

**Health Seeking Behavior, Perceptions and Experiences Regarding Menarche and Menstruation amongst Pakistani Adolescent Girls Attending Public versus Private Schools**

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**ABSTRACT**

*The study's goal is to evaluate young girls' health worries about menstruation as a disease throughout socioeconomic eras. People's perceptions of normal physiological, hormonal, and physical changes are influenced by culture, education, economic situations, social customs, and living standards. Adequate and timely information can help schoolgirls with reproductive health issues. According to the study, private school girls exhibit superior conduct, views, and experiences than public school girls. Regular health education is required for schoolgirls to enhance their awareness and knowledge. Awareness among young girls has the potential to enhance MDGs linked to women and reproduction. Good community health education will improve the health of females and girls, who are frequently overlooked in poor countries.*

**Keywords:** Health seeking behavior, Young adolescent, Menarche and Menstruation.

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**INTRODUCTION**

Adolescence is a developmental phase of growth and development between childhood and adulthood, which is a combination of physical, emotional, psychological and as

well as hormonal changes. Initiation of menstruation, menarche is the most important physical change that occurs among girls during adolescence (Stattin, Kerr & Skoog, 2011). It is not uncommon for the girl to have many questions and concerns related to menstrual cycle. Menstrual cycle had different patterns in every girl. In first few cycles there were some factors affect its regularity, time span, pattern and other related symptoms like pain. Menstrual hygiene management is an important issue for adolescent girls as they do not have experience. Even most of the parents lack the required information about the menstrual cycle and issues related to its management. Lack of education and communications regarding reproductive system further adds to the problem (Gaudineau et al. 2010).

Menstruation is actually as “periodic discharge of blood from the uterus occurring more or less at regular monthly intervals throughout the active reproductive life of a female”. While menarche is a natural event in girls ‘life, it is also the beginning of physical and social evolution. The onset of menstruation is the most important physical change that occurs among girls during adolescence. It is not uncommon for the girl to have many questions and concerns related to menstrual cycle. Menstrual hygiene management is an important issue for adolescent girls as they do not have experience. Even most of the parents lack the required information about the menstrual cycle and issues related to its management. Lack of education and communications regarding reproductive system further adds to the problem. Menstruation is a secondary sex character and major stage of puberty in girls. It is a natural and healthy event. It is important for the girls to fully understand the process of menstruation so that they can properly handle. Adolescent girls do not have knowledge about reproductive health and organs because of socio cultural barrier (Mansoor et al. 2020; Thakre et al. 2011). Menstrual cycle is the monthly series of changes a woman’s body goes through in preparation for the possibility of pregnancy. It is under the control of hormones and normal physiology. The average age of menarche is 13-year age of menarche varies by geography and race. Teenage is an important stage of development and it lies between 12 to 19 years of age. This stage includes main physical changes both in girls and boys. These changes increase in growth, development of secondary sex characters, changes in different organs and body configuration. The most important change of this period sexual and reproductive maturity. 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. Special health care needs and requirements of women during monthly cycle of menstruation are collectively given the term “Menstrual hygiene” (Gaudineau et al. 2010).

Focal source of information of different puberty related changes in young girls was mother. Sometimes friends and sisters were also first guidance counselor and very rarely teachers in developing countries. Most of the teenage girls gain information about menstruation from their mother or teacher. Parents don’t discuss the related issue because of communal bans and negative attitude and this is the reason of lack of information among teenagers (Santina, Wehbe, Ziade & Nehme, 2013). Globally May 28th, is celebrated as World menstrual hygiene day for creating awareness. If the adolescent girl is having knowledge, she will be able to practice hygienic practices during menstruation. Conceptual clarity about menstruation before the menarche is very necessary because their knowledge will help in developing positive attitude towards menstruation and could also lead to adoption of healthy practices (Bhudhagaonkar & Shinde, 2014). According to the World Health Organization

(WHO), the age group of 10-18 years is considered as adolescents. Different age groups had different presentations in puberty. But in girls' puberty entered in adolescence with gross hormonal and physical changes as a result of menstruation in adolescence (Inchley et al. 2007).

During this period, pubertal development and sexual maturation following hormonal changes get completed. Menarche is the final step in which menstruation periods start (Gaudineau et al. 2010). This can occur a time between 11 and 16 years of girls' age, by average 12.5 years for Iranian girls. During vaginal bleeding, the uterine osseous is open and ready to accept bacteria coming from vagina and conduct them to the uterus body and fallopian tube resulted in infectious. Very young girls are a vulnerable group to be involved in reproductive system infectious because of their lack of health information, social immaturity and physical status (Juyal et al, 2012). Majority of the teenage girls, especially in developing countries, lack correct or sufficient information toward the process of menstruation, as well as the physical and psychological changes and menstrual hygiene resulted in the bad consequences like unhealthy behavior, negative body image, vulnerable to reproductive tract infections (RTI) and pelvic inflammatory diseases (PID), infertility, anxiety, lowered self-esteem, etc (El-Gilany, Badawi & El-Fedawy, 2005; Golub, 1983).

Even after experience menarche, very little information is given to adolescence in such culture. In the worst situation, menstruation and menstrual hygiene are still shadowed by taboos, cultural and social restrictions, myth, and misconceptions resulted in embarrassing girls, and preventing them to seek for information and even hiding their menstruation because, during menstruation, they must be separated from the others (Kumar, Srivastava, 2011; Pande et al. 2006) showing the importance of culture in presenting negative attitudes towards menstruation limitation of health information and facilities (Sommer, 2015). Though this natural biological process that gives women and girls dignity, yet often times it becomes a matter of annoyance and shame. These type of social anathemas and myths increase the susceptibility of teenage girls to unclean practices that give birth to multiple diseases like reproductive and urinary tract infection. Moreover, restraints from the society and lack of proper guidance and information about menstruation, results in social dishonor that damages woman both physically and emotionally (Unsal, 2010).

Menstrual abnormalities were due to different reasons in females of all age groups, especially in young girls in early menstrual cycles it varies from hormone dependent to any other familial and anatomical reasons. Different factors in society in expression of menstruation related issues mask this expression and results in different reproductive health related diseases in future life. Menstrual problems in women arise at various ages. These disorders are more frequent in girls in early adolescence, especially during their first 2 years of periods without ovulation. Some of the most prevalent symptoms in this phase is menstrual signals such as irritability, tenderness of breast, low back pain, skin diseases, tiredness, palpitation, social alienation, nausea and vomiting, stomach pain (Flug, Largo & Prader, 1984). In line with the bio-psychosocial paradigm, menstrual signals are affected not only by biological factors such as hormonal and lifestyle (sport and nutrition), but also by environmental and social variables such as contact with peers, families and coworkers, and the menstrual response and psychological factors such as fear, depression and tension. Psychological conditions can cause nervous system corticotrophin (CRH) release hormone followed by increased cortisol and prolactin to lead to menstrual signs (Martin, 2008).

Menarche marks an important biological, and often social, transition from childhood to womanhood. Though menstruation directly links to health concerns such as fertility, family planning, sexuality and overall body literacy, it remains an under-recognized public health issue in its own right (Weinberger & Radulescu, 2016). Forms have been recorded continuously for over a decade by girls through school administration, who have encountered their complicated, humiliating, exhausting, frustrating, terrifying, stigmatizing and often traumatic encounters. A lack of knowledge and realistic guidance describing menstruation and how to handle measures until they occur are two of these interactions. Nutrition, health and sanitation facilities in schools of low or missing nature and exposure to services, other effects on girls' interactions. Significant issues originate from the unbearable social settings in which girls are forced to confront teasing, confidentiality and social standards which require a series of behavioral constraints including what they can say, with whom they can speak, what they can do or how, among many others, they can pray (McMahon, 2011).

While the significance of puberty in both societies differs considerably, it remains an unforgettable experience in the life of girls (Ozvaran, 2004). Menstruation and menstrual hygiene have strong implications on the health and wellbeing of a woman and of the overall society; therefore, it becomes an important health and social issue. With only a handful scholars conducting research in this area, accurate information on menstruation and menstrual hygiene in specific countries, societies, and communities is limited. Cultural studies indicate that menstrual behavior is not just a physiological phenomenon, its mental, psychological, social and cultural influence is high (do Amaral, 2011). Further, the issues related to menstruation have always been considered as women's belonging and are kept hidden and private through centuries and worldwide (Madhiarasan & Deepa, 2016). Hence, the topic around menstruation is less explicitly talked about and the experiences of young girls during menarche remain poorly tackled. As the menstrual experience plays a critical role during the adolescent phase of young girls' life, it is particularly important to understand menstruation from the adolescent girls' perspective along with basic knowledge and concerns related to it, which could be best illustrated using research approach. Therefore, this study will explore the perceptions, practices and experiences related to menarche and menstruation among teenage girls. Looking for different health issues of young girls about menstruation as a morbidity or disease in different socioeconomic eras of community was different. Experiences and perceiving of various aspects of normal physiological, hormonal and physical change differ due to many factors like culture, education status, economic conditions social norms and living standards in community. Adequate and timely information can tackle different health issues related to reproduction in school girls.

## **Material & Method**

**Study Design:** Descriptive cross sectional study. This study carried out in adolescent girls of class 7 (12years old) and class 10 (16 years old) of one Public Sector Secondary School (Government Girls High School, Chak No 136, Mandi Town) and one Private Sector Secondary School (The British International School, AIWahab Campus Housing Colony), situated in Tehsil and District Layyah, Punjab, Pakistan. Non-Probability Purposive sampling technique was used in the study.

### **Inclusion Criteria**

Students who met the following criteria were selected to participate in the study:

- Being studying in classes 7th and 10th, aged from 12 to 16 years and consented to participate in the study
- Unmarried.
- Girls with siblings/parents (health care providers).

### **Exclusion Criteria**

Those suffering from Diabetes Mellitus, (CVD) Cardio-Vascular Diseases, Renal Disease and Liver Disease or Immune-Compromised Disease.

### **Tests/Equipment**

Semi-structured questionnaire, pre-tested and modified accordingly were used to collect information about the socio-demographic characteristics, Menstrual Health, Hygiene, Anxiety/Depression and Treatment Seeking Behavior of adolescent girls.

### **COLLECTION PROCEDURE**

It includes:

#### **Identification of the study variables**

Study variables, both independent and dependent were identified.

#### **Methods for Collection of Data**

- Approval was obtained from the IRB of University of Lahore.
- Permission was obtained from the District Education Officer, where the schools are located.
- Permission was sought from the Head Mistress/Principal of the schools, where the study were carried out
- During visits to schools, all the students present at the time of our visit were interviewed.
- To complete the questionnaires, following procedure were adapted:
- Administrative Staff was contacted in each school to identify available times in which questionnaires were distributed and completed among selected students.
- Eligible students were asked to sign the consent forms
- Students were interviewed separately by trained interviewers after explaining the main objective of the study.
- The interviewers were trained to ensure that the students completely realized their words. Plus, students were helped by the interviewers when they faced with difficulties.
- The validity and reliability of questionnaire were evaluated and approved, using a pilot study with 40 female students.

The questionnaire were comprised two parts. Information collected was as follows:

**Part 1:** Socio-demographic information: age, parent's education, people per family, birth order, family income, and property ownership.

**Part II.** Menstruation status, including menarche age, emotion toward the first menstrual period, awareness about menarche before getting menses, sources of information about menses, and restrictions during menstruation.

Questions associated with attitude were scored based on

(KNOWLEDGE SCORING)

- Likert scale from 0 to 5, completely disagree to completely agree.
- Participants scored 0-57.5 points of attitude were defined as having negative attitude; whereas those scored 57.5-86.25 and  $\geq 86.25$  were adjudged as having mediocre (relatively positive) and positive attitude respectively.
- Questions related to knowledge and practices were have multiple options to choose and some other with yes or no.
- In scoring the students' knowledge and practice, an arbitrary scoring system were used. Each correct response was attract one point, whereas any wrong or don't know answer received no mark. Respondents scored 0-7.5 points under knowledge was determined as having poor knowledge; whereas those scored 7.5 to 11.25 and  $\geq 11.25$  was adjudged as having fair and good knowledge respectively. Similarly, those who was score 0 to 9 points, 9 to 13.5 points and  $\geq 13.5$  under practice were assigned as having poor, fair and good practice, respectively.

## **DATA ANALYSIS PROCEDURE**

The data collected was first transferred to SPSS spreadsheet. It was then be processed and statistical analysis was done using SPSS version 26 package. Demographic characteristics of the respondents/participants of the study were expressed in frequency and percentage. Mean  $\pm$  standard deviation was used due to Skew-ness of the information. Correlation was assessed between all independent variables and depended variables. Association of good knowledge, appropriate attitude and appropriate practices with emotion toward the first menstrual period, awareness about menarche before getting menses, sources of information about menses and restrictions during menstruation was assessed by Chi-square test. P value  $<0.05$  considered significant.

## Result of the Study

### BI-VARIATE ANALYSIS

Table No. 1

#### Menarche age \* type of school

Variable		Type of school		Total	
		Government school	Private school		
menarche age	8-10	Count	4	1	5
		% within type of school	3.3%	.8%	2.1%
	10-12	Count	27	21	48
		% within type of school	22.5%	17.5%	20.0%
	12-14	Count	79	85	164
		% within type of school	65.8%	70.8%	68.3%
	14-16	Count	10	13	23
		% within type of school	8.3%	10.8%	9.6%
Total		Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

#### Chi-Square Tests

Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.161 <sup>a</sup>	3	.367
Likelihood Ratio	3.291	3	.349
Linear-by-Linear Association	2.609	1	.106
N of Valid Cases	240		

“P” Value = 0.367, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.367 is greater than the level of significance. It means that there is no association between the health seeking behavior of Private and Govt. school students regarding Menarche age. There is no effect of menarche age on the type of school, but may be other factor effect this age group of students regarding health seeking behavior.

Table No. 2

**Emotion toward the first menstrual period \* type of school**

Variables			Type of school		Total
			Government school	Private school	
emotion toward the first menstrual period	Embarrassment	Count	25	6	31
		% within type of school	20.8%	5.0%	12.9%
	Anxiety	Count	41	50	91
		% within type of school	34.2%	41.7%	37.9%
	discomfort/fear	Count	29	20	49
		% within type of school	24.2%	16.7%	20.4%
	Comfortable	Count	25	20	45
		% within type of school	20.8%	16.7%	18.8%
	None	Count	0	24	24
		% within type of school	.0%	20.0%	10.0%
	Total	Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%



<b>Chi-Square Tests</b>			
Tests	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.744 <sup>a</sup>	4	.000
Likelihood Ratio	48.895	4	.000
Linear-by-Linear Association	15.139	1	.000
N of Valid Cases	240		

“P” Value = 0.000, Significance Level= 0.05, Degree of freedom (d.f) = 4

This table shows that the “P” Value 0.000 is less than the level of significance 0.05. It means that there is an association between the health seeking behavior of private and government students regarding Emotion toward the first menstrual period and the response toward menstrual period with healthy professional care.

Table No.3

**Awareness about menarche before getting menses \* type of school**

Variables		Type of school		Total	
		Government school	Private school		
awareness about menarche before getting menses	Yes	Count	43	62	105
		% within type of school	35.8%	51.7%	43.8%
	No	Count	77	58	135
		% within type of school	64.2%	48.3%	56.3%
Total		Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

Chi-Square Tests					
Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.112 <sup>a</sup>	1	.013		
Continuity Correction	5.486	1	.019		
Likelihood Ratio	6.140	1	.013		
Fisher's Exact Test				.019	.009
Linear-by-Linear Association	6.087	1	.014		
N of Valid Cases	240				

“P” Value = 0.013, Significance Level= 0.05, Degree of freedom (d.f) = 1

This table shows that the “P” Value 0.013 is less than the level of significance 0.05. It means that there is an association between the perception students about menstrual period and the type of school. The students of private and government were well aware about the first menses, menarche before its occurrence and the response toward menstrual precautions.

Table No.4

**Sources of information regarding menstrual \* type of school**

Variables		Type of school		Total	
		Government school	Private school		
sources of information regarding menstrual	Mother	Count	103	100	203
		% within type of school	85.8%	83.3%	84.6%
	elder female sibling	Count	6	7	13
		% within type of school	5.0%	5.8%	5.4%
	Friends	Count	11	8	19
		% within type of school	9.2%	6.7%	7.9%
	Other	Count	0	5	5
		% within type of school	.0%	4.2%	2.1%
	Total	Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

Chi-Square Tests			
Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.595 <sup>a</sup>	3	.133
Likelihood Ratio	7.528	3	.057
Linear-by-Linear Association	.623	1	.430
N of Valid Cases	240		

“P” Value = 0.133, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.133 is greater than the level of significance 0.05. It means that there is no association between the student’s source of information regarding menstrual period and the type of school. So, the type of school was not associated with the source of information regarding menstrual period and same source mothers for both types of school girls.

Table No.5

**Restrictions during menstruation \* type of school**

Variables		Type of school		Total	
		Government school	Private school		
restrictions during menstruation	Schooling	Count	41	17	58
		% within type of school	34.2%	14.2%	24.2%
	household work	Count	12	17	29
		% within type of school	10.0%	14.2%	12.1%
	physical activity/ playing	Count	12	26	38
		% within type of school	10.0%	21.7%	15.8%
	no restriction at all	Count	55	60	115
		% within type of school	45.8%	50.0%	47.9%
Total		Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

Chi-Square Tests			
Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.168 <sup>a</sup>	3	.001
Likelihood Ratio	16.601	3	.001
Linear-by-Linear Association	6.164	1	.013
N of Valid Cases	240		

“P” Value = 0.001, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.001 is less than the level of significance 0.05. It means that there is an association between the restrictions during menstruation about menstrual period and the type of school of students. The students of private schools were facing no restrictions during menses and mostly were regular during that periods in schools while girls of govt. school were facing restrictions in their regularity for schooling during menses but mostly girls had no restrictions during periods of menses.

Table No.6

## Perception about menstruation \* type of school

Variables			Type of school		Total
			Government school	Private school	
perception about menstruation	normal physical changes	Count	105	95	200
		% within type of school	87.5%	79.2%	83.3%
	Disease	Count	5	13	18
		% within type of school	4.2%	10.8%	7.5%
	Abnormality	Count	10	12	22
		% within type of school	8.3%	10.0%	9.2%
Total		Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%



Chi-Square Tests			
Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.237 <sup>a</sup>	2	.120
Likelihood Ratio	4.365	2	.113
Linear-by-Linear Association	1.594	1	.207
N of Valid Cases	240		

“P” Value = 0.120, Significance Level= 0.05, Degree of freedom (d.f) = 2

This table shows that the “P” Value 0.120 is greater than the level of significance 0.05. It means that there is no association between the Perception about menstruation about menstrual period and the type of school of students. The perception of private and government students was positively associated with the health care precautions during menstrual period and perceived menstruation as a normal physiological phenomenon.

Table No.7

## Duration of normal menstrual period \* type of school

Crosstab					
Variables			Type of school		Total
			Government school	Private school	
duration of normal menstrual period	1 to 3 days	Count	5	18	23
		% within type of school	4.2%	15.0%	9.6%
	3 to 6 days	Count	26	52	78
		% within type of school	21.7%	43.3%	32.5%
	6 to 9 days	Count	87	48	135
		% within type of school	72.5%	40.0%	56.3%
	more than 9 days	Count	2	2	4
		% within type of school	1.7%	1.7%	1.7%
Total		Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

Chi-Square Tests			
Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.281 <sup>a</sup>	3	.000
Likelihood Ratio	28.063	3	.000
Linear-by-Linear Association	23.620	1	.000
N of Valid Cases	240		

“P” Value = 0.000, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.000 is less than the level of significance 0.05. It means that there is an association between the response of the normal menstrual period and the type of school of students that was 06-09 days. The knowledge of private and government students was positively associated with the health care precautions during menstrual period.

Table No.8

**How frequently should they occur? \* Type of school**

<b>Crosstab</b>					
Variables			Type of school		Total
			Government school	Private school	
how frequently should they occur?	Weekly	Count	20	0	20
		% within type of school	16.7%	.0%	8.3%
	after every 15 days	Count	19	0	19
		% within type of school	15.8%	.0%	7.9%
	Monthly	Count	81	120	201
		% within type of school	67.5%	100.0%	83.8%
Total	Count	120	120	240	
	% within type of school	100.0%	100.0%	100.0%	

<b>Chi-Square Tests</b>			
Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.567 <sup>a</sup>	2	.000
Likelihood Ratio	61.681	2	.000
Linear-by-Linear Association	41.026	1	.000
N of Valid Cases	240		

“P” Value = 0.000, Significance Level= 0.05, Degree of freedom (d.f) = 2

This table shows that the “P” Value 0.000 is less than the level of significance 0.05. It means that there is an association between the response of the frequency of menstrual period in adolescent and the type of school of students. The knowledge of private and government students were positively associated with the health care precautions during menstrual period.

Table No.9

Which is the best sanitary product? \* type of school

Crosstab					
Variables		Type of school		Total	
		Government school	Private school		
which is the best sanitary product?	Cloth	Count	30	15	45
		% within type of school	25.0%	12.5%	18.8%
	cotton pads	Count	12	11	23
		% within type of school	10.0%	9.2%	9.6%
	always pads	Count	73	93	166
		% within type of school	60.8%	77.5%	69.2%
	Other	Count	5	1	6
		% within type of school	4.2%	.8%	2.5%
	Total	Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%

Chi-Square Tests			
Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.120 <sup>a</sup>	3	.018
Likelihood Ratio	10.467	3	.015
Linear-by-Linear Association	4.501	1	.034
N of Valid Cases	240		

“P” Value = 0.018, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.000 is less than the level of significance 0.05. It means that there is an association between the response of the usage of sanitary products in menstrual period and the type of school of students. The knowledge of private and government students were positively associated with the usage of sanitary products during menstrual period.

Table No. 10

## Celebration at menarche \* type of school

Crosstab					
Variables		Type of school		Total	
		Government school	Private school		
celebration at menarche	Thankful to God	Count	45	26	71
		% within type of school	37.5%	21.7%	29.6%
	Worried	Count	60	63	123
		% within type of school	50.0%	52.5%	51.3%
	Happy	Count	7	3	10
		% within type of school	5.8%	2.5%	4.2%
	Other	Count	8	28	36
		% within type of school	6.7%	23.3%	15.0%
	Total	Count	120	120	240
		% within type of school	100.0%	100.0%	100.0%



<b>Chi-Square Tests</b>			
Test	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.869 <sup>a</sup>	3	.000
Likelihood Ratio	18.634	3	.000
Linear-by-Linear Association	13.418	1	.000
N of Valid Cases	240		

“P” Value = 0.000, Significance Level= 0.05, Degree of freedom (d.f) = 3

This table shows that the “P” Value 0.000 is less than the level of significance 0.05. It means that there is an association between the celebration during menstrual period in adolescent girls and their type of school. The perception of private and government students were positively associated with the response during their first menstrual period.

### **Discussion**

The major focus of the present study was to investigate the Health Seeking Behavior, Perceptions and Experiences Regarding Menarche and Menstruation Amongst Pakistani Adolescent Girls Attending Public Versus Private Schools. The objective of the study was to compare the Health Seeking Behavior (HSB) regarding menarche and menstruation amongst adolescent girls of public versus private schools and to compare the Perception and Experiences regarding menarche and menstruation amongst adolescent girls of public versus private schools. The present study was quantitative in nature and conducted in district Layyah. For the collection of the data, a sample of 240 respondents was taken from the public and Private schools of the Layyah by using the Purposive sampling technique.

A well-structured questionnaire was used for the collection of the data. Data was carefully coded and analyzed by using the SPSS version 26. However, findings of the chi-square test found a significant association between Health Seeking Behavior and Perception regarding menarche and menstruation among adolescent girls of public and private school. And another hypothesis regarding Health seeking and Experience, the result shows that there is an association between Health Seeking Behavior and experiences in Public schools. But in private schools’ hypothesis results show that there is no association between Health Seeking Behavior of Private sector schools and Experiences regarding menarche and menstruation among adolescent girls. The researcher concludes that the adolescent girls of public sector are more aware regarding menarche.

During this research different socio-demographic factors have impact on this comparison by different ways. As in this comparative study 50% respondents were from public schools and 50% respondents were of private school students. As this study revealed the Health Seeking Behavior in comparison about their thinking about menarche and menstruation, it is beneficial to participate equally from public and private schools of a developing country like Pakistan. The majority 61.7% of the respondents were of age group 14-16 years while 23.3% of respondents were from age group 12-14years and

15.0% were from 16-18 years. It was supportive for poking into depth of consciousness, knowledge and experiences of the age group of girls after menarche with their practices sharing with researcher. This finding was consistent with study conducted previously with respondents of age group 13-16 years. That study was also doing comparison of knowledge of young girls in urban and rural areas. As knowledge level of that age group was responsive to interviewer during the research. That the majority, 30.4% of the respondent's mothers were illiterate, while 20.4% of respondents' mothers' education was up to grade 5, 14.6% of respondents mothers were intermediate, 10.4% mothers' education was up to grade 10, 9.2% respondents' mothers were post graduate, 8.8% of the respondents mothers education was up to grade 8 and 6.3% of respondents mothers were undergraduate. Most of the mothers of public school girls' students were illiterate due to resident of rural areas. It shows the social restrictions of education limitations for girls' education. This impact reflected the very less number of girls to attend school in that community and main reason for lack of knowledge about health especially reproductive health of young girls. The similar results showed in a previous study with the poor literacy and the socioeconomic status of females in the community serve as an inhibition to impart the significance, and a healthy attitude towards menstruation, as well as the teaching of hygienic practices in regards to it. Same resemblance of sequences seen in a different study a As the mean age of menarche was 13.2 years. 32.5% girls were oblivious to what menstruation was before menarche. Surprisingly, in this study, contrary to every other study, the mother was the first informant only for 37.5% of the girls. Other studies have also indicated that the primary sources of a girl's information regarding menstruation are the mother and schoolteacher. A likely reason could be the poor literacy and socio-economic status of mothers, discouraging them from speaking to their daughters about menstruation. Lack of education in young school girls were directly related to education level of mothers. By the results of this study, 19.2% of the respondent's fathers' education was up to grade 10, while 18.3% of respondents fathers were post graduate, 15.4% of respondent's fathers were illiterate, 15.0% fathers education was up to grade 8, 14.2% respondents' fathers were intermediate, 10.8% of the respondents' father's education was up to grade 5 and 7.1% of respondents fathers were undergraduate. It was very sensitive span of an adolescent s life and sympathy of both parents played very important role in it. Mother is as first informer for girls on initiation of menstruation. Due to cultural setups and restrictions fathers were unaware of all these events happened in their daughter s life.

Literacy level of parents especially father also played very important part in health education of young girls. But the percentage of fathers' good education level was not appropriate in that area. In this study the profession of mothers of respondents was mostly house wives. Majority, 81.7% of the respondents' mothers were house wives, 6.3% of the respondents' mothers were in education department, 6.3% of the respondents' mothers are in health department and 5.8% of respondents' mothers in other professions. The previous study showed relation of expression of mothers with relax attitude in life were more comfortable as in educated house wives as compare to working mothers. But status and level of knowledge of young school girls was much improved in case of mothers of health profession. Related to menstruation unintentionally, mothers gave the impression to be entertaining their daughters to preserve the menstruation unthinkable that they suffered themselves, thus restating the series of embarrassment.

By the question about birth order of respondents was considered important in assessing knowledge and practices of young girls about menstruation. By this study, 32.1% of the respondents were fourth in birth order while 26.7% of the respondents were first in birth order, 21.3% of the respondents were second and 20.0% of the respondents were third in birth order. It showed that majority, 43.8% of the respondents were at fifth place in the birth order in their sisters while 27.9% of the respondents were second, 17.5% were at third and 10.8 % were at fourth place in their birth order. These factors were important in assessment of concept, attitude and practices of respondents towards menstruation. This study was consistent with a previous study where education of mother and females in family played crucial and very supportive role in maintaining health education level of young girls. Awareness about menstruation was adequate in most of school girls 60.4%. Mostly girls had positive attitude towards menstruation and its other different stages. Mother's education was important factor in efficiency of practices for menstruation and knowledge about menstruation. Education of mother and family members was playing vital role in attitude and hygienic practices in menstruating cycles in young girls. Health education was important for somatic and psychological health improvement of young girls.

This study showed no significant association between a natural factor of age of menarche in respondents from public and private schools because of similar cultural and social area from where respondents belong. As a result of this study mean age of menarche was 12-14 years ,65.8% in public school respondents and 70.8% in private school respondents. The same results imparted by a previous study in which the mean age of menarche was 13.2 years. 32.5% girls were oblivious to what menstruation was before menarche. Surprisingly, in this study, contrary to every other study. Most of respondents of this research belong to people of more than 5 people per family 70.4% showed highly populated community and combined family system of residence in developing countries. The study reflecting the sequence of birth order of respondents with significance of factor of birth order in sisters in respondents, as mostly are first in sisters 43.8% and some are second in sisters 27.9%. By this information it is very helpful in assessing knowledge and experiences as elder one in family. The study reflected the impression of more embracement in girls respondents of public school 20.8% as compare to respondent girls of private school 5.0% only .It is showing the response of girls from low socioeconomic and over populated areas that are rural mostly in comparison with response of girls of private school ,means girls from educated and relatively better socioeconomic areas as urban .This finding is strengthened by study In young girls in comparison of urban and rural school girls by their knowledge about menstruation about 70% of urban and 40% of rural tribal adolescent girls were conscious about their cyclic change in menstruation.

The research showed an association between awareness about menarche in respondents. This showed that girls in private schools are more aware about menarche 51.7% than girls of public schools 35.8% only. This is supported by study in India in schools in urban and rural areas, knowledge and awareness of urban were 67.6% as compared to girls of rural areas 51.2% only. This study reflecting no change about source of information which was mother in almost equal respondents of study. Main source of information for both public and private schools was mother 85.8% public and 83.8% in private as resembled with study. The results of attitude toward restriction has no association between public and private school girls respondents. While this study delivering concern of young girls

about first consultation during problem in menstruation is well improved and with mostly mothers in private school girls 81.7% as compare to girls in public school who do first consultation with their sisters 25.5% .This concept has resemblance with other previous studies.

Mostly respondents having no treatment about any problem during menstruation 89.2% in public schools and 50% in private school respondents. As consistent with previous studies in developing countries, because of different factors like lack of education, lack of health facilities and miss-concepts and myths about girls to take treatment during menstruation. Study is showing a major number of girls' preference for doctor to consult during menstruation is female doctors 100% in private girls' respondents and 82.5% in public school respondents having similarity with previous studies in consultation with female and private clinic doctor to solve their menses related issues. In this comparative study in public and private school girls there is no association about perception as most of respondents of private schools are well aware about occurrence of menstruation as normal physical phenomenon in females' life that is 87.5% in public and 79.2% in private school respondents. It is imparting good knowledge about occurrence of menstruation as a natural event consistent with other studies.

There is strong association among awareness about right age at menarche in private school respondents and public school respondents. It shows mostly are confident with mean age of menarche is 12-14 years as supported by previous studies. Understanding of young school girls about menstruation as normal physiological process occurred only in females at the age of 11-13 years is well improved in urban areas (Mushtaque, 2022). Prevalence of PTSD symptoms in children: The cost of the inadequate mental health system in Pakistan. Most of the respondents are well known about occurrence of menstruation is only in females and is equal status of knowledge in both set ups of study. Like other studies previously reflected. There is reflection of consciousness of respondents of public school is consistent with 6-9 days 72.5% and private school is with 3-6 days 43.3% mostly. Knowledge of respondents about frequency of occurrence in cyclic pattern is well developed in private school respondents with 100% and lack of accurate knowledge in public school respondents with 67.5% only. Other studies also support this concept of cyclic regularity of menstruation on monthly basis. Different experiences about menarche and menstruation are shared in this study in private versus public school girls. It reflected the impression of restrictions during menstruation in different community setups, illustrated well aware status of both public and private respondents that is no restrictions in private respondents is 45.5% and with good confidence of private respondents with 50%. There was previous supporting study showed same impression (Zhao, Awais-E-Yazdan, Mushtaque & Deng, 2022).

In sequence of results of this study there is well established knowledge and availability of standard sanitary pads 77.5% in private school respondents and less developed sense in public school respondents 60.8%. The lack of education and resources in less developed countries with limited economic support are main reasons. A large number of school girls from private school (76%) were using sanitary pads as compared to girls in government schools (59%), according to previous study. 64% urban and 45% rural girls used sanitary pads during menstruation. The level of knowledge about material used and number cloths changing per day is good in private school respondents with 77.5% and 23% respectively

according to standards due to adequate counseling and health education while less developed sense in public respondents 20.8% and 36.7% respectively. It is all due to lack of facilities and education about sensitivity of use of clean sanitary pads as reflected by previous studies. There is little knowledge about the record odd date in both public and private and public school respondents because of less knowledge and health education about importance of regularity of menstrual cycle in young girls as prevention of future reproductive health related issues like infertility and reproductive tract diseases.

In this study, the main impression of incidence of absenteeism from school of young girls is marked more in public school respondents 47.5% as compared to private school respondents 12.5% only. Other studies also showed same type of result in girls from rural and urban areas of country. This study imparts proper consciousness about disease and morbidities related to menstruation in public versus private school respondents, there is difference of well-established knowledge of private school respondents in comparison with public school respondents. Many menstrual abnormalities are related to reproductive tract morbidities in future with ignorance of all these. Improved knowledge of private school respondents is due to proper health education by mothers, schools and media as well. Following concept of good knowledge in different already done researches on this subject of adequate awareness about menstruation related morbidities (Mushtaque, et al. 2021).

### **Conclusion**

It is seen that behavior, perception and experiences of private school girls is well established and with good and appropriate knowledge as compare to girls' public school girls. There is need for proper health education sessions in school on regular basis to improve awareness and knowledge of young school girls. Improvement in consciousness of young girls would help to improve millennium development goals related to woman and reproduction. Good health education sessions in community will also improve as a whole health of females and especially girls which is ignored a lot in under developed countries.

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