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Original Research Article

Awareness and practices of correct and consistent use of condoms among sexually active males in India - a cross sectional study

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ABSTRACT

Background: About 2.5 million Indian are estimated to be HIV positive apart from the other STIs and around 1/4th of the births are unwanted. Condom has become a popular method being promoted for meeting these challenges. The objectives of the study were to understand the awareness and practices regarding correct and consistent use of condoms among sexually active males in India.

Methods: Three randomly selected primary health centers in southern India. All male members reported to be using condoms by the PHCs, were visited at their homes. A pre-tested check list (Yes/No) type questionnaire was used to collect the data. Commonly available guide line regarding correct and consistent were used as the baseline knowledge. Responses thus received were evaluated and graded using five point scales. Income, education and years of use wise differentials were also analyzed.

Results: Out of 7326 eligible couples 7.2% were reported to be using condoms. Response rate was 88 percent. 27 (12%), 82 (36%), 89 (39%), 18 (8%) and 11 (5%), were having poor, fair, good, very good and excellent level of awareness respectively and fewer were putting their knowledge into practice. Respondent having schooling for more than ten years or per capita income of more than Rupee 1000 or using condoms since more than five years were having better level of awareness as well as practices.

Conclusions: Awareness and practices regarding correct and consistent condom use lags substantially behind the desired levels.

Keywords: Awareness, Correct and consistent condom use, India, Married Men, Practices

INTRODUCTION

Unwanted pregnancies and Sexually Transmitted Infections (STIs) including Human Immunodeficiency Virus (HIV) infection are amongst the top public health priorities for India. About 2.5 million people in India are estimated to be HIV-positive, and 14%-18% of women are reportedly having any other STIs.¹⁻³ Also, one-fourth of the total pregnancies are unwanted that may leads to unsafe abortion and finally end up in maternal mortality in 19% cases.^{1,4-6} Among the available interventions, condom has been in pivotal role in averting these preventable problems. It is the best barrier to the bad news that comes in the form of STIs, HIV and unintended

pregnancies, at the same time it is reported that correct and consistent condom use is the basic pre-requisite for extracting maximum benefits from its utilization and just not the mere use of a condom.⁷⁻¹¹ Consistent condom use can decline risk of HIV infection transmission up to zero, but it may be as high as 14%-21% in case of inconsistent use.¹²

The evidence, that condom use in India has increased from 2.1 percent in 1992-93 (NFHS-1) to 5.2 percent in 2005-06 (NFHS-3) among males aged 15-54 years, is certainly encouraging. However, the persistence of incorrect and inconsistent use of condoms is reported in varied settings.¹³⁻¹⁵ Many people mistakenly assume that

all men know how to use condoms correctly, and that leads to the incorrect use of a condom which is a major cause of condom failure. Higher failure rate of condom decreases its acceptance among the users.^{1,16,17}

To make an effective policy and program, it is essential to know the existing awareness and practices related to the condom use. However, in India, there is hardly any data available on this issue. Hence, a cross-sectional study was planned to report the awareness and practices regarding correct and consistent condom use among the married males of Dakshina Kannada district of Karnataka State of India.

METHODS

We conducted this cross-sectional study among married males in three randomly selected Primary Health Centers (PHCs) that is Ullal, Kotekar and Natekal, from a total of twenty-four Primary Health Centers (PHCs) of the Dakshina Kannada district of the southern state of India. The selected PHCs were reportedly serving a total population of 63,115. All the selected PHCs provided the most updated list of registered eligible couples and the type of contraceptive methods being used by them. There were 7326 eligible couples and couple protection rate were reported to be 55 percent. Two hundred eighty-nine of the eligible couples were registered as condom users. A married couple, where the wife was in the age group of 15 to 45 years and registered in their respective PHCs as condom user, minimum for the last three months from the start of this study, was considered for inclusion in the present study. The participants who reported use of condom for every act of sexual intercourse irrespective of type of their partner in the last three months preceding the data collection, were considered consistent condom user.

All male members of the eligible couples were visited at their homes and objectives of the study were explained. They were ensured of the confidentiality and subsequently an informed written consent was taken from those who volunteered to participate. Males who were otherwise eligible for the study but either refuse to volunteer or not available even after two visits by the investigators were excluded from the study.

A check-list, having options of yes or no for every statement, was prepared from the pre-existing literature based guidelines.⁵⁻⁸ It was pretested in field at a PHC which was not one of the study sites, and necessary changes were made in the check-list before initiating data collection. The data obtained while pretesting was not included in the final analysis. The checklist consisted of four domains of awareness and practices regarding correct and consistent condom use; storage of condom, quality check and opening the pack of a condom; condom handling before and during intercourse; and final disposal after use.

The correct response was given a score of one and zero score was given for the incorrect responses. Participants who secured $\leq 20\%$, 21-40%, 41-60%, 61-80% and more than 80% points were graded as having poor, fair, good, very good and excellent level of awareness which translate into practices respectively. The data was entered in excel 2007 and analyzed in Statistical Package for Social Sciences (SPSS) Inc. Illinois, USA version 17. Proportion and percentages were used to analyze frequency data. Chi-square test was used to test the association between variables and P value ≤ 0.05 was considered statistically significant. The data collection was done during December 2012 to January 2013.

RESULTS

Two hundred eighty-nine of the eligible couples were identified as condom users. Out of 289 registered condom users, 227 gave written consent to participate in the study. Hence, the response rate was more than 88%. All participants were literate, and 47% were having more than ten years of schooling. Per capita monthly income range was between Rupees 500 to 5000, and 62 percent had per capita monthly income of more than Rupee 1000.

Table 1: Distribution of the participants by awareness regarding conditions of consistent condom use.

| Conditions of consistent condom use (N=227 for each variable) | Awareness N (%) | Practices N (%) |
|------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| Use a condom during every act of vaginal sex | 198(87.2) | 97 (49) |
| Use a condom only during unsafe periods | 14(6.2) | 14 (6.2) |
| Use a condom even if someone is using other contraceptives or have undergone sterilization operation | 12(5.3) | 0 |
| Use a condom during every act of sex (vaginal, anal or oral) | 10(4.4) | |
| Use a condom during every Act of anal sex | 5(2.2) | 0 |

All of the study participants were aware that condoms do protect against STIs including HIV in addition to prevention of pregnancy. One hundred and sixty-three (72%) of the respondents were using the condoms since last five years or more (not shown in tables). Table 1 shows that the majority (87%) were of the view that condoms use is required while having vaginal sex only and the same was practiced by 97 (49%) during the last three months preceding the data collection. Only 4.4 percent of the participants were aware that condom should be consistently used irrespective of vaginal, anal or oral sex and none of the respondents reported to be practicing it.

Almost all of the respondents were reported to be unaware on the correct way of storage, quality check and opening the condom pack. 187 (82%) were not using finger nails, teeth or sharp objects to open

package/remove condom though only 23 (10%) of the respondents were aware of the fact that finger nails, teeth or sharp objects should not be used to open

package/remove condom (Table 2) as it may damage the condom.

Table 2: Distribution of participants according to awareness and practices related to storage, quality check of condom.

| Storage and quality check of condom (N=227 for each variable) | Awareness N (%) | Practicing N (%) |
|----------------------------------------------------------------------------------------|--------------------|---------------------|
| For best results, store condoms in a cool, dry place | 5(2.2) | 5(2.2) |
| Do not store them for prolonged periods in a back pocket, wallet, or glove compartment | 2(0.9) | 2(0.9) |
| Check before use that it has not passed its shelf-life (expiry date) | 2(0.9) | 2(0.9)* |
| Check that the packaging has no holes by pressing the pack between fingers | 5(2.2) | 5(2.2) |
| Push condom to one side of package to allow room to tear open another side | 159 (70.0) | 159 (70.0) |
| Do not use fingernails, teeth or sharp objects to open package\ remove condom | 23 (10.1) 7 | 187(82.4) 7 |
| Do not use a condom if the condom is brittle/dried out or unusually sticky | (3.1) | (3.1) |
| Do not use a condom if the color is uneven or has changed | 7 (3.1) | 7 (3.1) |
| Do not consume drugs or alcohol while having sex as they can affect your judgment | 187 (82.4) | 48 (28.6)** |

*Both respondents checked the condom for expiry date at the time of purchase only; **A total of 168 respondents were alcohol or other drugs user [n=168].

Table 3: Distribution of participants according to awareness and practices regarding correct use of condom before, during and after sexual intercourse.

| Variables (n=227 for each Variable) | Awareness N (%) | Practicing N (%) |
|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|
| Before Sexual intercourse | | |
| Uses a new condom each time have sex. | 227(100) | 227(100) |
| Most of the condoms are made from latex do not use oil-based lubricants (stick to water-based such as KY Jelly) | 12 (5.3) | 12 (5.3) |
| Put the condom on after the penis is erect (hard) and before any contact is made between the penis and the partner's body | 227(100) | 142(62.5) |
| If the condom is initially placed on the penis backward, do not turn it around. Throw it away and start with a new one | 3(1.3) | 3(1.3) |
| If penis is uncircumcised, pull the foreskin back before putting the condom on | 72 (31.7) | 72 (31.7) |
| Squeeze closed top end of condom to make sure no air is inside (can make it break) | 102 (44.9) | 102(44.9) |
| Unroll condom gently down the full length of penis, another hand still squeezing top end | 227 (100) | 227 (100) |
| During Sexual intercourse | | |
| If you feel a condom break or slip off while having sex, stop immediately and pull out, put on a new condom before intercourse continues | 227(100) | 0(0)* [n=43] |
| After ejaculation and before the penis gets soft, grip the rim of the condom and carefully withdraw from partner | 227(100) | 47(20.7) |
| Disposal of condom after use | | |
| Remove condom, only when penis is fully withdrawn | 227(100) | 46(20.3) |
| Keep both penis and condom clear from contact with partners' body being careful that semen does not spill out | 227(100) | 94(41.4) |
| Knot the end of the used condom, place in a tissue or bag, and throw it in dustbin | 108(47.6) | 33(14.5) |
| Do not flush condoms down the toilet. It may block the system | 142(62.5) | 85(37.4) |
| Afterward, wash hands with soap and water | 227 (100) | 71 (31.3) |

* Forty-three men reported a condom break or slip off while having sex

Table 3 shows that all participants correctly reported that a new condom should be used in every act and similarly all of them knew and reportedly practiced that condom should unroll till the full length of the penis. However, the only 5.3% knew about the right kind of lubrication to

be applied while using a condom. Although, all of the respondents were aware that if a condom breaks or slips off while having sex, one needs to stop immediately and put on a new condom before intercourse continues but none among the 43 (19%) respondents who reported a

condom break or slip off, put their knowledge into practice. Only 3 (1.3%) of the respondents reported to have used a new condom when the reverse side of condom was initially placed on the penis. Most of the respondents were aware regarding the correct method of condom disposal after use, but only 14% to 41% were practicing one or more after use disposal related guidelines (Table 3).

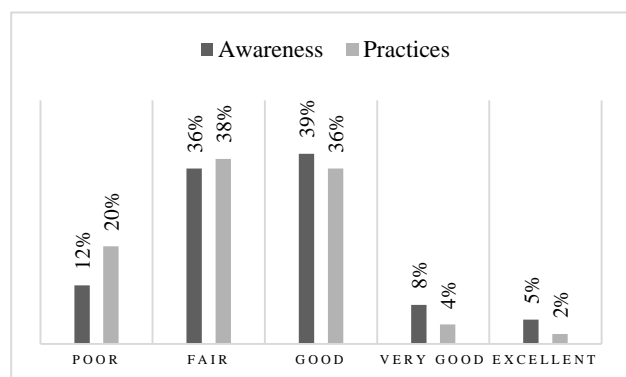


Figure 1: Overall scoring on awareness and practices of correct and consistent condom use among married males of study sites (n=227).

Figure 1 shows the aggregated scores on a five-point scale. Twenty nine (13%) of the respondents were very good/excellent on awareness score and even lesser (6%) were very good/excellent on practices.

Respondent who have been to school for more than ten years or per capita income of more than Rupee 1000 or using condoms since more than five years reported a better level of awareness as well as practices but these differences were found to be statistically non-significant ($p>0.05$). No statistically significant difference was observed in the level of the awareness and practices regarding correct and consistent use of condoms among sexually active males among the participating PHCs (Not shown in tables).

DISCUSSION

It is a well-known fact that correct and consistent condom use is utmost for getting its benefits of preventing unwanted pregnancy and STIs including HIV.^{8,18} However, awareness is necessary for practice of correct and consistent condom use among the partners, as it increase condom use.¹⁹ We conducted this cross-sectional study among married males, registered as condom users in PHCs of Dakshina Kannada district of Karnataka State in India, to find out the level of awareness and practices of correct and consistent condom use.

We report the high level of knowledge about dual benefits of the condom which is in conformity with the findings of National Family Health Survey-3 (1) and a Mumbai Based study.¹⁹ This could be explained by the education level of the participants. However, was very

low (13%), similar to previous findings. Self-assumption of knowing the correct method and lack of counseling from the health care providers could lead to less knowledge of correct use.¹⁰

We found that all the participants reported that new condom should be used once condom rupture or slip off is realized, but none of them practiced it. It may be because they were not able to or not inclined to interrupt the act. Furthermore easy access to emergency contraceptive pills could decrease self-efficacy to use a new condom ignoring the fact that contraceptive pill would not protect them against STIs.²¹ An examination of people's responses to the individual guidelines of correct use of the condom shows that their knowledge varies from fair (36%) to good level (39%) for most of the cases. Furthermore fewer respondents were putting their knowledge into practice. Hence the findings of the present study suggests that the programs aiming at promoting condom use should also include interventions to promote correct and consistent use in order to achieve dual benefit. Regular exposure to peer educators and counseling help in correct and consistent condom use that reduce human errors. Mass media and community-based organizations, such as youth clubs, village health committees, Rogi Kalayan Samitis (Patient Welfare Committees), etc. can serve as sources of reliable sexual and reproductive health instructions for the masses. Furthermore, as this study was limited to sexually active males within married family life, therefore, findings of the study cannot be applied as such for young and adolescents.

CONCLUSION

The present study points out that the awareness and practices regarding correct and consistent condom use among the sexually active people in the study area lag substantially behind the desired levels. Furthermore due to the paucity of data, little is known about the exact magnitude and determinants of the problem. Apart from making correct and consistent use of condom an integral part of the programs aiming at promoting the condom use, there is an urgent need to further our understanding of determinants of correct and consistent condom use including the crucial role of peers to maximize the use and effectiveness of condoms.

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