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Comparative Study on Sexual Health Among Male Adolescents in District Amritsar, Punjab, North India

KEYWORDS: Adolescent, Reproductive health.

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ABSTRACT *Research question: What is the level of sexual health among male adolescents and comparison between urban and rural areas?*
Settings:30 rural villages and 30 urban localities in Amritsar district.
Study Design: A cross sectional study
Participants:male adolescents between 18 – 19 years.
Methodology: 300 male adolescents from ruraland urban area each were administered a pretested proforma to know the knowledge regarding reproductive and sexual health of adolescents after taking their informed consent.
Results: It can be concluded from the present study that the majority of adolescents 518(86.3%) had knowledge about growth of sexual organs. Majority 481(80.8%) adolescents received information regarding sexual changes from their friends and 249(41.5%) received information from media.

Introduction
The word adolescence is Latin in origin, derived from the verb adolescere, which means "to grow into adulthood." [1] There is no single event or boundary line that denotes the end of childhood or the beginning of adolescence. The adolescents constitute perhaps the healthiest group in the population, having lowest mortality and morbidity compared with other population age groups, but a number of physical, cognitive and social emotional changes take place in the body during this period.This presents not only opportunities for progress but also risks to health and well-being.[2] Neglect of this population has major implications for the future, since reproductive and sexual behaviours during adolescence have far-reaching consequences for people's lives as they develop into adulthood. [3] We have reached a stage when this group has become a priority group for us.

The lives of millions of adolescents worldwide are at risk because they do not have the information, skills, health services and support they need to go through sexual development during adolescence and postpone sex until they are physically and socially mature, and able to make well-informed, responsible decisions. [4]Adolescents are susceptible to unhealthy and risk taking behaviours like unsafe sex, substance abuse and violence. [5]

There is enormous diversity among adolescents, regardless of where they live. At the lower end of the age range, they consist of girls and boys, most of whom are not yet sexually active. At the upper end, they consist of physically mature young women and men, most of whom are sexually active and in many cases have children of their own. There is also a great diversity among adolescents of the same age, depending on the individual's sex, level of physical, psychological and social development, and on the factors in the individual's immediate environment and within the culture of the wider society.[4]

Adolescents are not only in large numbers but are the future citizens and work force of tomorrow. Our knowledge about health profile of adolescent males is limited as most of the studies are of western countries, urban areas or done in schools. So, most of the rural and school dropouts have been mostly left out. There is lack of community based study of health profile and problems in rural and urban areas in this age group.

MATERIAL AND METHODS
The proposed study was carried out among the adolescent males born between 1st January1991 to 31st December 1992 in rural and urban areas of district Amritsar during a period from 1st Oct 2010 to 31st Oct 2010. 30 cluster sampling technique was used.After serializing all the villages/wards, the total population was divided by the total number of clusters i.e. 30. This gives the sampling interval

Sampling Interval = Total Population / 30

To select the first cluster, a random number from a currency note was chosen and the last four digits of this random number were taken and the first cluster was that village/ward whose cumulative population corresponds with this number. Subsequently, to this four digit number obtained from a currency note, the sampling interval was added and village/ward whose population corresponds with this number was taken as next cluster. This procedure was repeated to select next 29 clusters respectively.So the total 600 male adolescents participated in the study. The consent of each male adolescent was taken to participate in the study. The male adolescent was interviewed and physical parameters were measured and were recorded on the proforma. The data was compiled, analised and the valid conclusions were drawn.

OBSERVATIONS AND DISCUSSION
Adolescents account for nearly one fifth of worlds' population. Adolescents constitute 22.8% of total population in India. There are approximately 230 million adolescents in India in the age group 10-19 years (2001). The sex ratio of adolescent girls has declined from 897 in 1981 to 880 in 2001.

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Female comprise almost 47% and males 53% of total adolescent population.

The knowledge of adolescents about various sexual changes occur at their age was assessed. TABLE –I shows that majority of them knew about growth of auxiliary hairs (98.7%) and appearance of facial hairs (96.7%). Adolescents have least knowledge about the growth of sexual organs that occur at their age group.

As far as source of information regarding sexual change was concerned, TABLE – II shows that maximum (80.8%) got it from friends followed by media (41.5%), school (20.6%) and father (5.4%). But none of the male adolescents got information from their mothers.

As far as the experience of male adolescent regarding masturbation is concerned TABLE III shows that 95.3% adolescents residing in rural area had experienced masturbation whereas a lower percentage of male adolescents residing in urban area had experienced the same. The difference was found to be statistically significant.

Among those who experienced masturbation, 53.1% started during age group 15-19 yrs. Majority (63.7%) male adolescents residing in rural area started masturbating at lower age group of 13-14 yrs. But majority (77.3%) of adolescents belonging to urban area started masturbating at higher age (15-19 yrs)

A similar study done in USA, among those adolescents who admitted to masturbating, 12% of the boys and 33% of the girls gave the age of their first masturbation experience as less than 10 years. 27% of boys and 21% of girls started masturbating between 11-12 years. For boys, the median age was 13 years, with 36% having first masturbated at this age as compared to 16% of the girls. 17% boys and 19% girls initiated masturbation at the age of 14 years, whereas 8% boys and 9% girls did so between 15-19 years.[6]

A study of 504 MBBS students in Delhi showed knowledge of masturbation to be correct in 75.9%.[7]

TABLE IV shows total 196 male adolescents (32.7%) experienced wet nights. Out of those experienced wet nights majority 145(74.0%) experienced first at 15-19 yrs, followed by age experienced first at 13-14 yrs(25.0%).

Out of 112 of rural adolescents 56.3% and 42.0% who experienced night fall belonged to the age group 15-19 years and 13-14 years. But out of 84 of urban male adolescents 97.6% who experienced the same belonged to age group 15-19 years and this difference was found to be statistically significant.

As far as attraction to opposite sex was concerned TABLE V shows that 76.7% of the total adolescents were attracted towards opposite sex. Out of 460, 222 of rural adolescents and 238 of urban adolescents were attracted towards opposite sex but the difference was not found to be statistically significant

According to a study the attitudes towards having a boyfriend/ girlfriend were as follows. In the North, 58% of boys and 35.5% of girls favored having a steady friend of the opposite sex, whereas the corresponding figures for India were 55.5% and 33.6% respectively. Among male adolescents below the age of 20 years, 38% in the North and 37.5% in India were in favor of having a boyfriend/ girlfriend.[8]The difference in distribution of male adolescents population according to attraction towards opposite sex in rural and urban area was found to be statistically highly significant.

SUMMARY AND CONCLUSION

- Majority 593(98.8%) noticed change in height. In rural area, 300(100%) noticed change in height and among urban male adolescents, 293(97.7%) noticed change in height.
- Among total 600 male adolescents, majority 253(42.2%) were satisfied from their physical built and appearance, 236(39.3%) were having problem with weight, 128(21.3%) were having problem with height.
- Majority 427(71.2%) adolescents consult their friends for problem. Only 23(3.8%) consult their teacher. Among rural male adolescents, majority 236 (78.6%) consult their friends and 11(3.7%) did not consult anyone and 12(4.0%) urban adolescents did not consult anyone.
- Only 518(86.3%) adolescents had knowledge about growth of sexual organs. In rural area 284(94.7%) and in urban area 234(78.0%) adolescents had knowledge about growth of sexual organs.
- Majority 481(80.8%) adolescents received information regarding sexual changes from their friends and 249(41.5%) received information from media. Among rural adolescents, majority 267 (90.5%) received information regarding sexual changes from their friends and among urban male adolescents, majority 117(39.0%) received information from media.
- In rural area, majority 182(63.7%) adolescents started masturbation at the age 13-14 yrs, whereas among urban male adolescents majority 184(77.3%) started at the age 15-19 yrs.
- 489 (94.6%) adolescents noticed change in height as the changes during adolescents. 68(22.7%) adolescents in urban area and 15(5%) adolescents in rural area did not noticed changes in sexual organs.

TABLE –I
DISTRIBUTION OF KNOWLEDGE OF MALE ADOLESCENTS ABOUT VARIOUS SEXUAL CHANGES OCCURRING AT THEIR AGE

Sexual changes	Rural		Urban		Total	
	No	%	No	%	No	%
Hoarseness of voice	289	96.3%	278	92.7%	567	94.5%
Growth of sexual organs	284	94.7%	234	78.0%	518	86.3%
Appearance of pubic hairs	295	98.3%	267	89.0%	562	93.5%
Growth of auxiliary hairs	298	99.3%	294	98.0%	592	98.7%
Appearance of facial hairs	286	95.3%	294	98.0%	580	96.7%

*Multiple responses were permitted to this question

TABLE II
DISTRIBUTION OF MALE ADOLESCENTS ACCORDING TO THE SOURCE OF INFORMATION REGARDING SEXUAL CHANGES

Source of information	Rural		Urban		Total	
	No	%	No	%	No	%
School	34	11.5%	89	29.6%	123	20.6%
Mother	0	0.0%	0	0.0%	0	0.0%
Father	12	4.0%	20	6.7%	32	5.4%
Friends	267	90.5%	214	71.3%	481	80.8%
Media	136	46.1%	117	39.0%	249	41.5%
Others	2	0.7%	46	15.4%	48	8.1

* Multiple responses were permitted to this question

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TABLE III
DISTRIBUTION OF MALE ADOLESCENTS ACCORDING TO EXPERIENCE MASTURBATION & AGE OF STARTING

EXPERIENCE MASTURBATION & AGE OF STARTING No.		Rural		Urban		Total	
		%	No.	%	No.	%	
No		14	4.7%	64	21.3%	78	13.0%
Yes	up to12 Yrs	10	3.3%	4		14	
	13-14 Yrs	182	60.7%	48		230	
	15-19 Yrs	94	31.3%	184		278	
Total Count		300	100.0%	300	100.0%	600	100.0%

Chi sq=105.961 df=2 p<0.001

TABLE IV
DISTRIBUTION OF MALE ADOLESCENTS ACCORDING TO EXPERIENCE WET NIGHTS & AGE OF 1ST EXPERIENCE

EXPERIENCE WET NIGHTS & AGE OF 1ST EXPERIENCE No.		Rural		Urban		Total	
		%	No.	%	No.	%	
No		188	62.7%	216	72.0%	404	67.3%
Yes	up to12 Yrs	2	0.67%	0	0%	14	2.3%
	13-14 Yrs	47	15.7%	2	0.67%	230	38.3%
	15-19 Yrs	63	21.0%	82	27.3%	278	46.3%
Total Count		300	100%	300	100.0%	600	100.0%

Chi sq=42.687 df=2 p<0.001

Table V
DISTRIBUTION OF MALE ADOLESCENTS ATTRACTED TOWARDS OPPOSITE SEX

ATTRACTION TOWARDS OPPOSITE SEX	RURAL		URBAN		TOTAL	
	No.	%	No.	%	No.	%
No	78	26.0%	62	20.7%	140	23.3%
Yes	222	74.0%	238	79.3%	460	76.7%
Total	300	100.0%	300	100.0%	600	100.0%

Chi sq=2.385 df=1 p>0.05

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