

# Health seeking and sexual behaviour of men presenting with sexually transmitted infections in two primary health care clinics in Durban

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**Background:** Sexually transmitted infections (STIs) remain a major public health problem globally, with men being the main transmitters of infections. A high prevalence of curable STIs is reported in adults aged between 15 and 49 years, and the delay in seeking treatment has adverse consequences for both the individual and population.

**Objective:** A study was undertaken to assess the factors associated with the health seeking and sexual behaviour of men presenting with STIs at the two primary health care sites in eThekweni metropolitan area.

**Method:** A cross-sectional study design with systematic random sampling was used. Data were collected using an interviewer-administered questionnaire and analysed using STATA.

**Results:** Some 23% of the 134 participants delayed coming to the clinic after noticing the signs and symptoms of an STI. Participants were 5.89 (95% CI 1.49–23.32) times more likely to delay seeking treatment if they sought medical help only when perceiving an illness to be severe, and three times more likely to delay (borderline result) if they only used a condom when sober (OR 3.16; 95% CI 0.99–10.06). Staff stigma and the bad attitude of nurses were factors that delayed men visiting the clinic for STI treatment and this was reported by 76 (56.7%) of the participants.

**Conclusion:** Delayed health seeking behaviour amongst men with STIs remains a major challenge. Appropriate interventions are required to deal with factors associated with delayed health seeking behaviour amongst men with STIs.

**Keywords:** clinics, delayed, health seeking behaviour, men, sexually transmitted infections

## Introduction

Sexually transmitted infections (STIs) are among the most common acute conditions worldwide.<sup>1–5</sup> The 2012 WHO report estimated nearly 500 million incident cases of STIs per year in adults aged between 15 and 49 years in the world.<sup>5</sup> More than one million people in the world become infected with STIs every day.<sup>5,6</sup> In the African context, the overall yearly incidence rate of curable STIs is estimated at 254 per 1 000 people in the reproductive ages 15–49 years, while only 77–91 per 1 000 in developed countries.<sup>7</sup>

Men are generally less likely to seek medical help or utilise available health services when experiencing health problems.<sup>1,8,9</sup> The various reasons associated with delayed health seeking behaviour include limited access to health services, health workers' attitudes (female nurses' rudeness, prejudice and judgemental attitudes), as well as sociocultural, economic and gender issues.<sup>1,2,10</sup>

Despite the wide range of reasons for the delay in health seeking behaviour, there are consequences that are endured by those who delay seeking treatment when experiencing STI signs and symptoms.<sup>10</sup> The long duration of infection, and untreated ulcerative or non-ulcerative infection can increase the chances of HIV infection transmission by up to 10 times and more, cause severe illness and increase mortality and infertility.<sup>3</sup> Controlling STIs is critical in preventing HIV. The control of STIs is a priority in South Africa. The National Strategic Plan (NSP) on HIV, STIs and tuberculosis (TB) (2012–2016) recommended a comprehensive approach in addressing the social and structural barriers that increase vulnerability to STIs.<sup>11</sup>

KwaZulu-Natal (KZN) province reported an annual STI incidence rate of 6.3%.<sup>12</sup> The high burden of STIs in the two primary health care facilities in this study is reflected in the number of patients presenting with STIs. On average, 7 100 patients with STIs are treated in each health facility annually. Despite the high burden of STIs in these health facilities, little is known about the health seeking behaviour of men presenting with STIs. Men often play a dominant role in decision-making in a relationship between partners when it comes to sexual practices.<sup>13</sup> The aim of the study was to assess the factors associated with the health seeking and sexual behaviour of men presenting with STIs at the two primary health care sites in eThekweni.

## Methods

### Design

An observational, analytical cross-sectional study design was used. The study was undertaken in eThekweni metro, KZN, which has a population of 3.5 million.<sup>12</sup> Men who presented with STIs at the two primary health care sites were recruited. Both health facilities, in the north and south of the city, cater for patients referred from local clinics and self-referrals. The study was conducted from March 2015 to June 2015. A systematic random sampling approach was used. Participants were screened by nurses and, once identified with an STI, every third participant was referred to research assistants to complete a questionnaire. 'People with STIs' in this study referred to patients who presented with urethral discharges, penile ulcers, perineal ulcers, genital or perineal warts or painful micturition. In this study, delayed health seeking behaviour was defined as presentation to a clinic six days after noticing STI signs and

symptoms. The sample size of 130 was calculated assuming an STI incidence rate of 6.3% (based on KZN estimate), 5% precision level and 80% statistical power. This study sample was used to determine factors associated with health seeking behaviour for STIs.

A standardised interviewer-administered questionnaire consisting of close-ended questions was used. The questionnaires were translated into isiZulu and translated back into English to ensure reliability. Variables measured in the questionnaire included demographic information, factors associated with health seeking behaviour, knowledge about STIs, beliefs and attitudes towards seeking treatment, health system factors, and men's sexual behaviour. The questionnaire was adopted from previous quantitative studies that had investigated the health seeking behaviour of men presenting with STIs.<sup>1,3,10,14–16</sup>

### Data analysis

The data were coded and entered in a Microsoft Excel spreadsheet (Microsoft Corp, Redmond, WA, USA), and exported into Stata version 13 (StataCorp, College Station, TX, USA) statistical software for analysis. Descriptive statistics, in the form of frequencies (counts) and percentages, were computed. Pearson's chi-square and Fisher's exact tests were used to test for association between categorical variables. Multiple logistic regression was used to examine factors associated with delayed health seeking behaviour. A  $p$ -value  $< 0.05$  was statistically significant. The variables that were shown to be significant ( $p < 0.1$ ) in the bivariate analysis were included in the multivariable model.

### Ethical issues

The researcher obtained permission to conduct the study from the Department of Health. The Biomedical Research Ethics Committee (BREC) granted ethics approval (BREC REF: 442/14). Each study participant received an information sheet and provided written informed consent. For the participants who could not read and write, of whom there were eight, verbal informed consent was obtained.

### Results

In this study, 31 (23.1%) of the 134 participants delayed coming to the clinic after noticing the signs and symptoms of an STI, whilst 103 (76.9%) presented early. In total, 134 participants were included in the analysis, with 65 participants from the north of eThekweni metropolitan and 69 participants from the south of eThekweni metropolitan. The majority of the participants were single (105; 78.4%), living in a township (95; 70.9%), and had not completed secondary education (96; 71.6%). Some 41% were aged between 26 and 35 years, and a third of participants (48; 35.8%) were in full-time employment (Table 1).

There was a significant association between participants who used a condom only when sober and the delayed health seeking behaviour ( $p < 0.05$ ). The majority of the participants 97 (72.4%) did not always use a condom when they were not sober, but most presented timeously, although of the non-condom users 27 (87.1%) presented late at the clinic. Although the majority of the participants (117; 87.3%) did not use condoms all the time, the proportions of early versus late

**Table 1:** Sociodemographic profile of participants showing the proportions in the early presentation ( $n = 103$ ; 76.9%) vs. late presentation ( $n = 31$ ; 23.1%) groups (number, %)

Demographic profile	Early presentation, no. (%)	Late presentation, no. (%)	Total no. (%)	$p$ -value
Age (years):				
18–25	35 (33.9)	9 (29.0)	44 (32.8)	0.219
26–35	43 (41.8)	12 (38.7)	55 (41.0)	
36–45	20 (19.4)	5 (16.1)	25 (18.7)	
46–49	5 (4.8)	5 (16.1)	10 (7.5)	
Place of residence:				
Urban/city/suburban	2 (1.9)	1 (3.2)	3 (2.2)	0.139
Township	78 (75.7)	17 (54.8)	95 (70.9)	
Rural	4 (3.9)	2 (6.5)	6 (4.5)	
Informal settlement	17 (16.5)	10 (32.3)	27 (20.2)	
Peri-urban	2 (1.9)	1 (3.2)	3 (2.2)	
Educational level (not completed):				
Primary school	6 (5.8)	0 (0.0)	6 (4.5)	0.072
Secondary school	68 (66.0)	28 (90.3)	96 (71.6)	
Tertiary level/college	26 (25.2)	3 (9.7)	29 (21.6)	
No education	3 (2.9)	0 (0.0)	3 (2.2)	
Marital status:				
Single	84 (81.6)	21 (67.7)	105 (78.4)	0.168
Married/cohabiting	18 (17.5)	9 (29.0)	27 (20.2)	
Widowed	1 (0.9)	1 (3.2)	2 (1.5)	
Employment status:				
Full-time work	37 (35.9)	11 (35.5)	48 (35.8)	0.312
Part-time work	33 (32.0)	10 (32.3)	43 (32.1)	
Not employed	19 (18.5)	9 (29.0)	28 (20.9)	
Student	14 (13.6)	1 (3.2)	15 (11.2)	

presentation were shown to be evenly distributed (90; 87.4% vs. 27; 87.1%). Similarly, an even distribution was noted among participants who used condoms only when they do not trust their partners (86; 83.5% vs. 28; 90.3%); were not faithful to one partner (75; 72.8% vs. 26; 83.9%); only use condoms when available (75; 72.8% vs. 26; 87.1%); those who do not use a condom when experiencing erectile dysfunction (56; 54.4% vs. 17; 54.8%); and those who used a condom when they have signs of infection (80; 77.7% vs. 25; 80.6%). Most men (90; 67.2%) reported multiple sexual partners (Table 2).

Although staff stigma and bad attitude of nurses were borderline significantly associated with delayed health seeking behaviour ( $p = 0.096$ ) regarding the proportions of early versus late presentation, the majority of the participants 63 (82.9%) presented early at the clinic. The time that participants waited before coming to the clinic was significantly associated with delayed health seeking behaviour ( $p < 0.005$ ), although the majority (103; 76.9%) presented early at the clinic. The majority of the participants (84; 62.7) felt that government is doing enough to cater for men's problems (Table 3).

Table 4 shows the unadjusted and adjusted odds ratio for factors associated with delayed health seeking behaviour. Participants who sought medical help for an STI when having a severe illness were significantly associated with delay in the final adjusted analysis, in that the participants were 4.25 (95% CI 2.05–8.23) times more likely to delay seeking treatment if they

sought medical help only when having an illness that they perceived to be severe. Furthermore, the odds of men delaying visiting the clinic increased by 4.21 (95% CI 1.51–11.70) if they were HIV-negative ( $p < 0.05$ ). Participants' educational level was significantly associated ( $P = 0.04$ ) and their reasons for not coming to the clinic were borderline significant  $p = 0.057$ .

## Discussion

This study sought to assess the factors associated with the health seeking and sexual behaviour of men presenting with STIs at the two primary health care sites.

In this study 41% of the participants were between 26 and 35 years of age, suggesting that young adults are faced with the risk of acquiring STIs. This was also noted in a study from Singapore, where the age group of participants showed that the majority (46%) fell between 26 and 35 years of age.<sup>14</sup> The risk of HIV infection is high among this age group, given that 83% of HIV-infected persons in South Africa are younger than 35 years of age.<sup>3</sup> The findings of this study indicate the need for the educational awareness programme planners to target men below 35 years of age in particular. Furthermore, this study found that the majority (78.4%) of the men were single and were mostly not using condoms consistently. Therefore, health educational programmes especially need to target single men.

Among the participants, 35.8% had full-time employment, whilst 32.1% had part-time employment. These findings thus show

**Table 2:** Men's self-reported sexual behaviour showing the proportions in the early presentation ( $n = 103$ ; 76.9%) vs. late presentation ( $n = 31$ ; 23.1%) groups (number, %)

Sexual behaviour	Early presentation, no. (%)	Late presentation, no. (%)	Total no. (%)	p-value
Do you use a condom all the time?				
Yes	13 (12.6)	4 (12.9)	17 (12.7)	0.589
No	90 (87.4)	27 (87.1)	117 (87.3)	
Did you use a condom last time you had sex?				
Yes	31 (30.1)	11 (35.5)	42 (31.3)	0.571
No	72 (69.9)	20 (64.5)	92 (68.7)	
Only use a condom when don't trust partner?				
Yes	86 (83.5)	28 (90.3)	114 (85.1)	0.565
No	17 (16.5)	3 (9.7)	20 (14.9)	
Faithful to the partner?				
Yes	28 (27.2)	5 (16.1)	33 (24.6)	0.210
No	75 (72.8)	26 (83.9)	101 (75.4)	
Only use a condom when available?				
Yes	75 (72.8)	27 (87.1)	102 (76.1)	0.102
No	28 (27.2)	4 (12.9)	32 (23.9)	
Only use a condom when sober?				
Yes	70 (67.9)	27 (87.1)	97 (72.4)	0.037
No	33 (32.0)	4 (12.9)	37 (27.6)	
Only use a condom when have signs of infection?				
Yes	80 (77.7)	25 (80.65)	105 (78.4)	0.724
No	23 (22.3)	6 (19.35)	29 (21.6)	
Do not use a condom when experiencing erectile dysfunction?				
Yes	56 (54.4)	17 (54.8)	73 (54.5)	0.963
No	47 (45.6)	14 (45.2)	61 (45.5)	
How many partners have you had?				
1–10	38 (36.9)	6 (19.4)	44 (32.8)	0.143
11–20+	65 (63.1)	25 (80.6)	90 (67.2)	

**Table 3:** Health system factors associated with men's delayed health seeking behaviour, showing the proportions in the early presentation ( $n = 103$ ; 76.9%) vs. late presentation ( $n = 31$ ; 23.1%) groups (number, %)

Health system factors	Early presentation, no. (%)	Late presentation, no. (%)	Total no. (%)	p-value
Reasons for not coming to the clinic:				
Fear staff stigma and attitude	63 (82.9)	13 (17.1)	76 (56.7)	0.096
Don't get time off work	19 (67.9)	9 (32.1)	28 (20.9)	
Prefer going to the traditional healer	1 (33.3)	2 (66.7)	3 (2.2)	
Don't believe clinic can help	1 (50)	1 (50)	2 (1.5)	
Nothing	19 (76.0)	6 (24)	25 (18.7)	
Is government doing enough to cater for men's problems?				
Yes	66 (78.6)	18 (21.4)	84 (62.7)	0.739
No	17 (77.3)	5 (22.7)	22 (16.4)	
Don't know	20 (71.4)	8 (28.6)	28 (20.9)	
Where do you go first when experiencing STI signs and symptoms?				
Clinic	96 (80.0)	24 (20.0)	120 (89.6)	0.021
Doctor	2 (33.3)	4 (66.7)	6 (4.5)	
Traditional healer	5 (62.5)	3 (37.5)	8 (5.9)	
Do you know different types of STIs?				
Yes	79 (74.5)	27 (25.5)	106 (79.1)	0.212
No	24 (85.7)	4 (14.3)	28 (20.9)	

that the majority of the participants were employed, and this suggests an alternative reason for their delaying presentation to the clinics, as a fifth of the participants reported that they did not get time off work. This was also reported in Singapore, where 32.4% delayed seeking treatment because they did not get time off work.<sup>14</sup> There is therefore a need to open clinics at night to provide services for such men.

In this study, only 2.2% had no education and there were 4.5% who had not completed primary education. This suggests that most of the participants' education was above primary level, and that they were possibly literate enough to understand health education and awareness campaigns in the media.<sup>2</sup> There is a high incidence (6.5%) of STIs in eThekweni district (KwaZulu-Natal).<sup>12</sup> Health policy-makers and programme planners, however, also need to address other skills, for example, engaging in prevention behaviour such as effective communication with one's sexual partner, refusal to engage in unsafe sex, and proper and consistent use of condoms.<sup>2</sup>

In this study, 23.1% of men were classified as reporting delayed health seeking behaviour, defined as presentation to a clinic more than six days after noticing the STI signs and symptoms. The delay in presentation to a clinic has been reported in other studies, although there was a difference in time intervals.<sup>1–3,10,17</sup> In a study done in Ghana, 64% of the patients delayed for more than four weeks before seeking treatment for a possible STI.<sup>2</sup> In order to reduce the transmission, it is therefore important to understand the health seeking behaviour of men with STIs so that it will be easier to identify why and where men go for treatment, other than to the medical health care services. Understanding the reasons for the delay in seeking health care among men with STIs can assist in developing health education initiatives and public health programmes to control STIs and, in turn, HIV.<sup>2,10</sup>

There are various reasons for the delay in seeking treatment among men in our study. Among such reasons that were

found to be significantly associated with delayed health seeking behaviour was severity of symptoms ( $p < 0.05$ ). Participants who reported seeking medical help when they have a severe illness were 4.25 times more likely to delay seeking medical help compared with participants with a mild illness. A study done in Uganda also concluded that the severity and nature of the symptoms may influence a person's decision to delay his health care seeking behaviour, since clients who had genital discharge sought care late as compared with clients who had sores over their genitalia.<sup>2</sup> This may suggest that participants delayed seeking treatment in the hope that the symptoms will go away.

The majority (87.3%) of the participants did not use condoms all the time although 79% reported that they knew different types of STIs. Nevertheless, there was even distribution in the early versus late presentation proportions. The study done in Ghana also reported that the level of knowledge of knowledge about STIs among clients was good at 77.8%, but participants did not use condoms all the time. In this study, 72.4% of the participants used condoms only if they are sober, meaning that when they are drunk they forget about using the condom. This kind of behaviour is worrying since people with greater alcohol use indicated high condom failure, thereby increasing their chances of contracting HIV and other STIs.<sup>18</sup>

Among the men, 85.1% only used condoms if they do not trust a partner, meaning once the trust is established, in a long-term relationship, they stop using condoms. The majority of participants (76.1%) used condoms only if they were available and 78.4% use condoms only when they suspect signs of infection. This is concerning, since HIV and STIs are spread through high-risk behaviour such as low condom use.<sup>2</sup> A number of participants in this study were at risk of exposure to STIs, and could have contracted HIV through this low condom use. This also calls for intensifying STI awareness among men, in general public areas such as taxi ranks, and in workplaces. Such campaigns must emphasise the dangers of having unprotected sex.

**Table 4:** Unadjusted and adjusted odds ratio (95% CI) of factors associated with delayed health seeking behaviour ( $n = 134$ )

Variables	Odds ratio	95% CI	<i>p</i> -value
Unadjusted odds ratio:			
Participants saw a traditional healer more than seven times a year	2.29	0.37–14.42	0.374
Participants felt that government is not doing enough to cater for men's health problems	0.78	0.34–1.77	0.544
Participants seek medical help for an STI when having severe illness	5.94	1.56–22.66	0.009
Participants who did not know their HIV status	0.34	0.15–0.77	0.010
Participants who were HIV-negative	0.33	0.14–0.79	0.012
Participants who use a condom only when sober	3.18	1.03–9.84	0.044
Educational level	0.34	0.13–0.92	0.034
Where participants go first when experiencing STI signs and symptoms	1.45	0.64–3.28	0.372
Reasons for not coming to the clinic	1.54	0.99–2.39	0.052
Adjusted odds ratio:			
Participants seek medical help for an STI when having severe illness	4.25	2.05–8.23	0.000
Participants who use a condom only when sober	0.29	0.08–1.17	0.082
Participants who were HIV-negative	4.21	1.51–11.70	0.006
Educational level	0.36	0.14–0.95	0.040
Reasons for not coming to the clinic	1.52	0.99–2.33	0.057

Level of significance  $p < 0.05$ .

Variables included in the multivariate analysis were statistically significant and marginally significant,  $p < 0.1$ .

Variables controlled for in the final adjusted analysis were: Participants seek medical help for an STI when having severe illness; Participants who use a condom only when sober; Participants who were HIV negative; Educational level; and Reasons for not coming to the clinic.

Although the majority of participants (89.6%) reported going first to the clinic when experiencing STI signs and symptoms, traditional healers played a role in some men's health seeking behaviour. In total, 6% of the participants reported that they initially went to see traditional healers when they noticed signs and symptoms of STIs, before coming to the clinic. Furthermore, participants who visited traditional healers more than seven times a year were 2.29 times more likely to delay seeking medical help compared with participants visiting less frequently, although this was not statistically significant. This suggests the need for health education and awareness concerning the importance of going to the clinic early. In a study done in Gauteng, some men also delayed seeking treatment from clinics because they preferred to go to traditional healers, since they believe that traditional medicine removes the root cause of an STI, and offers expedited treatment and more privacy than public clinics. This belief resulted in delayed treatment seeking from the clinics among men, whilst they were still attending traditional healers.<sup>18</sup>

## Limitations

The study findings are possibly limited by the fact that only those who experienced STI symptoms and sought care at the clinics were included. Those who did not seek care may have different characteristics and this could limit the generalisation of the study findings. Since both sexual activities and condom usage were self-reported while participants were symptomatic, this may have led to recall bias and socially desirable answers due to embarrassment. Furthermore, the structured questions did not allow an in-depth narration of the participants' experiences, and the reasons for the severe delay in health seeking behaviour could have also been further explored if a qualitative in-depth study had been done. It was also a cross-sectional study and this design limits the interpretation of the direction of the association.

## Conclusion

The health workers' unpleasant attitudes, however, remain an obstacle to men accessing health care services. Men sought medical help when signs and symptoms were perceived to be severe. It is worrying, however, that the majority of men still engage in risky sexual behaviour that may increase the chances of becoming infected with STIs, including HIV. Furthermore, most of the participants reported using a condom only when they were sober. There is, therefore, a need to deal with men's attitudes towards their sexual health. However, the possibility remains of underutilisation of the information or lack of implementation of policies derived from the research findings, but this study hopes to contribute towards the development of effective programmes that can reduce STIs and HIV infections. Further studies may also need to investigate sexual activities among men who have sex with both men and women, as well as with men exclusively, within and outside KZN.

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