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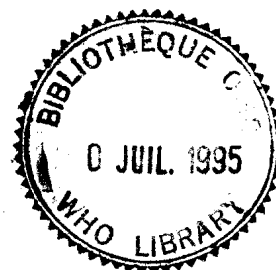
Condom Acceptability and Use Among Patients Attending Sexually Transmitted Diseases (STD) Clinic

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Summary

A survey of knowledge, attitude and practice regarding the condom and the prevention of sexually transmitted diseases was carried out among 500 men attending an STD clinic in Nairobi for treatment. A pre-tested questionnaire was administered by one of the co-investigators.

The majority of the respondents were young, married with multiple sexual partners and showed high risk behaviour predictive of contracting STDs.

Their knowledge of the STDs including AIDS was high. So was their knowledge of the various way of preventing contracting the diseases. Some 83.7% knew that condom use prevented STDs. Avoiding high risk women was reported by 82.0 per cent. However, the ever-use of the condom was low at 34.5% for the patients attending STD clinic.

The current use in the past two weeks was only 6.1% for these patients attending the STD clinic. In effect, there was a big discrepancy between knowledge and practice of safe sex.

The spontaneous reporting of various methods of family planning indicated a deficiency especially with regards to male sterilization with only 14.3% reporting this method.

The awareness of the Acquired Immunodeficiency Syndrome (Aids) was universal. This indicated that the information about Aids had reached them through the media.

A majority indicated the use of the condom as one of the effective method of avoiding contracting Aids. However, negative attitudes towards the condom curtails its use.

Ways of narrowing the gap between knowledge and practice of safe sex are suggested. Greater accessibility to condoms and seizing the opportunity of clinic contacts for counselling patients on prevention of STDs are two such suggestions. Socialization mechanisms which influence behaviour today should be explored and harnessed for campaign to increase condom use in high risk groups for contracting various STDs.

INTRODUCTION

There are various types of diseases grouped together as sexually transmitted diseases (STDs). These include Neisseria Gonorrhoea, Syphilis, Chlamydia Trachomatis, Mycoplasma, Chancroid and more recently, Acquired Immunodeficiency Syndrome (Aids). Although the extent to which condom use prevents STDs transmission varies widely within different sexual practices and user consistency, condoms are important front line defence against the spread of the STDs and Aids¹. An intact

condom has been found to be an effective barrier against the passage of Aids virus. Small scale experiments with the condom and Herpes B and Human Immunodeficiency Virus (HIV) confirm that latex condoms are effective physical barrier and spermicide may also reduce the risk of sexual transmission of HIV. In the laboratories, nonoxynol-9 rapidly kills Herpes, Chlamydia, Gonorrhoea, Syphilis and HIV².

The nature of sexually transmitted diseases and dimensions of the problem are increasingly becoming clear as laboratory diagnostic techniques, epidemiological, public health research and information systems improve. The population at risk of STDs infection increases rapidly as the number of young mobile adults (20 to 49 years) increase. Today young men and women are socially and economically free to be exposed to, and experiment with other life styles more than the previous generations. On the other hand, threats to life posed by STDs have also increased. The STDs have become a major pandemic as incurable and fatal strains appear on the scene.

With the advent of Aids, various studies have been done on the preventive aspects of sexually transmitted diseases and especially the role of the condom in the prevention of STDs^{3,4}.

The condoms do not provide 100% protection, but they are a great improvement on the unprotected sexual contact in high risk situations⁵. Condoms do not provide protection beyond penile area. The quality of the condom and proper use are the key determinants of the effectiveness of the condom. Condom use is low in much of the developing world, and lowest in Sub-Saharan Africa, even in those countries with strong family planning programmes such as Zimbabwe, Kenya⁶ and Botswana. Worse still, condom use is low in countries where HIV infection is thought to be widespread². Studies of women in reproductive age (15 to 49 years) showed high knowledge of the condom as a contraceptive but relatively low usage. Use of the condom was also shown to be more likely to be outside the marital union than inside⁷.

Studies on the use of the condom in discordant couples showed that it can effectively prevent the HIV transmission^{4,8,12}. A study on the condom use among prostitutes in Nairobi, Kenya, indicated that the public health education programme on prevention of Aids can

affect their sexual behaviour by encouraging their clients to use condoms, thereby reducing the risk of HIV infection and transmission⁹.

A study by Bhatt¹⁰ identified some of risk factors associated with HIV infection in Kenya as being single with multiple partners, being a long distance truck driver, a barmaid, a hotel attendant, a tour guide, having previous episodes of sexually transmitted diseases or being a spouse of HIV positive individuals. Being young has also been found to be a risk factor.

While the Aids pandemic continues to threaten whole nations, peoples' high risk sexual behaviour has not changed much and in Sub-Saharan Africa, the adoption of safe sex techniques is very low. Safe sex has come to mean two things, namely prevention of pregnancy and protection against STDs.

Heterosexual transmission is the most common cause of HIV infection in Africa. Paediatric Aids has also increased rapidly as a result of heterosexual transmission and the onward transmission of the virus from mothers to their infants. HIV prevalence among pregnant women is between 5 to 15% in some Eastern and Central Africa^{13,14}.

The problem can be summarized as follows, Aids is a serious and fatal disease, the incidence of Aids and HIV infection is increasing steadily worldwide and East Africa is one of the region where the increase is rapid. More persons are known to be infected with HIV infection than have become ill, with the incubation period estimated to range between months to years.

The infected persons may be capable of transmitting the disease for many years even though they may remain asymptomatic. This results in a large population of individuals who pose a danger of infecting others for many years before they develop signs of severe illness. Furthermore, the infected individuals can transmit the virus to other individuals without both parties being aware that they may be infected.

The HIV infection is transmitted by infected sexual partners through exchange of body fluids, through equipment used to administer intravenous drugs of abuse, through contaminated blood and products, needles and from infected mothers to infants. Members of all population groups thus exposed are at risk. Up to date there is no effective vaccine or therapy which have been found to be effective in curing Aids¹¹.

The question which is still unanswered is why the use of the condom is low, even among high risk groups and in spite of a relatively high level of awareness, coupled with their risky sexual behaviour.

OBJECTIVES OF THE STUDY

General objectives

The general objective of the study of patients attending STD clinics was to measure the level of awareness and use of the condom among a group of males that was *prima facie* sexually active, and are known to be at even greater risk to HIV infection than those males who were free of STDs, so as to suggest policies and intervention strategies that will lead to greater usage of the condom as a preventive measure among this high risk group.

Specific Objectives

The specific objectives of the study were to:

- (1) Determine the level of knowledge of the condom among the STD clinic patients.
- (2) Determine the socio-demographic variables which may lead to low acceptability and use of the condom as an STD preventive measure.
- (3) Determine their attitudes towards the condom.

- (4) Assess their accessibility to the supply of the condoms especially in urban areas.
- (5) Assess the relationship between knowledge and the use of the condoms as a method of prevention of STDs.

STUDY DESIGN AND METHODOLOGY

The Sample

This was a descriptive cross sectional survey of 500 male patients attending STD clinics in parts of Nairobi, Kenya. The survey instrument was pre-tested and pre-coded. It was administered to the participants by one of the investigators.

(i) *Selection of Clinic.*—This study was undertaken in Nairobi at the City Commission's Special Treatment Clinic (STC). The clinic caters for special treatment of various STDs and dermatological conditions for both females and males. It is operational only on weekdays from 8.30 a.m. to 5.00 p.m. It is closed on weekends and public holidays. On the average, one hundred males are seen daily at the clinic with an almost similar number of females. Most of these patients are referrals from other City Commission clinics or revisits to the clinic. Most of the patients present with gonorrhoea, non-specific urethritis, chancroid and syphilis.

(ii) *Selection of patients.*—Most patients were young, sexually active males whose life-styles including urban living predisposed them to STDs. The patients for the study were selected in their order of arrival at the clinic. Every tenth patient was chosen for the study. The clinic card of every interviewed patient was subsequently marked to avoid re-interviewing. On the average, ten patients were recruited into the study every day. The interviews were conducted after the patients had been seen by the doctor or the clinical officer and a clinical diagnosis made prior to actual treatment. The exclusion criteria included all patients attending the clinic for any other ailment other than STD and female patients.

(iii) *Circumstances of the interviews.*—The interviews were conducted in a private room within the clinic premises. Those who were selected to participate in the study did so on a voluntary basis and all of them gave their consent after the objectives of the study had been explained to them. The interview was conducted by one of the investigators who is a clinician and this was done in either English or Kiswahili.

RESULTS

Socio-economic characteristics

The socio-demographic data showed the correlates of risky sexual behaviour and the contracting of STDs and Aids. Most patients were young with 83% aged 30 years or less. Nearly 60% were single. One in five was unemployed although half the sample had secondary education. There was statistical significance between education ($p < 0.01$) and age ($p < 0.05$) in relation to condom use. The more educated and the younger the patient, the more likely they were to use a condom.

A majority of those who were married had one wife (90.5%). Most of the respondents were of Christian religion, with a low percentage belonging to the Muslim religion (2.4%).

This was a largely non-mobile population since only one in twenty (4.6%) indicated that their jobs took them away from home.

Table 1: The Socio-demographic data: STD patients

Parameter	Groups	
	No. of respondent	%Frequency
Age (years)		
<20	70	14.0
21-25	218	43.0
26-30	130	26.0
31+	82	16.4
Total	500	100.0
Marital Status		
Single	295	59.1
Married	195	39.1
Divorced/Separated	9	1.8
Total	495	100
Occupation		
Unemployed	90	18.2
House servant	9	1.8
Clerk	21	4.3
Professional	43	8.1
Driver/Ass	50	10.1
Others	341	56.9
Total	494	100.0
Number of wives		
One	152	90.5
Two	12	7.1
Three	3	1.8
Four+	1	0.6
Total	168	100.0
Religion		
None	12	2.4
Catholic	219	43.9
Protestants	251	50.3
Moslems	12	2.4
Others	5	1.0
Total	499	100.0
Education (years)		
Nil	11	2.2
1-4	35	7.0
5-8	150	38.0
9-12	151	50.2
13+	12	2.4
Adult	1	0.2
Total	500	100.0
Does the job make you to travel away from home?		
Yes	20	4.6
No	417	93.4
Total	437	100.0

Knowledge and attitudes to contraceptives

Condoms and the pills were known by the majority of respondents. The solicited knowledge about the condom alone increased the knowledge tremendously when they were specifically asked about it.

The level of spontaneous knowledge about contracep-

tives was generally low in this group although the condom, rhythm and the pill were better known than other female methods. The accuracy of the knowledge was not tested. The least known were male sterilization and traditional methods. The findings indicate that the male population remain generally ignored in the targeting of contraceptive methods and thus remain unformed about these methods. Furthermore, there are only two scientific male methods, namely sterilization and the condom, but while the condom was fairly known, being the subject of this study, male sterilization was hardly spontaneously reported (Table 2).

Table 2: Spontaneous knowledge of various contraceptives by STD patients (n = 500)

Method	% mentioning method
Withdrawal	8.4
Abstinence	37.8
Rhythm	51.7
Condom	95.0
Vasectomy	14.3
Female barrier	24.2
Coil	33.5
Injectable	23.0
Pills	73.8
Others	18.5

The spontaneous knowledge about the various STDs were high for gonorrhoea and Syphilis indicating that these were the commonest STDs. Aids was known by just over half of the STD patients, this contrast with the solicited awareness where over 95% had heard of it (Table 3).

Table 3: Spontaneous knowledge of the STDs by STD patients (n = 500)

	%
G.C.	89.6
Syphilis	67.7
A.I.D.S.	53.8
Chancroid	4.0
Others	4.4
Do not know	0.4

It is most surprising that despite the fact that 76.0 per cent of the patients correctly identified that condom can be used for avoiding STDs and that 61.8% stated that avoiding high risk women was another preventive measure, this knowledge did not prevent them from unsafe sex practices leading to their current infection (Table 4).

Table 4: Knowledge of ways to avoid the STDs by patients with STDs (n = 500)

Method	%
Use condom	76.0
Avoid risky women	61.8
Others	22.6
Do not know	3.6

Use of condoms

Over 80 per cent of the respondents acknowledged that they know how the condom works. Just over two-thirds knew that it could be used to prevent a pregnancy and nearly three-quarters reported that it could be used to prevent STDs. However, reported use was very low. Only a third of the sample (34.5%) had ever used the condom, a level lower than observed in the truck drivers study. And only 6.2% had used a condom in the past two weeks.

Over a third of the sample held the view that a condom should be used once. In effect, while the awareness of the condom is very high, and the description of its contraceptive and prophylactic uses valid, the motivation to actually employ the device in either capacity is much lower (Table 5). This is surprising given the topical link between the AIDS epidemic and the advocacy of condom for its prevention. Consequently more effort is needed to get the message through that an unsafe sexual activity carries the risk of infection.

Table 5: The use of condom among the STD patients

Use	No	%
Know how it works	411	84.9
Prevents Pregnancy	336	80.2
Prevents STDs	362	86.0
Ever Users	170	34.5
Current Users (past two weeks)	31	6.2
Condom should be Used once	199	72.1

Source of supply

Most users obtained their supplies from friends and the least mentioned source of supply was the clinic. This is surprising since the patients had come for treatment of an STD and yet the clinic was not a major source. This is a lost opportunity by the clinics to counsel and encourage the practice of safer sex among a known high risk sex behaviour group. Although the condoms are easily available in the super markets, use of this supply channel was minimal. However, the high cost of condoms, at about the equivalent of one US dollar for three condoms, might be a deterrent to frequent or regular use (Table 6).

Table 6: Source of condom: ever users (n = 167)

Source	No	%
Clinic	11	6.6
Pharmacy	32	19.3
Dispensary	11	6.6
Friends	72	43.1
Hospital	8	4.8
Super market	5	4.8
Wife	9	5.4
Street	3	1.8
Employer	16	9.6

Sexual behaviour of STD patients

Although it was obvious that the STD patients were sexually active to have been infected, they were still asked if they had sexual intercourse in the past two weeks. The idea was to throw some light on the impact of their infection and their recognition of symptoms on the continuation or discontinuation of sexual activity. More than two-thirds were sexually active in the past two weeks, and nearly three-quarters had been sexually active outside stable unions (Table 7). Although the last sexual contact may have produced the current STD infection, the possibility that some went on being sexual active after the realization that they were infected cannot be ruled out, given this response pattern.

Table 7: Sexual behaviour in the past two weeks among STD patients (n = 499)

Parameter	Group = II STD Frequency %	
Had sex past two	344	68.9
Outside stable union	362	72.3

Source of infections and clinic diagnosis

When the patients were asked about the likely source of their current infection, prostitutes were reported to have contributed nearly half of the episodes at 45.4% of the 500 patients. Girlfriends were alleged source of infection in 28.8% of the cases while only 6.4% was attributed to the spouse (Table 8).

Table 8: Source of sexually transmitted diseases in the STD patients

Source	No	%
Prostitute	227	45.4
Girlfriend	144	28.8
Wife	32	6.4
Not sure	97	19.4
Total	500	100.0

Gonorrhoea (32.0%) was the most prevalent STD followed by Non-specific urethritis (N.S.U.) at 30.0%, Chancroid (25.2%), syphilis (5.0%) and then a combination of the above. The rate for Syphilis might be higher since the diagnosis was made on clinical grounds only (Table 9). No attempt was made to screen for HIV infection.

Table 9: The clinical diagnosis of STDs in the patients

Disease	No.	%
Gonorrhoea	160	32.0
N.S.U.	150	30.0
Chancroid	126	25.2
Syphilis	25	5.0
SYP/Chancroid	6	1.2
Gon/Chancroid	8	1.6
SYP/Gon	5	1.0
Others	20	4.0
Total	500	100.0

Attitude to Condom Use

The reasons given for not using condom were that using one was not natural; that it reduced sexual satisfaction and that using one was against the respondent's religious beliefs. A small number indicated that their partners did not like them. But given the dire consequences of exposing themselves to the risk of infection, there is a need to educate both males and their female partners about the benefits of using condoms, especially with regards to prevention of the STDs. Apparently 18.1 per cent did not know about condoms (Table 10).

Table 10: Attitudes/Reasons for disliking the condom among the STDs group

Reasons	No.	%
Not natural	79	27.5
Reduces sexual satisfaction	52	18.1
Partners do not like it	49	17.1
Against religious beliefs	13	4.1
Difficult to obtain	31	10.8
Do not know about	52	18.1
Others	11	3.8
Total	287	100.0

Awareness of the AIDS epidemic

Only eleven of the STD patients had either not heard of AIDS, or merely refused to answer the question. Of the 97.8% who have heard, the source of information was mainly from the media. When the patients were asked to name the STDs they knew, only 53.8 listed AIDS. However, when they were prompted, all the respondents who had heard of AIDS knew it was sexually transmitted.

This pattern of response indicates that the campaign to increase knowledge about AIDS is at least effective in bringing the syndrome to the attention of the public.

On the whole, this survey has shown that there is a big difference between knowledge about the cause and prevention of AIDS, on the one hand, and the actual practice of safe sex, on the other. The critical next step is to find ways of achieving behaviour change that will lead to reduction of high risk sexual activity, especially through the regular use of condom by those who are at risk.

Discussion

For centuries, man had used the condom to prevent pregnancy and avoid STDs. The condom use has been shown to help in the prevention of some STDs like Gonorrhoea, syphilis, Chancroid, Herpes and Human Immunodeficiency Virus^{1,2,3,5,7,9}. However, this protection is only realized if it is used correctly and effectively.

Epidemiological evidence increasingly supports the view that the condom provides a high degree of protection against heterosexual HIV infection. Thus the condom is an effective, albeit imperfect tool to prevent HIV transmission. However imperfect the condom, social, economic, demographic and health impacts on AIDS are likely to be so great, and the delay of condom use so costly, that the best technology must be applied against HIV infection in the most effective way possible⁵.

The condom use among married couples of reproductive age is low worldwide with the overall usage at 5% of married couples. In Africa the proportion is 0.5% and 13% in the developed world¹⁵. In Kenya, the proportion that ever used the condom was 16.7% with current use at 3.2%⁶. This is due to the unpopularity of the condom as well as to its general unavailability. The relatively low use of the condom can also be attributed in part to negative attitudes toward it. These include concern of reliability, comfort, sensitivity, embarrassment, inconvenience, the poor image of the condom due to their traditional association with venereal diseases, prostitution and interference with sexual arousal and excitement⁵. These negative attitudes were reflected in this study. Ways of modifying these attitudes should be sought with regards to these two high risk groups¹⁰.

The use of the condom in this study showed a high percentage compared to the rates estimated in married couples. The rate of 33.4% or one in every three of the STD patients is higher than in the general population. Whilst this is to be expected given the peculiar circumstances of the patients, it is, however, a disappointing level since half of the patients had been infected from what they must know to be high risk group—the prostitutes. The current use was very low despite their high risk sexual behaviour as reflected by their sexual activity in the past two weeks.

Despite the increasing incidence of AIDS and other STDs, in most parts of the world the use of the condom remains low compared with the use of other methods of contraception even where it rates are high¹⁴. A study comparing survey data on condom, the use with epidemiological data on sero-prevalence of HIV found that in some countries where HIV prevalence is high, including many Sub-Saharan Africa countries, knowledge and use of the condom was very low¹⁶.

The major sources of the condom among the ever users in the STD group were friends and pharmacy. The role of health workers should be emphasized in the prevention of STDs and clinic contacts offer a vital occasion for the popularization of the condom as a prophylactic. Other studies have identified the commercial route as being important in the supply of the condom¹⁶. In the Kenya Demographic and Health

Survey, the supply of the condom was found not to be a major problem⁶. Distribution of condoms through the work place is a viable way of reaching a high proportion of the respondents.

The knowledge about AIDS and the sexual mode of transmission was very high indicating that the campaign in Kenya has been effective in educating the mass about the fatal disease. The preventive aspects should be transmission. Examples from both developed and developing countries show that the successful strategies for producing behaviour change target individuals who engage in high-risk behaviour and use communication and distribution strategies appropriate to the target audience¹⁷.

This study has shown that there is low prevalence use of the condom in groups of men at high risk of contacting an STD. Ways and means should be sought to educate them on the use of protective methods to avoid getting STDs. The one ray of hope is that since sex workers form the major source of infections, a consistent use of condoms by clients and sex workers in sexual encounters should have a major impact on slowing the spread of AIDS. However, the preventive impact of the condom can only be realized through consistent use¹⁷.

CONCLUSIONS

1. The single males, those with multiple partners are more likely to try out the condom than married people or those with one partner.
2. The number of years in school is a more important factor than marital status in predicting adoption of condom as a prophylactic.
3. The age is a predictor for the experimentation with the condom.
4. The previous history of an STD was found to be a motivating factor for ever-use of the condom. It is apparent, however, that use is neither consistent nor effective in preventing subsequent episodes of STDs in these users.

Unresolved questions

1. It is alarming that even those who have suffered the consequences of unprotected high risk sexual contact are not making use of their knowledge of the condom. And it is obvious that patronage of high risk women is the cause of most of the infections. Therefore, it will be useful to find out what impact can be made if sex workers insist, or are made to insist on the use of the condoms in their trade.
2. Is the knowledge on the currently fatal disease of AIDS sound enough to affect changes in practice?
3. Is the knowledge of the condom as a prophylactic sound enough or should there be target programmes for effecting changes in attitude toward the condom and encouragement in the use of the condom both for contraception and STD prevention?
4. What should be the role of the STD patients themselves in the educational programmes to be proposed? Can peer counselling effect changes, even in the stigmatized atmosphere of an STD clinic? What roles can health providers play in the effective education and practice of condom use by these patients?
5. Is the distribution of the condom optimal or can the availability of the condom be improved in a cost-effective manner?

Recommended intervention strategy

The expectation that those currently suffering from STDs would have very low level of practice of safe sex and a low use of the condom whether as a contraceptive or a means of avoiding STDs is supported by the

findings in this study. This may give a false sense of safety to the users and their stable partners. But the fact that use outside stable unions is not consistent opens such males and their regular partners to significant risk of infection in unprotected sexual contacts.

It is therefore recommended that the future intervention strategies for the encouragement of condom use among STD clinic patients should place more emphasis on:

1. Providing clinic contact education and counselling programmes for encouraging a consistent and informed use of the condom as a prophylactic against subsequent infections. These patients should be motivated to acquire an accurate knowledge of the causes, course and health risks of various STDs including Aids.
2. Channels of supply and re-supply of condoms within and outside the clinics should be communicated to patients. Ultimately, programmes of follow-up of patients and more aggressive treatment for reporting patients and their partners may be required.
3. The discrepancy between knowledge and use of condoms can be narrowed down by improving on socialization for safe sex and increasing accessibility of the condoms. Belief systems which encourage self-restraint in sexual behaviour should form the basis of programmes of education and socialization mechanisms to increase condom use.
4. Improving the knowledge of the flow of information through formal and informal channels is required. Studies on the nature of flow of information within the various high risk groups should be undertaken and the findings used to strengthen the condom use campaign strategy.

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