

Original Research Article

Risk Behaviours and Prevalence of STIS /RTIS and HIV in Persons Involved in Premarital Sexual Behavior among STD Clinic Attendees of Govt. General Hospital, Chennai

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ABSTRACT

In order to understand the attitude, acceptance on pre-marital sex and the risk behaviors of STD clinic attendees of Government General Hospital and to estimate the prevalence of STIs/RTIs and HIV in them, this study was conducted by the National Institute of Epidemiology, ICMR, in collaboration with Institute of Venereology, Government General Hospital, Chennai, between April 2010 and May 2013 among all the willing STD clinic attendees who had the exposure of premarital sexual contact. This was a quantitative, cross sectional study with 892 respondents. The data was collected using a semi structured interview schedule after obtaining written informed consent.

Though the acceptability of premarital sexual contact was higher in males it was not significantly different among the genders ($p=0.111$). The first sexual partner for males was their friends and “relatives” for females. The first two reasons reported by males for pre marital sex were, curiosity and enjoyment; in females, they were, enjoyment and marriage assurance.

The type of first sexual contact in 741 (83%) respondents was vaginal, anal in 66 (7%), Vaginal and anal in 38 (4%), oral in 28 (3%) respondents and the rest 18 (2%) had sex in other combinations. In males, only 15 (13%), had used condom with males, 178 (26%) with females and 3 (33%) with transgenders. Among females, 7 (10%) had reported of using condom during first sex. Significantly more males ($p=0.001$) had used condom than females, during their sexual debut.

Prevalence of STI/RTI in the study respondents was 35% and HIV was 4.3%. In all, 32% of male and 72% of female reported of having STI/RTI. Females were having significantly higher prevalence of STI/RTI/HIV ($p=0.000$) than the males. Persons who had STI/RTI/HIV were using significantly lesser ($p=0.001$) condom during their first sexual contact than those who did not have the problems. Significantly more males had the influence of smoking and drinking ($p=0.000$).

Need for behavioural research in the field of STIs/RTI/HIV was emphasized.

Key words: Premarital sexual behavior, STD clinic attendees, prevalence of STI/RTI/HIV.

INTRODUCTION

Rapid economic growth, urbanization, extensive reach of media, abuse of substances like drugs alcohol, tobacco, having peers who are sexually active, family instability, porno films and X rated materials, are considered as risk

factor for sexual activity initiation among the youth. The peer norms, peer pressures, higher levels of social interactions may be important factors for early sexual initiation and opportunity for youngsters to indulge in sexual activity. ^(1,2) Premarital relationships are widely discouraged in

India; yet, strict sanctions, including parental violence, loss of reputation and swiftly arranged marriages to someone other than the romantic partner, up to 10% of young women and 15-30% of young men form such partnerships. (3-8)

The National Family Health Survey (NFHS-3) reports, 11 % of women and 5 % of men in the age group 15-49 in sexual relationship reported of STI/ RTI related symptom in the last 12 months. Sexually transmitted infections (STIs) and RTIS are important public health problems in India. The prevalence of these infections is considerably higher among high-risk groups (HRG's) ranging from 20-30%. (9) While several studies have documented the extent of pre-marital sexual experience among young people in India, little work has been done to explore the risk behaviors and factors that are correlated with the timing of pre-marital sexual initiation (10) and among the STD clinic attendees.

The present study reports the risk behaviours, attitude, and acceptance of premarital sexual contacts and prevalence of STIs /RTIs and HIV in persons involved in premarital sexual behavior in STD Clinic attendees of Govt. General Hospital, Chennai.

Objectives:

- i. To understand the attitude, acceptance on pre-marital sex (PMS) and the risk behaviors of STD clinic attendees who had the exposure to PMS
- ii. To estimate the prevalence of STIs/RTIs and HIV in the above mentioned group

MATERIALS AND METHODS

Study site and population: This study was carried out by National Institute of Epidemiology (NIE), in collaboration with the Institute of Venereology (IOV), Government General Hospital (GGH), at the STD clinic, GGH, Chennai. All the STD clinic attendees (both men and women), from April 2010 to May 2013, who had the exposure of pre-marital

sexual contact, formed the study population. Among them all those who were willing to be the study respondents were our sample in the study. It was a quantitative, cross sectional, descriptive study.

Data collection and tools: The data was collected by the research investigators, from all the willing respondents (n=892), after obtaining written informed consent from the participant. The interview schedule contained questions on demographic data, details on pre-marital sexual contact (PMC), risk behaviours, attitude and acceptance of PMC and the diagnosis with the results of investigations done among these STD clinic attendees. All the investigations for STIs and RTIs were done at IOV; as a routine, blood serum VDRL test was done for syphilis, and all the patients were referred for HIV testing. For symptomatic patients, specific test for gonorrhoea (by gram stain method), trichomonas Vaginalis (by wet mount-normal saline) or Vaginal Candidiasis (by KOH) were done to aid the case management. With respect to data analysis, the data was entered in SPSS version 16; descriptive analyses and tests of significance were done.

Ethical Clearance: Ethical clearance was obtained from the Institutional Ethics Committee (IEC) of NIE for the ethical aspects of the study.

RESULTS

Socio-economic Characteristics: Out of the total 892 respondents, 818 (91.7%) were males and among the males 469 (57.3%) were in the age group of 26 to 40 years. Among the females, (n=74; 8.3%) 45.9% were in the age group of 18 to 25 years. On the whole, 498 (55.8%) were in the age group of 26 to 40 years. In all, 772 (94.4%) patients were 21 to 40 years of age. Mean age of the respondents was 31.84 years and median, was 30 years (Table 1).

Most of the respondents (n=792; 89%) were Hindus; 65 (7.3%) were

Christians and 34 (3.8%) were Muslims. In all, 70 (8%) respondents were illiterates and 10 (1%) were able to read and write; the remaining 812 (91%) respondents were literates. More than half of them (n=449; 50.3%) were unmarried.

With respect to their occupation, among males, 184 (23%) were daily wage earners, followed by skilled labourers (n=156; 19%). There were 109 (13%)

male respondents who were drivers. Among females, 20 (27%), were students, followed by daily wage earners (n=16; 22%). In all, 200 (22.4%) persons were daily wage earners, which was the leading occupation among the respondents.

More than half of them (n=462; 51.8%) had their residence in urban area, 217 (24.3%) in semi-urban area and 213 (23.9%) were from rural areas.

Table 1: Age and gender of the respondents

Age group (in years)	Gender				Total		Mean	Median
	Male (91.7%)		Female (8.3%)		No.	%		
	No.	%	No.	%				
<18	2	0.2	6	8.1	8	0.9	31.84	30.00
18 to 25	193	23.6	34	45.9	227	25.4		
26 to 40	469	57.3	29	39.2	498	55.8		
>40	154	18.8	5	6.8	159	17.8		
Total	818	100.0	74	100.0	892	100.0		

Table 2: Tests of Significances

Order	Gender	Used condom during sexual debut			P-value*
		No	Yes	Total	
a)					0.002
	Female	67	7	74	
	Male	621	196	817	
	Total	688	203	891	
	Had STI/RTI	Used condom at sexual debut			P-value*
b)		No	Yes	Total	0.001
	Had other complaints	399	143	542	
	Had STI/RTI	290	60	350	
	Total	689	203	892	
	Gender	Influence of smoking/drinking			P-value*
c)		No	Yes	Total	0.000
	Smoking				
	Female	68	6	74	
	Male	323	495	818	
	Drinking				
	Female	67	7	74	
Male	252	566	818		
	Gender	Acceptability of Premarital sex			P-value*
d)		Female	Male	Total	0.111
	Female	9	18	27	
	Male	159	176	335	
	Total	168	194	362	
	Gender	Premarital sex to be stopped			P-value*
e)		No	Yes	Total	0.038
	Female	21	53	74	
	Male	323	495	818	
	Total	344	548	892	
	Prevalence of STI/ RTI	Gender			P-value*
f)		Female	Male	Total	0.000
	No	20	522	542	
	Yes	54	296	350	
	Total	74	818	892	

* p = <0.05 is significant

Sexual risk behavior: Mean age at sexual debut was 21.7 years and the median age was 21.0 years. The type of first sexual relationship in 741 (83%) respondents was vaginal, anal in 66 (7%), Vaginal and anal in 38 (4%), oral in 28 (3%) respondents

and the rest 18 (2%) had sex, in other combinations.

The relationship of the first sexual partner for 197 (24%) males were their friends; next was sex workers (n=150; 18%). With respect to females, their first

sexual partner was relative (n=23; 31%); this was followed by their lover (n=14; 19%). Among males, 117 (14%) had first sex with males, 691 (85%) with females and 9 (1%) with Aravanis. In this, only 15 (13%), had used condom with males, 178 (26%) with females and 3 (33%) with Aravanis. Among females, 7 (9%) had reported of using condom during first sex and 67 (91%) had not reported of using condom. However, significantly more males (p=0.002) had used condom during their sexual debut (Table 2 order a).

In all, 56 (18%) persons who were reported to be having STI/RTI have used condom during their first sex. Among the persons who had HIV (4%; n=38), 4 (11%) had mentioned that they had used condom during their first sex. In all, significantly lesser persons who had STI/RTI/HIV had used condom (p=0.001) during their first sex than those who did not have the problems (Table 2 order b).

Other risk behaviours: In all, 495 (60.5%) males and 6 (8%) females, (totally 501 (56%)) had the habit of smoking and 566 (69%) males and 7 (9%) females (totally 573 (64%)) had the influence of alcohol. On the whole, significantly more males had the influence of smoking and drinking (p= 0.000) (Table 2 order c). Similarly, 42 (5%) males and 1 (1%) female had the influence of oral drug and 12 (1.5%) males and none of females reported of having the influence of injecting drug.

Attitude and Acceptance of pre-marital sex: Among the males, 176 (22%) mentioned that premarital-sex by males and 159 (19%), by females were acceptable; whereas among the females, 18 (24%), mentioned that premarital-sex by males and 9 (12%) by females, were acceptable. However, the acceptability of premarital sexual contact was not significantly higher (p=0.111) in males (Table 2 order d).

The first two reasons reported by the males for pre marital sex were, curiosity (n=364; 45%) and enjoyment

(n=334; 41%); whereas in females the first two reasons were, enjoyment (n=31; 42%) and marriage assurance (n=30; 41%). Two health problems because of having pre marital contact among males were informed as HIV/AIDS (n=171; 21%) and General complaints (n=120; 15%) and in females, they mentioned as HIV/AIDS (n=30; 41%) and TB (n=8; .11%).

When we asked whether pre marital sex could be stopped, 495 (61%) males and 53 (72%) females mentioned that it could be stopped. Significantly more females (p=0.038) had mentioned that premarital sex could be stopped (Table 2 order e). The main reason mentioned by males (n=66; 13%) was to protect from disease and in females (n=10; 14%) it was to have self control. The main reason to continue to have pre marital sex was "individual wish" which was mentioned by both male and female respondents (n=83; 9%).

Prevalence of STI/RTI and HIV: The prevalence of STI/RTI was 35% (32% of male and 72% of females). In all, 4.3% (n=38) had HIV, which was 5% (n=37) in males and 1% (n=1) in females. The prevalence of STI/RTI/HIV was significantly more among females (p=0.000) than males (Table 2 order f). Totally, 480 (54%) had non-venereal disease, as many respondents were referred by other departments in the hospital, for ruling out Syphilis or HIV.

Among males who mentioned that premarital sex in males was acceptable (n=176), 62 (35%) had STI/RTI and 2 (1%) had HIV; in females (n=159), 55 (35%) had STI/RTI and 4 (2.5%) had HIV.

Among females who mentioned that pre marital sex in males was acceptable (n=18), 14 (78%) had STI/RTI and none of them had HIV; in females (n=9) all the 9 (100%) had STI/RTI.

As regards to males who mentioned that premarital sex in males was not acceptable (n=634), 195 (31%) mentioned that they had STI/RTI and 34

(5.4%) had HIV; in females (n=584), 183 (31%) had STI/RTI and 27 (5%) had HIV.

Among the females, who mentioned pre marital sex was not acceptable in males (n=48), 33 (67%) had STI/RTI and 1 (2.1%) had HIV; in females (n=63), 42 (67%), had STI/RTI and 1 (1.6%) had HIV.

DISCUSSION

In the present study, with total respondents of 892, who had the exposure of premarital sexual contact, the mean age at first sexual contact was 21.7 years and median age was 21 years. Whereas the age at first sex was observed to be a typical pattern among married men and during pre marital period it was nearly 20 years.^(11,12) In another study,⁽¹³⁾ the median age at first sexual contact was 18 years.

Most respondents held positive attitudes towards premarital sex, with males having more liberal attitudes than females (mean score of 2.68 vs. 2.32, $p < 0.001$).⁽¹⁴⁾ The same was different in the current study as the acceptability of PMS was different among genders ($p=0.111$).

In a study conducted at Pondicherry,⁽¹⁵⁾ premarital contacts for majority of male and female respondents (73.7%) were their relatives. In the current study, only in females more number (31%) had mentioned as their relative, whereas in males it was their friends (24%).

In the study by Kumar et al,⁽¹⁶⁾ during premarital sex in last 6 months, 22.3% males and 6.3% females reported consistent condom use. Whereas in another study,⁽¹⁷⁾ out of 528 singles who had premarital sex, 126 (23.8 %) never used a condom, 223 (42.2 %) used it inconsistently, and 59 (11.1 %) used it mainly against sexually transmitted diseases. In the current study out of the 818 males, only 15 (13%), had used condom with males, 178 (26%) with females and 3 (33%) with Aravanis. Among females, 7 (9%) had reported of using condom during first sex and 67 (91%) had not reported of using condom.

Most of the respondents (141; 87%)⁽¹⁵⁾ with pre/extramarital contact had had unsafe sex. In the present study also 77.2% did not use condom for the PMS – during the sexual debut.

Limitation: This data pertaining to STD clinic attendees cannot be generalised to others on community level. Under reporting of pre marital sex and age at first sex cannot be ruled out. Since this study covered premarital sex in the past also, recall bias cannot be avoided. The stigma attached to STD clinic and premarital sex need to be considered.

CONCLUSIONS AND SUGGESTION

Taking into account the respondents lesser condom use, females' powerlessness to insist on condom use, the economical need and the attitude towards premarital sexual contact, there is a special need for the behavioural research in the field of STIs/RTI/HIV which has to look into the issue in total.

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