)	59 (70.2)	70 (44.9)	
High (39)	23 (27.4)	16 (10.2)	
<i>Positivity on womanhood</i>			
Low (71)	31 (36.9)	40 (25.6)	69.68*
Average (127)	18 (21.4)	109 (69.9)	
High (42)	35 (41.7)	07 (4.5)	
<i>Overall menstrual distress</i>			
Low (63)	18 (21.4)	45 (28.8)	47.40*
Average (129)	29 (34.5)	100 (64.1)	
High (48)	37(44.1)	11 (7.1)	

Note: Figures in parentheses indicate percentage
* Significant at the 0.05 level

facilities at school in term of MHM. The data revealed that facilities at school was significantly associated with physical distress ($\chi^2=22.11^*$), socially imposed impurity and restriction ($\chi^2=26.62^*$), psychological distress ($\chi^2=49.25^*$), positivity on womanhood ($\chi^2=69.68^*$) and overall menstrual distress ($\chi^2=47.40^*$) at 0.05 level of significance.

Association of menstrual distress and facilities at home in terms of MHM : The association of menstrual distress with home facilities related in terms of MHM (Table 4). Results highlight those facilities at school was significantly associated with physical distress ($\chi^2=55.69$), socially imposed impurity and restriction ($\chi^2=50.61$), psychological distress ($\chi^2=38.71$) and overall menstrual distress ($\chi^2=84.61$) at 0.05 level of significance. Non-significant association was seen with positivity on womanhood component.

Results revealed that more than one fourth adolescent girls irrespective of area of residence reported higher physical distress and socially imposed impurity and restriction distress. More than half of study participants reported average level of distress in all the aspects except socially imposed impurity

Table 4. Association of menstrual distress and facilities at home in terms of MHM (N=240)

Home facilities	Unsatisfactory (n=79)	Satisfactory (n=161)	χ^2 test
<i>Physical distress</i>			
Low (53)	08 (10.1)	45 (27.9)	55.69*
Average (123)	26 (32.9)	97 (60.3)	
High (64)	45 (57.0)	19 (11.8)	
<i>Socially imposed impurity and restriction</i>			
Low (71)	03 (3.8)	68 (42.2)	50.61*
Average (110)	55 (69.7)	55 (34.2)	
High (59)	21 (26.5)	38 (23.6)	
<i>Psychological distress</i>			
Low (72)	10 (12.6)	62 (38.5)	38.71*
Average (129)	65 (82.3)	64 (39.8)	
High (39)	04 (5.1)	35 (21.7)	
<i>Positivity on womanhood</i>			
Low (71)	20 (25.4)	51 (31.7)	3.61
Average (127)	42 (53.1)	95 (59.0)	
High (42)	17 (21.5)	25 (15.3)	
<i>Overall menstrual distress</i>			
Low (63)	22 (27.8)	41 (25.5)	84.61*
Average (129)	16 (20.3)	113 (70.2)	
High (48)	41 (51.9)	07 (4.3)	

Note: Figures in parentheses indicate percentage

* Significant at the 0.05 level

and restriction distress. The findings revealed that the menstrual experiences were very painful and made adolescent girls distressed both at physiological and psychological levels. It was also explicit that intense psychological and physiological symptoms were reported to be linked with menstrual distress. If menstrual period is not properly handled and safe hygiene is not practiced, this may lead to poor quality of life resulting from distress, reproductive tract infection, genitourinary tract infections, smelling, guiltiness, cervical cancer, poor academic performance, and school dropout (Belayneh and Mekuriaw, 2019; Khanna et al., 2005). Rural adolescents had higher distress in all the aspects as compared to urban adolescents except positivity on womanhood. The result supported by the study Jain et al. (2018), which also reported that rural girls had high menstrual distress as compared to urban adolescent girls. Reason may be that rural adolescents lack adequate resources and environment related to MHM. Also, Indian rural ecology is still overpowered with cultural and social prohibitions and where family members are not openly discussing issues related to menstruation. There is no culture of sharing of menstrual information at

family, society and peer group levels. Majority of rural adolescent girls admitted that they had negative experiences of menstruation in society due to culture of silence. The results clearly reflected that home and school facilities were significantly associated with all aspects of menstrual distress. Adolescent girls who reported dissatisfaction on facilities at home and school also reported high physical distress, high socially imposed impurity and restriction distress, high positivity on womanhood distress and higher overall menstrual distress. This finding is supported by Fernandes (2008) toilet facilities are important during menstruation because they provide a space for its management. In another study Sharma et al. (2020) results revealed that menstrual hygiene facilities available at school also affect the health of adolescent girls like lack of adequate privacy, sanitary facilities with water availability, lack of cleanliness, waste disposal facilities. Results are consistent with finding of study which stated that Dasgupta and Sarkar (2008) more than half of the adolescent girls in West Bengal 51.25 per cent and 56.39 per cent were deprived of toilet facilities with proper enclosures at home. Raina and Balodi, (2014) concluded from the study done in Uttarakhand, India that 88 per cent girls reported toilet facility was available in their homes but lack of knowledge regarding the MHM facilities was not provided to them.

CONCLUSION

Menstrual distress can affect quality of life adolescent girls struggle to carry out their usual daily activities, feel uncomfortable around people etc. Significant difference in menstrual distress and its aspects on the basis of area existed which means that rural and urban girls had significantly different distress level. Rural adolescents had higher distress in all the aspects as compared to urban adolescents, except positivity on womanhood. Majority of the respondents were satisfied with the school and home facilities on MHM.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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