Chapter 24
Risky Sexual Behaviors Among Unmarried Youth in India: Evidences from National Family Health Survey, 2019–21

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Abstract Risky sexual behaviors such as engaging in paid sex, involving multiple sexual partners and unprotected sex enhance the risk of acquiring and transmitting STDs, including HIV/AIDS. Indian traditional norms value maintaining sexual abstinence before marriage. In contrast, over the last three decades, the growing body of literature has given corroborating evidences of the youth's increasing permissiveness and involvement in premarital sex. However, there is a dearth of data on the prevalence and safety of these behaviors. This study aims to analyze the risky premarital sexual behaviors and their influencing factors among 15–29 aged, unmarried, sexually active youth in India. The study used data of sexually active, unmarried youth (between age 15–29 years) from the 5th round of the National Family Health Survey (2019–21). Among the sexually active, unmarried women and men of age 15–29 years, 4.2% of women & 23.3% of men had more than one sexual partner and 17.24% of men had paid sex. When asked about ever use of the withdrawal method during intercourse, 7.68% of men and 9.91% of women reported its use. The likelihood of men's involvement in multiple sexual activities was higher than women and it was consistent across the socio-economic and demographic characteristics. No or less education, alcohol drinking, spending more time away from home, early age at the first sexual encounter and seeing fathers beat their mothers are the influencing circumstances that increase youth's risky sexual behaviors. Men who had paid sex and multiple sexual partners had higher use of withdrawal method, indicating multiple risk to STDs. The findings emphasize the urgent need to provide sex education and sexual and reproductive health services to unmarried youth in order to prevent risky sexual behaviors and its possible immediate consequences such as unwanted pregnancies, STDs, and HIV.

Keywords Premarital sex · Multiple sexual partners · Paid sex · Knowledge about HIV/AIDS · Indian youth

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S. Deb and S. Deb (eds.), *Handbook of Youth Development*,
https://doi.org/10.1007/978-981-99-4969-4_24

Introduction

National Youth Policy of India defines youth as people in the age group of 15–29 years (Ministry of Youth Affairs and Sports, 2014) which contribute 27.2% of India's total population (RGI, TGPP 2021). That means every fourth individual in India is a youth. As it is considered that India's development is dependent on investment in youth, India's health also can be determined from the health of youth. A considerable burden of diseases, especially diseases related to sexual and reproductive health is on youth. According to the technical report of HIV estimates of NACO, youth between 15–24 years were estimated to account for 7% (1.70 lakhs) of the total PLHIV cases (NACO, 2022). According to NFHS-4 India, HIV prevalence is 0.02% among women and 0.10% among men who were unmarried and of age 15–24 (IIPS & ICF, 2017). This prevalence of HIV challenges the widely accepted assumption that Indian youth do not get involved in sex before marriage as traditional norms do not allow them. In Indian traditions, sexual intercourse is expected to be performed in marital relationships only; premarital sex is taboo and the chastity of unmarried youth, especially girls, is highly valued. The stigma on sex extends further up to the level that sex education, which comes under human rights, is not acceptable in India. Due to technological advancements and modernization, unmarried youth of India are increasingly engaging in sexual activities. However, there is a scarcity of research that assesses the safety of these sexual activities. Transmission of HIV in unmarried men and women is driven by their risky sexual behavior. Researchers define risky sexual behavior (RSB) as any sexual activity, which elevates the risk of contracting STIs/STDs including HIV/AIDS or becoming pregnant among unmarried youth. RSB includes early age of sexual debut, inconsistent use of condom, unprotected sexual activity, high-risk partners (sex workers, injection drug users and sex in exchange of money), or sex with multiple partners (Aral, 1994; Haffner, 1995; Taylor-Seehafer & Rew, 2000). In this study, we have used nationally representative data from the 5th round of National Family Health Survey (NFHS) of unmarried but sexually active 4,668 women and 4474 men aged 15–29. Weighted prevalence estimates of three risky sexual behaviors, including sex with multiple partners, paid sex, and use of the withdrawal method, were calculated. Bivariate differences in prevalence were examined by demographic characteristics (sex, education, caste, religion, residence, etc.) and covariates such as the age of sexual initiation, comprehensive knowledge of HIV, seeing the father beating mother, and alcohol drinking of respondents.

Traditionally, Indian youth are expected to follow celibacy till marriage. However, the mean age at marriage of Indian youth is increasing (IIPS & Macro International, 2007; IIPS & ICF, 2017; Das & Raut, 2023), the mean age at puberty is decreasing (Khadilkar et al., 2006; Pathak et al., 2014) and the age at which mature social roles are achieved is rising (Sawyer et al., 2012). In addition to these trends, technological advancements and availability of internet highways have spurred the youth's involvement in premarital sex. According to a review of the research on adolescent sexuality, up to 10% of unmarried females and 20−30% of unmarried males have

engaged in sexual activity (Jejeebhoy, 1998). Nationally and sub-nationally representative data also shows the increasing trend of youth's involvement in premarital sex (IIPS & Macro International, 2007; IIPS & ICF, 2017; IIPS & ICF, 2021). Nevertheless, strong stigma and taboo surrounding sexual activities and unavailability of sex education programs give a conducive environment to risky premarital sexual activities. Though literature showing evidence of premarital sexual activities is increasing, the issue of risky premarital sexual activities remains poorly explored.

A study based on nationally representative, large-scale data of youth in India reported, among total sexually active men and women of age 15–24, 1.3 of men had sex with a sex worker, 0.2% of women had sex in exchange for money/favor, 29 percent of men and 25.5% of women reported having sex with multiple partners (IIPS & Population Council, 2010). Series of NFHS surveys shows percentage of unmarried men 15–49 aged, involving in paid sexual activities is higher than that of married men and the percentage is persistently increasing over the past 2 decades (1.0% in 2005–06; 2% in 2015–16 & 2.2% in 2019–21). Among never-married men who ever had sex, 2.2% of them had paid for sexual activity (IIPS & ICF, 2021). NFHS also provides information on multiple sexual activities of men and women. There is increase in mean number of lifetime sexual partners for never-married (15–49 aged) women but not for men (For women 1.11 in 2005–06, 1.4 in 2015–16 & 1.6 in 2019–21 and for men 2.49 in 2005–06, 1.9 in 2015–16 & 1.9 in 2019–21) (IIPS & Macro International, 2007; IIPS & ICF, 2017, IIPS & ICF, 2021). These findings show gender gap in multiple sexual partners is narrowed down from 2005 to 2021. Findings from NFHS also show that the percentage of unmarried men and women of age 15–24 years using a condom at their last sexual encounter is increasing (36.8% women in NFHS-4 versus 62.8% women in NFHS-5; 51.6% men in NFHS-4 versus 61.5% men in NFHS-5) (IIPS & ICF, 2017; IIPS & ICF, 2019). There are very few studies which explore RSB of unmarried youth, especially women.

Apart from nationally representative surveys, few small-scale studies always showed that the percentage of condom use was not high among unmarried youth (Santhya et al., 2011a, 2011b; Arora et al., 2014; Mathew et al., 2019; Sharma et al., 2022). Surveys often said that a significant proportion of unmarried adolescents are clients of commercial sex workers (Joshi & Chauhan, 2011; BSS, 2006; IBBS, 2015). According to a National report, 96.2% of FSWs reported using a condom at the last sex, which decreases to 87.8% when asked about consistent condom use (BSS-LITE, 2020). These findings indicate a significant number of clients exposed to the high risk of STDs, including HIV. Many studies on family planning have turned a blind eye toward withdrawal methods and focused on modern methods, especially condoms. However, when it concerns unmarried men and women, instead of considering condom use at the last sexual encounter, it is more important and valid to check the use of withdrawal method as it gives the percentage of men and women directly exposed to the risk of unwanted pregnancy as well as STIs/STDs. Coitus interruptus (withdrawal method) is not on the list of methods of contraception provided by the Center for Disease Control and Prevention (Miller, 2003).

There are very few small-scale studies, but they revealed that many unmarried youth engage in risky sexual activities. These studies are done in different settings

with different samples (Arora et al., 2014; Dave et al., 2013; Dhapola et al., 2007; Mathew et al., 2019).

A study in Gujrat state of India of college-going students reported that 7.4% of women and 39.7% of men who are unmarried reported sexual involvement with multiple partners, 32% of men reported having paid sex, and nearly half of the respondents reported using withdrawal method (Sujay, 2009). The same study also reported that the withdrawal method was the second most used method after condoms among unmarried youth. In a study of male construction workers, nearly 30% of unmarried men reported multiple sexual partners, including commercial sex workers (Mathew et al., 2019). A survey reported 14.5% and 33.88% of sexually active men visited commercial sex workers and involved with multiple sexual partners respectively (Dave et al., 2013). This study also showed that 10% of men never used a condom during performing premarital sex. Like any other phenomenon, youth's entry into risky premarital sexual activities can be influenced heavily by social, demographic, and economic factors. Few studies tried to understand the factors influencing youth in risky sexual behavior.

Many studies linked migration for higher education and working status highly influences risky sexual behaviors and, ultimately it becomes a cause of HIV among youth (Wolffers and Fernandez, 1995; Saggurti et al., 2011; Mathew et al., 2019). A study based on NFHS found that older, less educated, early age at sexual debut, northeast men, and women from the south were more likely to go for multiple sexual partners (Singh et al., 2020). Also, men and women from the poor and rich wealth quintiles are more likely to have multiple partners than the middle wealth quintiles (Singh et al., 2020). Findings from the survey of youth in India reported older men and younger women, less educated, ever worked and the poorer were more likely to get involved in multiple sexual activities (IIPS & Population Council., 2010). Youth who are younger, uneducated or less educated, never worked, lived away from home, rural, and poor wealth quintile are less likely to be consistent about condom use (IIPS & Population Council., 2010; Dave et al., 2013; IIPS & ICF, 2021).

There are several consequences of risky premarital sexual activities, including contracting STIs, STDs, HIV, unwanted pregnancy, unsafe abortion, etc. The National Family Health Survey in its 4th round found that the prevalence of HIV was 0.27% in women (aged 15–49) with a one-lifetime sexual partner and 2.85% in those with five or more lifetime partners. Similar to women, it was 0.25% in men (aged 15–49) with a one-lifetime partner and rose to 1.6% in those with five or more lifetime partners (IIPs & ICF, 2017). A similar trend is observed for the youth of 15–25 years. Among men who had paid sex in the past year, HIV prevalence was 0.55% and 0.30% among those who did not have paid sex. Among youth aged 15–24, the prevalence of HIV was high among men and women who reported no condom use (0.22% of men who never used a condom versus 0.16% for men who ever used a condom & 0.17% of women whose partner/is never used condom versus 0.16% for women whose partner/s ever used condom) (IIPs & ICF, 2017). These findings give evidence that risky sexual behaviors increase the odds of acquiring HIV. A study based on 3,173 students in Gujrat reported that among the sexually active youth, 8.5% of women and 15.5% of men reported getting pregnant or making their partner pregnant, respectively (Sujay,

2009). In Key informant interviews with local gynecologists and pharmacists, they reported college students were among their leading clients for abortion (Sujay, 2009). A study by Dave and co-authors reported that 6.45% of men had a history of STDs and out of them, 50% never sought medical help (Dave et al., 2013). Many studies have confirmed through empirical research that most HIV transmission in India arises from male use of FSW (Kumar et al., 2005). The belief that youth, especially women, should protect their virginity until marriage prevents them from seeking treatment for consequences of risky sexual activities.

To fully understand the phenomenon of premarital sex in India, it is vital to comprehend risky premarital sexual activities and their influencing factors. Drawing on data of unmarried youth between the ages 15–29 from the 5th round of the National Family Health Survey, this paper examines the prevalence of risky premarital sexual activities across different social, economic, and demographic background characteristics.

In this study, the researcher used data from India's National Family Health Survey (NFHS-5), 2019–21. The NFHS survey has been conducted under the Ministry of Health and Family Welfare (MoHFW) and Government of India. NFHS collected information on demographic and health indicators, including sexual behaviors at the national, regional, state, and district levels. The NFHS survey asks the question of "have you ever had sexual intercourse" to all unmarried women (1,72,568) and men (33,397). The weighted percentage of premarital sex is 2.83% for women and 13.46% for men. We analyzed the data collected from sexually active 4,668 unmarried women and 4,474 unmarried men aged 15–29 at the national level.

Measures/Description of Variables

Following are the questions asked in the survey, which we considered as our dependent variables.

Multiple Sexual partners:

Q. In total, how many different people have you had sexual intercourse in your lifetime? And if the respondent has responded more than one, then he or she is counted as having multiple sexual partners.

Paid sex:

Q. Have you ever paid anyone in exchange for having sexual intercourse? If the person has reported yes, then he is considered as if he ever had paid sex. (This question is only asked to men.)

Use of withdrawal method:

Q. Have you ever used anything or tried in any way to delay or avoid getting pregnant? If yes, what have you used or done? And if the respondent reported the

withdrawal method, that respondent is considered as he/she has ever used the withdrawal method. This study considers the withdrawal method as a risk for STI/STDs and unwanted pregnancy.

Independent Variables: Age, education, residence, caste, religion, region, wealth index and regular exposure to mass media, mobile use, internet use, ever worked, spent more than a month in a past year away from home, comprehensive knowledge of HIV, age at the first sexual encounter, and whether father ever beat mother.

Methods

We used univariate, bivariate, and multivariate analysis to come to the conclusions of the study.

Chi-Square Test (χ_c^2)

Common Bivariate statistics are used to test whether the distribution of the categorical variables is.

statistically different in two or more groups.

$$\chi_c^2 = \sum \frac{(O_{i-} E_i)^2}{E_i}$$

where O is the observed value, E is the expected value and 'i' is the ith position in the contingency table.

If the sample size is less than 1000, then Fisher's exact test is used to understand the associations.

Test for Multicollinearity: Pearson's R Correlation Coefficient Test

Collinearity occurs when two covariates in a multivariate model are highly related. If we take both of them into the model, it becomes unstable. Test for collinearity Pearson's r Correlation Coefficient is used to identify correlated binary, ordinal, and continuous covariates. A correlation of $r > 0.5$ is often considered collinear in social sciences. When two or more covariates appeared collinear, we kept the one variable most strongly associated with the outcome.

Logistic Regression

Post applying the above tests, we scrutinized the variables and multiple logistic regression was conducted between binary dependent variables of the study and categorical independent variables.

The logistic regression model is commonly estimated by the maximum likelihood function for dependent variables. The logistic model takes the following general form:

$$logit\ p = ln\, ln\left(\frac{p}{1-p}\right) = b_0 + b_1 x_1 + b_2 x_2 + \cdots b_i x_i + e_i$$

where $b_1, b_2, \ldots$ and bi represent the coefficient of each independent variable included in the model while e_i is an error term; ln [p/(1-p)] represents the natural logarithms of the odds of the outcomes.

Analysis of data is done by using Stata 16 software.

Results

Table 24.1 illustrates the significance of the association of respondents reporting multiple sexual partners and their background characteristics. Amongst the men and women who were sexually active, 4.2% of women and 23.3% of men were involved with more than one sexual partner. Since the number of women who answered for this question was less than 1000, we applied Fisher's exact test to analyze the significance of association and for men, Chi-square test was applied since they were more than 1000 in number. Age profiles suggested a positive association between age and multiple premarital sexual partnerships among young men (3.44% of 15–19, 3.97% of 20–24 versus 6.63% of 25–29 year-olds) and women (19.48% of 15–19, 22.48% of 20–24 versus 27.4% of 25–29 year-olds). Those with higher education were less likely than those with no education or primary or secondary education level to report multiple sexual relations (2.61% higher educated women versus 7.08% primary educated women; 23.% higher educated men versus 23.8% illiterate men). Middle-class youth (2.58% women and 18.91% men) were least likely to get involved with multiple sexual partners. When tested for the impact of drinking habit, both men and women showed drinking was positively associated with sexual involvement with multiple partners (3.92% of women who didn't drink versus 13.31% of women who drink; 20.73% of men who didn't drink versus 29.46% men who drink). Staying away from home for both men and women and working status of men were highly positively associated with their involvement in multiple sexual partners. Women mobile users reported higher involvement whereas women internet users reported lesser involvement with more than one sexual partner than their counterparts (4.8% mobile users versus 3.03% nonusers & 4% internet users versus 4.5% nonusers).

There was no significant association found between youth's comprehensive awareness on HIV/AIDS and their involvement with multiple sexual partners. For men, lesser age at first sexual debut was found to be associated with higher possibility of getting involved with multiple sexual partners (25% for 18 and below the age of sexual debut than 19% for 22–29 age of sexual debut). For the respondents who have seen their fathers beating mothers, their chances of getting involved with multiple partners were higher.

The results of the Chi-square test for the association between social, demographic, and economic characteristics and paid sex among sexually active men are shown in Table 24.2. On the whole, 17.24% of sexually active men reported that they ever had paid sex. Age profile showed that men in the age group 20–24 were less likely to have paid sex than their younger and older counterparts. The percentage of men involved in paid sexual activities decreased drastically from illiterate to highly educated men (33.39% illiterate versus 11.94% higher educated). Though findings were insignificant, men from urban areas (20.95%) were more likely to have paid sexual activities than rural men (15.05%). Least percentage of paid sexual activities was reported by the men in the middle wealth quintile than others. Men who reported alcohol drinking were more involved in paid sex than those who did not (15.61% who didn't drink versus 21.16% who drink). In addition, men who worked and who were away from home for more than one month had more chances of getting involved in paid sexual activity (18.82% & 22.02% resp.) than men who did not work or never been away from home (12.87% & 15.87% resp.). Exposure to mass media such as radio, TV, and newspapers, significantly increased youth's involvement in paid sex. However, mobile and internet use did not play any noteworthy role. Comprehensive knowledge of HIV/AIDS was positively associated with youth's nonparticipation in paid sexual activities (15% men who had comprehensive knowledge and 19% who had not). The percentage of men involved in paid sex was highest if their first sexual encounter was at or before 18 years of age. Men who had sex with multiple partners were higher (27.6%) to report paid sexual activities than men with one sexual partner (14.3%). There was a huge difference between reporting of men in paid sex if they had seen their fathers beating mothers (23.74% versus 14.47%).

Table 24.3 displayed the association between ever use of the withdrawal method and the social, demographic, and economic characteristics of the sexually active respondents. We used Chi-square test for women samples above 1000 and Fisher's exact test for samples less than 1000. For men, Chi-square test was applied. Reporting of ever use of withdrawal method among sexually active unmarried men and women was 7.68 and 9.91% respectively. Reporting the use of withdrawal methods was highest among women in the age group 15–19 and among men in age 20–24 years. When the education level changed from no education to higher education, the percentage of men and women reporting withdrawal methods was reduced almost by half. About 15% (14.99%) uneducated women and 7.41% higher educated women & 12.61% uneducated men and 6.56% higher educated men. There were 7.19% of women and 6.23% of men from the richest wealth quintile households, who reported the use of the withdrawal method, which was less than 10.27% of women and 7.57% of men from the poorest wealth quintiles. Women and men who reported drinking

Table 24.1 Involvement of unmarried youth (aged 15–29) in multiple sexual partners according to their background characteristics, India, 2019–21

	Women			Men		
Background characteristics	Percentage of Women who had more than one sexual partner	Number of sexually active women	Fisher's exact test (P-Value)	Percentage of Men who had more than one sexual partner	Number of sexually active men	Pearson Chi-square test
Age of the respondent						
15–19	3.44	311		19.48	970	59.76***
20–24	3.97	275	0.003***	22.48	2094	
25–29	6.63	122		27.4	1320	
Total	4.2	709		23.3	4385	
Level of education						
No education	3.27	36	0.96	23.8	174	0.929
Primary	7.08	38		23.01	288	0.818
Secondary	5.06	381		23.83	2493	
Higher	2.61	255		22.38	1431	
Residence						
Urban	3.26	680	0.787	21.98	1626	1.687
Rural	4.82	29		24.08	2759	0.194
Caste						
SC	2.78	156	0***	24.02	997	65.14***
ST	6.8	91		33.71	464	
OBC	5.23	262		19.62	1809	
Other	2.75	200		24.29	1114	
Religion						
Hindu	3.76	544	0***	22.86	3563	89.01***
Muslim	5.28	110		21.5	567	
Christian	11.73	29		22.28	96	
Others	0.6	26		40.37	158	
Wealth Index						
Poorest	3.75	120		26.09	711	7.90*
Poorer	5.82	134	0.255	20.86	884	
Middle	2.58	139		18.91	857	
Richer	7.11	134		21.9	962	
Richest	2.38	181		28.72	972	
Region						
North	4.03	112		23.99	487	85.96***

(continued)

Table 24.1 (continued)

	Women			Men		
Background characteristics	Percentage of Women who had more than one sexual partner	Number of sexually active women	Fisher's exact test (P-Value)	Percentage of Men who had more than one sexual partner	Number of sexually active men	Pearson Chi-square test
Central	4.66	323	0***	22.04	750	
East	1.43	155		22.67	1093	
Northeast	11.17	30		23.33	130	
West	4.47	71		27.49	1242	
South	8.25	18		17.56	682	
Alcohol consumption						
No	3.92	688	0.017**	20.73	3094	123.51***
Yes	13.31	21		29.46	1290	
Ever worked						
No	4.56	513	0.592	19.68	1167	19.71***
Yes	3.25	196		24.61	3218	
Away from home for more than one month in last 12 months	Fisher's exact and one sided					
No	3.99	606		22.43	3411	30.92***
Yes	5.41	103	0.084*	26.34	974	
Use of Mobile phone						
No	3.03	241	0.002***	34.86	152	0.015
Yes	4.8	468		23.16	3658	
Ever used internet						
No	4.5	282		21.88	703	0.201
Yes	4	427	0.031**	24.02	3107	
Mass media exposure						
No exposure	9.35	94	0.081*	23.67	328	4.027
Partial exposure	2.75	525		23.35	3249	
Full exposure	7.24	90		22.96	807	
Comprehensive Knowledge of HIV/AIDS						
No	4.23	450	0.888	23.22	578	2.2802
Yes	4.27	211		22.83	3664	

(continued)

Table 24.1 (continued)

	Women			Men		
Background characteristics	Percentage of Women who had more than one sexual partner	Number of sexually active women	Fisher's exact test (P-Value)	Percentage of Men who had more than one sexual partner	Number of sexually active men	Pearson Chi-square test
Seen father beat mother						
No	3.95	219	0.691	22.12	2973	21.60***
Yes	7.85	77		25.93	1272	
Don't know	1.84	7		24.56	139	
Age at first sex						
18 or less	3.97	394		24.9	1769	
19–21	4.84	211	0.692	24.22	1545	17.73***
22–29	3.75	104		19.32	1071	
Total	4.2	709		23.3	4385	

Note * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$
Source NFHS-5 (2019–2021)

of alcohol, their likelihood of reporting withdrawal methods increased drastically (9.62% women & 5.97% men who didn't drink versus 20.35% women & 11.76% men who drink). Exposure to mass media, mobile, and the internet did not influence youth's use of withdrawal methods significantly. For women, though insignificant, results show less usage of withdrawal methods among those who had comprehensive knowledge of HIV/AIDS. Though the association test is insignificant, men and women who had sex in later ages were the least when it comes to using the withdrawal method. Men who were involved in multiple sexual activities and paid sex were higher in percentage of using the withdrawal method (7.22 men with one partner versus 9.81% of men with multiple partners and 7.09 men who did not have paid sex versus 11.05% men who had paid sex).

Table 24.4 demonstrates the extent of association between background characteristics and youth's involvement in multiple sexual activities. Women of 25–29 years were twice likely to have multiple sexual partners than of age 15–19. Similarly, men of 25–29 ages were 82% more likely to have multiple sexual partners than that of 15–19 years. Men who drink were 82% and who stayed away from family were 39% more likely to have sexual encounters with multiple partners than their counterparts. Men had a 34% higher chance of involving themselves sexually with multiple partners if they observed their fathers beat their mothers.

Table 24.5 shows logistic regression for the association between two dependent characteristics; one is ever had paid sex and the other is ever use of withdrawal method and multiple independent background characteristics. Men from the richest wealth quintile were 25% less likely to have paid sex than the poorest. Among the

Table 24.2 Association between involvement in paid sex among sexually active and never married men (between 15–29 years), 2019–21, India

Background characteristics	Percentage of men involved in paid sex ever	Number of Sexually active men	Chi-square Test
Age of the respondent			
15–19	18.52	**951**	7.11**
20–24	16.06	2038	
25–29	18.14	1289	
Highest level of education			
No education	33.39	172	23.72***
Primary	23.76	279	
Secondary	18.4	2426	
Higher	11.94	1401	
Residence			
Urban	20.95	1584	1.5292
Rural	15.05	2693	
Caste			
SC	19.05	972	23.15***
ST	17.81	456	0
OBC	18.41	1766	
Other	13.45	1084	
Religion			
Hindu	17.46	3486	41.13***
Muslim	18.22	541	0
Christian	17.57	96	
Others	8.43	154	
Wealth Index			
Poorest	19.41	693	8.79*
Poorer	18.27	862	
Middle	14.54	839	
Richer	19.15	933	
Richest	15.21	951	
Region			
North	14.02	471	88.55***
Central	13.52	743	0
East	18.58	1066	
Northeast	7.44	129	
West	13.84	1211	
South	29.76	657	

(continued)

Table 24.2 (continued)

Background characteristics	Percentage of men involved in paid sex ever	Number of Sexually active men	Chi-square Test
Drink alcohol			
No	15.61	3027	6.33**
Yes	21.16	1251	
Ever worked			
No	12.87	1141	6.99***
Yes	18.82	3137	
Away from home for more than one month in last 12 months			
No	15.87	3,329	8.79***
Yes	22.02	948	
Owns a mobile			
No	20.1	149	2.6263
Yes	17.56	3572	
Ever used internet			
No	21.71	686	2.0129
Yes	16.75	3035	
Mass media exposure			
No exposure	14.19	320	6.68**
Partial exposure	16.57	3174	
Complete Exposure	21.16	783	
Comprehensive Knowledge of HIV/AIDS			
No	18.5	2687	10.28***
Yes	15.21	1450	
Seen father beat mother			
No	14.47	2926	31.24***
Yes	23.74	1215	
Don't know	18.54	136	
Age at first sex			
18 or less	20.49	1725	15.28***
19–21	13.05	1497	
22–29	17.85	1056	
Number of sexual partners			
One	14.3	3335	79.09***
More than one	27.6	943	
Total	17.24	4278	

Note * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$
Source NFHS-5 (2019–2021)

Table 24.3 Association between ever use of withdrawal method by sexually active unmarried women and men (aged 15–29) years in India and their background characteristics, 2019–21, India

Background characteristics	Percentage of women	Number of women	Chi-square / Fisher's exact Test	Percentage of men	Number of men	Chi-square Test
Age of the respondent						
15–19	10.57	1,985	18.30***	6.39	982	13.53***
20–24	9.27	1,926		8.44	2145	
25–29	9.82	757		7.41	1346	
Highest level of education						
No education	14.99	263	3.50	12.61	177	4.92
Primary	11.52	260		11.36	290	
Secondary	10.81	2,535		7.56	2546	
Higher	7.41	1,610		6.56	1461	
Residence						
Urban	8.69	1,787	14.81***	10.44	1663	4.37**
Rural	10.67	2,881		6.05	2811	
Caste						
SC	7.07	1,076	88.32***	9.71	1018	44.08***
ST	15.61	633		9.85	481	
OBC	10.06	1,769		6.75	1833	
Other	9.24	1,190		6.46	1142	
Religion						
Hindu	8.88	3,618	60.44***	7.4	3634	70***
Muslim	13.92	771		8.48	575	
Christian	13.29	172		20.41	100	
Others	10.29	106		3.22	165	
Wealth Index						
Poorest	10.27	785	28.68***	7.57	723	74.77***
Poorer	11.96	922		6.97	895	
Middle	10.23	828		5.54	884	
Richer	10.89	914		11.79	982	
Richest	7.19	1,219		6.23	989	
Region						
North	16.66	737	94.80***	11.03	495	102.39***
Central	7.74	2,198		6.92	761	
East	10.94	898		6.35	1111	
Northeast	11.52	189		16.06	140	
West	10.24	453		4.47	1269	
South	1.67	192		12.4	697	

(continued)

Table 24.3 (continued)

Background characteristics	Percentage of women	Number of women	Chi-square / Fisher's exact Test	Percentage of men	Number of men	Chi-square Test
Drinks alcohol						
No	9.62	4,541	40.35***	5.97	3153	17.47***
Yes	20.35	127		11.76	1320	
Ever worked			(Fisher's Exact)			
Never	9.63	523	0.070*	7.08	1183	0.308
Yes	8.95	204		7.9	3291	
Owns a mobile phone			(Fisher's Exact)			
No	9.7	249	0.255	8.39	158	0.021
Yes	9.31	478		8.32	3730	
Use internet			(Fisher's Exact)			
No	10.59	291	0.457	8.88	730	2.519
Yes	8.68	437		8.19	3158	
Mass exposure						
No exposure	10.21	710		3.73	337	2.996
Partial exposure	9.81	3,269	6.19**	7.74	3307	
Complete exposure	10.09	689		9.06	830	
Comprehensive knowledge of HIV/AIDS			*(Fisher's Exact)*			
No	10.57	467	0.349	7.12	2828	23.39***
Yes	8.01	212	0.19	9.48	1498	
Age at first sex						
18 or less	10.62	2600		7.44	1801	2.9406
19–21	9.75	1360	4.95*	8.67	1578	
22–29	7.61	708		6.65	1095	
Number of sexual partners			(Fisher's Exact)			
One	9.74	679	0.341	7.22	3363	7.48***
More than one	4.2	30		9.81	1022	
Have ever paid anyone in exchange of sex						
No	NA	NA	NA	7.09	3540	0.01
Yes	NA	NA	NA	11.05	737	
Total	9.91	4,668		7.68	344	4474

Note * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$
Source NFHS-5 (2019–2021)

Table 24.4 Logistic regression showing the association of unmarried youth's involvement in multiple sexual partners and background characteristics, 2019–21, India

Multiple sexual partners among women/ Background characteristics	OR	[95% Conf. interval]		Multiple sexual partners among men/Background characteristics	OR	[95% Conf. Interval]	
Age of the respondent				*Age of the respondent*			
15–19®				15–19®			
20–24	1.52	0.79	2.93	20–24	1.28***	1.06	1.53
25–29	2.02*	0.98	4.14	25–29	1.82***	1.49	2.22
Caste				*Caste*			
SC®				SC®			
ST	2.93*	0.85	10.16	ST	1.05	0.83	1.32
OBC	1.90	0.58	6.20	OBC	0.83*	0.69	1.01
Other	1.55	0.41	5.84	Other	0.92	0.74	1.14
Religion				*Religion*			
Hindu®				Hindu®			
Muslim	0.82	0.26	2.59	Muslim	1.06	0.82	1.35
Christian	1.40	0.53	3.70	Christian	1.39**	1.01	1.92
Others	0.57	0.17	1.89	Others	1.52***	1.17	2.00
Region				*Wealth quintile*			
North®				Poorest®			
Central	1.36	0.46	4.04	Poorer	0.90	0.73	1.11
East	0.47	0.10	2.14	Middle	0.84	0.67	1.04
Northeast	2.28	0.65	7.97	Richer	0.87	0.69	1.10
West	0.50	0.09	2.77	Richest	0.85	0.67	1.10
South	1.24	0.22	7.00	*Region*			
Alcohol drinking status				North®			
No®				Central	1.06	0.86	1.30
Yes	1.75	0.73	4.18	East	0.93	0.73	1.20
Spent at least one month away from home				Northeast	1.17	0.88	1.57
No®				West	0.94	0.73	1.21
Yes	1.79	0.89	3.61	South	0.58***	0.42	0.79
Mobile use				*Alcohol drinking status*			
No®				No®			
Yes	1.35	0.64	2.86	Yes	1.82***	1.57	2.11
Mass media exposure				*Ever worked*			

(continued)

Table 24.4 (continued)

Multiple sexual partners among women/ Background characteristics	OR	[95% Conf. interval]		Multiple sexual partners among men/Background characteristics	OR	[95% Conf. Interval]	
No exposure at all®				No®			
Partial exposure	0.35***	0.18	0.67	Yes	1.14	0.97	1.33
Full exposure	0.41**	0.17	1.00	*Spent at least one month away from home*			
				No®			
				Yes	1.39***	1.20	1.62
				Respondent's father ever beat mother			
				No®			
				Yes	1.34***	1.16	1.58
				Don't know	1.56***	1.13	2.14
_cons	0.03	0.01	0.13	_cons	0.17	0.12	0.23

Note * p < 0.10; ** p < 0.05; *** p < 0.01
Source NFHS-5 (2019–2021)

men who drink alcohol and who stayed away from home were 26% and 30% more likely to have paid sex than men who did not. Men with comprehensive knowledge of HIV were 16% less likely and men who have seen their fathers beating their mothers were 41% more likely to indulge in sex by paying, than their counterparts. Regarding the withdrawal method, men from the 25–29 age group, and who drink were 34%, and 32% more likely to use the withdrawal method than men 15–19 years age group, and who did not drink alcohol. Rural and richest men were 27% and 33% less likely to use the withdrawal method than their urban and poorest counterparts. Men with comprehensive knowledge of HIV were 51% more likely to use the withdrawal method during sexual intercourse.

Discussion

This study provides the most recent nationally representative estimates of risky sexual behaviors and associated influencing factors among India's unmarried and sexually active youth. This article draws inferences based on information collected from 4,668 women and 4,474 men aged 15–29. Though in India, marriage usually marks entry into sexual life, this study has clearly brought out that a significant percentage of youth are not only just getting involved in premarital sex, but also in risky sexual

Table 24.5 Logistic regression showing association of unmarried men's involvement in paid sexual activities and ever use of withdrawal method with background characteristics, 2019–21, India

Ever had paid sex/Background characteristics	OR	[95% Conf. Interval]		Ever used withdrawal method/ Background characteristics	OR	[95% Conf. Interval]	
Age of the respondent				*Age of the respondent*			
15–19®				15–19®			
20–24	0.86	0.69	1.07	20–24	1.21	0.92	1.59
25–29	0.90	0.70	1.16	25–29	1.34*	1.00	1.79
Level of education							
No education®							
Primary	1.09	0.65	1.83	*Place of residence*			
Secondary	0.96	0.63	1.47	Urban®			
Higher	0.79	0.50	1.27	Rural	0.73**	0.57	0.94
Caste				*Caste*			
SC®				SC®			
ST	0.79	0.59	1.07	ST	1.46**	1.02	2.08
OBC	0.87	0.70	1.10	OBC	1.08	0.80	1.46
Other	0.73**	0.56	0.97	Other	1.12	0.81	1.56
Religion				*Religion*			
Hindu®				Hindu®			
Muslim	1.71***	1.30	2.25	Muslim	1.13	0.79	1.62
Christian	0.44**	0.24	0.83	Christian	1.22	0.80	1.88
Others	1.01	0.69	1.49	Others	0.65*	0.42	1.00
Wealth Quintile				*Wealth Quintile*			
Poorest®				Poorest®			
Poorer	0.93	0.71	1.21	Poorer	0.98	0.72	1.34
Middle	0.87	0.65	1.17	Middle	0.90	0.64	1.25
Richer	0.85	0.63	1.15	Richer	0.73*	0.51	1.06
Richest	0.75*	0.53	1.05	Richest	0.67**	0.44	1.00
Region				*Region*			
North®				North®			
Central	0.73**	0.57	0.94	Central	0.59***	0.44	0.79
East	1.12	0.84	1.50	East	0.50***	0.34	0.74
Northeast	0.41***	0.26	0.66	Northeast	1.13	0.76	1.68
West	0.76*	0.55	1.05	West	0.47***	0.32	0.69
South	1.53***	1.11	2.11	South	0.44***	0.28	0.71
Alcohol drinking status				*Alcohol drinking status*			

(continued)

Table 24.5 (continued)

Ever had paid sex/Background characteristics	OR	[95% Conf. Interval]		Ever used withdrawal method/ Background characteristics	OR	[95% Conf. Interval]	
No®				No®			
Yes	1.26**	1.03	1.53	Yes	1.32**	1.07	1.64
Ever worked							
No®							
Yes	1.19	0.96	1.46				
Spent at least one month away from home							
No®							
Yes	1.30***	1.07	1.57				
Mass media exposure							
No exposure at all®							
Partial exposure	1.03	0.76	1.39				
Full exposure	1.29	0.91	1.82				
Respondent's father ever beat mother							
No®							
Yes	1.41***	1.17	1.71				
Don't know	1.18	0.76	1.83				
No®				No®			
Yes	0.84*	0.69	1.01	Yes	1.51***	1.24	1.85
_cons	0.19	0.11	0.33	_cons	0.12	−2.63	−1.65

Note * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$
Source NFHS-5 (2019–2021)

behaviors. This study discussed the three risky sexual behaviors—multiple sexual partners, paid sex, and use of withdrawal method during intercourse.

Among sexually active unmarried youth (aged 15–29), 4.2% of women and 23.3% of men reported they had more than one sexual partner. A study based on NFHS 4 showed among unmarried and sexually active participants of age 15–49, 31 percent of men and 14% of women reported more than one sexual partner (Singh et al., 2020). The sample of both the studies is same except the age. However, considering the majority of unmarried men and women belong to the 15–29 age group, if we compare the results, it is observable that both the percentage of men and women involved in multiple sexual partners decreased from 2015–16 to 2019–21. However, the mean number of lifetime sexual partners has increased for never married women but decreased for men (yet higher than women) from 2005–06 to 2019–21 (IIPS & Macro International, 2007; IIPS & ICF, 2017, IIPS & ICF, 2021).

The second risky sexual activity we considered was paid sex, and the question was asked to male respondents only. Nearly 17% of men with sexual history reported their involvement in paid sex. Consistent with previous literature, our study confirms that paid sexual partners are one of the leading sexual partners for unmarried men in India. In addition, the percentage of men involved in paid sexual activities is persistently increasing (IIPS & Macro International, 2007; IIPS & ICF, 2017, IIPS & ICF, 2021).

The third HIV-related risky sexual activity covered in present study is the practice of withdrawal method to avoid pregnancy of women. Our study documents about 9.91% of women and 7.68% of men have ever used the withdrawal method during premarital intercourse. Considering the least awareness about the modern contraception other than condom, uncomforting while accessing condoms, considerably higher awareness of withdrawal method than other traditional methods (IIPS & Population Council, 2010; Santhya et al., 2011a, 2011b), and unwanted pregnancy before marriage, many unmarried youth may opt for withdrawal method. However, many researchers criticize the use of withdrawal method by calling it "non-method" (Doherty & Stuart, 2011) or "better than nothing" (Miller, 2003) because of its consequences. Estimates obtained from the National Survey of Family Growth of the USA reveal, there is a predicted 18.8% chance of coitus interruptus failure (Kost et al., 2008). Additionally, within the first year of use, an estimated 27% of women who practice withdrawal methods had unwanted pregnancy (Trussell & Wynn, 2008). Moreover, a study showed respondents who reported inconsistent use of condom and withdrawal were 2.22 times more likely to acquire sexually transmitted infections than those who consistently used condoms (Sznitman et al., 2009). These findings indicate that there is a serious need to demotivate the use of withdrawal methods and promote the use of condoms among unmarried youth.

In this study we have tried to fill the gap in the literature by examining the associated factors of risky sexual behaviors and extent of those associations. The gender differences in youth's involvement with multiple sexual partners were crystal clear with men's participation was almost 6 times higher than women's, indicating men have more sexual laxity. These gender differences were consistent across all socioeconomic factors and they were persistent in all previous studies (Sujay, 2009; IIPS & Population Council, 2010; Arora et al., 2014; Singh et al., 2020). We could identify following reasons for this sexual double standard; firstly, women are less likely to be permissive of premarital sex hence they are less likely to get involved in premarital sex. Secondly, even if women involve in sex before marriage, they are more likely to prefer steadiness in sexual relations; they think about the safety of the act and value the feeling of love in those (Ghule et al., 2007).

We compared the findings within and between two types of ages, one was age of the respondents in completed years (three age groups: 15–19; 20–24, and 25–29 years) and age at the time of first sexual encounter (18 or less; 19–21 & 22–29). Our data revealed that, both men and women of older age and earlier age at sexual intercourse were more likely to get involved in multiple sexual partners than their counterparts. This result is consistent with previous study findings from the 4th round of NFHS (Singh et al., 2020). The plausible reason could be youth with older age

and youth who entered in sexual activities in earlier age get more time for which they could be exposed to the risk of getting sexually involved with more than one partner than their counterparts. Women of age 15–19 years (teenagers) and women who had sex before or at 18 were more likely to report the use of the withdrawal method than their counterparts. These women may not be aware enough of modern contraception and may not be empowered enough to ask their partners to use a condom. Women tend to depend on men for contraception use (Ghule et al., 2007) mainly due to the patriarchal nature of Indian society. Also, men deny the use of condoms as it reduces their pleasure. In the youth in India study, only 30% of men and 20% of women agreed on a statement that condoms do not reduce sexual pleasure, meaning about 3/4th of unmarried youth believe that condoms reduce pleasure (IIPS & Population Council, 2010). This leads to an increase in the burden of contraceptive use on the shoulders of unmarried women. Previous studies showed earlier sexual initiation was found to be negatively correlated with condom use (Prata et al., 2006; Santhya et al., 2011a, 2011b; Štulhofer et al., 2007).

One of the interesting findings of this study is that men in the age group 15–19 and 25–29 were more likely to get involved in paid sexual activities than 20–24 years. In addition, men with age at first sex 18 or less and 22–29 were more likely to have paid sex than age 19–21. This could be because some younger (15–19 aged) men rush into sexual activities by paying at a younger age and some older (25–29 ages), not married and sexually inexperienced men, have to choose paid sex for sexual experience.

Our study revealed education played a paramount role in men and women's involvement in RSB. The risk of RSB was reduced to half if the respondent was highly educated as compared to uneducated. Though attaining higher education increases the age at marriage which may cause youth's involvement in sexual relations (Alexander et al., 2007; Xenos, 1993), our study demonstrates that sexual activities of higher educated youth were more likely to be safe than uneducated youth. Though statistically insignificant, it is important to note here that urban men were more likely to go for paid sex than rural men. The possible explanation for this could be that female sex workers are more easily accessible in urban areas than in rural areas.

Consistent with previous study based on NFHS 4 data (Singh et al., 2020), our study also showed men from the middle class were less likely to engage with multiple sexual partners. In addition, middle-class men were least likely to have paid sex. An explanation for this could be that middle-class people in India are the ones who keep themselves more tightly attached to Indian traditional norms than the rich and poor population. This results in more restrictions on men and women of the middle-class families by their parents, leading to fewer opportunities for them to get sexually involved with multiple partners and commercial sex.

The percentage of reporting of all types of risky premarital sexual behaviors was highest among those who reported drinking alcohol. Studies have shown that substance use is highly associated with risky sexual activities (Yadav et al., 2014; Chawla & Sarkar, 2019; Stoner et al., 2007). Sexual intercourse after consuming alcohol may lead to using condoms or the withdrawal method wrongly or not

using any method at all and ultimately increasing the risks of STDs and unwanted pregnancy.

Working experience and staying away from home for at least a month in the past year were highly associated with men's involvement with multiple sexual partners and paid sex. Furthermore, women who stayed away from home showed higher likelihood of having sex with more than one partner. Best possible way to explain this association is that when youth start to work, they have to leave their parental house in most cases. If youth stay away from home, they are away from the direct supervision of parents (who are strict about following traditional norms of sexuality). Away from home environments offer greater privacy and may provide more opportunities to engage in RSB. A study by Saggurti et al. (2011) elicited the information that migrants were more likely to engage in sex with sex workers and have multiple (3 +) sex partners than non-migrants. Several studies documented that the spread of HIV/AIDS is associated with migration through risky sexual activities (Wolffers, 1995; Saggurti et al., 2011; Mathew et al., 2019).

Surprisingly, there was no consistent impact of traditional monological media such as newspapers, radio, and television as well as dialogical sources such as mobile and internet on youth's involvement in RSB. However, for women, the use of mobile was mildly associated with participation in sex with multiple partners and use of the internet was associated with less involvement with multiple sexual partners.

Unexpectedly, this study showed that comprehensive knowledge of HIV was not a significant predictor of youth's involvement in multiple partners or practice of withdrawal method. However, men's comprehensive knowledge of HIV/AIDS was positively associated with their less involvement in paid sex. Our study also found that men involved in paid sex and multiple sexual partners were more likely to use the withdrawal method.

Conclusion

This study illustrated that a considerable percentage of youth were involved in risky premarital sexual behaviors. Sexual double standards were evident as men were six times more likely to be involved in multiple sexual partners than women. Youth became more vulnerable to risky sexual activities when they were uneducated, younger in age, initiated sexual activities at younger age, drink alcohol, spend time away from home, and when they have seen their fathers beating their mothers. The risk of men getting involved in paid sex and with multiple sexual partners increases manifold when they are working and staying away from home. Comprehensive knowledge of HIV/AIDS reduced the risk of getting involved in paid sex among men. This study reiterates the need for comprehensive and age-appropriate sex education.

Recommendations

This study recommends efforts should be taken with the help of teachers and parents to improve SRH knowledge among youth to make them aware of the consequences of involvement in paid sex, withdrawal method use, and having sex with multiple partners. Youth, primarily women, should be provided their right to SRH care, irrespective of their marital status. Additionally, youth should be made aware of legality of abortion for unmarried women as per MTP Act, 2021. Age-appropriate and comprehensive sex education should be imparted. Sex education could be used to reduce the stigma surrounding sexuality and to minimize the underreporting of sexual activities, including risky ones. An earlier study demonstrated that youth who received sex education were relatively more aware about reproductive health issues than their counterparts, and majority among Indian youth, irrespective of their age and gender, favored introduction of sex education at school level, preferably from standard 8th onward (Tripathi & Sekher, 2013). Programs and policies should prioritize the ways for increasing age at first sex and making unmarried youth as part of family planning programs to reduce their vulnerability.

Limitations of the Study

Although widely accepted, NFHS data suffers from some limitations due to the cross-sectional nature of the survey. The causality of results cannot be determined with NFHS data but with associations. One concern about treating the withdrawal method as a risky premarital sexual behavior is that literature suggests that couples use the withdrawal method along with other methods of contraception as well. One apparent limitation is social desirability bias. The Youth in India Study revealed odds of disclosing premarital sexual activities are higher through anonymous sealed envelope format than face-to-face interviews (IIPS & Population Council, 2010). NFHS data was collected through face-to-face interviews. In India there exist a strong stigma on premarital sex which may result into serious underreporting of activities of premarital sex as well as risky sexual behaviors.

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