Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2015; 3(2A):595-601 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2015.v03i02.013

Research Article

Restrictions During Menstruation: What Unmarried Girls in UT Chandigarh Think?

Dinesh Kumar, N. K. Goel , Sonia Puri, Nancy Gupta*
Department of Community Medicine, GMCH, Chandigarh-160031, India

***Corresponding author**
Nancy Gupta
Email: nancygupta90@yahoo.co.in

Abstract: A community based cross-sectional study was conducted during April 08 to March 09 in total duration of 12 months, in Rural, Urban and Slum strata of UT Chandigarh to study various restrictions imposed during menstruation and to explore factors associated with imposed restrictions faced by girls during menstruation. 744 respondents were selected by using Stratified Multistage Random Sampling Design with probability proportional to size (PPS). Respondents were asked about restrictions imposed during menstrual cycle and whether they think those restrictions as right. They were also asked whether they actually follow those restrictions imposed or not. The most common restriction imposed was on taking bath (50.8%) during menstruation. Restriction on worship/religious activity was faced by 39.5% respondents. No reaction was reported by 156 (26.9%) respondents while 352 (60.7%) accepted imposed restrictions normally. Imposing of restrictions was found to be significantly associated with age ($p< 0.01$) and educational status ($p< 0.001$) of respondents. Early menarche upto13 years also resulted in more reactions (30.7%). However, several passive as well as active counter reactions to imposed restrictions were reported in the present study. These findings show that imposing unnecessarily the rigid and undesired restrictions on girls during menstruation cannot bring fruitful results and may result in poor reproductive health outcomes. Efforts should be made to reduce such restrictions, taboos, myths and various undesired practices for better reproductive health related outcomes.
Keywords: menstruation, restriction, bath, educational status, Chandigarh

INTRODUCTION

Menstruation is a physiological phenomenon unique to females that begins in adolescence [1]. It is an important part of the female reproductive cycle.

Although menstruation is a natural process linked with several misconceptions, ignorance and practices among young girls, sometimes results in adverse reproductive health outcomes [2]. Menstrual problems are common among young girls deserving careful evaluation. If uncorrected, may adversely affect their daily routine and quality of life. Menstruation disorders are also responsible for emotional, physical, behavioural and dietary practice changes affecting their normal functioning and social life [3.]

Considerable number of menstrual problems can be prevented by creating awareness and by improving/modifying factors like lifestyle, environment, and practices during menstruation, dietary habits, psycho-social conditions, and cultural norms etc. Charturvedi and Chandra [4] observed a clear relationship between menstrual attitudes, physical distress and premenstrual change among college students. In India, about 50% of rural adolescent girls have no information on or understanding of this basic biological process [5]. Germain *et al*. [6] have recommended interventions to change behaviour directed toward improving menstrual hygiene as a strategy to prevent RTIs and to promote reproductive health.

Hygiene-related practices of girls and women during menstruation are of considerable importance as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI) [7]. Menstrual problems amongst adolescent girls have been discussed in several studies [8-11]. A detailed account of menstruation in relation with the reproductive lives of women can be found in a study conducted by Singh [12]. Kushwaha and Mittal [13] studied the knowledge and attitude of adolescents, but their study was confined to out- of school adolescents attending some training program only and does not reflect their knowledge status in the general community.

Chandigarh, the most economically advanced Union Territory (UT) of India is characterized by high population growth due to increasing migratory population and rapidly changing life style. Despite the

fact that menstruation is closely associated with reproductive health matter of females, community based research on this particular topic has been relatively unexplored among unmarried girls of this population. It becomes imperative to propose the present study with main objectives to study restrictions imposed during menstruation and to explore factors associated with imposed restrictions faced by girls during menstruation.

MATERIALS AND METHODS

Stratified Multistage Random Sampling Design with probability proportional to size (PPS) was used and 744 respondents were selected . Only those unmarried girls who have already attained menarche were included.

Optimum sample size was calculated on the basis of a pilot survey using the formula:

$$N_{(optimum)} = (1.96)^2 P (1-P)/L^2$$

Where

P = Prevalence of adolescent girls having some menstrual health problem.

L = Permissible error in estimation

The desired information was collected by personal interview method and using self administered questionnaire. Respondents were interviewed individually in privacy. A well-trained team of female investigators and medical social workers were involved in data collection.

Ethical Consideration

Informed consent following Ethical Guidelines of World Medical Association Declaration of Helsinki [14] was taken.

Statistical Methodology

Statistical techniques like Means and Standard Deviations and Chi square were used to analyze data. Data analysis was done by using SPSS-16 Software.

RESULTS

Different types of restrictions reported by respondents are listed in Table 1. The most common restriction was on taking bath (50.8%) followed by drying clothes in open (50%) and physical activity (48.9%). Difference of opinions between parent's view and respondent's view on these restrictions were observed in the present study. The respondents adopted more into practice the restrictions like worship/religious activity (39.5%). Restriction on worship/religious activity was followed by 273 (36.7%) respondents against 250 (33.6%) respondents who were imposed this restriction.

Table 1: Respondents by type of restrictions imposed, opinion on restrictions and practices

Restriction Imposed	Restriction imposed N=744	Think restriction is right N=744	Practice/follow restriction N=744
Worship/religious activity	250 (33.6)	294(39.5)	273 (36.7)
Entering kitchen	277 (37.2)	275(37.1)	255(34.3)
Social gathering	309 (41.5)	258(34.7)	253(34.0)
Interacting with boys	282 (37.9)	265(35.6)	265(35.6)
Touching anybody	287 (38.6)	281(37.8)	275(37.0)
Choice of clothes to be worn	340 (45.7)	262(35.2)	261(35.1)
Sleeping on bed with any body	340 (45.7)	250(33.6)	277(37.2)
Physical activity	364 (48.9)	230(30.9)	258(34.7)
Outdoor activity	156 (21.0)	138(18.5)	135(18.1)
Traveling alone	123 (16.5)	121(16.3)	116(15.6)
Washing hairs	339 (45.6)	233(31.3)	172(23.1)
Washing cloths	358 (48.1)	268(36.0)	258(34.7)
Drying cloths	372 (50.0)	237(31.9)	255(34.3)
Taking bath	378 (50.8)	241(32.4)	262(35.2)
Lifting of weight	269 (36.2)	284(38.2)	266(35.8)
Touching food items	294 (39.5)	273(36.7)	271(36.4)
Consume some food items in excess	191 (25.7)	287(38.6)	262 (35.2)
Avoiding some food items	118(15.9)	110(14.8)	107 (14.4)
Any other	27(3.6)	10(1.3)	9(1.2)
Either of above restriction	580 (78.0)	-	-
No Restriction	164(22.0)		

Table 2: Respondents by reactions on restrictions imposed during menstruation (N=580)

Reaction	No	%
No reaction	156	26.9
Accept Normally	352	60.7
Become angry and react	90	15.5
Become angry but do not react	70	12.1
Feel Boring	40	6.9
Feel Disgusted	28	4.8
Others	9	1.5
Overall	580	78.0

Reactions of respondents on restrictions imposed are shown in table 2. No reaction was reported by 156 (26.9%) respondents while 352 (60.7%) accepted imposed restrictions normally. There were 90 (15.5%) respondents who were angry and wanted to react on such restrictions.

Table 3: Imposing of restrictions was found to be significantly associated with age ($p< 0.01$) and educational status ($p< 0.001$). Among college going girls, proportion of restrictions was found to be 70.6% as compared to 61.2% among illiterates / just literates.

Among 556 currently studying respondents, maximum proportion of girls facing restrictions was found in case of Hindi medium (86.8%) in contrast to Punjabi medium students (83.3%).Association between medium of education and imposed restrictions was found to be highly significant ($p= 0.007$). Educational status of mothers was also found to be significantly associated ($p= 0.03$) with imposing of restrictions. Lower percentages of respondents facing restrictions were observed in case of smaller family size with highly significant association between family size and restrictions. Socio economic status and restrictions were also found to be significantly associated ($p= 0.02$).Exposure to internet also came out to be a significant correlate. Religious environment resulted in more restrictions (85.8%) as compare to non-religious families (71.7%) with highly significant association.

Table 4: Among 580 respondents facing reactions imposed, 409 (70.5%) took reactions normally while remaining 171 (29.5%) reacted in some way. Girls in the higher age groups studying at college level reacted more. Among 77 college going girls, 36 (46.8) reacted in some way or another on reactions imposed while only 35 (30.4%) of all 115 illiterate / just literate girls reacted. Age as well as educational status were found to be significantly associated ($p<0.001$) with reactions. Reactions were more in case of college level educated mothers (48.9%) and also in case of housewives (38.5%). Early menarche upto 13 years also resulted in more reactions (30.7%).

Table 3: Respondents by restrictions imposed by selected characteristics (N=744)

Characteristics	N=744	Restriction Imposed		χ^2 (p-value)
		No	Yes	
Age				
10-12	20	05 (25.0)	15 (75.0)	χ^2 =57.7 ($p<0.001$)
13-15	282	42 (14.9)	240 (85.1)	
16-18	240	37 (15.4)	203 (84.6)	
18-21	162	58 (35.8)	104 (64.2)	
22-25	40	22 (55.0)	18 (45.0)	
Mean ± SD	16.84±3.05	18.35±3.62	16.41±2.72	
Educational Status				
Literate / Just Literate	188	73 (38.8)	115 (61.2)	χ^2= 54.5 ($p<0.001$)
School Level	447	59 (13.2)	388 (86.8)	
College Level	109	32 (29.4)	77 (70.6)	
Medium if studying presently (N=556)				
Hindi	356	47 (13.2)	309 (86.8)	χ^2= 9.9 ($p=0.007$)
English	122	31 (25.4)	91 (74.6)	
Panjabi	78	13 (16.7)	65 (83.3)	
Total	556	91 (16.4)	465 (83.6)	
Type of Family				
Joint	133	21 (15.8)	112 (84.2)	χ^2= 4.75 ($p=0.09$)
Nuclear	601	142 (23.6)	459 (76.4)	
Extended	10	01 (10.0)	09 (90.0)	

Educational Status of Mother				
Literate / Just Literate	323	71 (22.0)	252 (78.0)	χ^2= 6.9 (p=0.03)
School Level	287	43 (18.5)	234 (81.5)	
College Level	134	40 (29.9)	94 (70.1)	
Occupation of Mother				
Housewife	433	70 (16.2)	363 (83.8	χ^2= 20.8 (p<0.001)
Others	311	94 (30.2)	217 (69.8)	
Family Size				
Upto 3	100	42 (42.0)	58 (58.0)	χ^2= 27.0 (p<0.001)
4-5	384	75 (19.5)	309 (80.5)	
6-8	229	41 (17.9)	188 (82.1)	
above 8	31	06 (19.4)	25 (80.6)	
Mean ± SD	5.15±1.67	4.73±1.86	5.26±1.39	
Socio-economic Status				
Low	219	34 (15.5)	185 (84.5)	χ^2= 7.9 (p=0.02)
Middle	364	88 (24.2)	276 (75.8)	
High	161	42 (26.1)	119 (73.9)	
Discussant				
Mother	405	92 (22.7)	313 (77.3)	χ^2= 0.23 (p=0.61)
Others	339	72 (21.2)	267 (78.8)	
Home Environment				
Religious	414	47 (14.2)	283 (85.8)	χ^2= 21.0 (p<0.001)
Non-Religious	330	117 (28.3)	297 (71.7)	
Internet Exposure				
Yes	75	24 (32.0)	51 (68.0)	χ^2= 4.81 (P=0.03)
No	669	140 (20.9)	529 (79.1)	
Age at Menarche				
Upto 13 years	518	388 (74.9)	130 (25.1)	χ^2= 9.2 (p=0.002)
14 years & above	226	192 (85.0)	34 (15.0)	
Mean ± SD	13.02±1.13	12.73±1.16	13.11±1.10	
Menstruation Problem				
No	267	70 (26.2)	197 (73.8)	χ^2= 4.2 (p=0.04)
Yes	477	94 (19.7)	383 (80.3)	
Overall	744	164 (22.0)	580 (78.0)	

Table 4: Reactions of respondents on restrictions imposed by selected characteristics (n=580)

Characteristics	No	Reaction on restrictions		χ^2 (p-value)
		Accept Normally	React in some way	
Age				
10-12	15	10 (66.7)	5 (33.3)	χ^2 =24.1 (p<0.001)
13-15	240	194 (80.8)	46 (19.2)	
16-18	203	194 (80.8)	46 (19.2)	
18-21	104	60 (57.7)	44(42.3)	
22-25	18	10 (55.6)	8 (44.4)	
Mean ± SD	16.74±2.98	16.22±2.81	17.82±3.06	
Educational Status				
Literate / Just Literate	115	80 (69.6)	35 (30.4)	χ^2= 13.7 (p<0.001)
School Level	388	288 (74.2)	100 (25.8)	
College Level	77	41 (53.2)	36 (46.8)	
Medium				
Hindi	391	288 (73.7)	103 (26.3)	χ^2= 11.4 (p=0.003)
English	110	63 (57.3)	47 (42.7)	
Panjabi	79	58 (73.4)	21 (26.6)	
Total	580	409 (70.5)	171 (29.5)	

Type of Family				
Joint	112	80 (71.4)	32 (28.6)	χ^2= 0.11 (p=0.84)
Nuclear	459	323 (70.4)	136 (29.6)	
Extended	9	6 (66.7)	3 (33.3)	
Educational Status of Mother				
Literate / Just Literate	252	192 (76.2)	60 (23.8)	χ^2= 21.4 (p<0.001)
School Level	234	169 (72.2)	65 (27.8)	
College Level	94	48 (51.1)	46 (48.9)	
Occupation of mother				
Housewife	148	91(61.5)	57(38.5)	χ^2= 7.8 (p=0.005)
Others	432	318(73.6)	114(26.4)	
Family Size				
Upto 3	58	42 (72.4)	16 (27.6)	χ^2= 1.71 (p=0.64)
4-5	58	42 (72.4)	16 (27.6)	
6-8	188	128 (68.1)	60 (31.9)	
above 8	25	20 (80.0)	5 (20.0)	
Mean ± SD	5.17±1.59	5.30±1.41	4.92±1.88	
Socio-economic Status				
Low	185	147 (79.5)	38 (20.5)	χ^2= 12.5 (p=0.002)
Middle	276	189 (68.5)	87 (31.5)	
High	119	73 (61.3)	46 (38.7)	
Discussant				
Mother	313	231 (73.8)	82 (26.2)	χ^2= 3.53 (p=0.06)
Others	267	178 (66.7)	89 (33.3)	
Internet Exposure				
Yes	529	386 (73.0)	143 (27.0)	χ^2= 17.4 (p<0.001)
No	51	23 (45.1)	28 (54.9)	
Age at Menarche				
Upto 13 years	388	269 (69.3)	119 (30.7)	χ^2= 0.79 (p=0.04)
14 years & above	192	140 (72.9)	52 (27.1)	
Mean ± SD	12.97±1.11	12.95±1.06	13.02±1.21	
Menstruation Problem				
Yes	383	167 (69.7)	116 (30.3)	χ^2= 0.35 (p=0.57)
No	197	142 (72.1)	55 (27.9)	
Overall	580	409 (70.5)	171 (29.5)	

DISCUSSION

In the present study, 78% girls faced restrictions during menstruation and about 72% followed at least one restriction which is in agreement with 71.1% observed earlier [15]. Girls not participating any taboo were 22% as compared to only 4.3% in studies of Deo & Ghattargi [16] and 15% by Dasgupta and Sarkar [2].

Common restrictions imposed included restrictions on taking bath (50.8%) followed by drying clothes in open (50%) and physical activity (48.9%). The practice of taking a bath during menstruation was almost universal in Sewagram study [17]. In the study by Dasgupta & Sarkar [2], about 78% girls did not attend any religious occasion while in our study percentage of such girls was only 36.7%. The most common type of restrictions accepted by respondents were restrictions imposed on touching food items (39.8%), worship/religious activity (39.5%) and lifting of weight (38.2%). Restriction on worship/religious activity was followed by 36.7% respondents against only 33.6% respondents, who were imposed this restriction. Restrictions on taking bath daily and use of sampoo were also reported by 38% and 27% girls respectively [18].

Respondents views on reasons of imposing restrictions by their parents during menstruation were also taken. About 51% respondents were imposed restriction even on taking bath daily but only 35.2% practiced it. In a study conducted by Nair *et al*. [19], 92% girls were restricted from worship, 70% were restricted from participated in house hold activities and

about 56% girls followed food restrictions and only 1.6% avoided bathing during menstruation. Restriction on Pooja and entry to kitchen among urban adolescent girls was reported to be 41.5% and 24.7% respectively [20]. Overall restrictions on many day to day activities in this study were 78% while two different studies conducted in Pant Nagar [21] and Guntur [22] have reported different levels of restrictions.

Taboos, Myths and various practices related to menstruation among school / college going girls of Patiala, Punjab adolescent are available in an earlier study [20]. Younger girls below 18 years of age, studying in Hindi medium schools from low SES, whose mothers were housewives, were more likely to face restrictions of varied nature in the present study. Also restrictions were more in case of early menarche and religious family environment. About 27% respondents did not react on restrictions imposed to them which is consistent with 28.9% reported by Richa [15].

CONCLUSION

Restriction on religious activities during menstruation were practiced more than imposed restrictions at their own as they were of the opinion that such type of restrictions are correct and there is no harm in following those restrictions. Respondents have easily accepted restrictions entry into kitchen ,lifting of weight , touching food items etc. but they could not follow restrictions to that extent on components like social gathering, choice of clothes to be worn, physical activity, washing hairs, washing clothes, and drying clothes in the open. Even some restrictions like consuming some food items in excess, worship/religious activities were followed at their own will without imposing such restrictions by their parents. These findings show that imposing unnecessarily the rigid and undesired restrictions on respondents cannot bring fruitful results as respondents are quite aware what they should do and they do not like some restrictions during those days. However, several passive as well as active counter reactions were reported in the present study. More than 15% respondents were angry to these restrictions and wanted to revolt.

Acknowledgement

Results of the present study are based on a detailed project entitled:"Socio-Cultural Aspects of Menstruation among Unmarried Girls and Their Treatment Seeking Behaviour for Menstrual Problems". Authors are thankful to Department of Science and Technology (DST), Chandigarh Administration for providing financial assistance for this project.

REFERENCES

1. Anusree PC, Roy A, Sara AB, Faseela VCM, Babu GP, Tamrakar A; Knowledge regarding menstrual hygiene among adolescent girls in selected school, Mangalore with a view to develop an information booklet. Journal of Nursing and Health Science, 2014; 3(1): 55-60.
2. Dasgupta A, Sarkar M; Menstrual hygiene: how hygiene is the adolescent girl? Indian J Community Med., 2008; 33(2): 77–80.
3. Kumar D, Goel NK, Puri S, Pathak R, Sarpal SS, Gupta S *et al*.; Menstrual Pattern among Unmarried Women from Northern India. J Clin Diagn Res., 2013; 7(9): 1926–1929.
4. Chaturvedi, SK, Chandra PS; Socio-cultural aspects of menstrual attitudes and premenstrual experiences in India. Social Science Med., 1991; 32(3): 349-351.
5. Creating Resources for Empowerment in Action (CREA); Adolescent Sexual and Reproductive Health and Rights in India. New Delhi, 2005.
6. Germain A, Holmes KK, Piot P, Wasserheit JN; Reproductive Tract Infections. In Global Impact and Priorities for Women's Reproductive Health , Plenum Press, New York, 1992: 337.
7. Kamaljit K., Arora B, Singh GK, Neki NS; Social beliefs and practices associated with menstrual hygiene among adolescent girls of Amritsar, Punjab, India. JIMSA, 2012; 25(2): 69-70.
8. Sharma P, Malhotra C, Taneja DK, Saha R; Problems related to menstruation amongst adolescent girls. Indian J of Pediatrics, 2008; 75(2): 125-129.
9. Bush CM, Costa PT, Whitehead WE, Heller BR; Severe perimenstrual symptoms: prevalence and effects on absenteeism and health care seeking in a non clinical sample. Women Health, 1988; 14(1): 59 -74.
10. Singh MM, Devi R, Gupta SS; Awareness and health seeking behaviour of rural adolescent girls on menstrual and reproductive health problems. Indian J Med Sci., 1999; 53(10): 439-443.
11. Lee LK, Chen PC, Lee KK, Kaur J; Menstruation among adolescent girls in Malaysia: a cross-sectional survey. Singapore Med J., 2006; 47(10): 869-874.
12. Singh AJ; Place of Menstruation in the Reproductive Lives of Women of Rural North India. Indian Journal of Community Medicine, 2006; 31(1): 10-14.
13. Kushwaha SS, Mittal A; Perceptions and practice with regard to reproductive health among out-of-school adolescents. Indian Journal of Community Medicine, 2007; 32(2):141-143.
14. World Medical Association Declaration of Helsinki; Recommendations guiding physicians in biomedical research involving human subjects, version 2006.
15. Kushwaha R. Socio-cultural and Nutritional aspects of menarche among adolescent girls. M. Sc Nutritional Sciences, Dissertation, University of Allahabad, 2004.
16. Deo DS, Ghattagri CH; Perceptions and practices regarding menstruation: a comparative study in

urban and rural adolescent girl. Ind J Community Med., 2005; 30(1): 33-34.
17. Dongre AR, Deshmukh PR, Garg BS; The effect of community-based health education intervention on management of menstrual hygiene among rural Indian adolescent girls. World Health Popul., 2007; 9(3): 48-54.
18. Pandey P; Dietary practices among unmarried girls during menstruation and treatment seeking behaviour for menstrual problems. M.Sc Nutritional Sciences, Dissertation, University of Allahabad, 2003.
19. Nair P, Grover VL, Kanan AT; Awareness and practices of menstruation and pubertal changes amongest unmarried female adolescents in rural area of east Delhi. Indian Journal of Community Med., 2007; 32(2):156-157.
20. Puri S, Kapoor S; Taboos and myths associated with women health among rural and urban adolescent girls in Punjab, Ind J Community Med., 2006; 31(4): 295-296.
21. Ahuja A, Tewari S; Awareness of pubertal changes among adolescent girl. J Family Welfare, 1995; 41: 46-50.
22. Drakshayani Devi K, Venkata Ramaiah P; A study on menstrual hygiene among rural adolescent girls. Indian J Med Sci., 1994; 48(6):139-143.