

A Study of Sociodemographic Determinants of Consistent and Correct Condom Use among Homosexual Males Aged 18–24 Years in a Metropolitan City

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Abstract

Background: One of the biggest problems faced by the homosexual population is the high prevalence of sexually transmitted diseases including human immunodeficiency virus which can be attributed to inconsistent and incorrect use of condom. Condom usage among homosexuals is affected by many factors which may have a positive or negative impact on it. This study aimed to find out the different sociodemographic determinants that were associated with consistent and correct condom use among homosexual males aged 18–24 years. **Materials and Methods:** This descriptive cross-sectional study was conducted among 240 homosexual (including bisexual) males aged 18–24 years living in the Metropolitan city for minimum 1-year duration at the outreach sites of an NGO. Data pertaining to sociodemographic variables and consistent and correct condom use were obtained and analyzed in SPSS using the Chi-square test to find out the association between condom use and sociodemographic profile. **Results:** Only 43.3% of participants were using condoms consistently and correctly. Consistent and correct use of condom was observed among participants who were younger ($p < 0.001$), more educated ($p < 0.001$), belonging to a higher socioeconomic class ($p < 0.001$) with a high per-capita income ($p < 0.001$), living in a nuclear family ($P = 0.004$), unmarried ($P = 0.0071$), and staying with the family ($p < 0.001$). **Conclusion:** Sociodemographic determinants do have an impact and play a vital role in the consistent and correct use of condoms among homosexual males.

Keywords: Condom, consistent, correct, homosexual, inconsistent, incorrect

INTRODUCTION

Homosexuality can be defined as “Sexual interest in and attraction to members of one’s own sex.”^[1] This form of sexual orientation has existed in all civilizations of the world since ancient times, but cultural taboos and disapproval of the society have negatively influenced its recognition. A significant percentage of adolescents and youths identify themselves as homosexuals, but stressors related to isolation, stigma, and violence from the community force them to keep this identity closeted and make health care seeking by them negligible.

India also has a long history of acceptance of homosexuality, but during the British rule, ‘The Indian Penal Code, 1860’ drafted by Lord Macaulay made Sodomy (Anal Intercourse) punishable under Section 377. Thus, the colonial influences which imported a much more repressive attitude toward

sexuality can be held in part to be responsible for the stigma being attached to such relationships and behaviors.^[2]

It is difficult to estimate the exact percentage of homosexual population in India as many of them are living a very secret life. The Government of India in 2012, in its report submitted to the Supreme Court, estimated the total population of homosexuals in India to be about 2.5 million.^[3] This was criticized on the ground that it took into consideration only those people who openly accepted their sexual orientation and there could be

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much higher because those whose identity was still concealed were not included.

Legally, homosexuality has been decriminalized in India by modification of Section 377 of the Indian Penal Code that now excludes those acts of homosexuality which are done consensually, but the Indian society has not yet accepted this form of sexuality completely, because of which these homosexuals try to stay away from the prying eyes of the society, their own family, relatives, and friends who for fear of getting disowned by them if they come to know about their choice of life without giving them an opportunity to talk and express their feelings and concerns. This has resulted in many homosexuals still facing various problems and challenges in life which keep on growing in magnitude because finding solutions for them is still a distant reality. The effects of these problems can vary depending upon their age, education, socioeconomic class, religion, and the place they live.

One of the biggest problems faced by the homosexual population at present is the high prevalence of sexually transmitted diseases including human immunodeficiency virus (HIV). Global HIV/Aids epidemic data show a downward trend in infection and mortality rates for the general population, with a 31% decrease in incidence between 2010 and 2021.^[4] However, the same cannot be said to be true for homosexual population with the scenario being similar in India where the estimate of HIV prevalence (2018) in general population was 0.22%, whereas for men having sex with men, it was 2.7%.^[5] They are 28 times at higher risk of contracting HIV, when compared to the general population.^[4]

The reduction of HIV transmission among homosexuals can be achieved by promotion of consistent and correct condom use for every sexual act. Taking this into consideration, the Government of India introduced latex condoms (Nirodh) as a protective measure and promoted their use during all forms of penetrative sexual contact which can be given credit for a decline in the incidence and prevalence of sexually transmitted infections including HIV. Even today, the condoms have stood the test of time and offer the best available protection against them. The consistent and correct usage of condoms is affected by many factors which interact with each other and may have a positive or negative effect on it as a result of which consistent and correct use of condoms by everyone still remains a distant reality as was also seen in a study done by Ravikumar AV, Anil Kumar K in Mumbai where only 33% participants reported a consistent and correct condom use during all sexual acts.^[6]

Globally, studies have reported that family and social support along with health education have positive impact on quality of life of men having sex with men (MSM)^[7] and can also play an important role in promotion of consistent and correct use of condoms among them. Even with the advent of modern era, talking about sexuality is still considered a taboo in our society leading to not many studies being carried out to determine the factors affecting consistent and correct condom use hence, leading to lack of scientific literature on this aspect. This study

was thus conducted with an aim to study the sociodemographic characteristics of the participants and to ascertain which factors have an impact on condom use among homosexual males.

MATERIALS AND METHODS

An epidemiological descriptive, cross-sectional study was conducted among homosexual males (including bisexual males) aged 18–24 years who were living in the city for minimum 1 year and consenting to participate in the study at all the outreach sites maintained by a Non-Governmental Organization (NGO) which works for the welfare of the LGBTQ (Lesbian, Gay, Bisexual, Transgender and Queer) community in the eastern part of the Metropolitan city. Transgenders were excluded from the study as it focused solely on homosexuals. The objectives of the study were as follows:

- To study the sociodemographic profile of homosexual males aged 18–24 years, participating in the study.
- To compare the socio-demographic profile of those participants having consistent and correct use of condoms versus and those having inconsistent and/or incorrect use of condoms and to find out the association between sociodemographic determinants and consistent and correct condom use.

Sample size calculation

In a previous similar study, the consistent and correct condom use prevalence was reported to be 33%.^[6] Using the formula $4pq/l^2$ and a confidence interval of 95%, the sample size was calculated to be 240.^[8]

Development of questionnaire, administrative, and ethics committee approval

Necessary Administrative and Institutional Ethics Committee (IEC) Approvals were obtained. A semistructured questionnaire (Interview Schedule) to be used for data collection consisting of information about sociodemographic profiles along with the consistent and correct condom use scale (prepared using CDC, Atlanta Condom use Fact Sheet)^[9] was prepared and validated by subject experts. The scale consisted of 10 practices associated with consistent and correct condom. A score of 8 (as per the opinion of the subject experts and approval by the Ethics Committee) and above was considered as consistent and correct condom use.

Sampling technique

The study was conducted in a Metropolitan city (under the Administration of Municipal Corporation), which is divided into 6 zones that are further subdivided into total 24 wards. An NGO working for homosexual population and providing preventive, promotive, and testing services at the outreach sites (consisting of the Hot-Spots)^[10] maintained by it in the different wards (assigned to it) of the Metropolitan city and curative/control services at the attached/nearby Suraksha Clinic for sexually transmitted infections including HIV was selected, and after taking official permission from the NGO Director, all the 10 outreach sites maintained by the NGO

were visited with the help from the Program Manager of the NGO. A total of 24 participants were enrolled in the study from each outreach site after obtaining written informed consent from them, thus enrolling total 240 participants in the study over a period of 1 year. The responses of the participants were recorded individually in privacy by the interviewer along with the help from the Program Manager.

Data analysis and documentation

After completion of data collection, all the data were compiled and entered in MS-Excel and analyzed using SPSS. Qualitative data (religion, occupation, type of family, marital status etc.) were presented in the form of frequency and percentage. Association between condom use (consistent and correct condom use versus inconsistent and/or incorrect condom use) and sociodemographic variables was assessed by Chi-square test for all 2×2 tables. In presence of small counts in tables with more than two rows and/or columns, adjacent row and/or column data were pooled, and continuity correction was applied for all 2×2 tables. Quantitative data (age, total family income, working hours etc.) were represented using Mean \pm SD.

RESULTS

Table 1 shows the sociodemographic profile of the participants. About 74 (30.83%) belong to the age group of 20–21 years with the mean age being 21.56 ± 2.02 , 126 (52.5%) were Muslim by religion, 93 (38.8%) had completed education up to secondary level, and 212 (88.4%) were employed. The maximum time spent in working was 18 hours in a day with all the participants working for a minimum of 8 hours in a day (mean 10.53 ± 1.96 hours). Modified B.G. Prasad classification scale of socio-economic status (2020) was used to classify the participants according to socioeconomic status, and 133 (55.4%) participants belonged to the Upper Middle Class (Class II). The mean monthly family income of the participants was 23435.42 ± 9589.43 Rupees/month, while the mean per-capita income was 4866.74 ± 2338.16 Rupees/month, 140 (58.2%) of the participants were living in a nuclear family, and 171 (71.2%) participants were staying with family and 212 (88.4%) participants were unmarried.

Table 2 depicts the status of consistent and correct use of condom, where only 104 (43.3%) participants were using condoms consistently and correctly. Only 3 (1.3%) participants out of 240 were following all 10 practices associated with consistent and correct condom use. The practice was followed by most participants. Participants who were auto/taxi drivers, laborers, and truck drivers had the highest proportion of inconsistent and/or incorrect condom use among all the participants.

Table 3. gives the details about the association between sociodemographic profile (independent variable) and condom use (dependent variable). There was a significant association between condom use and age of the participants ($p = <0.001$)†, education ($p = <0.001$)† [Figure 1], occupation ($P = 0.000057$), and lesser hours of work ($P = 0.00233$). Socioeconomic status ($p = <0.001$)†, monthly family income ($P = 0.03039$),

per-capita income ($p = <0.001$)†, type of family ($P = 0.004$), number of family members ($P = 0.00079$), staying with family ($p = <0.001$)† [RR (inconsistent and/or incorrect condom use) - not staying with family 3.294 (95% CI 1.907–5.691), RR (inconsistent and/or incorrect condom use) – staying with family 0.672 (95% CI 0.574 – 0.788)] [Figure 2], and marital status ($P = 0.0071$) [RR (inconsistent and/or incorrect condom use) - married 3.518 (95% CI 1.384–8.941), RR (inconsistent and/or incorrect condom use) – unmarried 0.873 (95% CI 0.800–0.952)].

DISCUSSION

Maximum participants in the study belonged to Muslim

Table 1: Sociodemographic profile of the participants

Sociodemographic Profile	n=240	Percentage
Age Group (In Years)		
18-19	40	16.7%
20-21	74	30.8%
22-23	68	28.3%
24	58	24.2%
Religion		
Muslim	126	52.5%
Hindu	91	37.9%
Christian	13	5.4%
Buddhist	10	4.2%
Education		
Illiterate	22	9.2%
Primary	48	20.0%
Secondary	93	38.8%
Higher Secondary	50	20.8%
Graduate	27	11.2%
Employment Status		
Employed	212	88.4%
Unemployed	14	5.8%
Student	14	5.8%
Socioeconomic Class (Modified B. G. Prasad Classification – 2020)		
I (Upper Class)	32	13.3%
II (Upper Middle Class)	133	55.4%
III (Middle Class)	69	28.8%
IV (Lower Middle Class)	6	2.5%
Type of Family		
Nuclear	140	58.2%
Joint	57	23.8%
Extended	39	16.3%
Single Person	4	1.7%
Whether Staying with Family		
Yes	171	71.2%
No	69	28.8%
Reason for not Staying with Family		
Migration for Work	65	94.2%
Family Members Dead	4	5.8%
Marital Status		
Married	28	11.7%
Unmarried	212	88.3%

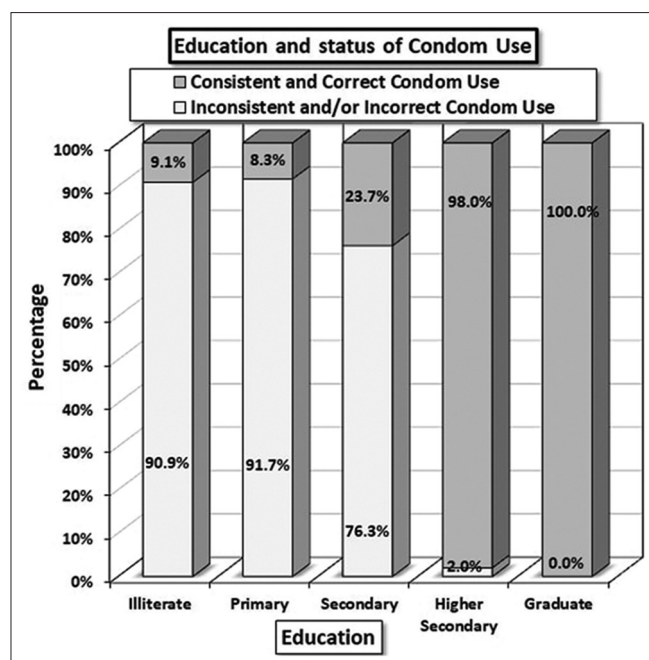


Figure 1: Condom use and Education status

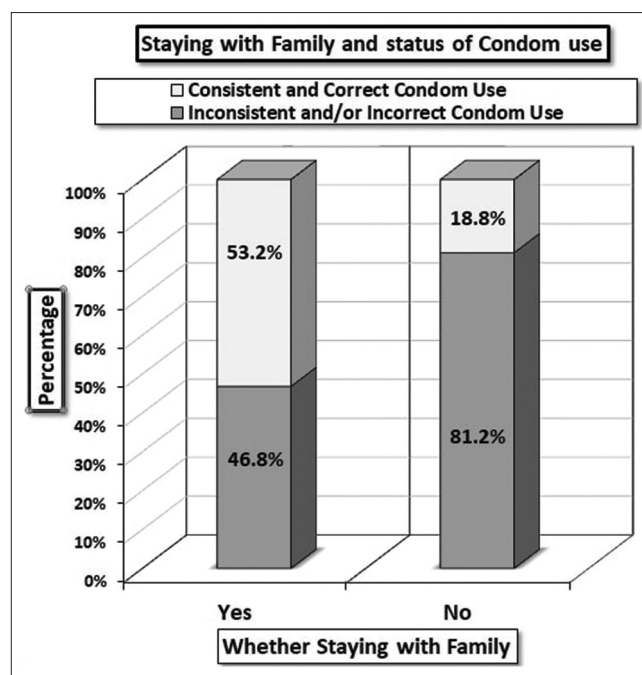


Figure 2: Condom use and Staying with Family

religion, which was in contrast to the findings in the studies done by Deuba K *et al.*^[11] and Soohinda K *et al.*,^[12] where more participants belonged to Hindu religion. This variation in the result can be attributed to the fact that the area where data collection in this study was done was predominantly occupied by Migrant Muslims who were working in nearby small-scale and cottage industries.

The participants who were employed were also the ones who had migrated for the purpose of finding a job; hence, they were not living with their families and could easily visit the hotspots for the purpose of engaging in sexual contact without any restrictions, which resulted in lesser consistent and correct condom use among them. This finding was contrary to the findings of the study done by Ramanathan S. *et al.*,^[13] in which it was found that occupation did not affect condom use among men having sex with men. A large number of participants who were employed were taxi drivers and truckers by occupation who are considered to be a high-risk population. As a part of their job, they visit multiple places and travel to different areas of the city and even outside, thus encountering many people throughout the day, leading to increased sexual exposure with multiple partners in a short duration hence; a higher proportion of inconsistent and/or incorrect condom use was observed among them.

In this study, it was also seen that as the age of the participants increased, there was a decrease in the consistent and correct condom use. This was because many of older participants were married and thus were also engaged in marital sex for procreation, which was mostly condom-less. Similar findings were noted in the studies done by Ramanathan S *et al.*,^[13] Gutierrez EB *et al.*,^[14] Ramkrishnan *et al.*,^[15] Yi S *et al.*,^[16] and Dandona L *et al.*^[17]

Table 2: Status of condom use by the participants according to consistent and correct condom use scale

Consistent and Correct Condom Use Scale	n=240	Percentage
Condom Use (Total Score)		
<8 (Inconsistent and/Incorrect Use)	136	56.7%
≥8 (Consistent and Correct Use)	104	43.3%
Condom Use (Individual Score)		
0	17	7.1%
1	0	0.0%
2	0	0.0%
3	6	2.5%
4	12	5.0%
5	33	13.7%
6	52	21.6%
7	16	6.7%
8	57	23.8%
9	44	18.3%
10	3	1.3%
Consistent and Correct Condom Use (Practices)		
Know how to Check Expiry Date of Condom	182	75.8%
Use of a New Condom for Every act	221	92.1%
Use of Condom from Start to End	201	83.8%
Use of Only One Condom at a time	125	52.1%
Use of Water-Based Lubricant along with Condom	76	31.7%
Applying Condom on the Erect Penis	217	90.4%
Discontinuation of Sex when Condom Breaks	142	59.2%
Removing Condom only after taking the Penis out	222	92.5%
Using Condoms for All Sexual Contacts	3	1.3%
Throwing Used Condom in Trash wrapped in Tissue	148	61.7%

Table 3: Association between sociodemographic profile and condom use (Consistent and correct condom use v/s inconsistent and incorrect condom use)

Sociodemographic Variables	Condom Use		n=240 (%)	P*
	Inconsistent and/or Incorrect Condom Use	Consistent and Correct Condom Use		
Age groups				
18-19	11 (27.5%)	29 (72.5%)	40 (100.0%)	$\chi^2=21.115$, df=3, $P\leq 0.001^\dagger$
20-21	40 (54.1%)	34 (45.9%)	74 (100.0%)	
22-23	43 (63.2%)	25 (36.8%)	68 (100.0%)	
24	42 (72.4%)	16 (27.6%)	58 (100.0%)	
Education				
Illiterate	20 (90.9%)	2 (9.1%)	22 (100.0%)	$\chi^2=145.274$, df=4, $P\leq 0.001^\dagger$
Primary	44 (91.7%)	4 (8.3%)	48 (100.0%)	
Secondary	71 (76.3%)	22 (23.7%)	93 (100.0%)	
Higher Secondary	1 (2.0%)	49 (98.0%)	50 (100.0%)	
Graduate	0 (0.0%)	27 (100.0%)	27 (100.0%)	
Employment Status				
Employed	127 (59.9%)	85 (40.1%)	212 (100.0%)	$\chi^2=19.544$, df=2, $P=0.000057$
Unemployed	9 (64.3%)	5 (35.7%)	14 (100.0%)	
Student	0 (0.0%)	14 (100.0%)	14 (100.0%)	
Socioeconomic Class (Modified B.G. Prasad Classification - 2020)				
I (Upper Class)	8 (25.0%)	24 (75.0%)	32 (100.0%)	$\chi^2=21.724$, df=2, $P\leq 0.001^\dagger$
II (Upper Middle Class)	73 (54.9%)	60 (45.1%)	133 (100.0%)	
III (Middle Class) [‡]	51 (73.9%)	18 (26.1%)	69 (100.0%)	
IV (Lower Middle Class) [‡]	4 (66.7%)	2 (33.3%)	6 (100.0%)	
Type of Family				
Nuclear	69 (49.3%)	71 (50.7%)	140 (100.0%)	$\chi^2=11.299$, df=2, $P=0.004^\ddagger$
Joint	43 (75.4%)	14 (24.6%)	57 (100.0%)	
Extended [‡]	21 (53.8%)	18 (46.2%)	39 (100.0%)	
Single Person [‡]	3 (75.0%)	1 (25.0%)	4 (100.0%)	
Staying with the Family				
Yes	80 (46.8%)	91 (53.2%)	171 (100.0%)	$\chi^2=22.279$, df=1, $P\leq 0.001^\dagger$
No	56 (81.2%)	13 (18.8%)	69 (100.0%)	
Marital Status				
Married	23 (82.1%)	5 (17.9%)	28 (100.0%)	$\chi^2=7.245$, df=1, $P=0.0071^\S$
Unmarried	113 (53.3%)	99 (46.7%)	212 (100.0%)	

*Chi-square Test was applied. [†]P value is highly significant hence represented as <0.001. [‡]2 cells (25.0%) have expected count <5 hence, Row data pooled & Chi-Square Test reapplied. [§]Continuity Correction applied

All the participants who were students were using condoms consistently and correctly, which shows that a higher literacy level leads to better condom use. Deuba K *et al.*^[11] and Jiang H *et al.*^[18] also concluded the same in their respective studies. Also, higher educational level meant more monthly income and thus better socioeconomics, leading to more consistent and correct condom use among the participants of this study, similar to that found out in the studies done by Ramanathan S *et al.*,^[13] Jiang H *et al.*,^[18] and Ayala G *et al.*^[19]

In a nuclear family, there are more closeness and stronger family bonds with higher emotional and better financial support, there are less children, and the women get more time to look after their children; hence, there is continuous parental monitoring and control. The children can also talk freely to their parents with frank discussions about sensitive topics also taking place between them which can help prevent

high-risk behavior. A similar effect can be observed when a person stays with his family. Hence, the participants who had these attributes in their favor were using condoms consistently and correctly.

After data collection, all those participants having consistent and correct condom use were appreciated and were requested to motivate their contacts and other known persons in practicing the same. Also, the participants having inconsistent and/or incorrect condom use demonstrated all the 10 practices of consistent and correct condom use by using a fiber model and were counseled by the interviewers on the future use of condoms consistently and correctly.

CONCLUSION

From this study, it is clear that sociodemographic characteristics

like lower age, higher education, higher socioeconomic status, higher per-capita income, belonging to a nuclear family, staying with the family, and being unmarried were associated with more consistent and correct use of condom among homosexual males aged 18–24 years in a Metropolitan city.

Recommendations

Parents should talk freely about sexuality with their children, and information about consistent and correct use of condoms should be included in the school and college curriculum so that students can understand its importance and implement the same to have a healthy sexual life during adulthood. Counseling of the family members should be done so that they accept the sexual orientation of their family members so that they do not fall prey to evils of desertion by family members, stigma, social isolation, and violence.

Information, Education and Communication (I.E.C.) material in the form of banners and posters (hung all over the NGO premises and in public places), leaflets, flyers, and advertisements (circulated among the high-risk groups) pertaining to the consistent and correct condom use should be created to promote and improve the consistent and correct condom use.

As there is a National Helpline Number 1097 for HIV/AIDS by NACO, there should be a similar specific national helpline number (which can be freely and easily accessed by the minority groups at all times) that gives complete and proper information along with a facility to clear the doubts and answer all the queries associated with only consistent and correct condom use.

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Conflicts of interest

There are no conflicts of interest.

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