Knowledge and practice of condom use among black and white South Africans

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Abstract

The aim of the study was to investigate knowledge and sexual practices with reference to correct use of condoms among 108 Black and 114 White adult South Africans chosen by systematic random sampling. Results indicated that about 25% of the sexually active sample (28,6% Blacks and 18,9% Whites) reported never having used condoms. About 55% of the sample reported never using condoms, 20% always, 12% regularly and 13% irregularly in the preceding three months. The overall knowledge mean score about correct condom usage was 7,7 (Whites 8,3 and Blacks 7,1) (range from 0-10). The most common mistakes with respect to condom use knowledge were ignorance about putting on a condom just before ejaculation (44%), when to take off a condom (41%), unrolling a condom before putting it on the penis (33%), and the use of an oil-based lubricant with a condom (31%). Predictors for correct condom use knowledge were Whites and condom use intention. Findings are discussed in view of intervention programmes considering cultural diversity. *(SA Fam Pract 2003;45(8):17-20)*

INTRODUCTION

In 2002, the estimated HIV prevalence in persons in the 15-49 age group in South African was 15,2%, with women having a rate of 17,7% and men 12,8%. The age group with the highest prevalence was 25-29 years (26%), followed by 30-34 years (24%) and 35-39 and 40-44 years (both 16%).[1]

Condoms are an integral part of STD and HIV/AIDS prevention and their use has increased significantly over the past decade. The correct use of condoms reduces the risk of HIV transmission by almost 100 percent. Therefore, condom promotion has received considerable attention in the fight against the AIDS pandemic.[2] Yet condom use is among the most difficult issues to address in designing programmes to reduce the sexual transmission of HIV in Africa. According to Campbell,[3] negative attitudes toward condom use insub-Saharan Africa are often based on cultural factors, e.g. the desire for children and female sexual compliance as ways to achieve economic status. Shisana and Simbayi[1] found that, in a nationally representative sample in South Africa, 24,7% of women and 30,3% of men had used a condom during their last intercourse, and that 68,7% of 15 to 24 year-olds and 51,2% of 25 to 49 year-olds had ever used a condom.In a rural adult population in Limpopo Province, South Africa, Peltzer[4] found that the majority of people (74,9%) indicated that they had not used a condom the last time they had sex with their regular partner, while 53,4% of the women and 45,6% men said that they had never used a condom with their non-regular, non-commercial partner during the previous 12 months.

In the current study, the major reasons given for not using a condom with a regular sexual partner were 'other' (mainly trust in married partner), followed by 'did not think it was necessary', 'did not like them', and 'partner objected'. The major reasons for not using a condom with a non-regular, non-commercial sexual partner were 'other' (mainly trust), followed by 'partner objected', 'not available' and 'did not like them'. Gould[5] notes that, in South Africa, aversion to condom use is the dominant theme, although explanations for this vary. Cultural beliefs are also a barrier to condom use in South Africa, where many people consider it essential that the sperm of the maen actually enters the woman. Kirigia and Muthuri[6] found that white South African women have a higher likelihood of asking their new sexual partners to use condoms than their African, Coloured and Indian counter-parts, indicating cultural diversity in factors affecting condom use.

In South Africa, condoms are distributed free of charge through the public distribution system and the extensive primary health care network.

There is a paucity of data concerning condom use, especially regarding knowledge about the correct use of condoms by the target group in South Africa. However, such data are crucial for prevention programmes. The present

study therefore investigates knowledge and sexual practices with reference to the correct use of condoms (prevalence of condom use and factors associated with the use/non-use of condoms) among Black and White adults in the Northern Province, South Africa.

METHODS

Sample and procedure

The sample included 108 Blacks and 114 White adults in former Black and White urban areas in the Northern Province of South Africa.

Participants were chosen by 1-in-30 systematic random telephone sampling, excluding nonresidential numbers, from the directory of one formerly Black and one formerly White area. In the residential areas under study, almost all the White people and the majority (about 70%) of Black people have a telephone. A research assistant trained in interviewing made telephone calls until, in each sample, 150 participants in the age range from 21 to 50 years had been identified. Selection bias was reduced by also making phone calls after working hours and on Saturdays in order to reach more participants. Informed consent was obtained and the participants were assured of complete anonymity. The study was conducted from June to August 2001.

Of the total number of 300 participants, 45 (15%) opted against participation and, of the remaining 255, only those cases were analysed that had had a (vaginal) sexual experience. These totalled 222 (87%) 108 Blacks (48,6%; 36 male and 72 female) and 114 Whites (51;4%; 51 male and 63 female) in the age range of 21 to 50 years (Blacks: *M* age 32,5 yr, *SD* = 6,7; Whites: *M* age 32,3 yr, *SD* = 8,4).

Measure

The instrument, which was essentially a questionnaire, was pre-tested on 15 male and 15 female adults who did not form part of the final sample. The final questionnaire consisted of questions about:

a. *biographical data* (8 items);

b. *sexual activity and condom use* (5 items);

c. *knowledge about correct use of male condoms* (10 items) (see Table I). Knowledge about the correct use of condoms was evaluated according to the standard guidelines for condom use.[7,8] There were ten closed questions, each with one possible correct answer (e.g. when to put on a condom, how to use it correctly, how and when to take it off, the use of lubricants, etc.) and one point was awarded for each correct answer; the total points comprised the knowledge score range from 0 to 10. Cronbach alpha and split-half reliability coefficients for condom knowledge scale were 0,60 and 0,57 respectively for this sample.

d. Sources on 'condom' information *(11 items) (see Table III). Cronbach alpha as well as split-half reliability coefficients for the sources of 'condom' knowledge scale were 0,77 and 0,68 respectively for this sample.*

e. Intention of using condoms *(when having sex next time with a new partner) (1 item) (from* -2=strongly agree to +2=strongly disagree);

f. Behavioural norm to use condoms *(3 items), such as "Do you and your friends talk about using condoms?" (rated 1=Yes, -1=No, 0=Don't know);*

g. *Subjective norms about condoms* (Most people who are important to me think I should use condoms) (1 item) (rated from -2=strongly agree to +2=strongly disagree);

h. *Attitudes towards condoms* (3 items), such as "It is a good idea for me to use condoms!" (rated from -2=strongly agree to +2=strongly disagree).

RESULTS

Table I indicates the knowledge about correct condom use among the participants.

About 90% and more levels of correct answers were found for the items

Table I: Knowledge about correct male condom use by culture and rank as percentage of 'yes' answers (as against 'no' answers)

Items	Total	Blacks	Whites	X^2
1. Can a condom be re-used?®	93,2	88,9	97,4	6,63**
2. Do condoms offer protection against AIDS?	93,0	90,9	94,7	1,19
3. Do condoms offer protection against STDs?	91,3	90,3	92,1	0,21
4. Do condoms have an expiry date?	90,4	91,4	89,5	0,24
5. Should a condom be put on before any contact with the vagina?	85,9	82,4	89,2	2,05
6. Should a condom be checked for leaks and holes?	76,7	68,6	84,2	7,48**
7. Can an oil-based lubricant (e.g. oil, vaseline, cold cream) be used with a condom?®	69,4	60,0	78,4	8,59**
8. Should a condom be unrolled before being put on the penis?®	67,1	51,4	82,9	23,51***
9. Is it essential for a person using a condom to withdraw his penis immediately after ejaculation?	59,2	57,6	60,5	0,19
10. Is it alright to put on a condom just before ejaculation?®	43,8	31,4	55,3	12,61***

*® reverse scored; ***p<0,001; ** p<0,01; * p<0,05*

Table II: Sexual activity and condom use by culture in percent and cultural difference calculated by Chi-square.

Item		Blacks	Whites	X^2
Ever used a condom		71,4	81,1	4,00
Condom use when having sexual intercoursein the past 3 months	-every time	20,0	19,4	1,64
	-regular [1]	12,0	12,9	
	-irregular [2]	16,0	09,7	
	-never	52,0	48,1	

[1] *Regular: almost always, more often than not*
[2] *Irregular: about half the time, somewhat less than half the time, rarely*

're-using condoms', 'condoms as protection against STD and AIDS', and 'expiry date of condoms'. About 14% were not aware that a condom should be put on before any contact with the vagina. The most common mistakes with respect to condom use knowledge were ignorance about putting on a condom just before ejaculation (44%), when to take off a condom (41%), unrolling a condom before putting it on the penis (33%), the use of an oil-based lubricant with a condom (31%), and checking a condom for leaks and holes (22%).

White people (8,3 mean correct answers) had a higher correct knowledge of condom use than Blacks people (7,1 mean correct answers), which was not significant (F=0,630; ns).

There was a significant cultural difference: Whites were more correct than Blacks on items 1 're-using of condom', 6 'checking a condom for leaks and holes', 7 'the use of an oil-based lubricant with a condom', 8 'unrolling condom before use', and 10 'when to take off a condom'.

Table II indicates sexual activity and condom use by the participants.

About 25% of the sexually active sample (28,6% Blacks and 18,9% Whites) reported never having used condoms. About 55% of the sample reported never using condoms, 20% always, 12% regularly and 13% irregularly in the preceding three months.

There was no significant difference for ever having used a condom and gender (X^2=0,618; ns) as well as marital status (single versus married or having a steady partner) (X^2=0,540; ns), was also true within both cultures. There was also no significant difference for condom use when having sexual intercourse in the preceding three months and gender (X^2=0,618; ns) as well as marital status (X^2=0,618; ns). This was also true for both cultures.

Table III indicates the sources of 'condom' information and their relationship with correct condom knowledge analysed by Analysis of Variance (ANOVA). Cultural differences are analysed by Chi-square.

More than 85% of the participants indicated that, in descending order of importance, their sources of 'condom' information were radio (95,8%), television (91,7%), having been given free condoms (88,6%), social/health magazines (88,6%), posters/pamphlets (85,9%), other people (85,7%), and newspapers (85,7%). Black peoples favoured the radio more than Whites people, whereas White people more often used 'other people' and social/health magazines as a source for 'condom' information than Black people. Correct condom use knowledge was associated with the following sources of 'condom' information: education talks, social/health magazines, other people, health care provider and television, in that order.

Table IV indicates factors associated with knowledge about condom use by the participants.

There was a significant relationship between White (versus Black), younger age, being single (versus married or having a steady partner), ever used a condom, attitudes, subjective norm, condom use intention and correct condom knowledge. Sex and the behavioural norm were not associated with correct condom knowledge.

Multiple stepwise regression analysis (including only the significant variables from the bivariate analysis) on correct condom knowledge found that only Whites ($Beta$=0,392, t=5,692, p<0,0001) and condom use intention

Table III: Source of 'condom' information by culture and rank as percentage of 'yes' answers (as against 'no' answers) and in relation to correct condom use knowledge

Variable	Total	Blacks	Whites	X^2	F-ratio (correct knowledge of condom use)
1. Radio	95,8	100	92,1	8,16**	0,79
2. Television	91,7	94,1	89,5	1,52	2,35*
3. Been given free condoms	88,6	88,2	88,9	0,02	1,28
4. Social/Health magazines	88,6	82,4	94,4	7,58**	8,72***
5. Posters and pamphlets	85,9	88,6	83,3	1,21	1,45
6. Other people	85,7	78,1	92,1	8,32**	6,53***
7. Newspapers	85,7	84,8	86,5	0,12	1,72
8. Health care provider	80,9	81,3	80,6	0,02	5,44***
9. Education talks	80,0	84,8	75,7	2,75	9,28***
10. Social/religious organisations	71,9	73,3	70,6	0,18	0,98
11. Counselling	57,1	63,3	51,5	2,69	2,62*

***p<0,001; ** p<0,01; * p<0,05

Table IV: Factors associated with knowledge about condom use	
Independent variables	**Total condom knowledge score**
	rho
Culture (Whites versus Blacks)	0,36***
Age	-38***
Sex (women versus men)	0,03
Single (versus married or having a steady partner)	0,21**
Ever used a condom	0,30***
Behavioural norm	2,07
Attitudes	2,33*
Subjective norm	3,97***
Condom use intention	6,22***
***p<0,001; ** p<0,01; * p<0,05	

(*Beta*= 0,229, t=3,328, p<0,001) were independent predictors for correct condom knowledge.

DISCUSSION

In this study, about 25% of the sample (28,6% Blacks and 18,9% Whites) reported never having used a condom, and about 55% reported never using condoms, 20% always, 12% regularly and 13% irregularly in the preceding three months. This finding is similar to that found in other studies, e.g. 32,3% of South Africans (25-49 years old), 35,9% of semi-urban adult black South Africansand 27% of adults in Brasiliareported never having used a condom. A nationally representative survey of people in the United Kingdom and France found that 40-60% of the sexually active sample had not used a condom during the preceding 12 months. Similar percentages of condom nonusers have been reported in the National AIDS Behavioural Surveys in the United States.[7]

The overall knowledge about correct condom use, with a mean score of 7,7 (range from 0-10), is high in this sample. A much higher level of ignorance about condom use was found in a study of sexually active men in India. However, the most common mistakes were similar to those in this sample, although in a somewhat different order, e.g. the use of oil-based lubricants (6,6% correct answers), or the correct moment to put on a condom (10,1% correct answers).[11] Most participants had multiple access to 'condom' information from various channels. It is interesting to note that, although radio, television, 'being given free condoms' and social/health magazines were the most common media for condom information, correct condom use knowledge was associated with the following sources of 'condom' information: education talks, social/health magazines, other people, health care provider and television, in that order. This seems to indicate that some agents of information, such as education talks and social/health magazines, seem to be more powerful in conveying correct condom knowledge than other agents, such as radio and social/religious organisations. There also seem to be culturally influenced preferences for information agents, such as the radio for Blacks and social/health magazines for Whites. This information can be utilised for directing and improving condom messages through the different agents in the light of cultural diversity.

Correct condom knowledge seems to be higher in single, young Whites, with lifetime use of condoms, favourable attitudes and subjective norms (such as being more influenced by important people to use condoms) towards condoms and higher condom use intentions. In a cross-sectional sample (ages 15-54) in Tanzania, Mnyika et al. also found that age was a significant determinant of condom awareness and use.[12] It is particularly necessary that condom promotion programmes should improve correct condom knowledge, condom use intentions, and the considerable incorrect knowledge of condom use amongst Blacks.

Limitations

The results are only based on self-report. The sample was small, taking in only one geographical area, and based on a telephone survey, which means that the findings cannot be generalised.

It is recommended that family doctors should advise their patients with STIs, including HIV/AIDS, on condom usage and the correct use of condoms. General practitioners need to be ready to discuss how to open a condom package and how to put on a condom correctly. During general medical examinations, they need to make routine enquiries about condom use by and the number of sexual partners of their patients. They can further facilitate communication with the youth by providing parents with information about the sexual behaviour of adolescents, the risks that are encountered by adolescents, condom use, condom effectiveness, and how to discuss condoms. They also can make referrals to programmes that teach communication skills. Female adolescents and women should be empowered with skills training in condom use, sexual assertiveness, negotiation and refusal skills, and the self-management of risk triggers.❐

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