

## Perception, Knowledge and Practices Regarding Menstruation among School Going Girls in Karaikal

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### Abstract:

- **Aim:** To find out the level of perception, knowledge and practices about menstruation among school girls
- **Method :** it was a prospective study done on 1000 adolescent school going girls from June 2011 to June 2013 studying in Govt, aided and private schools. A pre designed questionnaire was given to the students to know their knowledge, perception and practices regarding menstruation.
- **Results :** girls came to know about menstruation only after attaining menarche; they were isolated by their family members during menstruation leading to stress, anxiety and fear.

**Key words:** menstruation; school; adolescent; menarche;

### Aim of This Study:

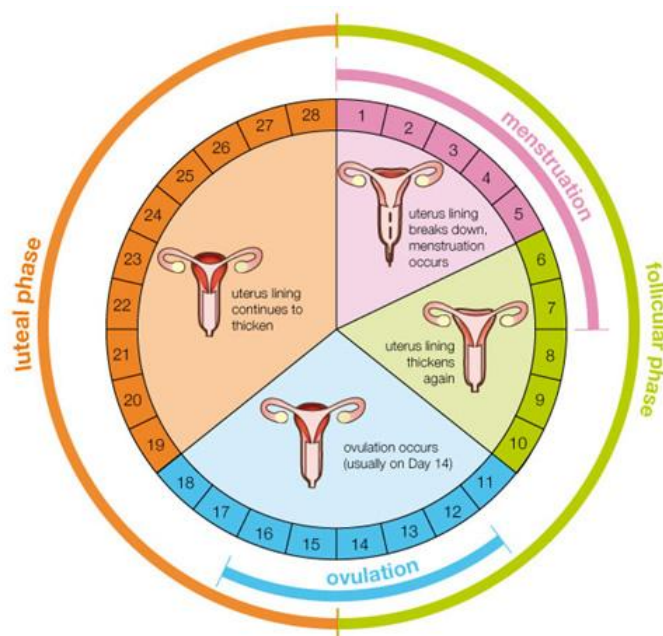
- To Find Out The Level Of Perception And Knowledge Regarding Menstruation Among School Girls
  - To Find Out The Menstrual Practices Among School Girls
  - To suggest possible solutions.
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### I. Introduction

Menstruation, also known as a period or monthly,<sup>[1]</sup> is the regular discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina.<sup>[2]</sup> The first period usually begins between twelve and fifteen years of age, a point in time known as menarche.<sup>[1]</sup> However, periods may occasionally start as young as eight years old and still be considered "normal".<sup>[2]</sup> The average age of the first period is generally later in the developing world and earlier in developed world. The typical length of time between the first day of one period and the first day of the next is 21 to 45 days in young women and 21 to 31 days in adults (an average of 28 days).<sup>[2,3]</sup> Menstruation stops occurring after menopause which usually occurs between 45 and 55 years of age.<sup>[4]</sup> Bleeding usually lasts around 2 to 7 days.<sup>[2]</sup> A number of problems with menstruation may occur.

The menstrual cycle is governed by hormonal changes.<sup>[2]</sup> These changes can be altered by using hormonal birth control to prevent pregnancy.<sup>[5]</sup> Each cycle can be divided into three phases based on events in the ovary (ovarian cycle) or in the uterus (uterine cycle).<sup>[1]</sup> The ovarian cycle consists of the follicular phase, ovulation, and luteal phase whereas the uterine cycle is divided into menstruation, proliferative phase, and secretory phase.

Stimulated by gradually increasing amounts of estrogen in the follicular phase, discharges of blood (menses) flow stop, and the lining of the uterus thickens. Follicles in the ovary begin developing under the influence of a complex interplay of hormones, and after several days one or occasionally two become dominant (non-dominant follicles shrink and die). Approximately mid-cycle, 24–36 hours after the luteinizing hormone (LH) surges, the dominant follicle releases an ovocyte, in an event called ovulation. After ovulation, the ovocyte only lives for 24 hours or less without fertilization while the remains of the dominant follicle in the ovary become a corpus luteum; this body has a primary function of producing large amounts of progesterone. Under the influence of progesterone, the uterine lining changes to prepare for potential implantation of an embryo to establish a pregnancy. If implantation does not occur within approximately two weeks, the corpus luteum will involute, causing a sharp drops in levels of both progesterone and estrogen. The hormone drop causes the uterus to shed its lining in a process termed menstruation. Menstruation also occur in some other animals



Adolescent girls constitute a vulnerable group, particularly in India where female child is neglected one. Menstruation is still regarded as something unclean or dirty in Indian society. 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. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes. Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections .

A study done by Dasgupta & Sarkar<sup>[6]</sup> revealed that 67% girls were aware about menstruation, mother was the first informant in case of 37.5% of girls. Only 11.2% girls used sanitary pads. A study done by Subhash B Thakre et al<sup>[7]</sup> revealed that more than three fourths of girls were not aware of the cause and source of bleeding. Sanitary pads were used only by 49% of girls. Satisfactory cleaning of private parts was practiced by 33%. Most of the children were put in some restrictions during menstruation. Singh AJ<sup>[8]</sup> also reported many restrictions being put on girls. They also revealed the poor usage of sanitary pads. Venkatesh R & Dhoundiyal M<sup>[9]</sup> showed the poor knowledge and poor hygiene by school girls during menstruation.

## II. Material And Methods

This is a prospective school based study among 1000 adolescent girls of VIII TO XII STD studying in different schools between june 2011 to june 2013 in different schools in karaikal. Relevant permission were taken from the school and district authorities. This study assesses the KAP regarding menstruation among school girls, and the problems faced by them at home and school because of menstruation. Inclusion criteria was all girls who have attained menarche. A pre designed questionnaire in the local language or English was given. The school girls were explained about the purpose of the study ad were advised to answer all the questions without bias. Girls with menstrual abnormalities were referred to the medical college. Girls were given counseling about menstrual hygiene at the end of the session. Ethical committee approval was obtained. Permission from relevant district and school authorities was obtained. Data analysis was done using descriptive statistics and ANOVA.

## III. Results:

Total participants : 1000  
Age range : 10-19 years

**TABLE 1:Age distribution of girls attaining menarche**

Age	Frequency	%
11	8	8
12	44	4.4
13	90	9
14	173	17
15	198	19.8

16	247	24.3
17	144	14.3
18	33	3.1
19	63	6.3

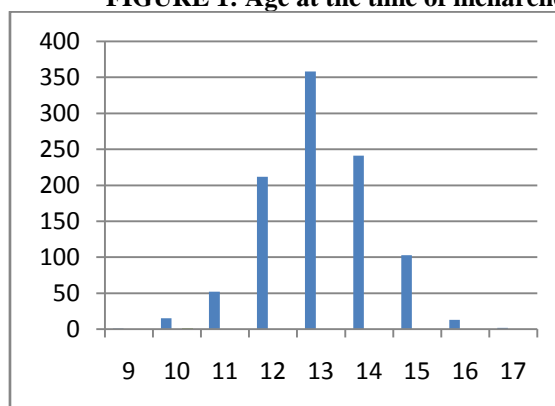
**TABLE 2: School standard wise distribution of school girls who attained menarche**

Class	Frequency	%
6	9	9
7	34	3.3
8	107	10.5
9	189	18.4
10	254	25.3
11	254	25.3
12	154	15.3

**TABLE 3:Age at the time of menarche**

Age at menarche	Frequency	%
9	1	0.1
10	15	1.5
11	52	5.2
12	212	21.2
13	358	35.8
14	241	24.1
15	103	10.3
16	13	1.3
17	2	0.2

**FIGURE 1: Age at the time of menarche**



**TABLE 4:Persons who informed the girls about menstruation**

	Frequency	%
Mother	350	35
Relative	188	18.8
Friend	160	16
No one	145	14.5
Sister	99	9.9
Teacher	75	8.3
Father	8	0.8

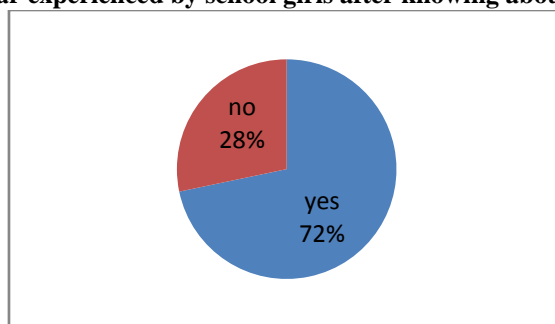
**TABLE 5:Percentage of school girls for whom teacher was the source of information**

	Frequency	%
Yes	73	73

**TABLE 6:Fear experienced by school girls after knowing about menstruation**

Fear	Frequency	%
Yes	715	71.5
No	282	28.2

**FIGURE 2: Fear experienced by school girls after knowing about menstruation**



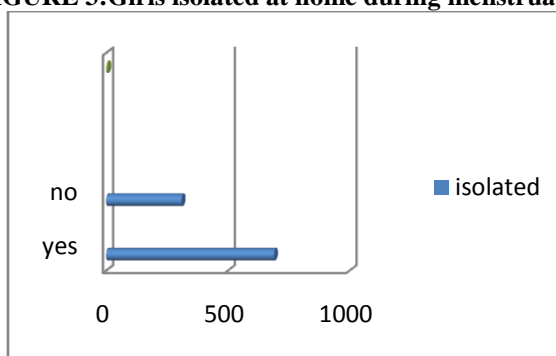
**TABLE 7: Frequency of emotional changes experienced by school girls at menarche**

	Frequency	%
Angry	166	16.6
Cry	144	14.4
Irritation	155	15.5
Abd pain	140	14
Fear	235	23.5
Headache	45	4.5
Pimples	29	2.9
Vomiting	50	5
Grown up	28	2.8

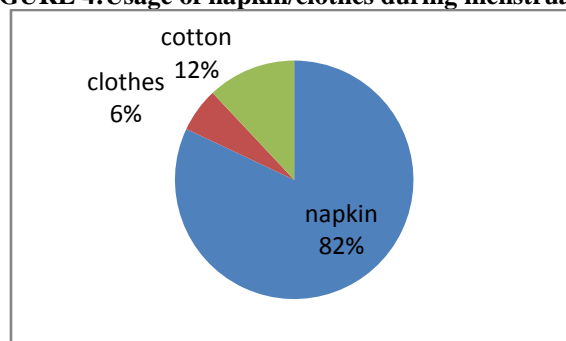
**TABLE 8: Bathing habit during menstruation**

Daily bathing	Frequency	%
Yes	970	97
No	30	3

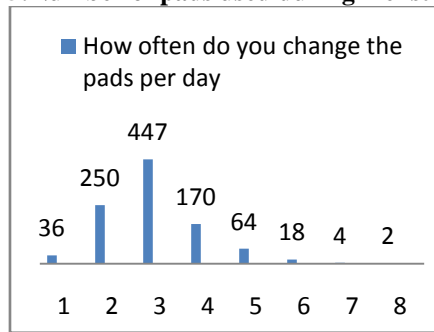
**FIGURE 3: Girls isolated at home during menstruation**



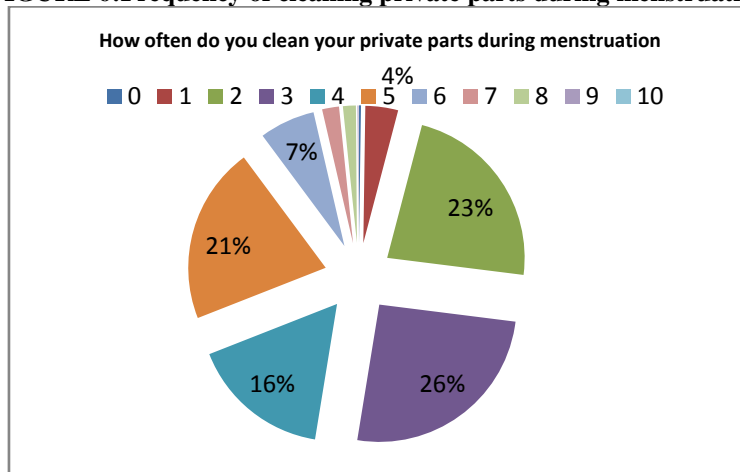
**FIGURE 4: Usage of napkin/clothes during menstruation**



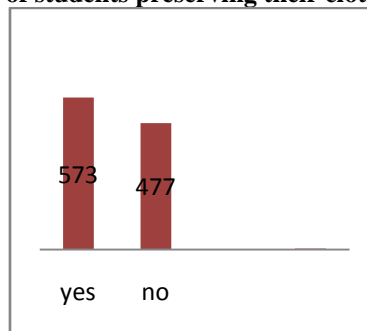
**FIGURE 5: Number of pads used during menstrual period**



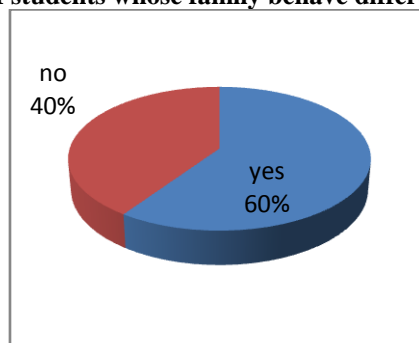
**FIGURE 6: Frequency of cleaning private parts during menstruation**



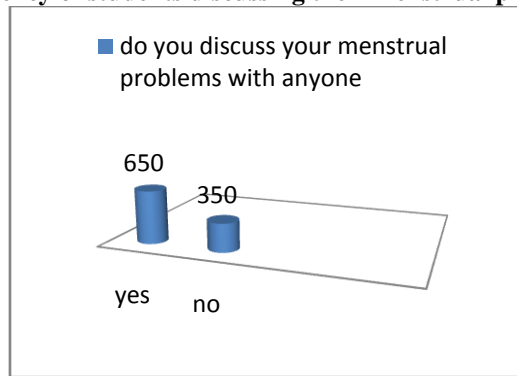
**FIGURE 7: Proportion of students preserving their clothes during menstruation**



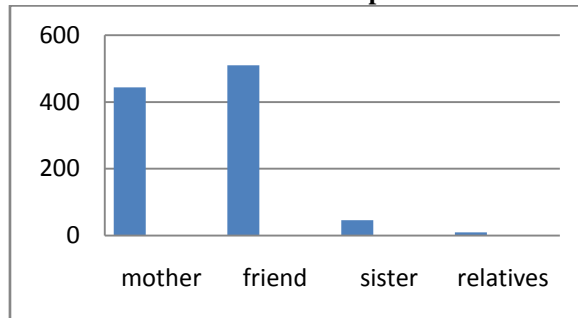
**FIGURE 8: Frequency of students whose family behave differently during menstruation**



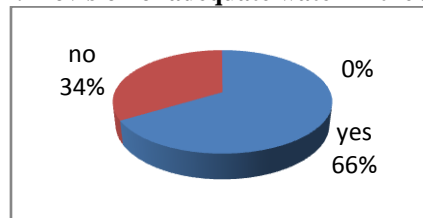
**FIGURE 9: Frequency of students discussing their menstrual problems with others**



**FIGURE 10: Persons with whom problems is discussed**



**FIGURE 11: Provision of adequate water in the school toilets**



**TABLE 8: Shows sum of squares, mean squares, F ratio, and p value of school girl fearing knowing menarche**

ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between groups	2526	6	.421	2.086	.052
Within groups	199,630	989	.202		
Total	202,157	995			

**TABLE 9: Shows sum of squares, mean squares, F ratio, and p value of school girl attaining menarche with respect to age**

ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between groups	543,381	6	90,563	41,107	.000
Within groups	2196,520	997	2.203		
Total	2739,900	1003			

**TABLE 10: Shows sum of squares, mean squares, F ratio, and p value of school girl taking bath daily**

ANOVA

	Sum of squares	Df	Mean square	F	Sig
Between groups	.156	6	.026	1.335	.238
Within groups	199.445	996	.020		
Total	199.601	995			

**TABLE 11: Shows sum of squares, mean squares, F ratio, and p value of school girl who have been isolated at home during menstruation**

**ANOVA**

	Sum of squares	Df	Mean square	F	Sig
Between groups	4.053	6	.676	3.235	.004
Within groups	206.285	988	.209		
Total	210.338	994			

**IV. Discussion**

The purpose of this study was to analyse the knowledge, perception and practices regarding menstruation in school girls. Samples were taken from both urban and rural schools. The average age of menarche is 13-17 years with mean age of 13 and SD 1.65. The data obtained was analysed with statistical methods. In this study, 32.2% of girls (n=322) who attained menarche at age 13 years is consistent with findings of Sharma et al, Khanna et al, Dasgupta and sarkar<sup>[6,11]</sup>. The minimum age at menarche was 9 years and maximum age was 17. Most of the children who participated belonged to 10<sup>th</sup> and 11<sup>th</sup> class (n=254). The results revealed that mother was the primary source of information regarding menstruation 35%(n=350)- this is consistent with studies by Singh et al and Deo & Ghattargi. The knowledge regarding menstruation was acquired at school and teacher was the main source of information 73%(n=730)<sup>[7,8,9,10]</sup> Anger 16.6% (n=166), fear 23.5% (n=235) and crying 14.4% (n=144) were the major emotional changes experienced by school girls during menstruation. This is in line with many of the studies like Thakre et al.<sup>[7]</sup> Girls are usually isolated in Indian families irrespective of region or education of parents. In this study, the school girls isolated were 69% (n=690), and it was followed for every cycle of menstruation<sup>[11,12,13]</sup>. The majority of girls in this study were using napkins 82% during menstruation. This is in variation with other studies where there is only 10-20% usage Mudey et al<sup>[13]</sup>. this may be because knowledge regarding menstruation is high in this region.

In this study, school girls were using 3 pads per day, which forced them to clean their private parts regularly and take bath daily. This is consistent with studies done by Thakre et al 2010, Mudey et al, Narayan et al<sup>[7,13,14]</sup>.

Discussing about menstruation openly is still a taboo topic in our country. In this study most of the girls discussed about their menstrual issues with their mothers and friends. They are hesitant to speak with others, even teachers<sup>[13]</sup>.

Provision of good toilet facilities, adequacy of water in the toilets and safe dispensation of sanitary pads is an important aspect in the menstrual habits of school girls. Majority of school girls said that there was no proper toilets 77% (n=770) for use during menstruation, no adequate water in the toilets 66%(n=660) and also there was no provision to dispense the sanitary pads privately<sup>[13]</sup>.

**V. Conclusion**

Majority of the girls attained menarche at age 13 years. Most of them were told about menstruation by their mothers. Anger, fear, cry and irritation were the major emotional reaction experienced by girls. Majority of the girls are isolated in the home and treated differently during menstruation. Problems regarding menstruation is usually discussed with mothers. Majority of the girls were using sanitary pads, and menstrual hygiene maintained was good. Clean toilets, adequate water and safe dispensation of pads is still a dream for majority of school girls even in this day and age.

**VI. Suggestions**

- School teachers have a major role in imparting knowledge regarding menstruation to adolescent girls
- Family members, especially mothers must be aware of menstrual issues of girls and effect due to isolation
- School counsellors should advice mother, and the girl regarding issues related to menstruation
- Schools should have better water and toilet facilities
- Govt should encourage the production of cheap tampons for usage in rural areas

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PROFORMA

NAME:

DOB/AGE:

CLASS:

SCHOOL:

1. Age at Menarche ?
2. At what age you came to know about menarche?
3. Who explained about menstruation?
4. Did you study about menstrual cycle in your lesson? yes/no
5. Did any teacher discuss with you yes/no
6. Did you get fear after knowing it ? yes/no
7. What was your reaction after attaining menarche?
8. During menstruation do you any of the following: abd pain/nausea/vomiting/fever/others
9. What do you do for that?
10. Do you take any medicine? yes/no
11. Do you take bath daily during menstruation ?
12. Have you been isolated at home during menstruation ?
13. What do you use during menstruation pads/cloth/cotton?
14. How many pads do you change per day?
15. How many times do you clean your private parts during menstruation?
16. How do you store/dispose the cloth?
17. Do your family members behave differently during your menstruation?
18. Do you discuss menstrual problems with anyone? yes/no
19. If yes , with whom
20. Do you have proper toilet facility at school ?yes/no
21. Is the water supply adequate for toilet purpose? yes/no
22. Is there provision for disposing pads ? yes/no

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