

ORIGINAL ARTICLE

Sexual Risk Behavior: A Perilous Journey By Unmarried Youth Of District Dehradun, Uttarakhand

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Abstract

Background: Sexual health is an integral part of overall health and well-being and determination of sexuality of the youth is an important milestone in understanding their behavior, associated risks and outcomes. The declining age at puberty and increasing age at marriage has created a longer growing period in which youth may engage in sexual health risk behaviors. This research focuses attention on estimation and involvement of the most dynamic & valuable segment of a nation's population towards sexual risk behaviors. **Aims & objectives:** The aim of this study is to find out the prevalence and determinants of sexual health risk behaviors amongst youth in District Dehradun. **Material and methods:** It was a cross-sectional study conducted over a period of 06 months in rural and urban area of District Dehradun. The study surveyed 1800 male youth aged 15-24 years using a self-administered questionnaire (YRBSS & Big five inventory). After collection, the data was entered using the SPSS software and analyzed using SPSS and Microsoft Excel 2010. **Results:** Out of 1800 participants, 19% were found to be at risk of sexual health risk behavior and reported having had sex. Out of these 342 at-risk, 43.5% accepted involving in sexual activity even before adulthood, 31% reported having multiple sexual partners and 21.1% accepted not using condoms. Place of residence and personality trait were found to be important determinants of sexual health risk behaviors. **Conclusion:** Our study documented the high prevalence of sexual risk behavior among male youth of rural and urban area of District Dehradun.

Keywords

Pre-Marital Sexual Health Risk Behavior; Sexual Health; Sexual Risk Behavior; Youth Risk Behavior

Introduction

Sexual health is an integral part of overall health and well-being and determination of sexuality of the

youth is an important milestone in understanding their behavior, associated risks and outcomes. The declining age of puberty & increasing age at marriage has created a longer growing period in

which youth may engage easily in sexual promiscuity (health risk behavior). Early sexual debut is not only known to have negative reproductive and social outcomes but it is also associated with subsequent risky sexual behaviors like multiple sexual partners, sex under the influence of alcohol or illicit drugs, ignoring protective measures like condoms, increase risk of acquiring and transmitting STIs, RTIs and unwanted pregnancies.(1)

On the other hand personality characteristics have received special attention due to their association with sexual risk behaviors, STIs, and unwanted pregnancies, especially in the general population and university students. (2) The influence of personality characteristics on condom use, number of sexual partners, and sexual promiscuity is extensively known. (2,3)

Youth constitutes the most dynamic & valuable segment of a Nation's population. With approximately 20% share of youth in its total population, our country is set to be the youth capital of the world. (4)

In our society, despite known association between sexual risk behavior & its outcomes, we still lack basic prevalence estimates amongst the youth. This research focuses attention on estimation and involvement of the most dynamic & valuable segment of a nation's population towards sexual risk behaviors

Aims & Objectives

1. To find out the prevalence of sexual risk behavior.
2. To find out its association with socio-demography & personality trait of the youth of district Dehradun, Uttarakhand.

Material & Methods

Study type, duration & area: It was a cross-sectional study conducted over a period of six months in rural and urban area of District Dehradun after obtaining ethical clearance from the Institutional Ethics Committee.

Sample Size: The sample size was calculated (at 95% C.I & 0.05 precision) based on the assumed prevalence of health risk behaviors among youth as 50%, relative allowable error of 5%. Furthermore a 10% non-response rate was considered to get the sample size of 1760. On rounding it off the final sample size worked out was 1800.

Study design: Multistage stratified random sampling technique was used to draw the required sample.

The sample consisted of 1800 male youth aged 15-24 years. For better comparison we randomly selected equal number of participants from higher secondary schools, professional / non-professional colleges and rural / urban areas.

Methodology: A survey was conducted among male youth, using self-administered questionnaire (YRBSS (5) and The Big Five Inventory (6), both modified according to the local needs) after explaining the purpose of the study and obtaining consent from the participants and permission from the competent authorities of the education department. Along with socio demography & personality trait, the risk behaviors which we have taken from the YRBSS for our study included -age of initiation of sexual activity, multiple sexual partners, not using condom during sexual intercourse and intake of alcohol or drugs before sexual activity. To maintain the confidentiality, participants were allowed to sit separately and the survey was kept unanimous.

Data management: After collection, the data was entered using the software Statistical Package for Social Sciences (SPSS) version 20 and analyzed using SPSS and Microsoft Excel 2010. An analysis was done to describe the frequency table of socio-demography & personality traits of the participants.

Statistical analysis: Univariate & multi-nominal logistic regression analysis was done to find out significant association of socio-demographic factors & sexual health risk behavior.

Results

Out of 1800 male youth participants, the mean age was 18.68 ± 2.26 years, majority were in the age-group of 15-19 years, Hindu by religion (92.1%), were staying at home (71.3%) and belonging to nuclear family (61.8%). According to personality trait, majority (62.4%) of the participants had extrovert trait. [Table 1]

The prevalence of sexual health risk behavior was 19.0 % among the study participants. Among all the sexually active participants, more than half reported their first sexual at <18 years of age. Approximately 40% accepted abuse of alcohol before sexual intercourse; whereas 31% accepted having had sex with multiple partners; One fifth of the study participants denied use of condom during sexual intercourse.

Among all urban participants who have ever had sexual intercourse, majority (55.6%) have started sexual activity before the age of 18 years, had intake

of alcohol/drugs before the sexual act (41.2%) and were not using condom during the intercourse (23.6%).

Rural participants practiced relatively lower risky behavior except in category of “multiple sex partners” where they were found to be 51.1% as compared to 23.6% of Urban Counterparts.

Although a higher no participants of 20-24 years age group have had experience of sexual intercourse (21.8%) & multiple sexual partners (33.8%), but participants in younger age group (15-19 years.) were also found to be at risk i.e. initiation of sexual activity before 18 years (55%) & not using condom before intercourse(22.1%)

Majority of the participants from Professional courses had higher Risk behavior pattern i.e. majority have started sexual activity earlier in life (62.8%), had multiple sexual partners (34.5%) & were not using condom before intercourse (23%)

Among “Ever had Sex”, majority (26.9%) tends to be of extrovert personality trait as compared to 5.9% in introvert trait. More common sexual health risk factor amongst extrovert personality was early initiation of sex (55%) & multiple sex partners (40%) was more common amongst introvert trait personality participants [Table 2]

Univariate analysis has shown that place of residence ($p < 0.001$) and type of personality trait ($p < 0.001$) were significantly associated with sexual health related risk behaviors [Table 3]. Considering a “P value” of 0.05 as a margin for selecting variables for multivariate analysis, place of residence and type of personality trait were considered for multinomial logistic regression analysis. Multinomial logistic regression has shown that there was a strong association of sexual health related risk behaviors & personality trait (OR 6.284; 95% CI: 4.42–8.93). Odds of having sexual risk behavior were found to be more among the participants who were having extrovert personality trait and were residing in urban locality. [Table 4]

Discussion

Developmental transition of young people makes them vulnerable particularly to surrounding influences. Alcohol or tobacco use, lack of physical activity, unprotected sex and/or exposure to violence can jeopardize not only their current health, but also their health as adults, and even the health of their future children (7).

Data available from various community-based studies of different states depict high prevalence of premarital sex in 15-24 years age group males. The prevalence of premarital sex was found to be 35.7% among males in rural & urban settings, in a population based multistage cluster sampling study by Gaffey *et al* (8), conducted at national level. According to NFHS – 4, only 7 percent of never married men age 15-24 had sex in the past 12 months.(9)

A comparable prevalence of premarital sex or ever had sex in present study had been shown in a cross-sectional study done in rural & urban area by Kumar *et al* in Guntur district, Andhra Pradesh. (10) Alexander *et al* reported it to be 21.7% & 16-18% respectively in 15-24 year age group males.(11)

In present study one in every five participants was found to have experienced sexual activity and it was significantly higher among urban participants as compared to their rural counterparts. Comparing rural / urban data, out of 342 participants who had sexual intercourse, more than 50% participants have started it when they were less than 18 years. One third respondents reported having multiple sexual partners. On the contrary, in a cross-sectional survey in three university settings in urban area of Gujrat, 39.7% males reported to be having multiple sex partner. (12)

Appreciable result in our study was that approximately 78.9% were using Condom while in some other studies only 21.7% males reported consistent use of condom (Kumar *et al*) (10). NFHS-3 reported use of condom only by 31% males in the 15-19 years age group & 41% males in the 20-24 years age group. (13)

The findings of our study are much higher than a contrast study by Nagalingam S *et al* in Chennai (14), which states that around 4.8% of the study participants have had multiple sex partners and 5.5% of them did not use condoms. Similarly, another study by Mohanan P *et al* in Udupi, Karnataka, (15) found the prevalence of sexual intercourse to be 10.0% among males which is lower than our findings. The NFHS-3 survey showed that 11 % men aged 15-19 years and 28.8% men aged 20-24 years consumed alcohol.(13) Other population-based studies have shown the prevalence of alcohol consumption varying from 1.3 to 15.6 per cent across studies.(16,17,18,19)

Findings from youth survey across different states also confirm prevalence of premarital sex, multiple

partner, limited use of condom & abuse of alcohol before sexual act. A review of risk factors associated with premarital sexual activity in developing countries showed that they were primarily related to the adolescents.(20)

Among different age groups, youth in 20-24 years had experienced more sexual relationship as compare to younger (15-19 year) age & that difference was found to be significant. Participants doing their graduation from non-professional colleges indulge more in sexual activity as compared to students of professional colleges & higher secondary schools. This infers that with advancing age among youth the tendency of indulging in sexual health risk behavior also increases. In comparison to other state it is alarming sign for our state hence interventions need to be focused at an early age and it can be done by introducing sex education courses in lower classes like 6th standard onwards and so on. Parents need to talk about physical development to their child and must sensitize them about ill effects of abuse and unsafe sex at early age. The sensitization about Good Touch and Bad Touch is also important in today's settings. Although sexual health risk behaviors are found to be more among urban youth as compared to their rural counterparts in our study but are alarmingly high in both and special attention need to be paid both in urban as well as rural youth.

Among "Ever had Sex" majority tends to be of extrovert personality trait as compared to introvert trait. All these findings are comparable to various studies done in various states of our country, although results might differ marginally as per geographic distribution, culture & habits. Present study strongly documents the well-known fact of high prevalence of risky sexual behavior among youth. These results are alarmingly high and need some effective measures to prevent youth indulging in such health risk behaviors.

The research findings document sexual health related risk behaviors so there is need for focused attention to reduce it. These behaviors have direct health implications and should be carefully addressed to formulate appropriate interventional strategies. It emphasize that the health services and standalone awareness programs do not seem to bring in the necessary positive change in youth behavior regarding sexual health. This study provides a bird's eye view of youths' engagement in a range of sexual health risk behaviors. Our findings also

suggest that there is a need for cumulative strategic plan, especially for youth, may be in terms of periodic screening followed by counseling of parents and youth. Health programs with special focus on educating students and teachers regarding adverse effects of sexual health risk behaviors should be carried out. Curriculum of school students should also include chapters regarding sexual health so that these risk behaviors can be ceased at an early age.

Conclusion

This community-based study documented the high prevalence of sexual health related risk behavior among male youth of District Dehradun. Alcohol abuse was found to be a major determinant for sexual risk behaviors. Our study concludes rural-urban and age-group wise differences in sexual risk behaviors and provides insight into program planning needs. Furthermore, studies exploring sexual health among youth in India are very few and this entity of health needs to be exhaustively studied. Studies exploring various determinants of sexual health risk behaviors need to be conducted for comprehensive assessment.

Recommendation

A comprehensive health programme including preventive as well as curative measures, is required to tackle this problem. It requires multi-pronged efforts to curve the health risk caused due to risky sexual behavior. This study recommends that more focused and target oriented interventions are needed in this direction. And a country level multi-centric study is required to find out the prevalence of risk factors for sexual health.

Limitation of the study

It is a simple prevalence study so we could not describe causal association as well as independent interview was required to find out the reasons for sexual health risk behaviors and it was not feasible being an epidemiological study including a larger sample. And chances of information biases may be there because it's a self-administered questionnaire so prevalence of sexual health risk behavior was either underestimated or overestimated.

Relevance of the study

Studies regarding sexual health risk behaviours are a few in number amongst youth. The current study adds on the knowledge regarding prevalence and determinants of health risk behaviours among youth in the community.

Authors Contribution

The study was conceptualized and designed by Dr J. Semwal, Dr S. Vyas and Dr M. Srivastava. Also, the intellectual content was defined by them. Data collection, literature search and statistical analysis was done by Dr R. Jain. Manuscript was prepared by Dr R. Jain and edited by Dr J Semwal and Dr S. Vyas. Dr J. Semwal reviewed the manuscript and acts as a guarantor for the article.

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References

- Ramrakha S, Bell ML, Paul C, Dickson N, Moffitt TE, Caspi A. Childhood Behavior Problems Linked to Sexual Risk Taking in Young Adulthood: A Birth Cohort Study. *Journal of the American Academy of Child & Adolescent Psychiatry*. October 2007;46(10):1272-79.
- Berg V, Rotkirch A, Väisänen H, Jokela M. Personality is differentially associated with planned and non-planned pregnancies. *Journal of Research in Personality*. 2013 Aug 1;47(4):296-305.
- Turchik JA, Garske JP, Probst DR, Irvin CR. Personality, sexuality, and substance use as predictors of sexual risk taking in college students. *J Sex Res*. 2010 Sep;47(5):411-9. doi: 10.1080/00224490903161621. PubMed PMID: 19711220. [PubMed].
- Press Information Bureau. Government of India. Ministry of Youth Affairs and Sports, Speech of Shri Sarbananda Sonowal at "Youth Pravasi Bharatiya Divas" at Gandhinagar, Gujarat. Available at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=114397/> Accessed on Sep 5, 2015.
- Centre for Disease Control. Youth Risk Behaviour Surveillance System. Centre for Disease Control. , Accessed Aug 15, 2015.
- John OP, Srivastava S. The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research*. 1999;2(1999):102-38.
- Young people: health risks and solutions. Fact sheet no. 345. World Health Organization; 2011. Available from: <http://www.who.int/mediacentre/factsheets/fs345/en/index.html>, Accessed on June 8, 2015.
- Gaffey MF, Venkatesh S, Dhingra N, Khera A, Kumar R, Arora P, Nagelkerke N, Jha P. Male use of female sex work in India: a nationally representative behavioural survey. *PLoS One*. 2011;6(7):e22704. doi: 10.1371/journal.pone.0022704. Epub 2011 Jul 29. PubMed PMID: 21829486; PubMed Central PMCID: PMC3146473. [PubMed].
- International Institute for Population Sciences (IIPS) and ICF. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS. 2017.
- Kumar GA, Dandona R, Kumar SG, Dandona L. Behavioral surveillance of premarital sex among never married young adults in a high HIV prevalence district in India. *AIDS Behav*. 2011 Jan;15(1):228-35. doi: 10.1007/s10461-010-9757-1. PubMed PMID: 20625924. [PubMed].
- Alexander M, Garda L, Kanade S, Jejeebhoy S, Ganatra B. Correlates of premarital relationships among unmarried youth in Pune district, Maharashtra, India. *Int Fam Plan Perspect*. 2007 Dec;33(4):150-9. doi: 10.1363/ifpp.33.150.07. PubMed PMID: 18178539. [PubMed].
- Sujay R. Premarital sexual behaviour among unmarried college students of Gujarat, India. Health and Population Innovation, Fellowship Programme Working Paper No. 9. New Delhi: Population Council; 2009. p. 51. Available from: http://www.popcouncil.org/pdfs/wp/India_HPIF/009.pdf, Accessed on August 17, 2015.
- Parasuraman S, Kishor S, Singh SK, Vaidehi Y. A profile of youth in India. National Family Health Survey (NFHS-3), India, 2005-06. Mumbai: International Institute for Population Sciences; Calverton, Maryland, USA: ICF Macro; 2009. Available from: http://www.rchiips.org/NFHS/youth_report_for_website_18sep09.pdf, Accessed on August 4, 2015.
- Nagalingam S, Arumugam B, Khanna R, Krishnasamy S. Appraisal of risky behaviour of youth populace: a vulnerable venture. *International Journal Of Community Medicine And Public Health*. 2017 Feb 3;3(5):1195-9.
- Mohan P, Swain S, Sanah N, Sharma V, Ghosh D. A study on the prevalence of alcohol consumption, tobacco use and sexual behaviour among adolescents in urban areas of the Udupi District, Karnataka, India. *Sultan Qaboos University Medical Journal*. 2014 Feb;14(1):e104-e112.
- Chaturvedi HK, Mahanta J. Sociocultural diversity and substance use pattern in Arunachal Pradesh, India. *Drug Alcohol Depend*. 2004 Apr 9;74(1):97-104. PubMed PMID: 15072813. [PubMed].
- Girish N, Kavita R, Gururaj G, Benegal V. Alcohol use and implications for public health: patterns of use in four communities. *Indian J Community Med*. 2010 Apr;35(2):238-44. doi: 10.4103/0970-0218.66875. PubMed PMID: 20922099; PubMed Central PMCID: PMC2940178. [PubMed].
- Ningombam S, Hutin Y, Murhekar MV. Prevalence and pattern of substance use among the higher secondary school students of Imphal, Manipur, India. *Natl Med J India*. 2011 Jan-Feb;24(1):11-5. PubMed PMID: 21608351. [PubMed].
- Medhi GK, Hazarika NC, Mahanta J. Correlates of alcohol consumption and tobacco use among tea industry workers of Assam. *Subst Use Misuse*. 2006;41(5):691-706. PubMed PMID: 16603455. [PubMed].
- Joshi B, Chauhan S. Determinants of youth sexual behaviour: program implications for India. *Eastern Journal of Medicine*. 2011 Apr 1;16(2):113

Tables

TABLE 1 DISTRIBUTION OF STUDY SUBJECTS ACCORDING TO THEIR PERSONALITY TRAIT & SOCIO-DEMOGRAPHIC CHARACTERISTICS

VARIABLE	FREQUENCY (N=1800)	PERCENTAGE (N=1800)
AGE GROUP		
15-19years	1191	66.2%
20-24years	609	33.8%
RELIGION		
Hindu	1658	92.1%
Muslim	92	5.1%
Sikh	35	1.9%
Other	15	0.8%
TYPE OF RESIDENCE		
Home	1283	71.3%
Hostel	376	20.9%
Other	141	7.8%
TYPE OF FAMILY		
Nuclear	1112	61.8%
Joint	688	38.2%
PERSONALITY TRAIT / TYPE OF BEHAVIOUR		
Extrovert	1124	62.4%
Introvert	676	37.6%

TABLE 2 DISTRIBUTION OF RISKY SEXUAL BEHAVIOR OF PARTICIPANTS ACCORDING TO THEIR SOCIO-DEMOGRAPHIC CHARACTERISTICS AND PERSONALITY TRAIT

VARIABLE	PLACE OF RESIDENCE		AGE-GROUP		EDUCATION			PERSONALITY TRAIT	
	RURAL	URBAN	15-19 years	20-24 years	Higher secondary	Professional Degree	Non-professional Degree	Extrovert	Introvert
Ever had sexual intercourse (n=342= 19%)	92 (10.2%)	250 (27.8%)	209 (17.5%)	133 (21.8%)	107 (17.8%)	113 (18.8%)	122 (20.3%)	302 (26.9%)	40 (5.9%)
Initiation of sexual activity before the age of 18 years (n=183 =10.2%)	44 (47.8%)	139 (55.6%)	115 (55.0%)	68 (51.1%)	62 (57.9%)	71 (62.8%)	50 (40.9%)	161 (53.3%)	22 (55.0%)
Multiple sexual partners (n=106=5.9%)	47 (51.1%)	59 (23.6%)	61 (29.2%)	45 (33.8%)	27 (25.2%)	39 (34.5%)	40 (32.7%)	90 (29.8%)	16 (40.0%)
No use of condom during sexual intercourse (n=72=4%)	13 (14.1%)	59 (23.6%)	46 (22.1%)	26 (19.5%)	19 (17.7%)	26 (23.0%)	27 (22.1%)	63 (22.5%)	09 (22.5%)
Use of alcohol or other substance before sexual intercourse (n=136=7.6%)	33 (35.8%)	103 (41.2%)	84 (40.2%)	52 (39.1%)	41 (38.3%)	43 (38.0%)	52 (42.6%)	122 (40.3%)	14 (35.0%)

TABLE 3 ASSOCIATION OF SOCIO-DEMOGRAPHIC FACTORS WITH SEXUAL RISK BEHAVIOURS BY UNIVARIATE REGRESSION ANALYSIS

Variable	p-value
A. Ever had sexual intercourse	
Age-group	0.246
Academic profile	0.285
Place of residence	<0.001
Type of residence	0.645
Type of family	0.786
Personality trait	<0.001
B. Initiation of sexual activity before the age of 18years	
Age-group	0.268
Academic profile	0.086
Place of residence	<0.001
Type of residence	0.658
Type of family	0.905
Personality trait	<0.001
C. Multiple sexual partners	
Age-group	0.344
Academic profile	0.197
Place of residence	0.279
Type of residence	0.289
Type of family	0.573
Personality trait	<0.001
D. No use of condom during sexual intercourse	
Age-group	0.574
Academic profile	0.138
Place of residence	<0.001
Type of residence	0.897
Type of family	0.719
Personality trait	<0.001
E. Use of alcohol or other substance before sexual intercourse	
Age-group	0.191
Academic profile	0.489
Place of residence	<0.001
Type of residence	0.600
Type of family	0.824
Personality trait	<0.001

TABLE 4 ASSOCIATION OF SOCIO-DEMOGRAPHIC FACTORS WITH SEXUAL RISK BEHAVIOURS BY MULTINOMIAL LOGISTIC REGRESSION

Variable	p-value	Exp(B)	95% CI for Exp(B)	
			Lower	Upper
Ever had sexual intercourse				
Place of residence	<0.001	0.273	0.209	0.358
Rural				
Urban				
Personality trait	<0.001	6.284	4.421	8.932
Extrovert				
Introvert				
Initiation of sexual activity before the age of 18 years				
Place of residence	<0.001	0.235	0.164	0.337
Rural				

Urban				
Personality trait	<0.001	6.131	3.860	9.738
Extrovert				
Introvert				
Multiple sexual partners				
Personality trait	<0.001	0.279	0.162	0.478
Extrovert				
Introvert				
No use of condom during sexual intercourse				
Place of residence	<0.001	0.164	0.089	0.303
Rural				
Urban				
Personality trait	<0.001	5.945	2.921	12.102
Extrovert				
Introvert				
Use of alcohol or other substance before sexual intercourse				
Place of residence	<0.001	0.237	0.157	0.358
Rural				
Urban				
Personality trait	<0.001	7.301	4.141	12.872
Extrovert				
Introvert				