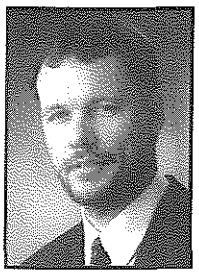
RESEARCH

FACTORS AFFECTING CONDOM USE AMONG JUNIOR SECONDARY SCHOOL PUPILS IN SOUTH AFRICA



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ABSTRACT

The aim of the study is to investigate factors affecting condom use among junior Secondary School pupils in South Africa. The sample included 446 Grade 10 Secondary school pupils, 200 (44.8%) males and 246 (55.2%) females within the age range of 10 to 30 years (M age 16.6 years, SD = 2.5) from three rural schools in one region of the Northern Province in South Africa. Main outcome measures included sexual activity and condom use (12 items), source of 'condom' information (12 items), knowledge of correct condom use (10 items), a 16-item AIDS Health Belief Scale and a 28-item Condom Use Self-Efficacy Scale. Results indicated that more than half of the sexually active males (56%) and almost one third (18.6%) of the females reported, have never used condoms. About 80% levels of correct answers were found for the items of "protection against AIDS" and "expiry date of condoms". About 30% of the females were not aware that condoms offer protection against AIDS and sexually transmitted diseases. The AIDS Health Belief scale was related to past and current condom use as well as to self-efficacy in condom use but not with condom use intentions. Self-efficacy of condom use was not related to past, current and future condom use. Subjective norms about condoms were found to predict condom use intention and AIDS susceptibility predicted lifetime condom use and condom self-efficacy. Findings have relevant implications and are discussed in the context of developing an educational or intervention programme.

OPSOMMING

Die doel van die navorsing is om faktore na te vors wat die gebruik van kondome deur leerlinge in die junior fase van sekondêre skole in Suid-Afrika beinvloed. Die steekproef bestaan uit 446 graad 10 leerlinge waarvan 200 manlik (44.8%) en 246 vroulik (55.2%) is. Die ouderdomme wissel van 10 tot 30 jaar (gemiddeld 16.6 jaar, standaardafwyking 2.5 jaar). Leerlinge is afkomstig van drie plattelandse skole uit een streek van die Noordelike Provinsie in Suid-Afrika. Die volgende faktore is gemeet: Seksuele aktiwiteite en die gebruik van kondome (12 items), kennis van die korrekte gebruik van kondome (10 items), "Aids Health Belief Scale" (16 items) en "Condom Use Self-Efficacy Scale" (28 items). Die resultate dui daarop dat meer as die helfte van seksueel aktiewe manlike proefpersone (56%) en bykans een derde van die vroulike proefpersone (18.6%) nog nooit kondome gebruik het nie. Ongeveer 30% van die vroulike proefpersone was nie daarvan bewus dat kondome teen Vigs en seksueel oordraagbare siektes beskerming bied nie. Ongeveer 80% korrekte antwoorde is gerapporteer vir die items "Protection against Aids" en "Expiry date of condoms". Die "Aids Health Belief Scale" meet die gebruik van kondome in die verlede en die hede asook die effektiwiteit van die gebruik van kondome maar nie die intensies met die gebruik daarvan nie. Die effektiwiteit van die gebruik van kondome verwys nie na die gebruik in die verlede, hede of toekoms nie. Subjektiewe norms oor die gebruik van kondome is gebruik om die intensies met die gebruik van kondome te voorspel sowel as die effektiwiteit van die gebruik van kondome en die voorspelde vatbaarheid vir lewenslange gebruik van kondome. Die bevindinge het implikasies wat relevant is en word bespreek in die konteks van die ontwikkeling van opvoedkundige en intervensie programme.

INTRODUCTION AND PROBLEM STATEMENT

Condoms are an integral part of STD and HIV/AIDS prevention, and their use has increased significantly over the past decade. Correct use of them reduces the risk of HIV transmission by almost 100 percent. Therefore, condom promotion has received considerable attention in the fight against the AIDS pandemic (World Health Organisation, 1995:5-10). This is particularly important in sub-Saharan Africa where HIV transmission is mainly through sexual contact. Yet condom use is among the most difficult issues to address in designing programmes to reduce the sexual transmission of HIV in Africa. Campbell (1997:186) surmises for sub-Saharan Africa that negative attitudes toward condom use are often based on cultural factors, e.g. the desire for children and female sexual compliance as ways to achieve economic status.

Lule and Gruer (1991:15) found among Ugandan

students that only a minority saw the condom as an effective preventive method against HIV/AIDS: most saw it as unsafe or an encouragement to promiscuity. Condoms had been used by 35% of men and 24% of women but were currently always used by only 9% of men and 11% of women. The condom was approved of by only one quarter of respondents. Kenyan university students appear to have negative attitudes toward condoms in general and do not see them as a viable tool in fighting AIDS (Sindiga & Luhando, 1993:713). Kidan and Azeze (1995:9) surveyed condom use among Ethiopian college students and reasons given for not using condoms included: unavailability (44.3%), partner trust (43%), shortage of condoms (8%), and partner's disagreement (5.1%). 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 sperms of the men actually enters the woman (Gould, 1993:132f.).

Research also shows that the spread of HIV/AIDS is on the increase. It is expected that the prevalence of AIDS will reach about 27% of the sexually active population in South Africa by the year 2010 (Webb, 1997:214).

RESEARCH PROBLEM AND PURPOSE/AIM OF THE RESEARCH

Literature indicates that factors affecting condom use are a range of situational, interpersonal and structural factors such as knowledge about AIDS, behavioural intention, perceived susceptibility, perceived barriers, self-efficacy, and demographic factors (e.g. Basen-Engquist, 1992:120; Bandawe & Foster, 1996:223; Manderson, Tye & Rajanayagam, 1997:5ff.). Edem and Harvey (1994/95:3) found among Nigerian University students that condom benefit beliefs, condom barrier beliefs, cues to action, knowledge, and male gender were significant predictors of past condom use. Perceived barriers to condom use, perceived benefits of use, and male gender were significant predictors of intentions to use condoms. Such findings have important implications for the design of interventions to increase condom use among secondary school pupils and young adults. Abrahim, Sheeran, Abrams and Spears (1996:641) have noted that the health belief model measures did not account for significant proportions of variance in consistency of condom use or mediate the effects of prior sexual experience or demographic measures among adolescents in the UK. Abraham, Rubaale and Kipp (1995:155) found among secondary school students in Uganda that approximately a third of the variance in men and women's condom use self-efficacy, half the variance in women's condom use intentions, and a quarter of the variance in the men's condom use intentions were accounted for by specific variables.

In addition, findings suggest that prevention efforts to promote condom use must be gender as well as culture-specific if they are to be effective (Harvey, Beckman & Wright, 1996/97:139).

There is a lack of studies on factors affecting condom use among younger age groups despite the fact that HIV infection rates have become increasingly higher among adolescents. Therefore this study aims at investigating different factors influencing condom use among junior secondary school pupils in South Africa.

METHODS

Sample and procedure

The sample consisted of 446 Grade 10, Secondary School pupils chosen from the total Grade 10 population throughout one region in the Northern Province. The participants were randomly sampled within grade-level and gender, using class registers. There were no dropouts in this sample. The pupils were 200 (44.8%) males and 246 (55.2%) females within the age range of 10 to 30 years (M age 16.6 yr., SD = 2.5). More than 84 percent came from a rural background and 15.4 percent came from an urban background.

In this study only those cases were analysed who had had a sexual experience. These were in total 149, 70 female and 79 male. Therefore in the following discussion the sample size will only include those who had had a sexual experience. Most were Northern Sotho (106, 71.1%), followed by Tsonga (23, 15.4%), Venda (7, 4.7%), Ndebele (6, 4%), and others (7, 4.8%).

The students were clearly informed that the purpose of the survey was to find out about the use and knowledge of the condom and that their responses would be totally anonymous. Each student was requested to complete the questionnaire or indicate that he or she did not wish to do so. Permission was obtained from the parents, where necessary, the Department of Education, and the principals of the respective schools.

Data collection and analysis

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

- Biographic data (6 items).
- Sexual activity and condom use (12 items) (see Table 1).
- Knowledge of correct condom use (10 items) (see Table 2). Knowledge about correct use of condoms was evaluated as per standard guidelines for use of condoms (Sharma, Dave & Sharma **et al.** 1997:710; World Health Organisation, 1990:5ff). 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 for each correct answer one point was awarded; the total points comprised the knowledge score range from 0 to 10.

- Source of 'condom' information (12 items) (see Table 3).
- Condom use intention (when having sex next time with a new partner) (1 item) (from –2 = strongly agree to +2 = strongly disagree).
- 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).
- 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).
- Normative beliefs about condoms (3 items), such as "My parents think I should use condoms" (rated from –2 = strongly agree to +2 = strongly disagree).
- 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).
- A 16-item AIDS Health Belief Scale (AHBS), developed by Zagumny and Brady (1998:173ff.), to measure the four components of the Health Belief Model (HBM): perceived susceptibility to disease, perceived severity of a specific disease, perceived benefits of preventive behaviour, and barriers to preventive behaviour. Scaling involved the use of a 6-point Likert type scale with responses of "strongly agree" weighted 6 and "strongly disagree" weighted 1. For all sub-scales, higher scores represent a greater amount of that belief. Past research on the predictive utility of the HBM for HIV preventive behaviours suggests that perceived susceptibility, perceived benefits, and perceived barriers are the strongest predictors of HIV preventive behaviours. Cronbach alpha as well as split-half reliability coefficients for the AIDS Health Belief Scale were .89 and .83 for this sample.
- A 28-items Condom Use Self-Efficacy Scale (CUSES). Self-efficacy refers to the strength of an individual's belief in his own ability to respond to novel or difficult situations and to deal with any associated obstacles or setbacks. Examples of statements are: (i) I feel confident in my ability to put a condom on myself or my partner, (ii) If my partner and I were to try to use a condom and did not succeed, I would feel embarrassed to try to use one again (e.g. not being able to unroll condom, putting it on backwards, or awkwardness), or (iii) I feel confident that I could use a condom with a partner without 'breaking the mood'. Each item has a 5-point strongly disagree (scored as 0) to strongly agree (scored as 4) response format. After reversing negatively worded items, the scores are added up yielding a total score ranging from 0 to 112, with higher scores indicating greater condom self-efficacy (Brafford & Beck, 1991:219ff.). Cronbach alpha as well as split-half reliability coefficients for the Condom Use Self-Efficacy Scale was .79 and .71 for this sample.

Data analysis techniques used included Chi-square, T-test, correlations and stepwise multiple regression analysis using the Social Sciences Statistical Package (SPSS version 8.0).

RESULTS

Sexual parameters

About one year after puberty, both male (M=14.9 years) and females (M=15.6 years) had engaged in sex. More than half (58% for boys and 71% for girls) knew about condoms prior to first sex, but only 25.3% of the males and 71.4% of the females used condoms on first sex. At a mean age of 16.6 years 40.2% of the males and 23.9% of the females had already had more than one sex partner. Males had significantly more lifetime sex partners and engaged earlier in a relationship in sex than females. Half the males (50%) felt that the normal duration of a relationship before sex is less than 7 days whereas 34.8% of the females stayed in a relationship for more than a month before having sex. More than half of the sexually active males (56%) and almost one third (18.6%) of the females reported never having used condoms. Males had sex more often under the influence of alcohol and had a greater history of sexually transmitted disease (see Table 1).

Table 1: Sexual characteristics by gender in percent (or in mean if indicated)

Variable	Male (n=79)	Female (n=70)	X^2 (1) T-test
1. Onset of puberty (mean age and SD)	13.0 (4.5)	14.5 (1.8)	-2.344* (1)
2. Age of first vaginal sex (mean age and SD)	14.9 (1.9)	15.6 (2.6)	-1.76 (1)
3. Knowledge of condom prior to first sex	58.2	71.4	6.344*
4. Used condom on first sex	25.3	60.0	22.258***
5. No lifetime sex partners:			
1	43.9	61.2	
2-5	40.2	23.9	9.426*
6-10	06.1	03.0	
>10	09.8	11.9	
6. Normal duration of relationship before sex:			
< 7 days:	50.0	28.8	
>1-4 weeks:	36.6	36.4	17.466***
>1 months:	09.8	34.8	
7. Has a steady partner	25.3	15.7	4.323
8. Ever used condom	43.0	71.4	14.807***
9. Condom use with last sex partner:			
Never:	55.6	42.4	
Irregular:	18.5	31.8	
Regular:	24.7	15.2	11.380**
Every time:	01.2	10.6	
10. Had sex under influence of alcohol	40.0	24.1	5.920*
11. Had an STD	40.0	30.4	2.800
12. Know someone with HIV/AIDS	12.7	34.3	10. 622***

Condom knowledge

Table 2 indicates the knowledge about correct condom use among the participants.

Table 2: Knowledge about correct condom use by gender in percent

Items	Male	Female	X^2
1. Do condoms offer protection against AIDS?	94.9	74.3	4.825*
2. Do condoms have an expiry date?	88.6	77.1	4.093*
3. Do condoms offer protection against STD's?	91.1	65.7	5.142*
4. Should a condom be checked for leaks and holes?	84.8	60.0	11.352**
5. Can a condom be re-used? ®	82.3	52.9	9.872**
6. Should a condom be put on before any contact with the vagina?	79.7	52.9	7.798**
7. Should a condom be unrolled before being put on the penis? ®	74.7	51.4	5.297*
8. Can an oil-based lubricant (e.g. oil, vaseline, cold cream) be used with a condom? ®	64.6	54.3	.460
9. Is it essential for a person using a condom to withdraw his penis immediately after ejaculation?	63.3	55.7	.117
10. Is it alright to put on a condom just before ejaculation? ®	43.0	42.9	.165

® reverse scored

About 80% levels of correct answers were found for the items of "protection against AIDS" and "expiry date of condoms". About 30% of the females were not aware that condoms offer protection against AIDS and sexually transmitted diseases. The most common mistakes with respect to condom use were ignorance about the correct moment to put on a condom, inability to put on a condom properly, when to take off a condom, and the use of oil-based lubricants, in this order. Generally, males had significantly more correct knowledge about condom use than females.

Source of 'condom' information

More than 80% of the pupils indicated that their sources of 'condom' information was, in descending order of importance, radio, television, education talks, newspaper, social/health magazines, posters and pamphlets, health care provider, and been given free condoms. There was only a gender difference for (12: 'Been given free condoms') ($p<005$). 'Social/Health magazines' ($r=.237^{**}$) and 'Been given free condoms' ($r = 313^{**}$) was significantly associated with condom use with the last partner. Correct condom use knowledge was associated with the following sources of 'condom' information: social/religious organisation, health care provider, and posters and pamphlets, in that order (see Table 3).

Table 3: Source of condom information by gender, in percent, and in relation to correct condom use knowledge

	Male	Female	Condom knowledge score *r*
1. Radio	96.3	92.5	.124
2. Television	96.3	89.6	.099
3. Education talks	89.9	93.9	.134
4. Newspapers	92.4	83.6	.080
5. Social/Health magazines	88.2	86.4	.093
6. Posters and pamphlets	86.8	86.6	.255**
7. Health care provider	79.5	86.6	.280**
8. Been given free condoms	91.5	74.2	.094
9. Other people	69.9	79.1	.002
10. Social/religious organisations	63.8	75.4	.330**
11. Counselling	52.9	61.2	.190*
12. No information	42.5	58.2	-.220*

AIDS health beliefs

Table 4 indicates AIDS health beliefs among the participants by gender.

Table 4: AIDS health beliefs by gender and means (from 1 = strongly disagree to 6 = strongly agree)

Items	Male	Female	T-Test
	M (SD)	M (SD)	*F*
Perceived susceptibility	**3.4 (1.8)**	**3.5 (1.8)**	**3.643**
1. I feel that the chances are good that I can get AIDS	3.1 (1.9)	3.3 (2.0)	-.625
2. I am afraid that I might contract AIDS	3.8 (1.7)	3.6 (1.8)	.713
3. I believe that I can be exposed to HIV infection if my sex partner is heterosexual	3.5 (1.9)	3.7 (1.8)	-.661
4. I believe that I can get AIDS even if I only have sex with one partner	3.0 (1.8)	3.9 (1.7)	-3.050**
Perceived severity	**3.8 (1.9)**	**4.1 (1.6)**	**.377**
5. AIDS causes death	4.1 (2.0)	4.0 (1.5)	.133
6. I would rather have any other terminal illness than AIDS	3.6 (1.6)	3.9 (1.8)	-1.149
7. I would rather die from a violent death (e.g. gunshot, car accident, etc.) than from AIDS	4.0 (1.8)	4.0 (1.6)	.023
8. AIDS is probably the worst disease a person can get	3.8 (1.9)	4.1 (1.5)	-1.192
Perceived benefits	**3.6 (1.8)**	**3.6 (1.7)**	**.565**
9. I believe that the chances of contracting AIDS can be significantly reduced by using a condom	3.5 (1.9)	3.2 (1.8)	1.142
10. I think it is worth the effort to have condoms readily available	3.6 (1.8)	3.4 (1.5)	.751
11. I feel that the chances of contracting AIDS can be reduced by having sex with only one partner	4.0 (1.8)	3.9 (1.5)	.213
12. If a condom is not available, it would be	3.5 (1.7)	3.8 (1.6)	-1.048

worth the effort to discontinue sexual activity to obtain a condom			
Perceived barriers	**3.6 (1.8)**	**4.0 (1.6)**	**.817**
13. Using a condom seems like an insult to my partner	3.5 (1.8)	4.1 (1.7)	-2.098*
14. It is embarrassing (to me) to buy condoms	3.2 (1.7)	4.1 (1.5)	-3.361 ***
15. I do not enjoy (or think I might not enjoy) sex when using a condom	3.9 (1.8)	4.0 (1.6)	-.587
16. I would offer first-aid to an AIDS patient because I would feel guilty for not offering help	3.8 (1.7)	3.9 (1.7)	1.038

High mean rates of the Health Belief were found on each sub-scale of the AIDS Health Belief Scale, from 3.9 for perceived severity, 3.8 for perceived barriers, 3.6 for perceived benefits and 3.5 for perceived susceptibility in that order of importance. There were no gender significant differences with regard to each sub-scale. However, it is significant to note that females found it more embarrassing to buy condoms, had a higher belief that one can contract AIDS even if they had only one sex partner and found it more insulting to use a condom with a partner than males did.

Condom use self-efficacy

Table 5 indicates self-efficacy of condom use by gender.

Table 5: Self-efficacy of condom use by gender (0=strongly disagree to 4=strongly agree)

Statements (abbreviated)	Male M (SD)	Female M (SD)	T-Test F
1. Confident to put on a condom	2.4 (1.4)	1.7 (1.5)	.632
2. Confident to purchase condoms	2.2 (1.4)	1.8 (1.2)	2.783
3. Confident to carry a condom	2.7 (1.3)	2.1 (1.3)	.094
4. Confident to discuss condom usage	3.0 (1.3)	2.1 (1.3)	.002
5. Confident to suggest using condoms	2.6 (1.1)	2.1 (1.2)	1.045
6. Confident to suggest using a condom without my partner feeling "diseased"	2.6 (1.3)	2.1 (1.4)	.759
7. Confident to maintain an erection while using a condom	2.6 (1.2)	2.1 (1.1)	4.941*
8. Feeling embarrassed to put a condom on ®	1.7 (1.3)	2.4 (1.3)	.072
9. Afraid of rejection when suggesting condom use ®	1.9 (1.4)	2.2 (1.3)	.208
10. Not suggesting condom use when unsure about partner's view on condoms ®	2.3 (1.4)	1.8 (1.4)	.277
11. Confident to use a condom correctly	2.4 (1.2)	2.4 (1.4)	1.630
12. Comfortable discussing condom use with new partner before touching	2.6 (1.1)	1.9 (1.1)	.907
13. Confident to persuade a partner to accept using a condom	2.3 (1.1)	2.5 (1.2)	3.923*
14. Confident to remove and dispose of a condom after sexual intercourse	2.4 (1.5)	2.4 (1.5)	.471
15. If my partner and I were to try to use a condom and did not succeed, I would feel embarrassed to try to use one again ®	2.0 (1.4)	1.7 (1.3)	1.383
16. Not confident suggesting condom use with new partner since the latter thought I had homosexual experience ®	2.2 (2.1)	1.7 (1.2)	6.855**
17. Not confident suggesting condom use with new partner since the latter would have thought I had a STD ®	1.6 (1.6)	1.7 (1.2)	16.937***
18. Not confident suggesting condom use with new partner since I would have thought the latter had a STD ®	2.0 (1.4)	2.2 (1.4)	.141
19. Comfortable discussing condom use with new partner before intercourse	2.6 (1.4)	2.3 (1.5)	.220
20. Confident to use condom as part of foreplay	2.3 (1.4)	2.2 (1.5)	.560
21. Confident to use condom without 'breaking the mood'	2.6 (1.2)	2.6 (1.3)	9.705**
22. Confident to use condom on myself or partner quickly	2.6 (1.3)	2.3 (1.1)	3.547
23. Confident to use condom without reducing sexual sensations	2.6 (1.1)	1.9 (1.3)	1.897
24. Confident to use condom after drinking	2.4 (1.3)	1.9 (1.2)	4.184*
25. Confident to use condom even if I were high	2.4 (1.4)	2.2 (1.2)	7.452**
26. Could easily convince partner to use condom	2.2 (1.3)	2.3 (1.3)	1.563
27. Confident to use condom successfully	2.8 (1.2)	2.4 (1.2)	.151
28. Confident to put on a condom in the heat of passion	2.4 (1.3)	2.4 (1.2)	.974

® = reverse scored; * p<.05; ** p<.01

High self-efficacy of condom use was found with the following: (i) confident to use condom successfully (2.6), (ii) confident to use condom without 'breaking the mood' (2.6), (iii) confident to suggest using condoms (2.5), and (iv) confident to use a condom quickly (2.5), and low self-efficacy with the following four: (i) 'Not confident suggesting condom use with new partner since the latter would have thought I had a STD' (1.7), (ii) if my partner and I were to use a condom and did not succeed, I would feel embarrassed to try to use one again (1.9), (iii) not suggesting condom use with new partner since the latter would have thought I had a homosexual experience (2.0), and (iv) confident to purchase condoms (2.0). There were significant gender differences for 7 items indicating that females had lower self-efficacy than males, e.g. " Not confident suggesting condom use with new partner since the latter thought I had a STD", "Confident to use a condom without breaking the mood", "Confident to use a condom even if I were high" and "Not suggesting condom use with new partner since the latter thought I had a homosexual experience."

Correlates of condom use

Table 6 indicates the Pearson Correlation Coefficients for condom use, self-efficacy and intention to use condoms.

Age, gender, know someone with HIV/AIDS, and perceived HIV/AIDS severity was strongly related with lifetime condom use. Age, number of lifetime sex partners, perceived severity and prevention barriers of HIV/AIDS were strongly associated with condom use with last partner. Perceived susceptibility, prevention benefits and barriers of HIV/AIDS (three of four sub-scales) were strongly related to self-efficacy in condom use. Finally, age, number of lifetime sex partners, attitudes towards use of condoms and subjective as well as normative beliefs were positively associated with condom use intention

Multiple Stepwise Regression for the Theory of Reasoned Action found that subjective norms about condoms predicted condom use intention [Beta: .371;

Table 6: Correlates of condom use, self-efficacy and intention to use condoms

Variable	Lifetime condom use	Condom use with last partner	Self-efficacy in condom use	Condom use intention
Age	.215**	.230**	.064	.229**
Gender	.318**	.118	-.223	-.033
History of STD	.125	-.128	.033	-.030
Know someone with HIV/AIDS	.221**	.050	-.082	.004
No. of lifetime sex partners	.025	.348***	.105	.429***
Behavioural norm to use condoms	.212*	.053	-.139	.080
Attitudes towards use of condoms	.006	-.044	-.082	.330**
Normative beliefs to use condoms	.095	.076	-.205*	.227**
Subjective norm to use condoms	.178*	.208*	-.419**	.338**
Correct condom knowledge	-.156	.101	.102	-.234**
Perceived HIV/AIDS susceptibility	.096	.072	.452**	.150
Perceived HIV/AIDS severity	.368**	.416**	.190	-.080
Perceived HIV/AIDS prevention benefits	.219*	.221*	.392**	-.121
Perceived HIV/AIDS prevention barriers	.211*	.326**	.318**	-.081
Condom use self-efficacy	-.020	-.048	----------	.004

t=4.471***] and Multiple Stepwise Regression for the AIDS Health Belief Model indicated that only AIDS susceptibility predicted lifetime condom use [Beta: .423; t=4223***] and condom self-efficacy [Beta: .628; t=6.510***].

DISCUSSION

One year after puberty both males (M=14.9 years) and females (M=15.6 years) in this sample had engaged in sex. Buga, Amoko and Ncayiyana (1996:96) found among school girls in the Eastern Cape, South Africa, that their mean age at first coitus was 14.86 (SD = 1.81). Significant to note is that about half of the sexually active sample (52.6% males and 40.5% females) reported never having used condoms. Among Tanzanian sexually active school pupils (M age 17 years) 21.5% reported to have used condoms at their most recent sexual intercourse (Lugoe & Biswalo, 1997:74). Of Ethiopian students (mean age 14.74 years) 19.5% admitted to having had coital experience at least once in their life. The mean age of onset of sexual intercourse for girls was 15.30 years and for boys 16.45 years. Only 43.2% knew about condoms on their first coital encounter. Eighty two percent did not use condoms on their first sexual encounter (Eshetu, Zakus & Kebede, 1997:9). Similarly, Matasha, Ntembelea and Mayaud (1998:571) also found high rates of sexually active boys (80%) and girls (68%) in primary schools and the corresponding figures were 89% for boys and 48% for girls in secondary schools in Tanzania. Despite a rather high (30%) lifetime rate of condom use, 33% and 25% of primary school boys and girls, respectively, reported past experience of sexually transmitted diseases. Bandawe and Foster (1996:226) found among Malawian secondary school pupils (mean age for females 17.87 and for males 19.23 years) that 60% of the sexually active claimed to have used (or their partners use) condoms. Females reported higher incidence of condom use by their partners (70%) than males (52%). Stanton, Fitzgerald, Li **et al.** (1999:132) found among Namibian youth (12-18 years) that over one third of these youth had had more than one sexual partner in the previous 6 months and over half had not used a condom at the last episode of intercourse. Thus there is considerable scope for improving rates of heterosexual condom use.

The overall knowledge about correct condom use was high (but significantly lower for females) in this sample. In a study of an urban adult community in South Africa similar levels of correct but also false condom knowledge was found (Peltzer, 2000).

Most participants had multiple access to 'condom' information via various channels. Interesting to note is although radio, television and education talks were the most common media for condom information, correct condom use knowledge was associated with the following sources of 'condom' information: social/religious organisation, health care provider, posters and pamphlets and counseling, in that order. Thus, it seems relevant to underline the latter 'condom' information providers and place emphasis on them (also in regard to gender specificity) in HIV (condom) health promotion.

High mean rates of the Health Belief were found on each sub-scale of the AIDS Health Belief Scale, from 3.9 for perceived severity, 3.8 for perceived barriers, 3.6 for perceived benefits and 3.5 for perceived susceptibility in that order of importance. The AIDS Health Belief scale was related to past and current condom use as well as to self-efficacy in condom but not with condom use intentions. AIDS susceptibility was found to be predictive for lifetime condom use and self-efficacy to use condoms. Therefore the utility of the Health Belief Model could only be partially confirmed for condom use parameters (Brafford & Beck, 1991:219; Lollis, Johnson & Antoni, 1997:555f.).

The factors of HIV preventive behaviour identified should be considered in the development of an educational or intervention programme. Specifically, such programmes should include components on the susceptibility that individuals have to HIV infection. In

this study participants scored very high on the AIDS Health Belief sub-scale 'perceived severity' indicating great concern about HIV. Research has shown that the more concerned individuals are about becoming infected, the more likely they are to engage in safer HIV-related behaviours. In addition, the benefit of engaging in safer behaviour must be emphasised and that perceived barriers to preventive behaviour are possible to overcome (Boyd & Wandersman, 1991:1810).

Self-efficacy of condom use was unlike in some studies (Basen-Engquist, 1992:122; Brafford and Beck, 1991:222) not related to past, current and future condom use. Therefore, self-efficacy of condom use should be improved, e.g. suggesting condom use with new partner or the purchase of condoms. Examining the responses to the individual items on the Condom Use Self-Efficacy Scale could help identify behaviours which cause discomfort (or are anticipated as being uncomfortable) for an individual who does not consistently use condoms. A health educator could then focus on appropriate skills in discussing condom use with a partner. From the correlations from this study on condom use the following items seem to be particularly relevant for condom promotion: 'use condom successfully', 'use of condom without breaking the mood', or 'use a condom quickly'. Regarding low self-efficacy items the following are particularly important to address: 'suggest (persuade, convince) using condoms (with a new partner)'and 'purchase of condoms'. Addressing these areas of low self-efficacy health educators could – depending on age and gender - focus on interpersonal skills in discussing condom use with a partner, physically handling a condom, talking through the embarrassment of using a condom, or perhaps building assertiveness skills (Brafford and Beck, 1991:224).

RECOMMENDATIONS

The study found a lack of heterosexual condom use and some lack of correct condom use knowledge (especially among females), which needs to be addressed in programmes for improving rates of heterosexual and correct condom use.

There is a need for some forms of media such as radio, television and education talks to improve their presentation in order to improve the knowledge of correct condom use. Health education agents such as social/religious organisations, health care providers, posters and pamphlets and counseling as sources of 'condom' information can be emphasised more due to their effectiveness in imparting correct condom use knowledge.

The factors of HIV preventive behaviour such as components of the susceptibility that individuals have to HIV infection, the perceived severity of HIV/AIDS indicating great concern about HIV, and the benefit of engaging in safer behaviour must be emphasised and that perceived barriers to preventive behaviour are possible to overcome should inform the development of an educational or intervention programme.

Self-efficacy of condom use should be improved, e.g. suggesting condom use with new partner or the purchase of condoms. Health education should focus on appropriate skills in discussing condom use with a partner considering age and gender differences.

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