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Research Article

### SEX AND USE OF CONTRACEPTIVE TECHNIQUES AMONG ADULT UNMARRIED UNIVERSITY STUDENTS OF LAHORE, PAKISTAN

<sup>1</sup>Dr Ahmad Abdullah, <sup>2</sup>Dr Muhammad Saed Akhtar, <sup>3</sup>Dr Muhammad Tayyab  
Saleem

<sup>1</sup>DHQ Hospital DG Khan, <sup>2</sup>Medical Officer, PHFMC, <sup>3</sup>Faisalabad Medical University.

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**Abstract:**

**Objective:** The rise in the proportion of sex activities in adults & deficit usage of the suitable contraceptive procedures has increased the unintended pregnancy among teenage girls, abortion & STI (Sexually Transmitted among the adults of our country, Pakistan. The research work carried out to investigate the sexual activities & usage of the contraceptive methods among adult unmarried university students.

**Methodology:** This was a transverse eloquent research work. This research work carried out with the utilization of the anonymized, self-organized questionnaire with adults who were the students in various universities of Lahore, city of Pakistan. We selected 6 different universities randomly. The recruitment of the nine hundred and sixty students carried out with the utilization of the PPS (Probability Proportional to Size) method of sampling. We included total 850 students in this analysis, remaining students were available without complete data. We used the descriptive statistics for the description of the findings.

**Results:** Out of total 850 students, 12.40% students were from universities having health faculty & remaining students were from other universities. Sixteen percent (n: 135) students stated that they had experienced sex. The average age at the time of their first exposure to sex was 17.90 years (17.60 years for female students & 18.10 years for male students). The usage of contraceptive was high (greater than 75.0%) & it was higher when students had sex with their irregular partners (greater than 90.0%). Among these students, about 50.0% were using contraception regularly and most frequent utilized method was the use of male condom. The most common reasons for no usage of contraception regularly were no knowledge about contraceptive procedures, accidental sex, involuntary sex, reluctance to utilize contraception by partner & fear from the side effects of the contraceptive methods. High amount of the universities students with good knowledge of contraceptive & STI

& those students who were present with highly permissive behaviors towards males & female's sex before marriage were using contraception very regularly. Approximately, 11.0% students or their sex partners who experiences sex in past, were available with the pregnancy's experience and total ten out of 12 pregnancies were available as unintended and nine pregnancies ended with abortions.

**Conclusion:** The results of this research study showed the requirement for the improvement about the knowledge of contraception & STI among adult unmarried students to promote the regular use of contraceptive and to prevent the unintended pregnancy, miscarriage & STI.

**Keywords:** Contraceptive, STI, unmarried, improvement, prevention, methodology.

**Corresponding author:**

**Dr. Ahmad Abdullah,**  
DHQ Hospital DG Khan.

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**INTRODUCTION:**

There is an increase in the sexual activity among adults in the whole world. Various research works have showed that sexual activity is happening at very young age in current generation as compared to the old generation [1, 2]. Teenagers have improper knowledge about reproduction, very deficient awareness and access to the methods of contraception, causing less usage of contraceptive [3], leading to a high rate of unintended pregnancy as well as abortion. The pregnancy among adolescent is very important issue of public health in the whole world. Approximately, one million girls in their teen age got pregnancy each year. About 78.0% pregnancies of adolescent are unintended, responsible for 1/4<sup>th</sup> of all unwanted pregnancies every year [4]. Pregnancy at early stage of life is very harmful for the health of female.

The danger of death due to complications of pregnancy for teenage mothers is two times greater than the mature mothers [5]. There are high social & economical implications on the society, teenage mothers, their babies and their families due to unintended pregnancy in early age [6]. In Pakistan, the fertility rate of adolescent has increased two times within eight years from 17/1000 live births in the year of 2007 [7] to 36/1000 live births in the year of 2015 [8]. This is the result of deficit use of the contraceptives. The rate of the females who experience induced abortion was very high in the age group having 15-19 years of age, making 11.40% of the total pregnancy rate in the whole age group [9]. Family & Youth survey of 2004 stated that 32.0% young males and 45.0% young females (from 15 to 24 years of age) said that they had faced the complications of STI like pain during urination, itching on sex organs and pain in abdomen [10]. In accordance with the FRHS (Fertility & Reproductive Health Survey) of 2007, there was 2<sup>nd</sup> highest rate of abortions (9.0%) in the females available with university qualification after adolescents in their married life (11.4%) [9].

**METHODOLOGY:**

This was a transverse eloquent research work carried out with the utilization of the anonymized, self-organized questionnaire to gather the data from the adolescent students of various universities having 16 to 19 year of age. This research study started in August 2017 and lasted up to September 2018. This research study carried out in various universities situated in Lahore, city of Pakistan. We randomly selected 3

health and 3 nonhealth universities. We used the PPS sampling method to select the nine hundred and sixty students from all six universities. We used stratified sampling technique for the selection of the students from each age group. R statistical V.2.11.1 was in use for the calculation of the sample size.

Supposing the amount of the students who have experience of sex to be 50.0% as the secure choice as there was no information about the amount of the students who had experiences sex in this selected population; CI (Confidence Interval as 95.0%; delta as 0.050; probable missing values as 20.0%; design impact as 2 because of the multi-stage nature of method of sampling, the lowest needed size of sample was 922. The recruitment of nine hundred and sixty students carried out in this research study from all selected universities. We performed the analysis with eight hundred and fifty students due to exclusion of remaining students due to missing values. This research work focused on one hundred and thirty five unmarried students of universities who were available with the sex experience.

The questionnaire contained the question about contraception knowledge, awareness about STI, behavior regarding sex before marriage and usage of contraceptives during sex. There were an important proportion of questions about every category to assess the complete data about that factor. We used eight questions to evaluate the behavior of the students towards sex before marriage. Data entry carried out with the usage of Epi- Data 3.02. SPSS V.20 was in use for the descriptive analysis of the collected information. Ethical committee of the medical research department of Pakistan and ethic committee of World Health Organization gave the approval to conduct this research study. We took the verbal consent from every participant before their recruitment in this research work to ensure the confidentiality.

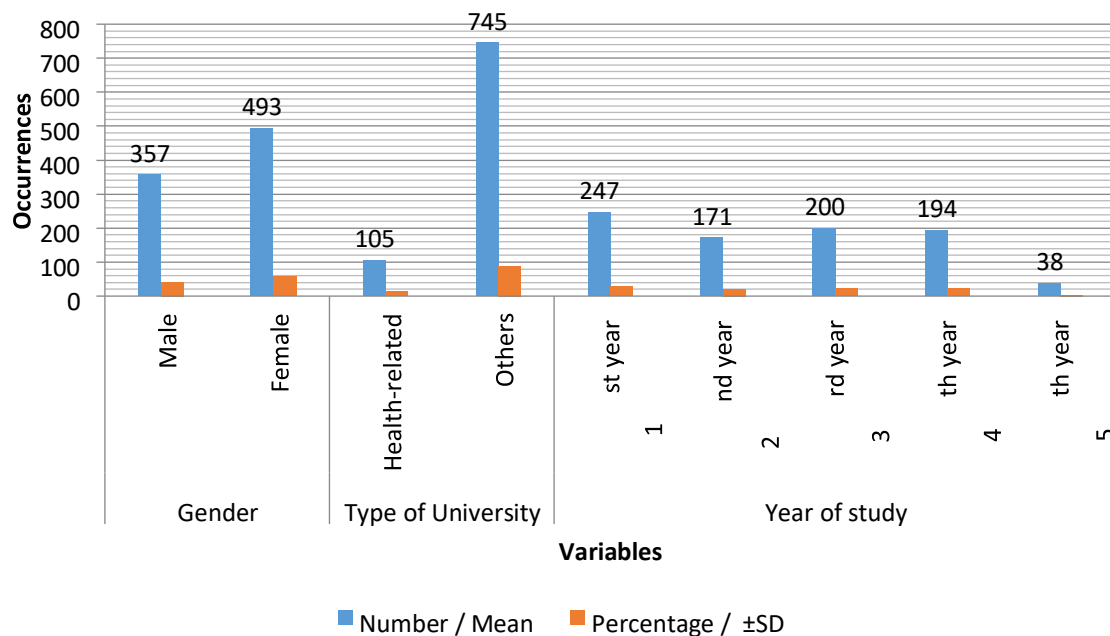
**RESULTS:**

The average age of the participants of this research study was 18.30 years and male participants outnumbered the female participants. Out of total 850 subjects, 12.40% students were from health universities and remaining 87.60% students were from other universities. About a quarter of respondents got recruitment from every academic session except the 5<sup>th</sup> year which only 4.50% respondents were the part of this research work (Table-1).

**Table 1: Participants' characteristics**

Variables		Number / Mean	Percentage / $\pm$ SD
Age	(Range 16 - 20)	18.31	$\pm$ 1.24
Gender	Male	357	42.0
	Female	493	58.0
Type of University	Health-related	105	12.4
	Others	745	87.6
Year of study	1st year	247	29.1
	2nd year	171	20.1
	3rd year	200	23.5
	4th year	194	22.8
	5th year	38	4.5

### Participants' Characteristics (Age 16-20 Years)



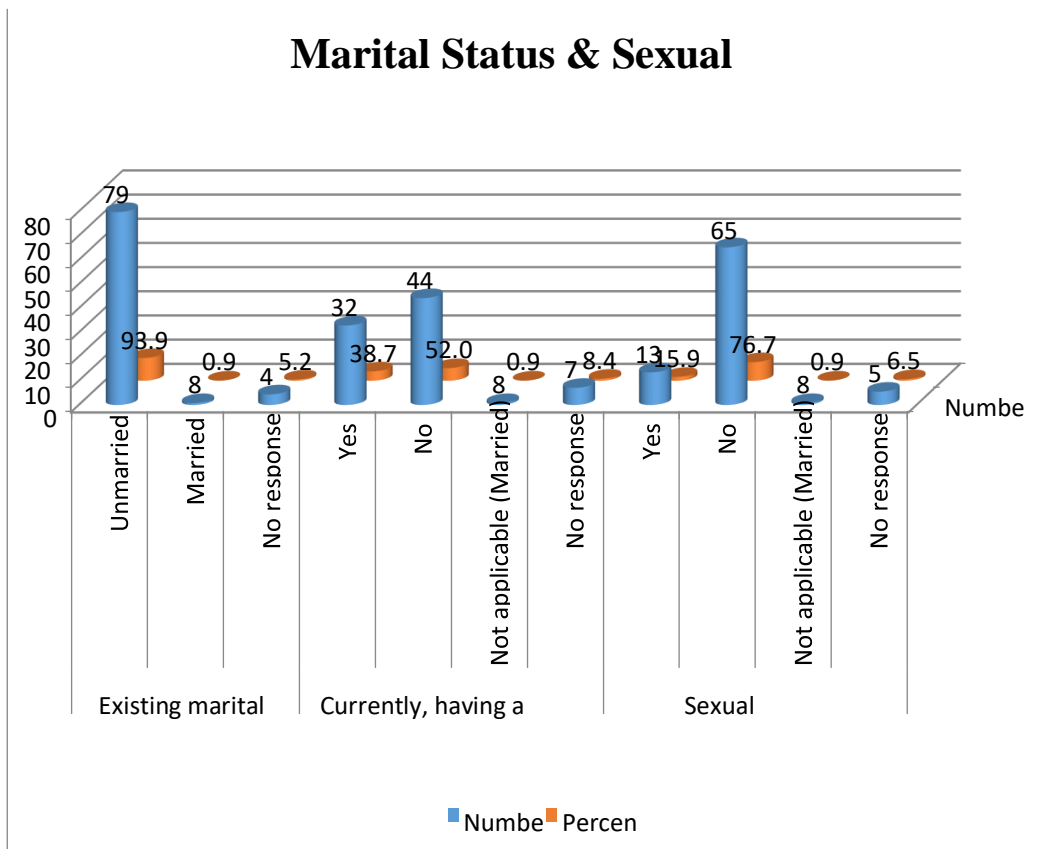
Among total students 93.90% were not married & 38.70% students were available with a boyfriend or girlfriend. We discovered that total 143 students experienced sex in their life, 135 without marriage &

eight married respondents. Among unmarried adults, 16.0% (n: 135) had experienced sex in which 63.70% were male students and 36.30% were female students (Table-2).

**Table 2: Marital status and sexual experiences among the participants (n= 850)**

Variable	Number	Percent
Existing marital status	Unmarried	798
	Married	8
	No response	44
Currently, having a boy/girlfriend	Yes	329

	No	442	52.00
	Not applicable (Married)	8	0.90
	No response	71	8.40
<b>Sexual Experience</b>	Yes	135	15.90
	No	652	76.70
	Not applicable (Married)	8	0.90
	No response	55	6.50



The mean age of first sexual exposure among respondents was 17.9 years. The mean age of first sexual exposure among girls was 0.5 years younger than boys (17.6 years for girls and 18.1 years for boys). The youngest age at first sexual exposure was 7 years for girls and 15 years for boys. The mean age of the person with whom they had sex (19.2 years) was generally 1.3 years older than the respondents. Among the students who could not provide the exact information about age of that person, more than half of their first sexual partners were older than the respondents; one-tenth of students had sex with

younger persons for the first time, and about one-fifth were likely to be the same age with the respondents.

There were 75.40% cases of fist experience of sex with their partners, 4.80% had sex with fiancé. Ten percent had sex with the persons with whom they were not in relationship. Some students (9.50%) were available with the experience of sex with sex workers for the very first time in their life. About 1/3<sup>rd</sup> students willingly had sexual experience (Table-3). Total 76.20% students used various methods of contraception. Most Common used method of

contraception was male condom (58.30%) followed by emergency pills (17.70%) & contraceptive pills with 15.60. About 50.0% students also desired to prevent HIV & other sex related infections. Other students, who did not use contraceptives due to unawareness

about the methods of contraception, fear from its side effects & they had no access to those methods.

The percentage of the sex partners whether they were casual partners, regular partners or commercial sex workers (CSW) is available in Figure-1.

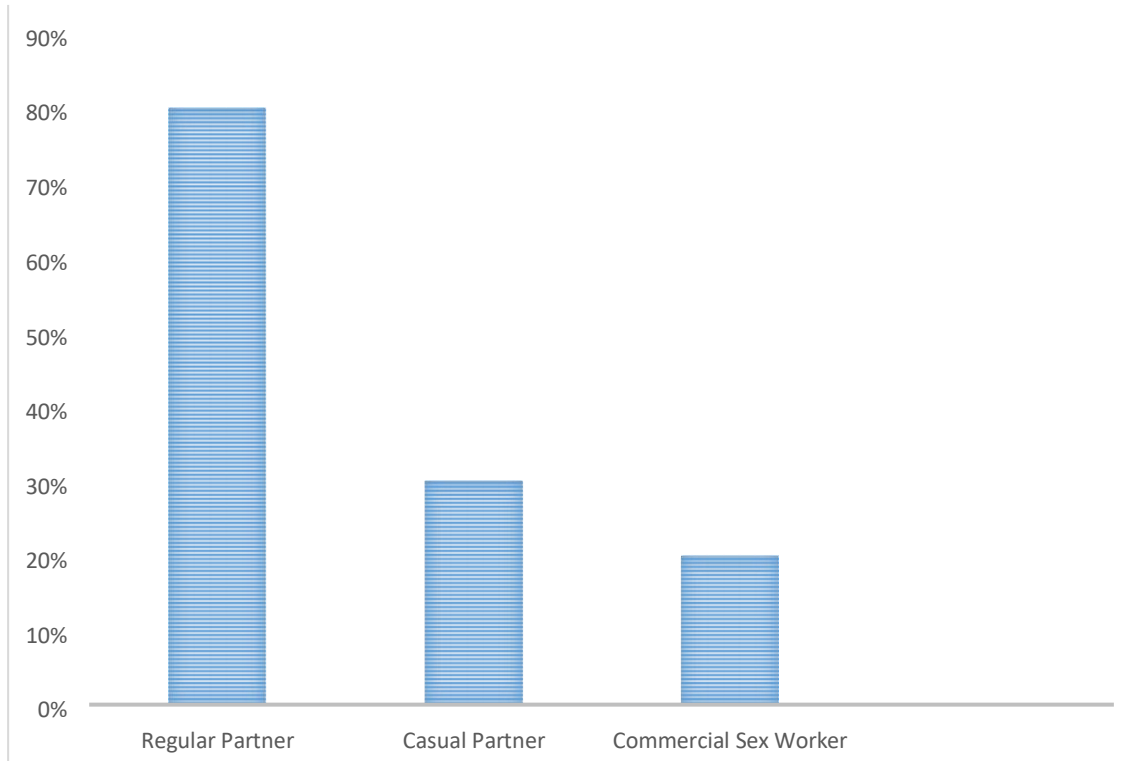


Figure 1: Sexual experience of adolescent students with different types of partners

Consistency of the use of contraceptives with various types of the sex partners is available in Figure-2 with percentage of usage.

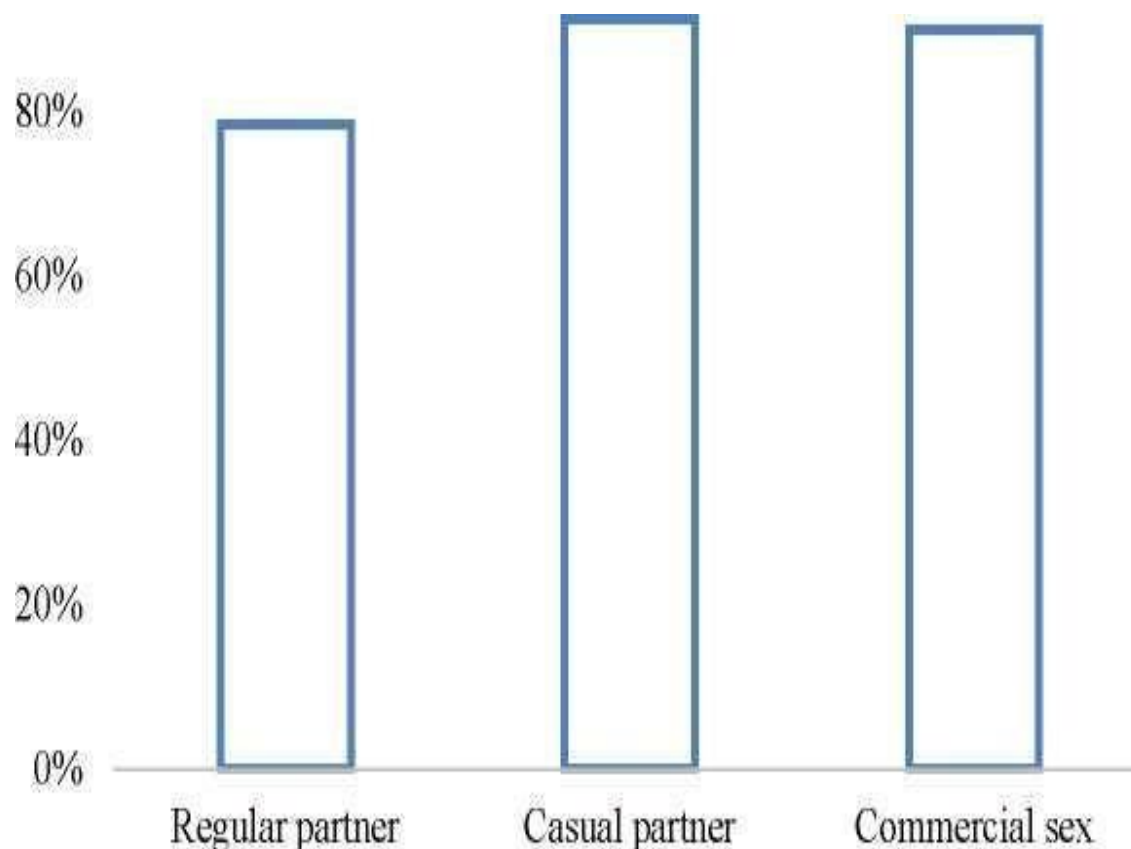


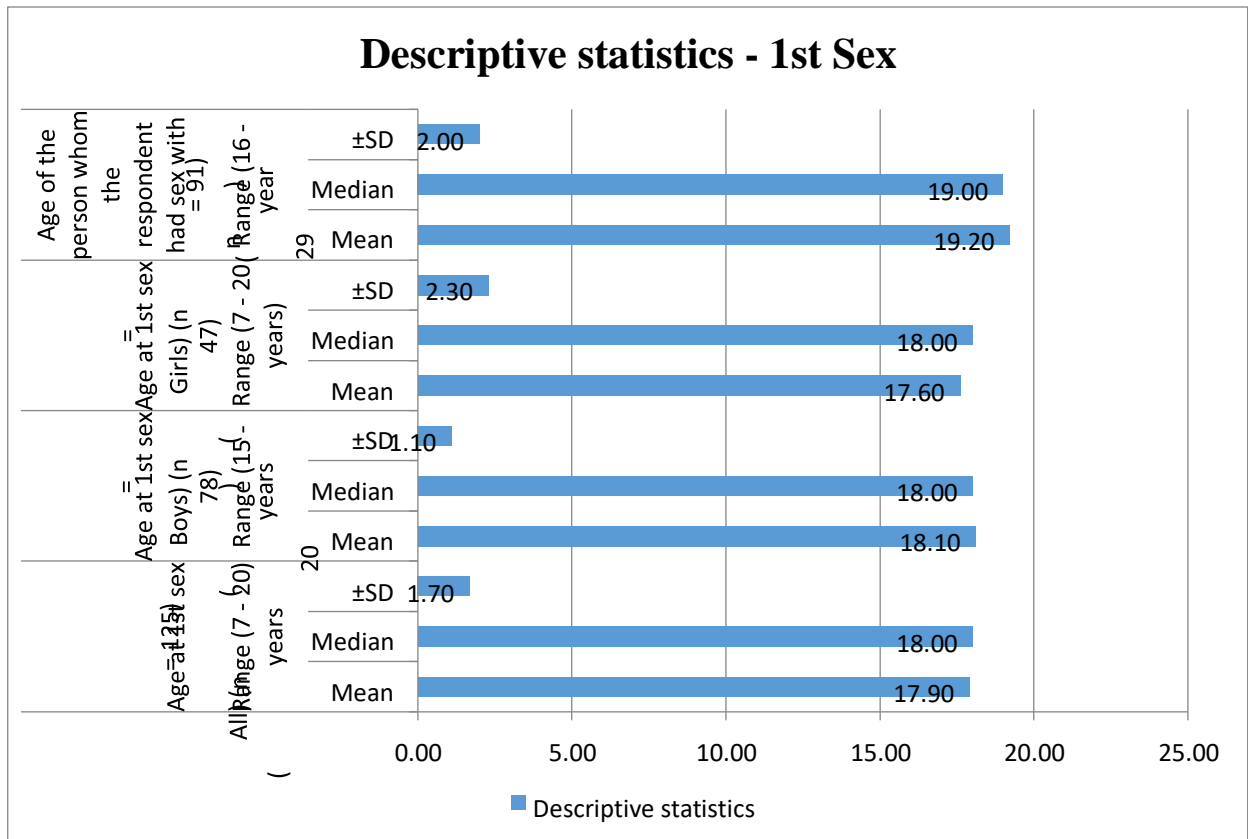
Figure 2: Consistency of contraceptive use with different types of sexual partner

The detail of the first sexual experience of the students is available in Table-3 (A & B).

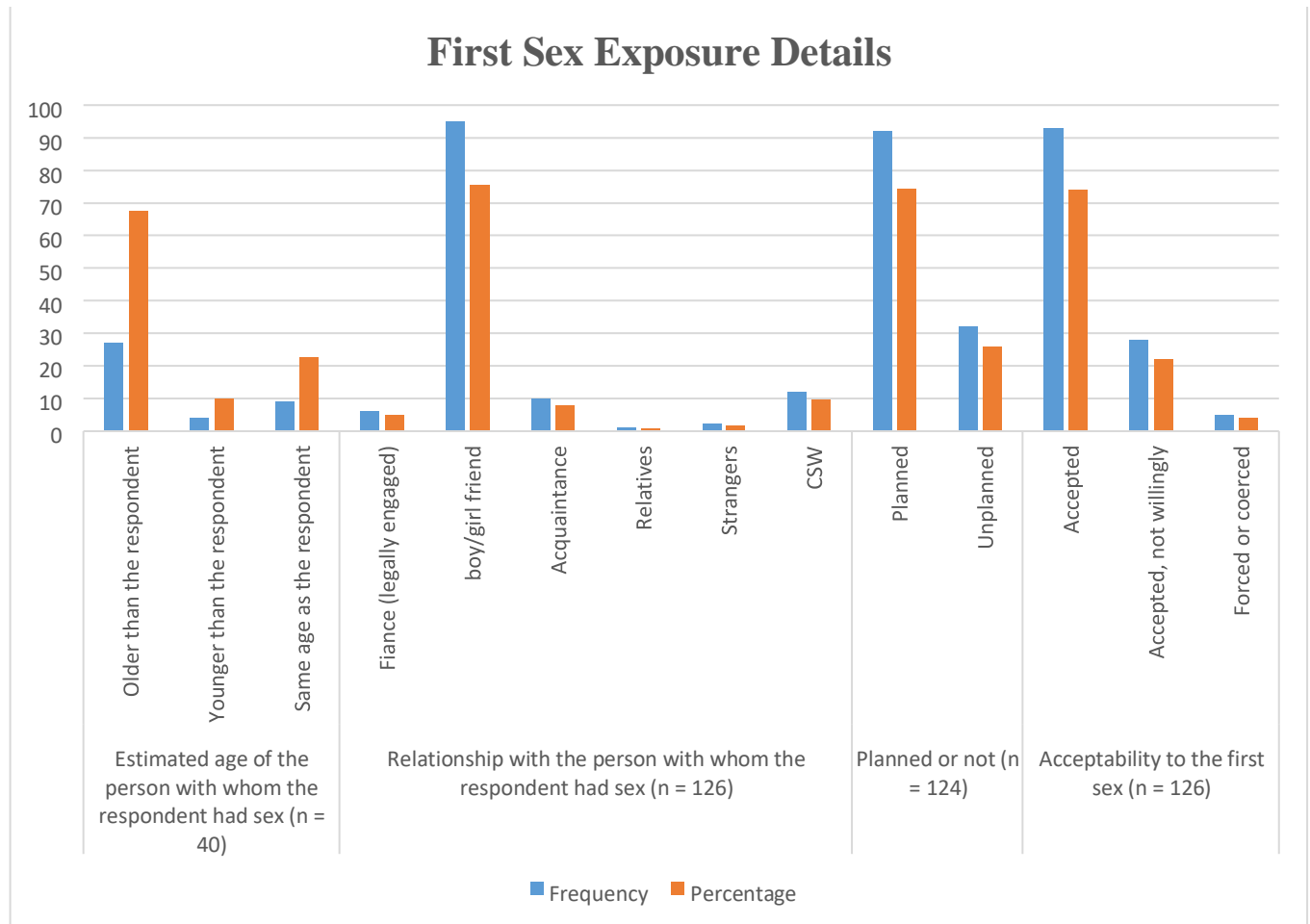
**Table 3A: First sexual experience of the respondents.**

Variable	Descriptive statistics	
Age at 1st sex (All) (n = 125) Range (7 - 20) years	Mean	17.90
	Median	18.00
	±SD	1.70
Age at 1st sex (Boys) (n = 78) Range (15 - 20) years	Mean	18.10
	Median	18.00
	±SD	1.10
Age at 1st sex (Girls) (n = 47) Range (7 - 20) years	Mean	17.60
	Median	18.00
	±SD	2.30
Age of the person whom the respondent had sex with (n = 91) Range (16 - 29) year	Mean	19.20
	Median	19.00
	±SD	2.00

Note: "n" is the number of students who responded the question.

**Table 3B: First sexual experience of the respondents (continued).**

Variables	Frequency	Percentage	
Estimated age of the person with whom the respondent had sex (n = 40)	Older than the respondent	27	67.50
	Younger than the respondent	4	10.00
	Same age as the respondent	9	22.50
Relationship with the person with whom the respondent had sex (n = 126)	Fiance (legally engaged)	6	4.80
	boy/girl friend	95	75.40
	Acquaintance	10	7.90
	Relatives	1	0.80
	Strangers	2	1.60
	CSW	12	9.50
Planned or not (n = 124)	Planned	92	74.20
	Unplanned	32	25.80
Acceptability to the first sex (n = 126)	Accepted	93	73.80
	Accepted, not willingly	28	22.20
	Forced or coerced	5	4.00



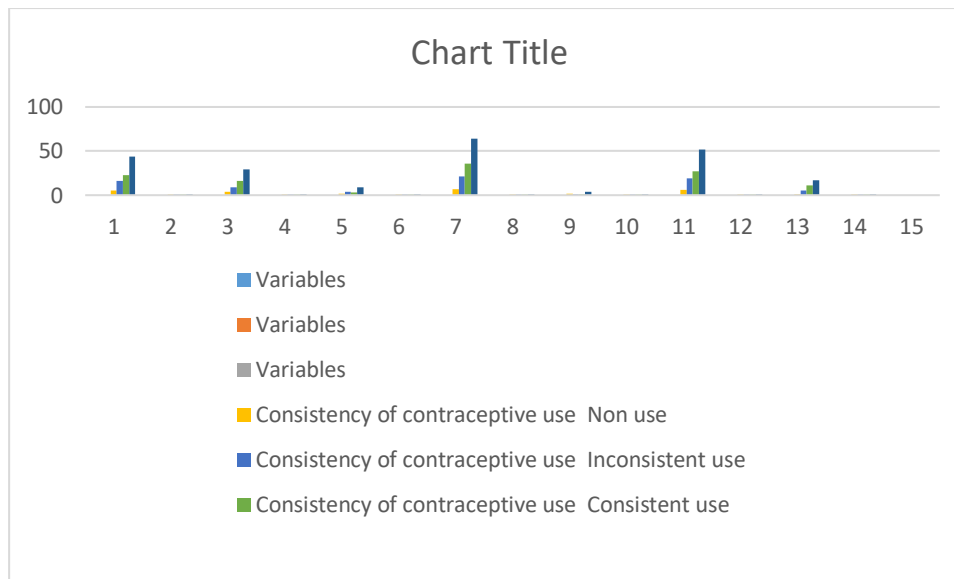
Detail of different variables about the consistency of the usage of contraceptives as gender of students, type of university, awareness about contraception, consistency in the utilization of contraceptives attitude of both genders towards sex before marriage is

available in Table-4 (A, B & C) with the percentage of the students. Total twelve students got pregnancy from their partners in which 10 pregnancies were without intention. 9 out of 10 pregnancies finished with abortions.

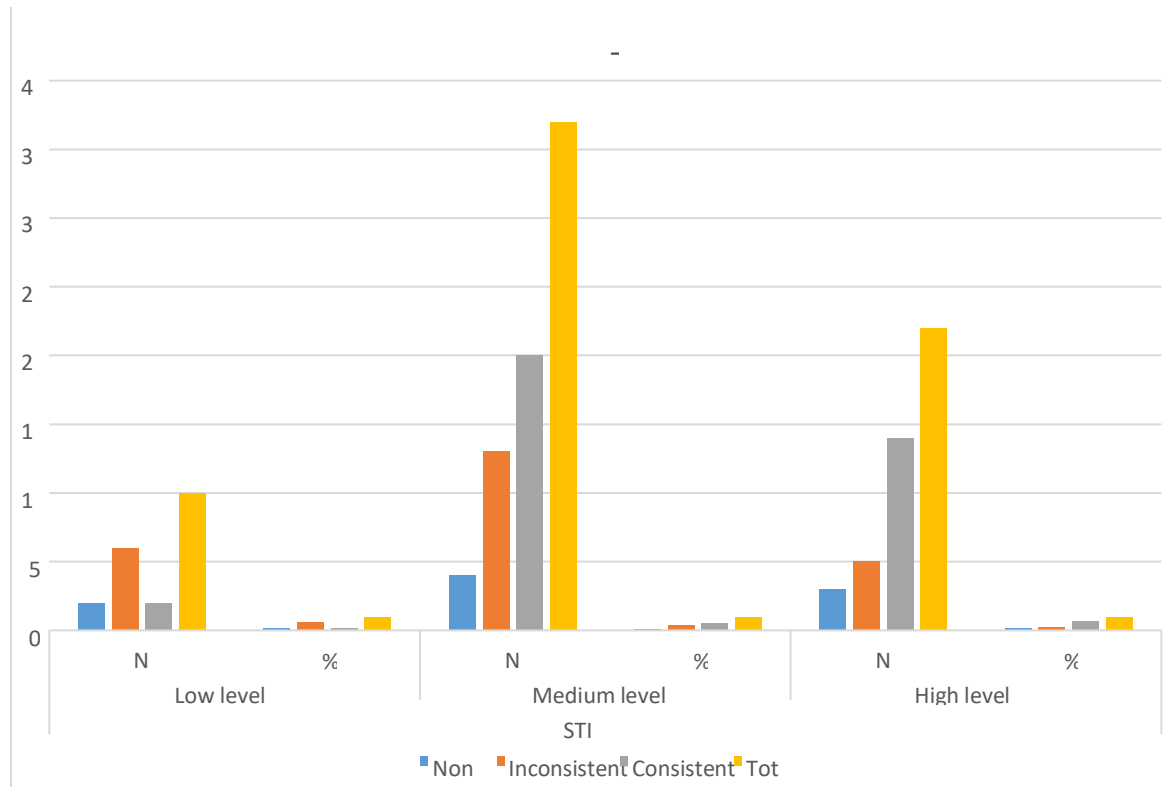


**Table 4A: Consistency of contraceptive use with regular partner.**

Variables		Gender				Types of university				Contraceptive knowledge					
		Male		Female		Health-related universities		Other universities		Low		Medium		High	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
Consistency of contraceptive use	Non use	5	11.400%	4	13.800%	2	22.200%	7	10.900%	2	50.000%	6	11.500%	1	5.900%
	Inconsistent use	16	36.400%	9	31.000%	4	44.400%	21	32.800%	1	25.000%	19	36.500%	5	29.400%
	Consistent use	23	52.300%	16	55.200%	3	33.300%	36	56.200%	1	25.000%	27	51.900%	11	64.700%
	Total	44	100.000%	29	100.0%	9	100.0%	64	100.0%	4	100.0%	52	100.0%	17	100.0%

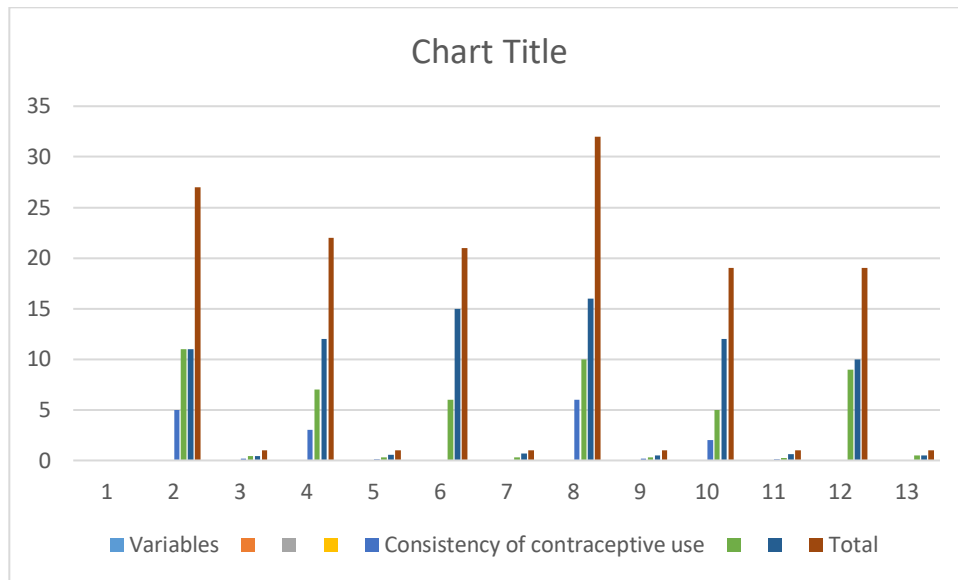
**Table 4B: Consistency of contraceptive use with regular partner STI Knowledge**

Variables		STI knowledge					
		Low level knowledge		Medium level knowledge		High level knowledge	
		No	%	No	%	No	%
Consistency of contraceptive use	Non use	2	20.000%	4	10.800%	3	13.600%
	Inconsistent use	6	60.000%	13	35.100%	5	22.700%
	Consistent use	2	20.000%	20	54.100%	14	63.600%
Total		10	100.0%	37	100.0%	22	100.0%



**Table 4C: Premarital Sex Attitude With Respect To Gender**

Variables		Attitude towards men's premarital sex						Attitudes towards women's premarital sex					
		Less permissive attitude		Permissive attitude		More permissive attitude		Less permissive attitude		Permissive attitude		More permissive attitude	
		No	%	No	%	No	%	No	%	No	%	No	%
Consistency of contraceptive use	Non use	5	18.50 0%	3	13.60 0%	0	0.000 %	6	18.80 0%	2	10.50 0%	0	0.000 %
	Inconsistent use	1	40.70 0%	7	31.80 0%	6	28.60 0%	1	31.20 0%	5	26.30 0%	9	47.40 0%
	Consistent use	1	40.70 0%	1	54.50 0%	1	71.40 0%	1	50.00 0%	1	63.20 0%	1	52.60 0%
Total		2	100.0 %	2	100.0 %	2	100.0 %	3	100.0 %	1	100.0 %	1	100.0 %



### DISCUSSION:

Adolescents normally have a warm sexual attitude, causing adverse outcomes. There is a need of wider knowledge about this field in our country. These findings of this research work can be very helpful for the prevention of the dire circumstances with the increase of the awareness about methods of contraception. The proportion of the students, who experienced sex in this research work, was much high in comparison with the other research works conducted in Pakistan [5, 6, 10]. The reason was self-organized questionnaire because it provides safety and privacy to the respondents. Most of the respondents feel themselves free to answer the self-administered questionnaire but the this rate was not much high in comparison with the research studies in various countries where there is no liberal opinions about sexual experience as China [11], Thailand [12], Chile [13] & Nigeria [14].

A high proportion of this research study was using various methods of contraception with various kinds of sex partners, which was much high as compared to the findings of different surveys in which 26.0% young males having 15 to 19 year of age used something to prevent from pregnancy or sex related infections [5]. About 50.0% students were not using contraceptives regularly while having sex with various types of partners. This result is less same with other research work 60.0% youngsters used condom regularly with CSW [15]; 61.50% male students of medical field & 36.60% of the normal persons of the society who

experienced sex with the utilization of contraceptive [16]. Unmarried females in Pakistan are very vulnerable to acquire unintended pregnancies because recently married females are the targets of RH services [17].

### CONCLUSION:

There is a strong need of implementation for various strategies to increase the usage of contraception among adolescent students of university to prevent the high rate of abortions and unintended pregnancies. Strategic programs and use of social media for the awareness of the young girls to prevent from these complications can play an effective role.

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