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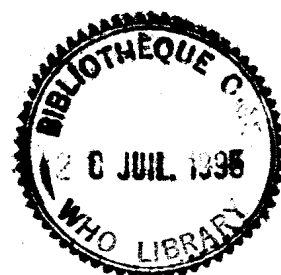
Sexuality and the Use of Condom Among Male University Students

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Summary

A sample of 819 male undergraduate students in one of the universities in Nairobi, Kenya, had a self-administered questionnaire to assess their sexuality, knowledge, attitudes and use of condom. Of these, 238 (29.1%) were "freshers", that is, they had just joined the University, 261 (31.9%) were first year students, and 320 (39%) were second year students.

The age range of the students was 18 to 40 years with the mean of 21.9 years. 97.2% of the students were single. 80.8% were rurally born while 65.8% of the students were residing in rural areas during the college vacations, 91.5% of the students were sexually active and 88.7% of the students had their first sexual contact by the age of 19 years, with a mean age of 13.5 years. 62.2% of the students had not planned their first sexual contact and the majority did not use any form of contraception (89.6%). Only 7.2% of the sexually experienced students were temporarily abstaining from sex and had not had sex in the past year. 64.6% of the students indicated having been sexually active in the past four weeks.

The spontaneous knowledge of contraceptive was high with at least 93% of the student mentioning one modern method. At the same time 71.0% indicated having ever used a contraceptive. 91% of the students had heard of the condom and 54% of them had ever used one with only 30.1% indicating that they had used a condom in the last sexual contact. The attitudes toward the condom were poor with half of the students indicating that the condoms were messy to use and 25% felt shy to collect condoms from a source. 24% would not like to be seen holding a condom by their girlfriends.

Knowledge of the sexually transmitted diseases (STDs) was high, with 75% spontaneously mentioning gonorrhoea, 70% Acquired Immunodeficiency Syndrome AIDS and 75% syphilis. However, only 35% were able to mention the correct symptoms of gonorrhoea, 17% of syphilis and 29% of AIDS. Nearly a fifth of the students (16.6%) admitted having ever suffered from an STD. The condom was indicated by 60% of the student as a way of preventing contracting AIDS.

This study has shown that the students, inspite, of their knowledge of contraceptives and of the prophylactic use of the condom, are only limited users of different contraceptives and of the condom. The impression is gained from the study that given the right information, access, and motivation, students would continue to use the condom as a contraceptive and as preventive measure against STDs.

The paper suggests that programmes to promote condom use among these young, single and sexually active population should

be incorporated into the college activities as part of an overall national effort at controlling the spread of Aids.

INTRODUCTION

The condom has been in use for a long time. Historically and ironically, the condoms were first developed as a defence against Sexually Transmitted Diseases (STDs)¹. It is probably this initial association with STDs and with prostitution that has given the condom its negative image as encouraging loose morals, making it less acceptable or recommended within marriage. The positive protective potential against STDs afforded by the condom was recognized long before their contraceptive functions.

Many studies have indicated that men are by nature polygamous and especially sexually active while young and single. Most men have more than one sexual partner in a life time. Studies done among young unmarried groups uniformly show that they are sexually active, start their sexual activity early and have sexual contacts that are unplanned, unprotected and sporadic^{2,3,4,5,6,8}.

There is paucity of information on the sexual and reproductive behaviour of young and unmarried people in Africa. Discussion of their sexuality and contraceptive behaviour still provoke controversy and the topics are still charged with emotions in most societies⁷. Most parents, teachers, administrators and researchers would rather ignore the topics and let the young grope in the dark full of endless array of books, magazines, movies, disco-music, radios, televisions and peer group seeking information on sexuality. Indirect evidence suggesting that many young persons are sexually active but not ready for parenthood is overwhelming. The increased sexuality among young people is responsible for many unwanted pregnancies, high rate of STDs, abortion, school drop out, career disruptions, maternal morbidity and mortality. In most cases the sexual partners are the young girls' male peers.

The male partner has been neglected in studies pertaining to contraception, fertility and sexuality. The male role in family planning is often misunderstood and clinical services center almost exclusively on women and hardly on adolescents. This is despite the fact that male partners have great influence on their female partners. In Kenya, most studies have focused on girls, with only a few on both girls and boys or boys only⁹. As such

there is uniformly poor utilization of family planning among adolescents even in regions where this is legal⁹. The reasons for poor utilization of contraceptive services among the adolescents are manifold. The sporadic and unplanned nature of adolescent sexual activity discourage regular use of contraceptives and this is particularly true at the first coitus¹⁰.

Available studies point to the use of the condom and barrier methods as the preferred methods for both contraception and STD prevention^{11,12}.

With the advent of Aids, and the prevalence of HIV infection highest among the young, it is becoming important to find ways and means of motivating adolescents to take the threat of infection seriously and approach their sexuality with some sense of responsibility so that they do not contract this fatal disease. One major option for safe sex is the use of the condom. This is a male method and motivating the young males to use it should be one of the strategies of Aids control.

This study attempted to explore the sexual behaviour of the male university students, their knowledge, attitudes and use of contraceptives in general and of the condom in particular. It also tried to evaluate the factors associated with the use or non-use of the condom by these students. The male students were chosen as a study population because of their tender age, sexual active nature, newly found freedom away from the secondary schools and parental guidance, single marital status; all of which can lead to high risk sexual behaviour. The corresponding risk of contracting STDs including Aids is a real public health problem with disastrous consequences for the young people themselves and for the nation.

OBJECTIVES

Broad objectives

To determine the knowledge, attitude and use of condom among male university students and to determine the influence of sexuality and knowledge of STDs and their contraceptive behaviour.

Specific objectives

- To determine the initiation and frequency of sexual activity and other factors related to sexuality among male university students.
- To determine the knowledge of STDs among male university students.
- To determine the knowledge of condoms, attitudes to its use and the prevalence of use among the students.
- To determine the factors that influence the use of condoms among male university students.
- To determine the knowledge and use of other contraceptives among the students.
- To make recommendations to family planning programmes on ways of promoting condom use among young adults.

STUDY DESIGN AND METHODOLOGY

General Study Design

This was a descriptive survey. The subjects of the study were recruited from male university students in one of the urban national universities.

The male university students were subjected to self administered partially pre-coded questionnaire designed to examine the various aspects of condom use as illustrated in the specific objectives. A pilot survey was conducted in the university to test the suitability of the questionnaire. The questionnaire was revised after the pilot survey to minimize frivolities and the chances of

falsifications. Questions on knowledge and use were open ended as much as possible to reduce the effect of "promoting" inherent in multiple choice questions.

Subject selection and admission

Criteria for admission and exclusion

Male university students in full time undergraduate training residing in the university were admitted. The students were recruited on their willingness to participate and any students with any moral or personal objections were excluded. Blind students who were unable to read ordinary typewritten words in English were also excluded.

Sampling procedure

List of the male hostels was obtained and the number of students registered in each hostel was recorded. The sampling was done by rooms taking every fourth room and where there were more than one occupant in each room both or all were interviewed.

Data collection and management

The questionnaire had no identifiers on them so that the information given was anonymous. Twenty final year medical students were recruited, trained and used to distribute, invigilate and collect the questionnaires.

The filled in questionnaires were brought back to the department for coding, computer entry, and analysis. The information obtained consisted of both qualitative and quantitative data which were entered into an Epson Computer and an Epiinfo Package used for univariate analysis and cross-tabulations.

The chi-square (and student t-tailored) significant tests were used, considering P value of $P < 0.005$ as significant.

RESULTS

Out of a total of 852 questionnaires distributed, 819 (96.8%) were adequately filled and form the survey sample. The students were generally very enthusiastic and co-operative to take part in the survey, 11 questionnaires were not returned by the students, eight were returned blank with the students saying that they were either too busy or they had moral or religious objections regarding the condoms, 14 questionnaires were either incomplete or had obvious frivolous answers or falsification and were excluded from the analysis. The overall attrition rate was 3.8% (Table 1).

The completeness of the responses varied from question to question, consequently, the total number of the students who actually answered a given question, rather than the overall sample size in the study, is sometimes used in calculations.

Table 1: The response pattern

Questionnaires	No.	%
Total distributed	852	100
Not returned	11	1.3
Returned blank	8	0.9
Not properly filled	14	1.6
Overall Attribution	33	3.8
Salvage	819	96.8

Table 2 shows the summary of some of the background characteristics of the students, 97% of the students were single. There was no significant difference in the marital status among the different year of the study, 80.8% of the students were born in the rural areas while 65.9% still return to residence in the rural areas during holiday periods. The mean age of the students was 21.9 years

and there was a statistically significant difference between years as expected, the freshers being younger than the first and second year students.

Table 2: The social demographic data on the university students

Parameter	Year of study							
	Freshers		1st year		2nd year		Overall	
	No.	%	No.	%	No.	%	No.	%
% Single	234	98.7	250	95.8	310	96.9	794	97.0
Birth Place								
Urban	55	33.1	54	20.7	48	15.0	157	19.2
Rural	183	76.9	207	79.3	272	85.0	662	80.8
Residence								
Urban	88	37.0	83	31.8	91	28.5	262	32.0
Rural	146	61.3	172	65.9	221	69.3	539	65.9
Unspecified	4	1.7	6	2.3	7	2.2	17	2.1
Mean age (yrs)			20.9		21.9		22.5	
Total student			238		261		320	

Table 3 shows the age distribution of students by the years of study. As expected the second year students were older than the first year students and freshers.

Table 3: The age distribution of students by the year of study

Year of Study	No.	Aged in years					U/S	Total
		16-19	20	21	22	23+		
Freshers	238	11.3	32.8	22.3	25.6	2.5	5.5	100.0
First	261	1.1	18.0	27.2	35.2	13.4	5.1	100.0
Second	320	0.0	4.4	15.6	60.9	15.3	3.8	100.0

Note: U/S = Unspecified

Table 4 shows the distribution of students by sex experience and year of study. There is significant difference between the different years of study with respect to sex experience ($p < 0.05$). The first year students were the most sexually experienced, while the freshers were least sexually experienced.

Table 4: The distribution of students by sexual experience and by year of study.

Year of study	Sexual experience					
	Ever had		Never had		Total	
	No.	%	No.	%	No.	%
Freshers	210	88.2	28	11.8	238	100.0
First year	250	96.8	11	4.2	261	100.0
Second year	265	96.8	25	8.6	290	100.0
Total	715	91.6	66	8.4	781	100.0

Table 5 shows the distribution of sexually experienced students by the category of their partners at first intercourse and according to their year of study. A wife was rarely a first sexual partner with only 1 (0.1%) of the students mentioning her. Majority (68.9%) of the students mentioned girlfriend as first sexual partner while 2.0% of the students mentioned prostitute as their first sexual partner. The difference was statistically significant with more freshers mentioning other sexual partners while more second years mentioning girlfriends.

Table 5: Distribution of sexually experienced students according to year of study at first coitus

Partner	Year of study							
	Freshers		First year		Second year		Total	
	No.	%	No.	%	No.	%	No.	%
Wife	0	0.0	1	0.4	0	0	1	0.1
G/Friend	106	48.8	186	74.1	228	79.4	523	68.9
Prostitute	2	0.9	7	2.8	6	2.1	15	2.0
Other	90	39.6	32	15.6	46	15.8	170	23.0
Unspecified	19	8.8	18	7.2	8	2.7	45	5.9
Total	217	100.0	251	100.0	291	100.0	759	100.0

Table 6 shows the distribution of the sexually experienced students by contraceptive use during first coitus and whether they planned or did not plan their first coitus. Only 35.9% of the students planned their first coitus and only 10.4% used a form of contraceptive during that first coitus. There was no significant difference among the different years of study with respect to contraceptive use during the first coitus and whether it was planned or not.

Table 6: Distribution of sexually experienced students by contraceptive used during first coitus and whether first coitus was planned or not according to year of study

Year of Study	First coitus experience							
	Contraceptive use		Planned Coitus Study					
	Yes	No	Yes	No	Yes	No		
Freshers	30	13.8	183	84.4	85	39.2	127	58.5
First	19	7.6	224	90.0	88	35.3	157	63.1
Second	28	10.1	251	88.9	98	34.0	185	64.2
Total	78	10.4	662	87.9	271	35.9	469	62.2

Note: The totals do not add to 100% as 1.9% of the sexually experienced students did not respond to the question.

Table 7 shows that 49.9% or almost half of the sexually active students were having regular intercourse and had sex in the previous one month. Majority of the students, 86.25% had sex in the previous six months. Only 4.51% of the sexually experienced students were temporarily abstaining and had not had sex in the previous year.

Table 7: Timing of last coitus of sexually experienced students

Last sex day	No.	%
One day	77	10.2
One week	192	25.5
One month	107	14.2
Six months	198	26.3
7-12 months	109	14.5
One year	20	2.6
More than one year	34	4.5
Unspecified	17	2.2
Total	754	100.0

The spontaneous knowledge of different types of contraceptives was sought and the students exhibited high knowledge (Table 8), 71% reported ever using at least one method. The condom was the most well-known and used by the male students, followed by the pill, rhythm, and withdrawal. When the students were specifically asked about the ever use of the condom the percent use went up to 66.2 per cent. This rise in the response was due to prompting. A small percentage of the students knew about the new methods like the implants.

There was no statistically significant difference between the knowledge of various methods and ever-users and non-users. There was no statistically significant difference between the use of the condom and the different years of study. The marital status did not influence the use of the condom.

Table 8: Spontaneous knowledge and use of various contraceptives

Contraceptive	Knowledge		Ever-use	
	No.	%	No.	%
Any method	759	92.7	582	71.0
Condom	749	91.3	444	54.2
Pill	590	75.7	188	23.0
Rhythm	531	68.2	310	37.9
Withdrawal	336	43.1	95	11.6
IUCD	302	38.8	28	3.4
Female barrier	178	22.8	16	2.5
Vasectomy	120	15.4	1	0.2
Female sterilization	104	11.4	0	0.0
Abstinence	73	9.4	26	3.2
Injectable	57	7.3	5	0.6
Implants	6	0.8	1	0.2
Other methods	263	33.8	66	8.1
Unspecified	10	1.2	61	7.4

Table 9 shows the distribution of students by the precautions they took against pregnancy during their last sex day. 34.0% of the students did not take any precautions while 28.1% either relied on the safe period or on coitus interruptus. 30.1% of the students used a condom during their last sex day while 2.4% used pills.

Table 9: Distribution of students according to the precaution they took during their last sex day

Precaution	No.	%
None	256	34.0
Condom	227	30.1
Safe period	190	25.2
Pill	18	2.4
Sex interruptus	22	2.9
Other	13	1.7
Unspecified	28	3.7
Total	754	100.0

Table 10 shows that the distribution of sexually experienced students who have never used condoms by the reasons they gave for non-use of condoms. Dislike for condoms was the most frequently mentioned reason for non-use (14.2%). Another 11.4% of the sexually experienced students said they did not use condoms because they are messy, while reduction of sexual pleasure was mentioned by 9.3% of the students. The other reason cited included religious objection, (8.9%) never thought of it, partner disapproval, desire of pregnancy, unavailability-inaccessibility, increase promiscuity and ineffectiveness.

Table 11 shows the distribution of students by known uses of condoms and what the students thought was the most important use of the condoms. 86.7% knew that contraception is a use of condoms while 23% indicated it was the most important use. 82.2% of the students knew that STD prevention was use of condoms and 60.6% thought that STD prevention was the most important use of condoms. The mentioning STD prevention include those students who mentioned AIDS especially.

Table 10: Distribution of never users by reasons for none use (N = 200)

Reasons for none use	No.	%
Dislike	28	14.0
Condoms messy	23	11.5
Reduce pleasure	18	9.0
Religious objection	17	8.5
Never thought of using	4	2.0
Partner Disapproval	14	7.0
Desired pregnancy	8	4.0
Unavailable/inaccessible	7	3.5
Increase promiscuity	1	0.5
Condoms ineffective	1	0.5
Other reasons	42	21.0
U/S	12	6.0

Table 11: Distribution of students by known uses of condoms and what the students was the most important use of the condom

Uses	Spontaneous knowledge		Indicating as most important	
	No.	%	No.	%
Contraception	709	(86.7)	192	(23.5)
STD prevention	*672	(82.2)	**495	(60.6)
Other	26	(3.2)	9	(1.1)
None/Don't know	11	(1.3)	15	(1.8)
Unspecified	58	(7.1)	106	(13.0)

Notes: * 8(1.0%) mentioned Aids specifically
** 3 (0.4%) mentioned Aids specifically

Table 12 shows that 80.3% of the students had heard of condoms from friends, 78.4% from books, 69.8% from newspapers and 67.0% from school. When the students were asked about their sources of condom, only 17.1% indicated the University Health Center, 30.0% from Government clinics and 25.5% from friends.

Table 12: Distribution of students by source of knowledge of condom

Source of knowledge	No.	%
1. Friends	658	80.3
2. Books	601	73.4
3. Newspapers	572	69.8
4. School	549	67.0
5. Radio/TV	520	63.3
6. Medical profession	478	58.4
7. Films	276	33.7
8. University lectures	267	32.6
9. Relatives	208	25.4
10. Parents	55	6.7
11. Other	21	2.6
12. Never heard	12	1.5
13. Unspecified	15	1.8

Table 13 shows the distribution of students according to their response to some attitudinal questions, 24.9% said they would feel uneasy to ask for condoms from source. 25.0% of the students said they would not like to be seen holding condoms by other men while 56.6% of the students would not mind being seen holding condoms by other men. 54.5% of the students said they would not like to be seen holding condoms by girls.

Knowledge of STDs

The students were asked to mention the STDs that they knew. Table 14 shows that gonorrhoea was the most frequently mentioned, followed by syphilis and AIDS at

Table 13: Distribution of students by their response to various attitudinal questions about the condom (N = 819)

	Response		
	Yes	no.	%
1. I would feel uneasy to ask for condom from source	24.9	50.1	25.0
2. I would not like to be seen holding condoms by other men	25.0	56.5	18.5
3. I would not like to be seen holding condoms by girls	56.5	27.8	15.7
4. I would not like to be seen holding condoms in public	69.1	19.1	11.8
5. Condoms are messy	50.1	34.7	15.2
6. Condoms distribution should be restricted to medical personnel	25.2	63.6	11.2
7. Condoms should be available to secondary school students	59.8	31.4	8.8

N.R. = No response

77.2%, 75.4% and 69.8% respectively. A substantial decline in knowledge level was recorded when students were asked to describe the symptoms of each of the STDs. Just under half of those who mentioned the gonorrhoea could describe the correct symptoms. The corresponding proportion of correct symptoms for syphilis was less than one in four who mentioned the disease. Aids fared better than syphilis but worse than gonorrhoea. Less than half of those students who mentioned Aids could accurately describe the symptoms. However, in response to probing questions on AIDS, the proportion reporting general knowledge of the disease rose to 90.4 per cent.

Table 14: Spontaneous and detailed knowledge of sexually transmitted diseases by students (N = 819)

Disease	Percentage mentioning	Correct disease	Wrong symptoms	No. Resp.
Gonorrhoea	77.2	35.1	36.1	5.0
Syphilis	75.4	17.0	53.4	5.0
Aids	69.8	28.9	34.8	6.1
Herpes genitals	6.0	1.3	4.4	0.3
Other	12.8	3.9	4.8	3.1

About one in every six students (16.5%) reported they had suffered from a sexually transmitted disease before. Probing questions on whether condoms prevented Aids resulted in 66.8% answering in the affirmative while 21.5% of the students answered in the negative and 11.7% did not respond (Table 15).

Most students (66.2%) mentioned zero grazing i.e. single monogamous relationship as a preventive measure for Aids while 60.0% mentioned condoms as a preventive measure against Aids. 51.0% mentioned non-effective methods for preventing Aids.

DISCUSSION

The results of this study show that the majority (91.5%) of male university students are sexually experienced. Since 97.0% of the students were single most of these sexual relationships were pre-marital. This finding is in keeping with previous studies that young people have a high rate of sexual activity. Gachuhi² found that 83% of males in Kenyan schools and colleges and aged 13 to 36 years were sexually active. It is also in keeping with previous observations that young males tend to be more

Table 15: Distribution of students by knowledge of Aids prevention (N = 819)

Preventive measure	No.	%
Zero grazing	542	66.2
Use condoms	491	60.0
Non effective methods	423	51.6
Abstinence	198	24.2
Avoid unnecessary injections	103	12.6
Avoid unnecessary blood transfusion	66	8.1
Do not know	5	0.6

sexually active than females of the same ages. Njoroge¹³ reported a sexual activity prevalence of 62% among female university students. Studies done in younger age groups have found slightly lower rates. Maggwa⁴ found a rate of 64% among rural primary school males.

The mean age at first sexual contact was 13.46 ± 3.61 years. This is lower than the mean for girls reported by various workers. Lema³ found a mean of 16 years, Rukaria⁶ found a mean of 18.2 years. Maggwa⁴ found a mean of 14.9 years. Ferguson¹² found a mean of 18 years. It is similar to findings reported among males by Rukaria⁶ 14.2 years, Maggwa⁴ 13.2 years, and Kiragu¹⁴ 12.4 years.

Only 35.9% of the students planned their first sexual intercourse and only 10.4% used a form of contraceptive, and the majority mainly unreliable methods such as withdrawal and rhythm. The implications of the high rate of sexuality, the sporadic and unprotected nature of the early debut at intercourse among youth are obvious. Findings that the rate of sexually transmitted diseases among adolescents is high, as demonstrated by Mulandi¹³ are not surprising.

Studies on adolescent fertility and adolescent pregnancy have also demonstrated that these problems are far from negligible. That these young people are not only sexually active but that they are also engaging in sexual intercourse regularly is shown by the fact that about half (49.9%) had sex within the previous four weeks and, only 4.5% were temporarily abstaining having had their last sex more than one year ago. Other studies have shown similar trends among female students. Rukaria⁶ found that 37.3% of female undergraduates had regular intercourse while 33.3% male undergraduates had regular intercourse.

With the high rate of sexuality among students, one would want to see a correspondingly high rate of contraceptive and prophylactic protection. This is not the case as only 71.0% of the sexually active students had ever used any method, and less than a third had used in their last intercourse (Table 9). In effect, there is a wide knowledge-use gap for most contraceptives. While 54.2% of the students reported ever use of condom, the use is most probably confined to "promiscuous relationships" where they fear the risk of contracting sexually transmitted diseases, rather than in steady trusted relationships. Up to 60.6% of the students thought that the most important use of the condom was STD prevention. This fact can be used in the promotion of condom use among young people. The study by Rukaria⁶ found that the majority of university students (62.4%) who used the condom did so to prevent pregnancy and STDs rather than to prevent pregnancy alone (27.2%) or STD alone (10.4%).

Though the awareness of sexually transmitted diseases is reasonable (with 77.2% knowing gonorrhoea, 75.4% knowing syphilis, 69.8% knowing Aids, this knowledge seems to be superficial. Only 35.1% of the

students know the correct symptoms of gonorrhoea, 17.0% for syphilis, and 28.9% for Aids. With 16.6% of the students admitting that they had suffered from sexually transmitted diseases, many more may suffer from these diseases without knowing and without seeking medical treatment. This high level of ignorance of correct symptoms of STDs is disturbing since the university students are potentially the most informed members of society. If their knowledge is poor, that of the rest of society must be poorer. Mafany⁸ interviewed primary and secondary school students in Cameroun and found that only 16.1% could state correct signs and symptoms of *N. gonorrhoea*, 11.3% of AIDS and 9.4% of syphilis.

Since adolescents are at a special risk of contracting sexually transmitted diseases^{16,17}, a more concerted effort should be made to disseminate information regarding STDs, and since 60.2% of the students regard prevention of STDs as the most important use of condom, this can be used to promote condom use. It is however, the correction of the adverse image of the condom that constitutes the greatest challenge of behaviour change.

CONCLUSIONS

1. The university students were young, sexually active and single, indicating parameters which can lead to risky behaviour of contracting STDs and especially Aids.
2. The students had a general awareness of the common STDs including Aids but their knowledge of actual symptoms was deficient.
3. About one in six students reported ever experiencing an STD, a level that indicates the existence of high risk sexual behaviour and a real risk of HIV infection to which previous STDs are predictors.
4. The students were very much aware of different types of contraceptives and a high percentage had actually used one of them.
5. The condom use was higher in this population than in the general population although the attitudes towards condom are still negative.
6. The general awareness about Aids was high but the symptoms were poorly known.

Unresolved Questions

1. Can the young college students be motivated to use the condom effectively and persistently until the time when they have "stable partners"?
2. Do the students recognize the real risks they run through unsafe sex practices and can they be encouraged to practice safe sex for prevention of STDs?
3. Can the convinced students act as promoters of the condom among their peers?
4. Can the use of the various contraceptives, especially the male oriented ones, be increased so that the gap between awareness and use can be narrowed down?

Recommended Intervention Strategy

The expectation that young male university students are unmarried but sexually active is borne out in this study. The ever use of the condom for both contraception and STD prevention is high but such use is not consistent. Consequently, three related strategies are recommended to reduce the high risk behaviour in this group.

1. The programme of information, education and communication (IEC) aimed at increasing the basic scientific knowledge of STDs and Aids and their modes of transmission should be targeted at students so that they can be more responsive to programmes of risk behaviour modification.

2. Knowledge of the risky sexual behaviour of students should form the basis of promoting safe sex concepts among the students.
3. Female students should be involved in the promotion and consistent use of the condom for both its contraceptive and prophylactic benefits.
4. Access to the condom for both sexes should be increased within the University system through a reduction of direct costs to the users and the utilization of different channels for the distribution of the condom.

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REFERENCES

1. Potts M., and Short R.V. (1989). Condoms for the prevention of HIV transmission: Cultural dimensions. *AIDS*, 3: suppl. Family Health International, 259-263
2. Gachuhi J.M. (1974). *African youth and family planning, knowledge attitudes and practice*. Discussion Paper No. 189. Institute of Development Studies. University of Nairobi.
3. Lema V.M. (1989). Factors associated with adolescent sexuality among secondary school girls in Nairobi. *Kenya. J. Obst. Gyn. East Central Africa* 8:38.
4. Magowa A.B.N. (1987). *Knowledge, attitude, practice survey of sex, contraception and teenage pregnancy among teenage living in a rural set up in Kenya*. Master of Medicine Dissertation, University of Nairobi.
5. Oniang'o R.K. and Rogo K.O. (1989). Sexual maturation and fertility: Issues among high school males in rural Embu. 8: 24.
6. Rukaria R.M. (1990). *A knowledge, attitude and practice survey on contraception and sexually transmitted diseases among undergraduate students in the university*. Master of Medicine Dissertation, University of Nairobi.
7. Kelles A. et al (1989). Towards family planning in 1990s *International Family Planning Perspectives* 15:4.
8. Mafany N.M. (1989). *Knowledge, Attitude, practice survey on human reproduction, contraception, sexuality, sexually transmitted diseases among secondary school students in Fako District. S.W. Province, Cameroun*. Masters of Medicine Dissertation, University of Nairobi.
9. Nedelson C.C., Notman M.T. and Gillen J.W. (1980). Sexual knowledge and attitudes of adolescents: Relationship to contraceptive Use. *Obstetrics and Gynaecology*, 55: 340.
10. Ramez L. (1989). Adolescent fertility in Latin America and the Caribbeans: Examining the problems and solutions. *Intl. F.P. Persp.* 15:15.
11. Katchatourian, Herant. (1980). 'Adolescent sexuality in Paediatrics Clinics of North America, 27:1.
12. Ferguson A. (1988). *Report on school girls pregnancies in Kenya*. Ministry of Health, Division of Health.
13. Njoroge M.N. (1984). *Knowledge, attitude and practice on contraception among female students at the university of Nairobi*. Masters of Medicine Dissertation, University of Nairobi.
14. Kiragu K. (1989). *Adolescent fertility in Kenya: Nakuru District Adolescent Fertility Survey*, Ph.D. Thesis, University of Nairobi.
15. Mulandi T. (1985). *A prospective study of sexually transmitted diseases and their effects on cervical cytology in a rural area*. Master of Medicine Dissertation, University of Nairobi.
16. Lema V.M., Makokha E.A., Sanghvi H.C.G. and Wanjala S.H.M. (1991). A Review of the Medical Aspects of Adolescent Fertility in Kenya. 9: 37.
17. Mati J.K.G. (1986). Sexually Transmitted Diseases (STD) in Adolescents. 5:4.