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MENSTRUAL HYGIENE PRACTICES AMONG HIGH SCHOOL GIRLS IN FIELD PRACTICE AREA OF RURAL HEALTH AND TRAINING CENTRE, KAKATIYA, WARANGAL.

KEY WORDS: menstrual hygiene, hygiene, practice, sanitary pads

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ABSTRACT

Introduction: Menstruation is a normal physiological process of females but more often considered as unclean phenomenon in the society. Menstrual hygiene management (MHM) is a problem for adolescent girls in low and middle income countries (LMICs), particularly when attending school. Poor water supply, poor sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic MHM items (absorbents) cause girls to experience menstruation as shameful and uncomfortable event. Hence, the present study was done to assess knowledge and practices about menarche and menstruation, sanitary pads usage, in adolescent school girls in rural field practising area of Kakatiya medical college, Warangal.

Objective: To assess knowledge, attitude and practices regarding menstruation among study subjects and to find prevalence of menstrual problems in the study population.

Methodology: This study was a cross-sectional study conducted for about 2months amongst high school girls (11-15 yrs) of a Government high School, Wardhannapet, located in rural field practising area of Kakatiya medical college, Warangal. Data of 216 girls was obtained by using simple random sampling technique which was put to excel sheet and appropriate statistical tests were applied using SPSS version21. The questionnaire used, was predesigned and pretested semi structured, obtained by personal interview method.

Results: The study sample of 216 high school girls reveals that the mean age at menarche is 12.6+1.08 years, knowledge about menstruation, on an average was 67%, routine menstruation affects their house work (74%), and routine activities (52.3%). More than half (56%) of them missed their school because of menstruation due to lack of proper place to change or dispose sanitary pads in school(56%), pain and discomfort(23.1%) and also due to fear of staining(18.1%). Missing school is more (28.3%) among girls suffering from dysmenorrhoea and is found to be statistically significant at $p<0.05$. (Chisquare-10.373, p-value0.001).

Conclusion: Although knowledge was found to be just satisfactory still attitude and practices were further stepped down due to prevailing misconceptions and in born restrictions associated with menstruation.

INTRODUCTION: -

Menstruation is a physiological process of females but sometimes it is considered as unclean phenomenon in the society. Most of the School girls were un-informed unprepared for menarche especially in the rural areas where socio economic level and education level are very low. This unpreparedness, force adolescent girls to face trauma and depression related to menstruation.

Menstrual hygiene management (MHM) is a problem for adolescent girls in low and middle income countries (LMICs), particularly when attending school[1]. Poor water supply, poor sanitation and hygiene (WASH) facilities in schools, inadequate puberty education and lack of hygienic MHM items (absorbents) cause girls to experience menstruation as shameful and uncomfortable event. Qualitative studies report, girls' fear and humiliation from leaking of blood and body odour, and lead menstruating girls to absent themselves from school[2,3,4],with very little quantitative data is available to confirm this[4,5]. Cultural taboos add to girls' difficulties, preventing them from seeking help[6,7] and impose restrictions on their diet and activities when menstruating[6,7,8,9]. Insufficient Menstrual hygiene management (MHM) may cause disorders in health eg. urinary and genital tract infection[10,11,12].

Recent international concern for MHM, spearheaded through work to improve WASH in schools, has focused on the need for dignity and privacy, on raising awareness to break the silence and stigma, making safe and effective MHM absorbents accessible, and improving the school WASH environment. The latter includes separate toilets for girls, water and cleansing materials, and safe disposal of soiled materials.[13,14,15,16.] Of the 113 million adolescent girls, 68 million attend about 1.4 million schools, with poor MHM practices and cultural taboos considered to be impediments to their school attendance.[17,8,18]

According to 2011 census India, 253 millions adolescents (10-19 years) are there with decadal growth of (2001-2011) +12.5% with sex ratio of 898, making every fifth person in india an adolescent[19]. National Family Health Survey (NFHS) 2015-16 report shows that the use of Sanitary Napkins among Indian women is 48.5% in rural, 77.5% in urban and 57.6% total[20]. There are many national programmes (Rashtriya Kishore Swasthya Karyakram (RKSK), Adolescent Reproductive and Sexual Health Programme(ARSH), RMNCHA, etc) and educational institutions are working together for better reproductive health of females and hygiene ,but output of the programme and gap analysis is hardly done. As per existing published research across India, there are various studies in relation to menstrual hygiene[20,21] but no detailed KAP study of adolescent school girls regarding menarche, menstrual problems and usage of sanitary pads is done.

OBJECTIVES:

1. To assess knowledge, attitude and practices regarding menstruation among study subjects.
2. To find prevalence of menstrual problems in the study population.

METHODOLOGY

This study was a cross-sectional study conducted for about 2months (September 2017 to October 2017), amongst high school girls(11-15 yrs.) of a Government high School, Wardhannapet located in rural field practice area of Kakatiya medical college, Warangal. Data of 216 girls was obtained, by using simple random sampling technique which was entered in excel sheet and appropriate statistical tests were applied using spss version21. The questionnaire used, was predesigned and pretested semi structured[22], obtained by personal interview method. Pilot study was done prior for testing the feasibility of the study. Ethical clearance was obtained. Permission from the

principal and informed written consent by the study participants was obtained prior to the study.

Results: Table 1 shows that the mean age of study population is 13.6±1.13years, whereas mean age at menarche is 12.6±1.08 years. Most of them belong to reserved category (79.6%) , majority belonged to Hindu religion (77.3%) followed by Muslims (14.4%) and Christians (20%).According to modified B.G Prasad classification most of the study population (42.6%)comes under category-IV that is upper lower.

Table 2 illustrates seven questions regarding knowledge about menstruation, on an average67% had answered correctly, nearly quarter (23%) of them didn't have knowledge about it. All (100%) of them know that menstruation is not a disease. Majority (88.9%) of them know that menstrual blood is not dangerous and it's due a normal physiological change. Near three-quarter (76.9%) people know pain during menstruation does not always means sick. Only 2/3rd (66.7%) of study population know that menstrual blood comes from womb/uterus. More than half (58.3%) of them know about menopause. More than half (54.6%) of them felt running/dancing are harmful to their bodies during menstruation. Surprisingly, only one-third (35.6%) had no knowledge that pregnant women doesn't menstruate.

In table 3 study reveals that routine menstruation affects their house work (74%), and majority (52.3%) of them were unable to carry out daily activities. More than half (56%) of them missed their school because of menstruation. Reasons are multiple for not attending school, lack of proper place to change or dispose sanitary pads in school(56%),due to pain and discomfort(23.1%)also due to fear of staining(18.1%).

In table 4 Severity of the pain is associated with missing school days. Missing school is more (28.3%) among girls suffering from dysmenorrhoea and is found to be statistically significant at p<0.05. (Chisquare-10.373, p-value0.001).

Author's contribution: The school girls also revealed during the interview that there are certain restrictions during menses as for praying (**201, 93.1%)**, attending functions (93, **43.1%)**, playing sports (**180**, **83.3%**), going school (59, **27.3%)**, in eating food (49, **22.7%**) and untouchability (29, **13.4%**).

DISUSSION:- Mean age of this study population is 13.6±1.13yrs; similar to Subhash B etal[23] . Mean age at menarche in this study is 12.6±1.08yr nearly coinciding with studies done by Anjana Tiwari et al[24](12.9 yrs), Drakshayani Devi K et al[25]and Das gupta etal[26] (12-13 yrs) and a study done in Egypt by Abdel-Hady El-Gilany[27] where mean age was found to be 12.9 yrs.

Study by Das gupta etal[26] and Paria B etal[28] found majority as (95%) Hindus, supporting present study.

Present study shows most of the study population (42.6%) belonged to category-iv (upper lower) almost similar to Mathiyalagen P et al[30]where, 56.6% of study population belongs to lower middle class,19% to lower class. In study of Subhash B et al[23] 40.31% belonged to below the poverty line and Shanbag D et al[29] majority of the study population (86%) possessed BPL cards.

Knowledge about menstruation is good in more than half of study population (67%) who have answered correctly out of 217, nearly quarter (23%, n=71) didn't have proper menstrual knowledge.

Majority (88.9%) of them answered that menstrual blood is not dangerous and it's due a normal physiological change, this is in contrast to study done by Subhash B etal[23], Paria B et al[28] where only 18.35% and 21% of girls respectively believed that it was a physiological process. Present studies finding is supported by studies done by Ishita Sarkar etal[32] where 97%, Shanbag D etal[29] 73.7% and in Drakshayani Devi K et al[25]66.1% of their adolescent study populations felt that menstruation was a normal phenomenon. In study of Shanbag D etal[29] 50.8% and Jain R etal[31] about 51% of girls thought that menstruation is a normal process.

66.7% of present study population has knowledge about source of menstruation similar to by Drakshayani Devi K et al[25]78.4%, this is not coinciding with study of Subhash B et al[23](2.58%) and Ishita Sarkar et al[32] and also study of Mathiyalagen P et al[30] where 71.5% and 61.2% were not knowing the cause and source of the menstrual bleeding, respectively.

Routine menstruation is affecting household work (74%), and majority (52.3%) of them are unable to carry out daily activities in present study, this is in keeping with findings of studies done by pragya Sharma et al[36] (60%), Sharma, P et al[33](60%)and Anamika Sharma et al[34] (54%). 41.6% of present study population missed school because of menses, very high number relative to study of Dambhare DG et al[37], Sharma Pet al[33] where it is only 13.9%, 7.24% respectively.

Various studies Mathiyalagen P etal[30] (78.1%), Adhikari P et al[36] (94%), Drakshayani Devi K et al[25](99%) have reported high usage of disposable sanitary pads.

This is also reflected in this study as most of the girls (94%) are found to be using sanitary pads. But findings in a study done by Ishita Sarkar et al[32] shows 47.9% using both sanitary napkin and cloth, 20.8% use only sanitary napkins where as 31.3% use only cloth. Study done by Shanbag etal[29] also revealed lower usage of sanitary pads (34.7%), high usage of cloth by 44.1%. Abhay Bhausaheb Mudey etal[35] also showed only 15.67% were using sanitary napkins.

Predominant method noted in the present study to dispose absorbent is throwing in garbage bin (69.3%) which is satisfactory, correlating with study of Abhay Bhausaheb etal[35] where 56.57% girls had satisfactory disposal. In another study of Subhas B etal[23] 39.79% threw it with the routine waste, in study of Mathiyalagen P etal[30] most of the girls were disposing the absorbent by burning (64.5%) followed by public dustbin (19.4%).

Nearly half of the girls in present study (42%) uses only water, another half of them (48%) uses soap and water to clean the genitalia. Nearly similar results are seen in study of Shanbag etal[29] ,slightly better hygiene was found in studies of Abhay Mudey etal[35] (59.33%) and Subash etal[23] (58%) while in Mathiyalagen[30]study majority (53.7%) used only water for genital cleaning during menstruation.

Restrictions during menses similar to our study are seen in study of Abhay Bhausaheb Mudey etal[35] where 87% of the girls do not attend religious functions and 12.67% girls do not attend the schools.In a study done by Anjani tiwari etal[24] (90.1%), Ishita Sarkar etal[32] (86.3%), Shanbagh etal[29](94.2%) revealed practice of different religious restrictions during menstruation.

In some studies contrary to present study, they have more restrictions related to food; as in study by Ishita Sarkar etal[32] 60.6% of the study population restricted sour foods, in study by Shanbhag D etal[29] 42.6% avoided certain food items.

Overall many studies revealed various forms of menstrual restrictions; Subash B et al[23] 73.64%, Paria B et al[28] 78.57%, Drakshayani Devi K[25] more than 50% were restricted from household work, taking part in religious activities, attending marriages, and playing during menstruation.

CONCLUSION:- Menstrual hygiene and sanitary practices being right of every girl in order to safe guard their health. Although knowledge was found to be just satisfactory still attitude and practices were further stepped down due to prevailing misconceptions and in born restrictions associated with menstruation. Various awareness programmes should be continued along with sanitary facilities at schools to educate girls regarding this sensitive issue at their very early age, in order to deroute misconceptions in ages.

Limitation: Although the study population is limited, so the

results of this study can be generalised to Andhra Pradesh and where majority of populations share the same socio demographic conditions as the study population.

Conflict of interest: No conflict of interest.

Table1: Table showing socio-demographic characteristics of high school girls:

Variable	Mean	SD
Age at menarche	**12.60**	1.087
Age in yrs.	**13.61**	1.136

Variable		Frequency (%)
Age	11-12	18(8.3%)
	12-13	115(53.2%)
	13-14	38(17.6%)
	14-15	26(12%)
	15-16	19(8.8%)
Category	Reserved	172(79.6%)
	Unreserved	44(20.4%)
Religion	Hindu	167(77.3%)
	Muslim	31(14.4%)
	Christian	18(8.3%)
Socioeconomic class*	UPPER(26-29)	0(0%)
	UPPER MIDDLE(16-25)	16(7.4%)
	LOWER MIDDLE(11-15)	62(28.7%)
	UPPER LOWER(5-10)	92(42.6%)
	LOWER(<5)	46(21.3%)

***classified according to modified B.J. Prasad classification.**

Table2: Table showing knowledge of high school girls about menarche and menstruation:

QUESTION	Answer	Frequency (%)
1.Women Stop Menstruating As They Grow Very Old	**YES**	126(**58.30**)
	NO	90(41.70)
2.Menstruation Is A Disease	YES	0(0)
	NO	216(100)
3.Pregnant Women Menstruate	YES	139(64.4)
	NO	**77(35.6)**
4.Menstrual Blood Comes From	STOMACH	53(24.5)
	UTERUS/WOOMB	**144(66.7)**
	OTHER ORGANS	19(8.8)
5.Menstrual Blood Contains Dangerous Substances	YES	24(11.1)
	NO	**192(88.9)**
6.Pain During Menstruation Means That Someone Is Sick	YES	50(23.1)
	NO	**166(76.9)**
7.It Is Harmful For A Woman's Body If She Runs Or Dances During Her Menstruation	YES	118(54.6)
	NO	**98(45.4)**

Table3: Table showing attitude and practices of high school girls about menarche and menstruation:

During menses:		Frequency (%)
Failure to do household work		160(74.1%)
Failure to do routine work		113(52.3%)
Missed school due to pain and discomfort		50(23.1%)
Missed school due to fear of staining		39(18.1%)
Missed school due to no place of safe disposal		121(56%)
Use of sanitary pads		203(94%)
Purchase of sanitary pads by self		88(40.7%)
Frequency of changing pads in a day	1	67(41.1%)
	2	75(46%)
	3	21(12.9%)
	4.	0(0%)
Method of disposal	Flush in toilet	23(14%)
	Throw in garbage bin	113(69.3%)
	Burn/burry/throw anywhere	27(12.5%)
Disposal and change of pads in school		64(39.2%)
Cleaning of genitalia	With water	91(42.1%)
	With soap and water	105(48.6%)

Table4: Table showing absenteeism from school during dysmenorrhoea.

	MILD PAIN (bearable)	MODERATE TO SEVERE (un-bearable)	TOTAL	X2(P)
NO MISSED SCHOOL DAYS	67(31%)	28(12.9%)	126 (44%)	10.373 (0.001*)
MISSED SCHOOLDAYS	**59 (27.3%)**	**62 (28.3%)**	**90 (41.6%)**	
TOTAL	126	90	216	

*the value is found significant at p<0.05.

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