

Determinants of self-efficacy; HIV risk perception; gender attitudes and sexual risk practices among youth in Botswana.

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Abstract: The paper used data derived from the 2013 Botswana AIDS Impact Survey, to investigate young people's HIV risk perception and the influence of HIV risk perception and self-efficacy on young people's sexual and reproductive practises.

The results show significant association between young people' HIV risk perception; self-efficacy and sexual and reproductive health practices.

There is need for HIV prevention programs and associated policies to seek to understand the true dynamics of young people's sexual relationships, including their motivation for engaging in sexual relationships; including the socio-cultural; economic and other structural factors that motivate and often compel young people to engage in risky sexual behaviours, despite having correct perception of risk.

Key words: Gender; HIV/AIDS, Risk Perception; Self Efficacy, Botswana, sub-Saharan Africa.

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I. INTRODUCTION

Botswana has some of the highest HIV prevalence rates in the world. As a result of the country's HIV status, the government put in place elaborate HIV mitigation programmes. The programmes have resulted in sufficiently high knowledge about HIV prevention and transmission that should ideally translate into high motivation for adolescents in general and youth in particular, to adopt safe sexual practices. However, youth still engage in risky sexual behaviours as evidenced by the low rate of condom use with casual partners, multiple sexual partners and inconsistency in condom use among others [1].

Gender norms inculcated at a young age are likely to determine young people's sexual behaviour. Evidence from research shows existence of gender differences in norms regarding sexual behaviour and that while factors associated with sexual relations tend to differ by sex; males tend to have riskier sexual behaviours than females[2, 3]. In addition to gender socialization, young people's ability to negotiate safe sex is also a key factor in young people's sexual and reproductive practices. The ability to persuade a sex partner to use a condom has also been associated with adolescent current condom use, and the fact females were about 4 times more likely to report non condom use during last sexual encounter than males[4]. Furthermore, sexual behaviour is reported to depend upon the social and cultural environment in which one lives, and is influenced by societal sexual norms and practices, and not just self-perceived susceptibility to HIV infection[5]; and the tendency of males to engage in riskier sexual practices results from the fact that most societies tend to encourage, or at least condone such behaviour[3].

Self-efficacy (*confidence in one's ability to exert control over one's own social environment, basically through the individual's consistent use of condoms during a sexual encounter or total abstinence*) in HIV and AIDS behaviour would play an important role in determining safer sexual practices among adolescents in Botswana. A study in the United States found that African-American female adolescents were more likely to have higher perceived sexual self – efficacy than their male counterparts. Having high negotiation skills and a partner who approved of condom use were significant predictors for high perceived self-efficacy[3]. High self – efficacy is a predictor of safer sex practices [6].

Problem Statement

The magnitude and severity of Botswana's HIV AIDS epidemic; is well documented. Also, well documented is the government of Botswana's early and comprehensive response to the HIV/AIDS epidemic that includes massive education and information campaigns and free HIV testing and treatment. Yet, despite the

widespread knowledge of HIV prevention and transmission; HIV has continued to spread, especially among young adults of productive and reproductive ages, and more severely among women.

There are possible explanatory factors to the high HIV prevalence among Botswana's youth, particularly females. For example, it is possible that the knowledge of HIV is not deep enough to transform behavior and beliefs. It is also possible that the level of knowledge may be high enough, but perhaps there is a low perception of risk among young people which makes them to lack motivation to transform their behavior. It has even been argued in certain quarters that the advent of ARVs might have a demotivating effect on transformation of sexual risk behaviors and practices. Yet, it is also possible that knowledge and risk perception are adequate, but perhaps young people still have strong ascription to traditional and unequal gender norms and practices that increase their susceptibility to infection, especially females. It is also possible that while the level of knowledge; the level of HIV risk perception and ascription to traditional gender norms and beliefs are as they should be, perhaps young people lack the skill and confidence to consistently and adequately negotiate safe sex practices within their respective sexual relationships.

Furthermore, there has not been any direct research on youths' perceived risk of HIV infection, or their perceived ability to negotiate safe sex with their partners, and on how these factors may influence their sexual behaviour and practices. While a series of Botswana AIDS Impact Surveys have collected enough data that can be used as proxy for this information, not enough in-depth analysis has been done to assess the same. This study therefore aimed to fill this gap and serve where possible as a guide to prevention programs and interventions that have failed to bring about positive outcomes for Botswana's youth for the past two decades.

Objectives

The main purpose of this paper was to explore self-efficacy in HIV and AIDs risk behaviour among young people in Botswana using gender as the main independent variable. The paper further sought to determine the influence of self-efficacy; risk perception and gender norms on young people's sexual and HIV risk practices. The specific objectives were to:

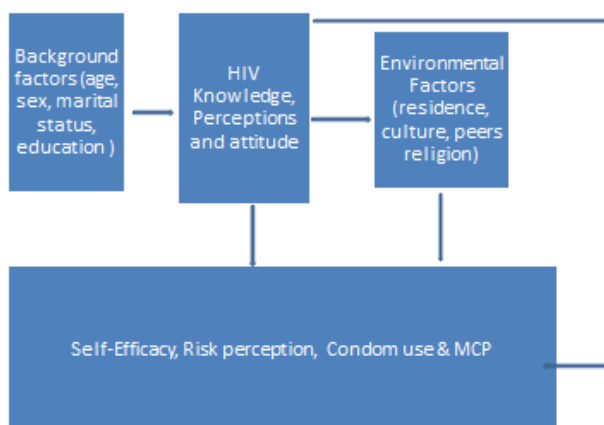
- Examine the association between gender and HIV risk behaviour;
- Establish self-efficacy practices and beliefs in relation to HIV and AIDS among youth in Botswana;
- Assess self-efficacy in HIV risk behaviour and the socioeconomic background of young people;
- Come up with programme recommendations that can be put in place to instil self-efficacy in HIV risk behaviour.

II. MATERIAL AND METHODS

Conceptual Framework

The conceptual framework used in this paper is modified from [7] learning theory that focuses on factors that determine human behaviour. According to him, there are three factors that determine human behaviour. These are personality (knowledge and expectations), environment (social norms, access to communication, and influence by others), and, behaviour factors (skills, practice and self-efficacy). Given that self-efficacy in this paper is taken as the main dependent variable, it became necessary to modify this theoretical framework to reflect the dependency nature of self-efficacy as perceived by the authors. The diagram below shows that self-efficacy is a function of several factors that work together or individually to affect the individual's self-efficacy.

Figure 1: Factors affecting self-efficacy



Adopted from; Bandura's Social Learning Theory, 1971

Data Source

The paper used secondary data derived from the 2013 Botswana AIDS Impact Survey (BAIS IV) – the fourth and latest in a series of national such surveys. As was the case with previous surveys with similar titles, this was a household-based survey meant to measure socio-demographic and other effects of the HIV/AIDS epidemic in Botswana. The data are analysed using descriptive and multivariate statistical methods after adjusting for potential confounding factors.

III. RESULTS

Table 1: Sample Characteristics

Variable	Number	Per cent
Sex		
Male	3150	48.0
Female	3410	52.0
Age		
10-14	1069	16.3
15-19	1298	19.8
20-24	1429	21.8
25-29	1440	21.9
30-34	1333	20.3
Education		
Primary or less	1057	21.2
Secondary	3027	60.8
Tertiary & over	894	18.0
Marital Status		
Never married	3592	72.2
Ever married	321	6.4
Living together	1065	21.4
Religious Affiliation		
Christian	4313	86.6
Other Non-Christian	190	3.8
No religion	475	9.5
Place of residence		
Cities/ Towns	2514	38.8
Urban Villages	1726	26.3
Rural areas	2329	35.5
N	6560	100.0

The Sample comprised of 6,560 respondents between the ages of 10 and 34 years. Slightly over half (52%) of respondents were females. Close to a fifth of respondents were 10-14 years (16.3%) and 15-19 years (19.8%) while slightly over one fifth were 20-24 years (21.8%); 25 and 29 years (21.9%) and 30 to 34 years (20.3%). Most respondents (61%) had secondary education; just under a fifth (18%) had tertiary education while just over a fifth (21.2%) had only primary education or less.

Given that this was a predominantly young sample, most respondents were never married (72.2%); over a fifth (21.4%) were cohabiting while only 6.4 percent were ever married.

Close to nine out of every ten respondents (86.6%) were Christians; close to one in every ten (9.5%) did not ascribe to any religion while 3.8 percent of respondents ascribed to other non-Christian religions. Close to two thirds (64.5%) of respondents resided in Cities and Town (38.8%) and Urban Villages (26.3%) while just over a third (35.5%) resided in rural areas.

Table 2: Efficacy, HIV Risk Perception; Attitudes towards Condoms & MCP and Sexual Practices

ATTRIBUTE	MALE	FEMALE	BOTH
Efficacy			
Can persuade a sex partner to use a condom?	76.7	74.2	75.3
Can persuade partner not to have sex if you are not interested to have sex	54.3	61.3*	58.3
Can persuade a sex partner to use a condom or not to have sex	49.1	54.9*	52.4
HIV Risk Perception			
More personal concern about contracting HIV since advent of ARVs	56.8	51.6*	54.0
Changed Sexual Behaviour since introduction of ARVs	39.3	37.9	38.5
Attitudes towards condoms			
Acceptable for a Male to obtain female condoms	71.1	73.7*	72.5
Acceptable for a woman to obtain male condoms	77.8	80.3*	79.2
Attitudes towards MCP			
Acceptable for a man to have more than one partner	11.4	7.1*	9.0
Acceptable for a woman to have more than one partner	6.5	6.0	6.2
Sexual Practices			
Always uses condom with current / most recent partner	69.0	60.3*	64.0
Uses condoms consistently with all partners	65.8	58.8*	61.8
Two or more sexual partners in past year	29.9	11.4*	19.4
Multiple concurrent partnerships	16.8	5.9*	10.4
Serial Monogamy	5.9	2.1*	3.7
Total	48%	(52%)	

Significant at $p < 0.05$

Self-Efficacy

Safe Sex self- efficacy is measured through responses to two questions that sought to find out if the respondent believes they can be able to 1) persuade a sex partner to use a condom and 2) persuade a sex partner not to have sex, if they were not interested to have sex. These variables were further used to compute a compound variable that measures safe sex efficacy, and distinguished between those who can persuade a partner to use condoms or not to have sex; from those who cannot do either or both)

Results in Table 2 show that three quarters (75.3%) of respondents felt that they could persuade a sex partner to use a condom; while a comparatively lower percentage (58%) felt that they could persuade a partner not to have sex if they themselves were not interested in having sex. Overall, just over half (52.4%) of respondents felt that they could both persuade a partner to use a condom or to not have sex if they were not interested in having sexual intercourse.

The results show that males (76.7%) and females (74.2%) were equally likely to feel that they can persuade a partner to use a condom, the proportion who felt that they could persuade a partner to not have sex was significantly higher among females (61.3%) compared to males (54.3%); and that a significantly higher proportion of females (54.9%) felt that they could persuade a partner to use a condom or not have sex, compared to males (49.1%).

HIV Risk Perception

While the advent of ARVs is a major intervention tool in HIV treatment and care in Botswana, there have been concerns that the advent of ARVs seems to have lulled people into a false sense of security, and that many may resort to risky sexual behaviour because ARVs seem to have reduced the suffering and grim state of those who are HIV positive or have developed AIDS. Thus, some questions in the survey sought to assess individuals' risk perception and concern for contracting HIV since the advent of ARVs, and indeed to establish the extent to which respondents had changed their sexual behaviour since the advent of ARVs.

The results show that over half (54%) of respondents have more personal concern about contracting HIV since the advent of ARV, while just under two fifths (38.5%) had changed their sexual behaviour since the advent of ARVs. The proportion of respondents who had more concern of contracting HIV was higher among males (56.8%) compared to females (51.6%).

Attitudes towards Condoms

An individual's level of ascription to social and gender norms and attitudes is likely to influence their sexual and reproductive health practices, including nature and types of sexual partnerships and use of condom. Generally, it was more acceptable for a woman to obtain male condoms than for males to obtain female condoms. More females than males felt it was okay for a woman to obtain male condoms than males to obtain female condoms.

Attitudes towards Multiple and Concurrent Partnerships (MCP)

MCP has been indicated as one of the practices fueling the spread of HIV/AIDS in sub-Saharan Africa. In Botswana, multiple and concurrent sexual relationships have been found to be quite prevalent. According to BAIS III and BAIS IV, close to 10 percent of the adult population were engaged in multiple and concurrent sexual relationships in 2008 and 2012; and this proportion is significantly higher among males. Part of the explanation for the seemingly high prevalence of MCP has been an unequal gender discourse that encourages or at least condones multiple and concurrent sexual relationships.

The results show that just under one in every ten respondents (9.0%) felt that it was okay for males to have and maintain multiple and concurrent sexual relationships, and a relatively lower portion (6.2%) of respondents felt that it was okay for females to maintain multiple and concurrent sexual relationships. The proportion of respondents who felt that it was okay for males to maintain multiple and concurrent sexual relationships, was significantly higher among males (11%) than females (7.1%). However, while the proportion of respondents who felt that it was okay for females to have MCP was slightly higher among males (6.5%) than females (6.0%), the difference between these proportions were not statistically significant.

Sexual Practices

The results show that close to a third (64%) of respondents indicated that they always use condoms with their current partners, while a slightly lower proportion (61.8%) were using condoms consistently with their last three sexual partners. However, the proportion of respondents who reported consistent condom use with current partner was higher among males (69.0%) than females (60.3%). Similarly, a higher proportion of males (65.8%) were using condoms consistently with their last three partners, compared to females (58.8%).

While MCP has been identified as one of the practices that fuel the spread of HIV in sub-Saharan Africa, serial monogamy has also been indicted in the spread of HIV. Serial monogamy could be such that, one the person keeps and stays faithful to one partner, as the relationships progress and matures, they may stop using condoms perhaps to demonstrate their faith and commitment to each other. However, once the relationship breaks down, they may start another relationship, and be faithful to their new partner; after few months the condom use either stops or becomes intermittent.

The result of this analysis shows close to a fifth (19.4%) of respondent had two or more sexual partners during the year leading to the survey, and this proportion was almost three times higher among males (29.9%) than females (11.4%). In fact, the results further show that one in ten (10.4%) respondents were engaged in multiple and concurrent sexual relationships during the year leading to the survey, while about a third of that proportion (3.7%) were engaged in serially monogamous sexual relationships during the year leading to the survey. The proportion of males engaged in MCP (16.8%) and serially monogamous sexual relationships (8.1%) were significantly higher than that of females engaged in MCP (5.7%) or serially monogamous sexual relationships (2.1%).

Determinants of Self Efficacy; Risk Perception; Attitudes and Sexual Practices

This section investigates the socio-demographic and other determinants of youth's self-efficacy; HIV risk perception; attitudes towards condoms and MCP and sexual practices. Tables 3, 4, 5 and 6 show the association between selected socio-demographic and other variables, with youth's self-efficacy; HIV risk perception; attitudes towards condoms and MCP and sexual practices, respectively.

Table 3: Logistic Regression Odds Ratios showing the likelihood of being self-efficacious in Safe Sex Negotiations & Perceiving Low Concern for HIV infection since the advent of ARVs

	Safe Sex Efficacy		HIV Risk Perception	
	Exp(B)	Significance	Exp(B)	Significance
Sex				
Male	0.788	0.001	0.865	0.021
Female	1.000		1.000	
Age				
10-14	1.016	0.983	0.424	0.000
15-19	1.222	0.166	0.524	0.000
20-24	0.953	0.614	0.858	0.104
25-29	0.815	0.023	0.837	0.047
30-34	1.000		1.000	
Place of residence				
Cities & Towns	1.367	0.000	1.151	0.058
Urban Villages	1.357	0.001	1.175	0.046
Rural	1.000		1.000	

Marital Status				
Ever Married	0.617	0.000	0.814	0.128
Never married	1.123	0.145	0.789	0.003
Living together	1.000		1.000	
Level of education				
Primary & below	0.548	0.000	0.834	0.138
Secondary	0.814	0.000	1.431	0.000
Tertiary	1.000		1.000	
Religious Affiliation				
Christian	1.522	0.000	1.111	0.330
Other none Christian	1.312	0.165	1.207	0.315
No Religion	1.000		1.000	

Determinants of Self Efficacy

Table 3 shows the results of analysis of the association between respondents' socio-demographic characteristics and self-efficacy for safe sex negotiation and low concern for HIV infection since the advent of ARVs. The results show that sex of respondent; place of residence; marital status; level of education and religious affiliation have significant association with likelihood of being self-efficacious males. Being male was associated with a 22 percent decline (Odds=0.788; p=0.001) of being self-efficacious; while residing in cities and towns (Odds= 1.367; p=0.000) or urban villages (Odds=1.357; p=0.001) was associated with a 36 percent increase in likelihood of being self-efficacious. Having primary (Odds=0.548; p=0.000) or secondary education (Odds=0.814; p=0.000) was associated with a 46 and 19 percent decline in the likelihood of feeling self-efficacious, respectively.

While the likelihood of being self-efficacious was not significantly different between respondents who were never married (Odds=1.123; p=0.145) and those in cohabiting unions (ref); being ever married was however associated with a 39 percent decrease in likelihood of being self-efficacious. Respondents who were affiliated to Christianity were 1.5 times (Odds=1.522; p=0.000) more likely to be self-efficacious, compared to respondents affiliated to no religion (ref).

Determinants of Risk Perception

Table 3 shows the results of analysis of the association between respondents' socio-demographic characteristics and HIV risk perception since the advent of ARVs.

The results show that sex of respondent; age; marital status and level of education were significantly associated with youth's HIV risk perception. Compared to females, males were 14 percent less likely (odds=0.865; p=0.021) to perceive lower risk of HIV infection. Respondents below 30 years of age, were less likely to perceive lower risk of HIV infection, compared to respondents between ages of 30 and 34 years (ref). While the likelihood of perceiving lower risk of HIV infection is not significantly different between respondents who are ever married (Odds=0.814; p=0.128) and those who are in cohabiting union (ref); the results show that those who are never married (Odds=0.789; p=0.003) were 28 percent less likely to perceive lower risk of HIV infection, compared to those in cohabiting union. Urban village residence shows a significant association with HIV risk perception, while religious affiliation does not.

Determinants of Attitudes towards MCP

Table 3 shows the results of analysis of the association between respondents' socio-demographic characteristics and attitudes towards multiple concurrent sexual partnerships (MCP). The results show that the sex of respondent; and to a limited extent, marital status; and religious affiliation, are significantly associated with respondents' attitudes towards MCP. For example, compared to females, males (Odds=1.650; p=0.000) were over 1.6 times more likely to support the practice of MCP. Compared to being in cohabiting unions (ref), being ever married (Odds=0.599; p=0.042) was associated with 40 percent decline in the likelihood of supporting MCP; while the likelihood of supporting MCP was not significantly different between respondents who are never married (Odds=0.830; p=0.132) compared to those in cohabiting unions (ref). Being affiliated to Christianity was also associated with an almost 40 percent decline (Odds=0.599; p=0.001) in the odds of supporting MCP.

Table 4 Logistic Regression Odds Ratios showing the likelihood of having Negative attitudes towards acquiring condoms; and support for MCP

	Neg Attitudes Condoms		Support practice of MCP	
	Exp (B)	Significance	Exp (B)	Significance
Sex				
Male	1.053	0.465	1.650	0.000
Female	1.000		1.000	
Age				
10-14	6.353	0.000	0.000	0.999
15-19	2.393	0.000	0.602	0.007
20-24	1.394	0.005	1.003	0.986
25-29	1.035	0.773	1.069	0.639
30-34	1.000		1.000	
Place of residence				
Cities & Towns	0.761	0.001	.0981	0.879
Urban Villages	0.962	0.661	0.873	0.347
Rural	1.000		1.000	
Marital Status				
Ever Married	1.209	0.311	0.599	0.042
Never married	1.364	0.002	0.830	0.132
Living together	1.000		1.000	
Level of education				
Primary & below	2.954	0.000	1.257	0.277
Secondary	1.666	0.000	1.273	0.093
Tertiary	1.000		1.000	
Religious Affiliation				
Christian	0.693	0.001	0.599	0.001
Other none Christian	1.211	0.320	0.749	0.262
No Religion	1.000		1.000	

Determinants of Attitudes towards acquiring condoms

Table 4 shows the results of analysis of determinants of attitudes towards condoms. The results show most background characteristics, except for age of respondent; have significant association with attitudes towards condoms. For example, respondents who were younger 10-14 years*(Odds=6.353; p=0.000); 15-19 years (odds=2.393; p=0.000) and 20-24 years (odds=1.394; p=0.005) were significantly more likely to have negative attitudes towards condoms, compared to respondents between the ages of 30 and 34 years (ref). while the odds of having negative attitudes towards condoms were not significantly different between respondents residing in urban villages (Odds=0.962; p=0.661) and those residing in rural areas (ref); those residing in cities and towns were 24 percent less likely to have negative attitudes towards condoms.

The results also show that respondents with primary education or less (Odds=2.954; p=0.000) or secondary education (Odds=1.666; p=0.000) were 2.9 and 1.7 times more likely to have negative attitudes towards condoms, compared to respondents with tertiary education (ref). Respondents who are never married were 1.3 times (Odds=1.364; p=0.002) more likely to have negative attitudes towards condoms compared to those in cohabiting unions; and being affiliated to Christianity was associated with a 31 percent decline in likelihood of having negative attitudes towards condoms, compared to those affiliated to no religion.

Table 5: Logistic Regression Odds Ratios showing the likelihood of Inconsistent Condom Use

	Exp(B)	Significance
Sex		
Male	0.780	0.003
Female	1.000	
Age		
10-14	0.655	0.619
15-19	0.825	0.270
20-24	0.992	0.940
25-29	1.263	0.018
30-34	1.000	
Place of residence		

Cities & Towns	0.739	0.002
Urban Villages	0.765	0.012
Rural	1.000	
Marital Status		
Ever Married	2.383	0.000
Never married	0.595	0.000
Living together	1.000	
Level of education		
Primary & below	0.933	0.650
Secondary	0.727	0.001
Tertiary	1.000	
Religious Affiliation		
Christian	0.974	0.838
Other none Christian	1.337	0.180
No Religion	1.000	

Determinants of Sexual Practices

Inconsistent Condom use

Table 5 shows the results of analysis of the association between respondents' socio-demographic characteristics and condom use consistency. Only sex of respondent; place of residence; and level of education are significantly associated with the likelihood of inconsistent condom use. For example, males (odds=0.780; p=0.003) were 22 percent less likely to be inconsistent condom users compared to females (ref). Residing in cities and towns (Odds=0.739; p=0.002) or urban villages (Odds=0.765; p=0.012) was associated with between 24 and 27 percent decrease in likelihood of inconsistent condom use, compared to residing in rural areas (ref).; while having secondary education (Odds=0.727; p0.001) was associated with a 27 percent decrease in likelihood of inconsistent condom use, compared to having tertiary education.

Respondents who are ever married were 2.4 times more likely to be inconsistent condom users (Odds=2.383; p=0.000) compared to those in cohabiting unions; while those who are never married (Odds=0.595; p=0.000) were 41 percent less likely to be inconsistent condom users.

Table 6 Logistic Regression Odds Ratios showing the likelihood of having had Multiple Serial Sexual Partners and MCP /Serial Monogamy during the year leading to the survey

	Having had multiple partners in past year		MCP/Serial Monogamy in past year	
	Exp(B)	Significance	Exp(B)	Significance
Sex				
Male	3.016	0.000	3.136	0.000
Female	1.000		1.000	
Age				
10-14	2.867	0.248	4.290	0.117
15-19	1.019	0.926	1.031	0.901
20-24	1.218	0.137	1.086	0.607
25-29	1.057	0.662	1.130	0.415
30-34	1.000		1.000	
Place of residence				
Cities & Towns	1.275	0.048	1.343	0.045
Urban Villages	1.329	0.032	1.291	0.110
Rural	1.000		1.000	
Marital Status				
Ever Married	0.609	0.037	0.691	0.177
Never married	1.966	0.000	1.912	0.000
Living together	1.000		1.000	
Level of education				
Primary & below	2.954	0.009	0.449	0.003
Secondary	1.666	0.408	0.904	0.458
Tertiary	1.000		1.000	
Religious Affiliation				
Christian	0.850	0.279	0.762	0.125
Other none Christian	1.361	0.204	1.209	0.508

No Religion	1.000	1.000
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Number of Sexual partners during past year

This section presents results of the association between respondent’s socio-demographic characteristics and number of sexual partnerships during the year leading to the survey. Table 6 shows the results of analysis of the association between respondents’ socio-demographic characteristics and number of sexual partnerships during the year leading to the survey. The results show that sex of respondent; place of residence; marital status and level of education are significantly associated with the likelihood of having had two or more sexual partners during the year leading to the survey.

For example, males (Odds=3.016; p=0.000) were three times more likely to have had two or more sexual partners during the year leading to the survey, compared to females (ref). Also, compared to residing in rural areas (ref), residing in cities and towns (Odds=1.257; p0.0048) and urban villages (odds=1.329; p=0.032) was associated with 28 and 33 percent increase in odds of having had two or more sexual partners during the year leading to the survey.

Compared to respondents who are in cohabiting unions; those who were ever married (odds=0.609; p=0.037) were less likely to have had two or more sexual partners during the year leading to the survey; while those who are never married (odds=1.966; p=0.000) were almost twice as likely to have had two or more sexual partners during the year leading to the survey.

Respondents with only primary education or less (Odds=2.954; p=0.009) were almost three times more likely to have had two or more sexual partners during the year leading to the survey compared to respondents with tertiary education; while the odds of having had two or more sexual partners during the year leading to the survey were not significantly different between respondent with secondary education (Odds=1.666; p=0.408) compared to respondents with tertiary education.

Multiple Concurrent Sexual Partnerships

Table 6 shows the results of analysis of the association between respondents’ socio-demographic characteristics and practice of multiple concurrent sexual partnerships (MCP). The results in table 6 show that the sex of respondent; marital status and level pf education are significantly associated with the practice of MCP. Compared to females, males (Odds=3.136; p0.000) were significantly more likely to practice MCP. Respondent who were never married (Odds=1.912; p=0.000) were almost twice as likely to practice MCP compared to those in cohabiting union. While the odds of practicing MCP were not significantly different between respondents who are ever married (Odds=-0.691; p=0.177) and those in cohabiting unions (ref).

The results further show that having only primary education or less (odds=0.449; p=0.003) was associated with a 56 percent decline in the likelihood of practicing MCP compared to having tertiary education; while the odds of practicing MCP were not significantly different among respondents who have secondary education (Odds=0.904; p=0.458) compared to respondents with tertiary education (ref).

Influence of Self-Efficacy; HIV Risk Perception and Attitudes towards Condoms, on Sexual Practices

This section presents analysis of the association between self-efficacy and sexual and reproductive practices, specifically, the number of sexual partners; condom use consistency and practice of multiple concurrent sexual partnerships during the year leading to the survey. The overall result of the analysis shows that the influence of self-efficacy; on sexual practices is mostly not significant.

Table 7 Logistic Regression Odds Ratios showing the likelihood of having had two or more sexual partners during year leading to survey

	MODEL 1		MODEL 2	
	Exp(B)	Significance	Exp(B)	Significance
Efficacy				
Yes	1.051	0.593	1.048	0.643
No	1.000		1.000	
Concern about HIV				
More	1.000		1.000	
Less	0.885	0.195	0.992	0.414
Attitude towards Condoms				
Positive	1.000		1.000	
Negative	1.090	0.475	1.071	0.604
Sex				
Male			0.332	0.000
Female			1.000	

Age		
10-14	2.723	0.271
15-19	0.956	0.832
20-24	1.215	0.146
25-29	1.062	0.643
30-34	1.000	
Place of residence		
Cities & Towns	1.252	0.070
Urban Villages	1.350	0.025
Rural	1.000	
Marital Status		
Ever Married	0.629	0.053
Never married	1.963	0.000
Living together	1.000	
Level of education		
Primary & below	0.581	0.013
Secondary	0.946	0.634
Tertiary	1.000	
Religious Affiliation		
Christian	0.818	0.190
Other none Christian	1.392	0.182
No Religion	1.000	

Influence of Self-Efficacy on Sexual Practices

Table 7 shows the results of analysis of the association between self-efficacy and number of sexual partners during the year leading to the survey. The results show that on a binary level, as well as when controlling for socio-demographic variables, the association between self-efficacy and number of sexual partners during the year leading to the survey, fails to attain any significance. The table shows that some of the significant control variables are sex of respondent; place of residence; marital status and level of education.

Table 8 Logistic Regression Odds Ratios showing the likelihood of using condoms inconsistently

	Exp(B)	Sign	Exp(B)	Sign
Efficacy				
Yes	0.470	0.000	0.472	0.000
No	1.000		1.000	
Concern about HIV				
More	1.000		1.000	
Less	0.980	0.792	0.960	0.620
Attitude towards Condoms				
Positive	1.000		1.000	
Negative	0.874	0.183	0.860	0.181
Sex				
Male			1.301	0.002
Female			1.000	
Age				
10-14			0.694	0.671
15-19			0.794	0.220
20-24			0.990	0.925
25-29			1.244	0.031
30-34			1.000	
Place of residence				
Cities & Towns			0.783	0.014
Urban Villages			0.838	0.111
Rural			1.000	
Marital Status				
Ever Married			2.241	0.000
Never married			0.601	0.000
Living together			1.000	
Level of education				

Primary & below	0.823	0.230
Secondary	0.705	0.000
Tertiary	1.000	
Religious Affiliation		
Christian	1.037	0.791
Other none Christian	1.444	0.107
No Religion	1.000	

Influence of Self-Efficacy on Inconsistent Condom Use

Table 8 shows the results of analysis of the association between self-efficacy and condom use inconsistency during the year leading to the survey. The results show that both on a binary level, as well as when controlling for socio-demographic variables, the association between self-efficacy and condom use inconsistency during the year leading to the survey, remains significant. Specifically, respondents who are self-efficacious (Odds=0.472; p=0.000) were 53 percent less likely to use condoms inconsistently. Some of the significant control variables are sex of respondent; marital status; place of residence and level of education.

Table 9 Logistic Regression Odds Ratios showing the likelihood of having practiced MCP during year leading to the survey

	Exp(B)	Sign	Exp(B)	Sign
Efficacy				
Yes	1.063	0.585	1.076	0.540
No	1.000		1.000	
Concern about HIV				
More	1.000		1.000	
Less	0.907	0.390	0.951	0.677
Attitude towards Condoms				
Positive	1.000		1.000	
Negative	1.096	0.527	1.125	0.453
Sex				
Male			0.316	0.000
Female			1.000	
AGE				
10-14			4.073	0.133
15-19			0.990	0.968
20-24			1.080	0.637
25-29			1.131	0.418
30-34			1.000	
Place of residence				
Cities & Towns			1.324	0.060
Urban Villages			1.328	0.081
Rural			1.000	
Marital Status				
Ever Married			0.713	0.218
Never married			1.895	0.000
Living together			1.000	
Level of education				
Primary & below			0.412	0.002
Secondary			0.928	0.588
Tertiary			1.000	
Religious Affiliation				
Christian			0.719	0.067
Other none Christian			1.247	0.448
No Religion			1.000	

Influence of Self-Efficacy on MCP

Table 9 (above), shows the results of analysis of the association between self-efficacy and practice of multiple concurrent sexual partnerships during the year leading to the survey. The results show that on a binary

level, as well as when controlling for socio-demographic variables, the association between self-efficacy and practice of multiple concurrent sexual partnerships during the year leading to the survey, fails to attain any significance. However, some of the significant control variables are sex of respondent; marital status and level of education.

IV. DISCUSSION

While Botswana's HIV epidemic has raged on for decades now, it has become apparent that the epidemic has been centred on young people, of productive and reproductive age, and disproportionately among females than males. There is also evidence to suggest that knowledge of HIV prevention and transmission is quite high among youths in Botswana. So, the fact that HIV epidemic has been centred on youths suggests that perhaps there are some gaps not only in knowledge, but also in ability to consistently negotiate and practice safe sex; or maybe in the socio-cultural and other normative beliefs about sex and sexuality. At least from a theoretical point of view, constructs such as young people's safe sex efficacy, attitudes towards condoms and MCP as well as sexual risk behaviour like change of sexual patterns and multiple concurrent sexual partnerships are important considerations when examining youth sexual behaviour.

Having a correct perception of risk should be motivation for adoption of safe sex and protective behaviour among young people. Females displayed high self-efficacious behaviours related to condom use and non-engagement in sex if not interested, compared to their male counterparts. These findings corroborate with [3] who see the need to understand social, cultural and environmental context of how self-efficacy functions.

The results show that there is significant but weak association between young people's perception of their risk of HIV infection, and their sexual practices. The results also point to the need to understand the true dynamics of young people's sexual relationships, including motives for engaging in sexual relationships.

HIV risk perception since the advent of ARVs was higher among females than males. These results are in agreement with [8] who found that factors associated with high self-efficacy for AIDS risk reduction in South Africa include low HIV risk perception, HIV/AIDS stigma, ever using drugs and having life goals. However, in their study, male respondents were highly self-efficacious than females. Reiterating these findings, [4] emphasize on the need for adolescents' perception of personal risk and self-efficacy to be boosted to ensure consistent use of condoms with partners.

More females than males displayed positive attitudes towards accepting males to obtain female condoms and for women to obtain male condoms.

Findings also depict that multiple concurrency attitudes were more acceptable among males than females. Additionally, males were accepting for females to engage in multiple concurrent partnerships, however the differences were insignificant. These results reflect Botswana's cultural context that has more accepting attitudes towards men's engagement in multiple partnerships. Such are justified by some of the Setswana proverbs like; *Monnakeselepe o a hapaanelwa* (which translates to the idea that a man has the freedom to associate with multiple and concurrent partners) [9]. This kind of cultural beliefs portray ideals of manhood which include strength, courage, dominance and unfettered sex. Such have the potential of exposing these men to risky behaviours which often culminate in HIV and AIDS.

HIV prevention programs and associated policies need to address sociocultural; economic and other structural factors that motivate and often compel young people to engage in risky sexual behaviours, despite having correct perception of risk.

The results show that the proportion of respondents who reported consistent condom use with their current and the last 3 partners was higher among males than females. Findings from Mexico revealed that factors that are independently associated with higher self-efficacy for condom use include higher positive outcome expectancies for negotiation of safer sex, lower sexual sensation and higher social support. Such represent central constructs in socio-cognitive models that explain behavioural change and could be used as intervention targets for improving self-efficacy for condom use and ultimately safer sex behaviours [10].

While MCP has been identified as one of the practices that fuel the spread of HIV in sub-Saharan Africa, serial monogamy has also been indicted in the spread of HIV. The study results show that more males than females engaged in both MCP and serial monogamy. In this regard, behaviour change interventions that build on self-efficacy, especially among women are in order. In Tanzania's Moshi district, adolescents were found to be practicing high risk sexual behaviours in order to conform to social norms and expectations that males should engage in risky behaviour [11].

While [8] found that low HIV risk perception, HIV/AIDS stigma, ever using drugs and having life goals were some of the determinants of self-efficacy for AIDS risk reduction in South Africa, this study investigated respondent's background as possible key determinants, and thus identified sex of respondent; place of residence; level of education and marital status as important determinants of self-efficacy. However, from this analysis, evidence of the extent to which efficacy; HIV risk perception and attitudes towards condoms, influence young people's sexual and reproductive health practices, is at best very weak. For example, the likelihood of

having had riskier sexual practices such as having had two or more sexual partners during the year leading to the survey; or maintaining multiple and concurrent sexual partnerships seems to be largely independent of young people's safe sex self-efficacy; or their HIV risk perception. Instead of these three constructs showing significant leverage on young people's sexual and reproductive health behaviour, it emerges that several socio-demographic variables, especially sex of respondent; marital status and level of education showed significant leverage on youth's sexual practices. The variables that show significant leverage on sexual and reproductive behaviour are social constructs, and they often come with socially constructed norms and expectations that govern individual's behaviour in society and sexual and reproductive matters. Thus, being a male or female; or being in a marital or cohabiting relationship or not could have socially constructed "*gender scripts*" that govern behaviour, that could be more powerful than an individual's level of knowledge; efficacy or risk perception. From a theoretical perspective, there can be no question about the need and importance of promoting self-efficacy; positive attitudes towards condom and HIV risk perception. For instance,[4]pointed out the need to strengthen adolescents' self-efficacy and personal HIV risk perception in order to ensure condom use consistency. However, these results suggest that how young people are likely to act in the sexual and reproductive health sphere, might be influenced more by socio-demographic variables such as sex; marital status and level of education than by what young people know. Conversely, perhaps self-efficacy; HIV risk perception and attitudes might leverage young people's sexual practices more through identification with and adherence to social constructs and norms that govern relationships between men and women and marital and cohabiting relationships. Thus, it is important for HIV prevention programs and associated policies to address sociocultural; economic and other structural factors that motivate and often compel young people to engage in risky sexual behaviours, despite having correct perception of risk. This is in consonance with results of a study in Tanzania that found that young people often practice high risk sexual behaviours in order to conform to social norms and expectations that males should engage in risky behaviour [11].

V. CONCLUSION

- Youth are not able to consistently negotiate and practice safe sex.
- The likelihood of having had riskier sexual practices (e.g.MCP) seems to be largely independent of young people's safe sex self-efficacy; or their HIV risk perception.
- From a theoretical perspective, there can be no question about the need and importance of promoting self-efficacy; positive attitudes towards condom and HIV risk perception when examining youth sexual behaviour
- Several socio-demographic variables, especially sex of respondent; marital status and level of education showed significant leverage on youth's sexual practices.
- Behaviour and social constructs often come with socially constructed norms and expectations that govern individual's behaviour in society and sexual and reproductive matters.

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