

**A CROSS SECTIONAL STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICES OF
MENSTRUAL HYGIENE AMONG AU FEMALE STUDENTS****Tabarak Ahmed, Zahraa Saad, Nageeb Hassan and Moyad Shahwan***

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ABSTRACT

Menstruation and menstrual practices are associated with taboos and socio-cultural restrictions. Good hygienic practices such as the use of sanitary pads and adequate washing of genital area are essential during menstruation. Doctors are the main health care providers and thus, their knowledge helps in transforming the community practices. **Aims and objectives:** To assess the knowledge, attitude and practice (KAP) of menstrual hygiene among Ajman university (AU) female students. **Materials and Methods:** A cross sectional study was conducted among 500 females of AU students. A pre formed pretested questionnaire was used. Data were analyzed statistically by simple proportions. **Results:** Most of the girls (n=384, 76.8%) were in the age group of 18-21 years. Surprisingly, 31.8% (159) girls were ignorant about menstruation before menarche. We found that in 52.40% (n=262) of students, menstrual habits were inculcated by their mothers. 70% (n=350) of girls were having regular menses. 100% (n=500) of girls were reported to experience Premenstrual symptom. 46.8% (n=234) of females were forced to practice restrictions during menses

KEYWORDS: Menstruation, Menstrual hygiene, Premenstrual syndrome.**INTRODUCTION**

According to WHO, the term 'adolescents' refers to young people between the ages of 10 and 19 years.^[1] Adolescence is a transition period from childhood to adult life during which pubertal development and sexual maturation take place.^[2] Rapid transformations due to the hormonal changes that accelerate the physical growth and development of secondary sexual characteristics usually occurs during adolescence.^[3] Thelarche [the onset of secondary or postnatal breast development] usually occur at the pubarche (beginning of puberty) in girls. Thelarche is the first physical change of puberty in about 60% of girls.^[4,5]

The first menstruation also called as 'MENARCHE' is an indicator of developmental maturation in women whose arrival determines the transition from being a child to being a teenager. Menarche is characterized as one of the few rites of passage that is still valued in modern societies for all adolescents, regardless of their social group.^[3]

Some girls are not prepared for thelarche and menarche at the commencement of puberty which leads to consequences such as negative body image, appearance anxiety, lowered self-esteem, and delayed diagnosis of breast tumors.^[5]

Menstruation and menstrual practices are still shadowed by taboos and socio-cultural restrictions. Menstruation is the cyclical shedding of endometrium under the hormonal influence controlled by the hypothalamopituitary axis.^[6,7]

Menstruation is linked with several misconceptions and false practices, which sometimes result into adverse health outcomes.^[8]

Menstrual disturbances are the commonest presenting complaint in the adolescent age group and unhygienic practices during menstruation can lead to untoward consequences like pelvic inflammatory diseases and even infertility.^[9] Special health care needs and requirements of women during monthly cycle of menstruation are collectively given the term "Menstrual hygiene".^[10]

AIMS AND OBJECTIVES

To assess the knowledge, attitude and practice (KAP) of menstrual hygiene among Ajman University of female students.

MATERIALS AND METHODS

This is an anonymous, questionnaire-based survey. A Self developed, pre-validated questionnaire was used. Data is expressed as counts and percentages. A cross sectional observational study was conducted among 500 females of Ajman university students. A pre formed pre-

tested questionnaire was used. Some questions had multiple options to choose from therefore the sum total of percentage is not always 100%.

STATISTICAL ANALYSIS

Data were analyzed statistically by simple proportions.

RESULTS

Total 500 girls of 1st, 2nd, 3rd, 4th and 5th year students took part in the questionnaire. Most of the girls (n=384, 76.8%) were in the age group of 18 -21 years followed by 116 girls (23.2%) in 22- 25 years age group as shown

in table-1. In spite of the fact that most of them were having well educated family background, 31.8% (159) girls were ignorant about the menstruation before commencement of menarche as explained in table 2 and figure-1.

Table 1: Age distribution of eligible female students.

Age Group	Number	Percentage
18-21	384	76.8%
22-25	116	23.2%

Table 2: Shows previous knowledge of menstruation before attainment of menarche among female students

Knowledge of menstruation before menarche	No. of 1 st Yr	No. of 2 nd Yr	No. of 3 rd Yr	No. of 4 th Yr	No. of 5 th Yr	Total	Percentage
Knew	119	78	51	76	17	341	68.2%
Didn't know	48	38	23	39	11	159	31.8%
Total	167	116	74	115	28	500	100%

No.= number

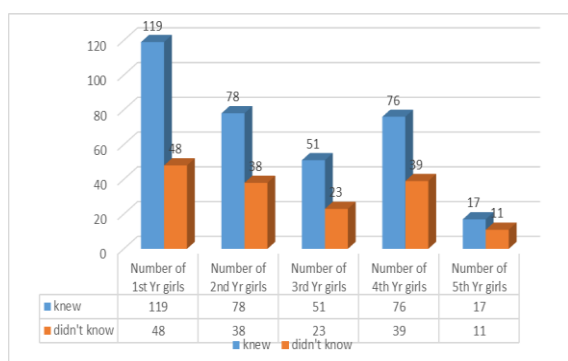


Figure 1: Shows previous knowledge of menstruation before attainment of menarche

In our study we found that in 11% (n=55) of students, menstrual habits were inculcated by their friends while mothers were the main source of information in 52.40% of students as shown in figure-2

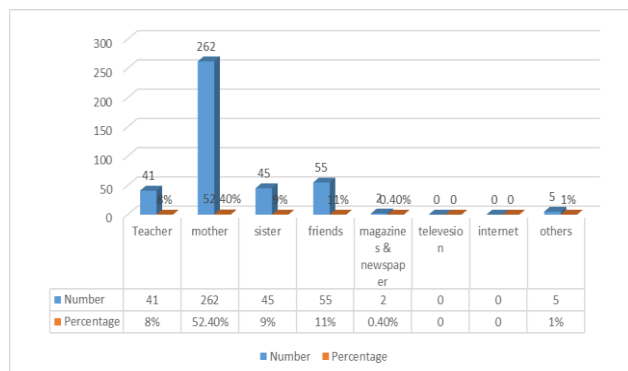


Figure 2: Shows information about the first informer of menarche to the students

Two hundred twenty four were changing their undergarments during menstruation once daily while 276 change it twice daily as shown in Table 3 below.

Table 3: shows how often do females change their undergarments?

How often do you change your undergarments during menstrual days?	Number	Percentage
Once a day	224	44.8%
Twice a day	276	55.2%

Though 97.8% (n=489) were reported to have the habit of washing hands after changing the pad which reveals the fact that in spite of being a medical student there is still lacunae in the knowledge about complete menstrual hygiene .as shown below in Table 4.

Table 4: Do girls wash their hand after changing the pad?

Do you wash your hand after changing the pad?	Number	Percentage
Yes	489	97.8%
No	11	2.2%

Seventy percent (n=350) of girls were having regular menses while Irregular menses were reported by 30% (n=150) of them. As shown below in Table 5

Table 5: How do girls categorize their menses?

Categorization of menses	Number	Percentage
Regular	350	70%
Irregular	150	30%

Our results shows that most of the girls have moderate menstrual flow 75.2 % (n=376) followed by heavy flow 18.2% (n=91) then mild flow 5.8% (n=29) and the least is only spotting 0.8% (n=4) .as shown in Table 6

Table 6: shows how do girls categorize their menstrual flow?

Categorization of the menstrual flow	Number	Percentage
Mild	29	5.8%
Moderate	376	75.2%
Heavy	91	18.2%
Only spotting	4	0.8%

Seventy percent (n=350) of girls used to change their pads 4 hourly during first 2 days of their menstrual cycles. Followed by 6 hourly 23.4% (n=117), then 8 hourly 5.6% (N=28) and the least was once a day 1% (n=5).as shown in Table 7

Table 7: how often do girls change the pad during first two days of menstruation?

How often they change the pad	Number	Percentage
Every 4 hr.	350	70%
Every 6 hr.	117	23.4%
Every 8 hr.	28	5.6%
Once a day	5	1%

All girls were reported to experience premenstrual symptoms with a variation in the symptoms like headache, backache, lower abdominal pain, fatigue, weakness, mood swings. As shown in the Table 8

Table 8: do girls experience any premenstrual symptoms?

Premenstrual symptoms	Number	Percentage
Headache	115	23%
Backache	292	58.4%
Lower abdominal pain	365	73%
Fatigue & weakness	235	47%
Mood swings	259	51.8%
Others	18	3.6%

About fifty eight (n=288) were taking a painkiller during menstruation, most of them taking it once daily and 42.2% (n=212) were not taking any medicines. As shown in Table 9 & figure 3.

Table 9: shows girls take a pain killer

Do they take a pain killer?	Number	Percentage
Yes	288	57.6%
No	212	42.4%

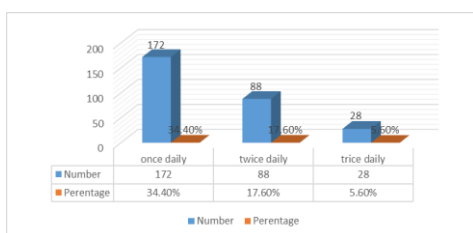


Figure 3: Shows the frequency of taking the pain killer

We found that 54.8% (n=274) have menses that disturb their daily routine while 45.2% (n=226) have no disturbance at all. As shown in Table 10

Table 10: menses and daily routine disturbance

Does menses disturb the daily routine?	Number	Percentage
Yes	274	54.8%
No	226	45.2%

About forty seven percent (n=234) of females were forced to practice restrictions during menses, and 53.2% (n=266) were not forced to practice restrictions. Various restrictions as mentioned are depicted in figure-4.

Table 11: restrictions during menses

Restrictions during the menses	Number	percentage
Yes	234	46.8%
No	266	53.2%

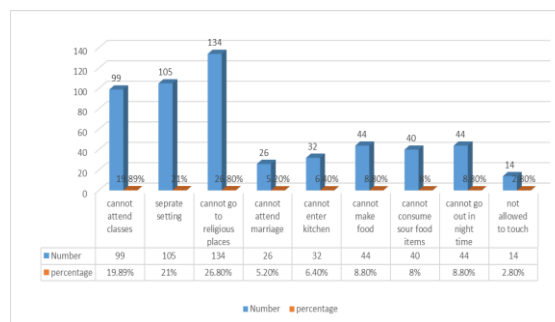


Figure 4: Showing restrictions forced to AU female students in the study.

DISCUSSION

A lot of studies have been done on practices of menstrual hygiene but most of them have been done on rural population or in school girls. There is paucity of this study in medical students to the best of author’s knowledge. This study has tried to fill this huge gap.

In our study 68.2% of students had previous knowledge of menstrual practices before attaining menarche and this result is in accordance with other studies done in population other than medical students.^{6, 7, 9} But in a study done in rural adolescent girls of Nepal, the knowledge and practice were 40.6% and 12.9% respectively, according to Adhikari P *et al* 2007.^[10] It is evident from a study done by KalpanaKatiyar *et al* 2013 that awareness is only 38.5% among adolescent females in an urban area of Meerut.^[11] The plausible reason for unawareness among rural girls is lack of educational background. Similarly, in a study performed among adolescent schoolgirls in (Nagpur) Maharashtra by Subhash B. Thakre *et al* 2011 only 36.95% of the girls were aware of menstruation before menarche.^[12]

We found that inculcation of menstrual habits was mainly done by mothers in 52.40%(n=262) of students which is in accordance with results of Dasgupta A *et al*

2008 in which mother was first informer in 37.5% of girls and ^[6] and also by Subhash B. Thakre *et al* 2011^[12] KalpanaKatiyar *et al* 2013documented that 66.9% of adolescent females learned about menstrual practices from mother. But in a study done by Juyal R *et al* 2012 in Uttarakhand, friends were the first source of information in 31.8% of girls.^[11] In contradiction to this, S B Salve *et al* 2012 reported difference in first informer as female teacher was the informant in some cases and the mother is theinformant in other cases depending on the cultural habits and educational level of the girl and the mother.

In the present study, with increasing severity of menstrual pain, the average scores received from all the 57.6% (n=288) were taking a painkiller during menstruationconsistent with the study by Barnard *et al.*^[13-15]

Seventy percent of medical students reported irregular menses and this result is almost same as documented by Singh MM *et al* 1999.^[9,15] In a study done in Meerut, 72.7% of menstruating girls suffered from at least one menstrual disorder.^[11]

We found that 34% (n=59) of girls had to practice restrictions during menses like they had to sit separately, cannot go to religious places, not allowed to attend religious ceremonies, cannot enter kitchen and not allowed to make food and even going out in night time was restricted.^[12,15]

CONCLUSION

Menstrual hygiene, a very important risk factor for reproductive tract infections, is a vital aspect of health education. Today millions of women are sufferers of RTI (reproductive tract infections) and its complications and often the infection is transmitted to the offspring of the pregnant mother. Before bringing any change in menstrual practices they should be educated about the facts of menstruation and its physiological implications. The girls should be educated about the significance of menstruation and development of secondary sexual characteristics, selection of a sanitary menstrual absorbent and its proper disposal. This can be achieved through educational television programs, compulsory sex education in school curriculum and knowledgeable parents, so that she does not develop psychological upset and the received education would indirectly wipe away the age old wrong ideas and make her to feel free to discuss menstrual matters without any inhibitions.

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