# Despite symptoms, many Zimbabweans in Botswana delay the treatment for STIs in the name of faith

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#### Abstract

**Background:** Botswana is experiencing the most severe human immunodeficiency virus/acquired immune deficiency syndrome epidemics (HIV/AIDS) in the world, and migration is one of the structural factors associated with HIV infections.

**Objective:** To investigate the educational knowledge of sexually transmitted infections (STIs), HIV/AIDS, and condom use among religious migrants who are medicinally treated and not treated for STIs in association with sociodemographic elements.

**Materials and Methods:** This cross-sectional study was conducted to explore the knowledge of STIs and condom use behavior among migrants. The data of 762 patients were collected using structured questionnaires with modified time–location sampling.

**Result:** The data indicated that, proportionally, more Catholic patients who had previously heard of STIs received more STI treatment [71 (84.5%)] than the Catholic patients who had not previously heard of STIs [13 (15.5%)]. More Catholic patients who had heard of HIV/AIDS [82 (97.6%)] received treatment than those who had never heard of HIV/AIDS.

**Conclusion:** Future studies are needed to sightsee the effect of sexual health education, including religion, to examine the extent to which religious fundamentalism plays a conclusive role in people choosing faith over medicine.

KEY WORDS: Condom use behavior; knowledge, sexuality education, sexually transmitted diseases

# Introduction

Medication nonadherence is most easily outlined as the quantity of dose not taken or taken incorrectly that endangers the patient's health<sup>[1]</sup> or nonadherence can also refer to taking an inappropriate dose, taking a drug at the incorrect time, forgetting to take the required doses, or stopping medical aid early.<sup>[2]</sup> Nonadherence could be a rising general health concern in an African country such as Botswana. A massive part

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of patients in Botswana do not continue their endorsed medications. The expense and reactions are the normal reasons why people do not take their medication as endorsed. The Zimbabwe nation includes a three-layered health system: pay a visit to the spiritual healers, the prophets from "spiritual churches," and modern clinics and hospitals for consultation and healing.<sup>[3]</sup> Many studies discovered the massive generality of spiritual healers in Zimbabwe. The analysis, in 2001, includes a far shocking investigation, whereby, in Zimbabwe, there were only 1,400 professional health workers when compared with 45,000 spiritual healers. It was established that every Shona cluster do have a spiritual healer.<sup>[4]</sup>

Being a spiritual conviction could have every positive and negatives effects on health and health problems. This has prompted a line of exploration investigating the result of faith on health to work out what, if any, positive advantage faith may wear future. The WHO and the European Union have condemned the churches for spreading false information regarding the viability of condoms to keep the transmission

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of the HIV infection. However, studies demonstrating that condoms inspire the transmission of the HIV infection, some Church authorities stick with it spreading misleading information, that the HIV infection can pass through the condoms, creating them ineffectual in HIV prevention.<sup>[5]</sup> However, sexuality instruction at churches in Botswana could be a debatable concern. Treated sexually transmitted infection (STIs) patients have to be compelled to get information of STIs and HIV/ AIDS, to grasp the importance of condom utilization, and to comprehend the importance of sex education.[6-9] However, there is the absence of confirmation of assessing their conclusion on sex instruction at places of worship among people who get STI therapeutic treatment. The purpose of this study is to investigate the educational knowledge of STIs, HIV/ AIDS, and condom use among the religious migrants who are medicinally treated and not treated for STIs in association with sociodemographic elements.

#### **Materials and Methods**

#### **Study Area**

This was a cross-sectional descriptive study with quantitative approach. The study was carried out in Gaborone and Francistown; these are the areas that are soaked with migrants. Gaborone is the capital and the largest town of Botswana with 231,626 residents (census 2011).<sup>[10]</sup> The town of Gaborone is the home to over 10% of Botswana's population<sup>[11,12]</sup>; a large portion of Batswana lives inside 100 km of Gaborone.[13] The populace development rate of Gaborone is around 3.4%, which is the principal elevated within the nation.<sup>[14]</sup> A total of 17,773 Gaborone subjects and 17.1% of the aggregate multitudes of Gaborone have checked positive for the HIV contagion. HIV incidence is higher among female subjects with 20.5% when compared with 13.6% of men. The populace between 45 and 49 years age group is destined to show the prevalence of AIDS with 35.4% of the inhabitants in this people testing positive.[15] HIV/AIDS education is to some extent constrained in Gaborone. About 14.5% of Gaborone occupants between 10 and 64 years who have known regarding HIV/AIDS settle that witchcraft can spread HIV, while 31.3% of the respondents reported that HIV can be spread through mosquito bites.[15]

Francistown is the second biggest city situated in 400 km eastern side from Gaborone,<sup>[15]</sup> with 150,800 residents (2011 census).<sup>[16]</sup> Recently, the town has experienced a considerable convergence of illicit workers from bordering Zimbabwe.<sup>[17,18]</sup>

#### **Study Period**

This study was done between October 1 and December 14, 2013, after obtaining approval from the ethical board of trustees of Shandong University.

#### **Sampling Technique**

A multistage sampling technique was utilized to choose participants. In the first phase, all reachable STI centers inside Gaborone and Francistown were identified. Each cluster consisted of more than three regions. An aggregate of nine major zones were chosen as a sampling unit. Within the second stage, the qualified respondents were haphazardly interviewed from nine selected groups. The patients were selected using modified time–location sampling.

#### Sampling Size and Data Collection

Researchers interviewed with Zimbabweans who visited an open STI facility that serves as a referral office for public and private primary health services in Botswana. The patients leaving the health facilities were approached by a questioner; 762 individuals consented to take part in this study. The interview involved questions concerning sociodemographic characteristics, sexual information, and knowledge about HIV/ AIDS. The researcher later linked the STI patients' interview reactions to their medical records. Those respondents who met the above-mentioned criteria were haphazardly chosen to be qualified interviewee in this study.

#### **Data Analysis**

For data analysis, SPSS software, version 21 was utilized. Statistical methods extending from simple descriptive to multivariate logistic regression analysis were engaged to describe risky sexual behaviors and sociodemographic characteristics. The odds ratio (OR) and 95% confidence interval (CI) were utilized to focus the relationship between the considered variables.

#### **Ethical Considerations**

An authorization letter was collected from the Ministry of Health; furthermore, consent was looked for before interviewing respondents. Throughout the study, privacy was kept by not offering the data to anyone, and once the study was over, the surveys were decimated. The Ethical Committee of Shandong University sanctioned this study. This investigation was conducted after the informed consents of all the participants were obtained.

#### Result

#### **Demographic Data**

Among the respondents (299 female and 463 male subjects who answered queries on sex matters), 201 (45%) men and 106 (33%) women reported of having received treatments for STIs throughout the last 6 months. More of those living in Gaborone areas had received STIs treatment when compared with those living in Francistown areas [Table 1].

Employed men and women showed the highest proportion of treatment (men 70%, women 80%) when compared with unemployed male (29%) and female (18%) subjects. Male subjects with higher education level had received STI treatment when compared with those with lower education. Protestants women (74%) showed a slightly higher proportion of being treated when compared with other religions [Table 1].

Sociodemographic characteristics	Women patients ( <i>N</i> = 299)	Women received STI treatment		Men patients ( <i>N</i> = 463)	Men received STI treatment ( <i>n</i> = 201), %	
		n	%		n	%
Age (years)						
18–22	9	1	11	26	8	31
23–27	36	18	50	137	66	48
28–32	163	32	20	182	87	48
33–39	91	55	60	118	40	34
Marital status						
Single	196	87	44	342	183	54
Married	103	19	18	121	18	15
Occupation						
Unemployed	214	38	18	298	86	29
Employed	85	68	80	165	115	70
Education status						
Never been to school	6	2	33	18	2	11
Primary school	83	26	31	45	21	47
Junior/high school	117	42	36	83	36	43
Senior/high school	83	32	39	188	79	42
College/university	10	4	40	129	63	49
Religion						
Muslim	62	12	19	212	60	28
Jehova's Witness	117	20	17	103	48	47
Protestants	78	58	74	48	22	46
Roman Catholic	36	16	44	83	68	82
Other	6	3	50	17	3	18

# Table1: Sociodemographic characteristics

Table 2: Knowledge in STI and AIDS of the patients who received treatment of STIs

Sociodemographic characteristics	Religion						
	Muslim, frequency (%)	Jehovah's witness, frequency (%)	Protestants, frequency (%)	Roman Catholic, frequency (%)	Other, frequency (%)		
Ever heard of STIs							
Yes	60.0 (83.3)	47.0 (69.1)	68.0 (85.1)	71.0 (84.5)	5.0 (83.3)		
No	12.0 (16.7)	21.0 (30.1)	12.0 (15.0)	13.0 (15.5)	1.0 (16.7)		
Ever heard of AIDS							
Yes	70.0 (97.2)	61.0 (89.7)	77.0 (96.2)	82.0 (97.6)	5.0 (83.3)		
No	2.0 (2.8)	7.0 (10.3)	3.0 (3.8)	2.0 (2.4)	1.0 (16.7)		
Reduce risk of getting AI	DS by abstinence						
Yes	68.0 (94.4)	63.0 (92.6)	48.0 (60.0)	82.0 (97.6)	2.0 (33.3)		
No	4.0 (5.6)	5.0 (7.4)	32.0 (40.0)	2.0 (2.4)	4.0 (66.7)		

#### Knowledge of STI and AIDS

Data indicated that, proportionately, a lot of Catholic patients who had previously heard of STIs received STI treatment [71 (84.5%)] than the Catholic patients who had not previously heard of STIs [13 (15.5%)]. A lot of Catholic patients who were detected of HIV/AIDS [82 (97.6%)] received treatment than those who were not detected of HIV/AIDS. Sixty-eight (94.4%) patients, who believe in Islamic religion, believed that the chance of obtaining HIV/AIDS are often reduced by not having sex before marriage and received treatment than the Protestants respondents [Table 2].

#### Condom Use Behavior of the Patients Who Received Treatments of STIs

The logistic regression model showed that more protestant patients believed that the utilization of condoms may prevent HIV/AIDS received treatment (AOR: 0.2; 95%CI: 0.12–0.89) when compared with Catholic patients. Proportionately, more Catholic patients who had not used condoms throughout their paid sexual encounter had received treatment (AOR: 0.3;95%CI: 0.11–4.21) when compared with those who believed in condoms use. Protestants patients who received STI treatment believed that their partner possessed the right to request condoms (AOR: 0.35; 95%CI: 0.41–1.79) when compared with those who did not believe so [Table 3].

# Discussion

This study shows the impact of religiousness of patients with sexually transmitted infectious malady on nonadherence to STI treatment. Religion doctrine can mislead people from medical treatment. Health sector had come across cases where patients denying medicinal treatment for themselves or their youngsters in the name of faith; in these cases, they deny medical treatment on the grounds that, if the treatment been accepted, they will be denying their particular belief. In different cases, people deny restorative treatment on the grounds that they accept that swinging to drug as opposed to depending on God and noting their supplications to God for recuperating would demonstrate an absence of confidence or belief in God. This study indicated that 68% of patients showed STI symptoms for over 1 week before looking for treatment; 12% had held up over 2 weeks. Jehovah's Witnesses accept that blood transfusion is restricted by Scriptural entries. Consequently, they will not accept transfusion of unedited blood, red platelets, white platelets, platelets, and plasma.[19] This can bring about the deferral in looking for treatment owing to their conviction. In multivariate examinations, respondents who experienced a urethral discharge not created by gonorrhea or chlamydia were more prone to defer looking for treatment than those with both gonorrhea and chlamydia (p = 0.032); possessing a college education and experiencing a premarital sex in the last 3 months were connected with diminished chances of holding up to look for medical care (p = 0.025). In this study, one respondent in the interview process quoted Exodus, Chapter 23, Verse 25, as his last response: "Worship

the Lord your God and His gift will be on your sustenance and water. I will take away the disease from among you."<sup>[20]</sup>

This study includes a few confinements. Initially, a couple of religious patients reacted to manifestations and treatment for STIs; nevertheless, there powers have been only on guite a few people who have STIs, who were undiscovered, or who had not looked for consideration. There can be some cover of the impacts of religion and health.<sup>[21]</sup> When it comes to health and related awareness among general individuals in religious society, there is a misleading information. Thus, regardless of the possibility that the individual has been infected with STIs, there is a lack of awareness on the patient, inaccurate information, and a lack of understanding of STIs, and, so, they end up not receiving treatment. One newspaper divulges that Minister of Health call upon the Botswana government to truly and hardheartedly clip down on conmen and ladies who spread lies that they can heal HIV/AIDS.[22] In addition, sexual action and antique of accepting treatment were self-reported so that there may be a few reaction predispositions. Previous finding regarding STI treatment is likely forbidden for some people; so, they would have picked to not respond to prescription. In this situation, partiality presented by humiliation may be an immense issue.<sup>[23]</sup> There strength equally be underreporting, because of the unthinkable connecting sexual health, STIs, HIV/AIDS, and so forth in the religious people. The use of family planning, particularly, condoms could be utilized as a part of additional investigation, which the recent studies have included. The Roman Catholic Church contradicts condom use between heterocouples in light of the fact that it is a manufactured type of contraception that does not depend on the elements of the body (and accordingly additionally God's will) itself in the matter of whether an origination may occur or not, and, so, the Church beliefs it likewise serves to certainly and unforgivably support premarital and extramarital sexuality (and response to premature birth if the condom fizzles). The Church, in this manner, advanced the idea of forbearance as the main ethically reasonable course of cannot help, contradicting this situation.[24] There were limitations in accessing migrants owing to language barriers and illegal migration; most of the migrants were afraid to participate and ended up dropping out of the study.

## Conclusion

This study demonstrates that nonadherence among Zimbabwean STI patients is common and patients' lack information about STI treatment because of religious doctrines. Religious beliefs can be helpful for health; nevertheless, it can likewise undermine peoples' well-being; this was shown in the study. Nevertheless, when religious doctrines are inconsistent with experimental realities, are amazingly rigid, or give individuals a mode to abstain from assuming liability for their health, they can be fatal. Zimbabweans STI patients in Botswana appear to be in errands of sexual health education, despite the fact that they likely did not get that information. On the off chance that the forthcoming religious era

Sociodemographic	Religion						
	Muslim, AOC	Jehovah's Witness, AOC	Protestants, AOC	Roman Catholic, AOC	Other, AOC		
Last intercourse used condom							
No	6.2 (4.45-8.22)	1.4 (1.98–5.54)	3.6 (2.32-8.99)	7.4 (2.2–10.11)	1.6 (0.88–4.41)		
Yes	8.8 (3.55–9.99)	1.3 (0.67–4.05)	0.2 (0.12-0.89) *	0.8 (0.14–1.11)	1.6 (0.89–3.32)		
Paid sex last 6 months	used condom						
No	1 (1.3–4.49)	5.6 (1.41–9.49	6.7 (4.11-8.62)	0.3 (0.11-4.21) *	3.2 (2.31–4.62)		
Yes	4.4 (2.01–9.71	2.6 (1.09-4.63)	1.3 (0.48–3.22)	3.6 (2.9–5.33)	0.81 (0.27–1.02		
Partner's right to ask to	use condom if he/s	she reveal STIs					
No	0.8 (0.32–1.88)	1 (0.78–2.51)	1.3 (0.92–2.25)	0.6 (0.44–0.99)	3.6 (2.9–5.33)		
Yes	6.6 (3.66–9.92)	1.9 (0.10-0.52)	0.35 (0.41–1.79) *	2.2 (0.17–4.49 <b>)</b>	0.67 (0.20-0.98)		

 Table 3: Condom use behavior of the patients who received treatments of STIs

AOC, Adjusted OR, 95% CI.

\**P* < 0.05;\*\**P* < 0.001.

is educated on these subjects, they may know how to better shield themselves from STIs and HIV/AIDS. Policymakers should consider this and incorporate the importance of sexual health education in worshipping places.

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