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Economic Status, Education and Risky Sexual Behavior for Urban Botswana Women

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Abstract

This study investigated the relationship between economic status, education and risky sexual behavior for urban Botswana women. The data used are a nationally representative sample from the Botswana AIDS Impact Survey conducted in 2004. An un-weighted sample of 2215 women aged 15-49, who have had sexual intercourse was considered for analysis. Both bivariate and multivariate analyses are used to gain insights into the potential linkages between economic status, education and risky sexual behavior. The bivariate analysis shows that there is a significant relationship between dependent variable (number of sexual partners) and economic status. However, with the introduction of controls the significant relationship persisted. The findings also show that the married and the living together had a significantly higher chance of having more than one sexual partner compared to the Not married. However, with the introduction of controls the significant relationship that existed between economic status and having had sexual intercourse in exchange for money/gifts disappeared. Moreover, women who believed that an HIV mother can avoid transmission to the baby appeared to have a significantly higher chance of having sexual intercourse in exchange for money/gifts than those who did not believe that an HIV mother can avoid transmission to the baby. Lastly this study revealed that inconsistent condom use is neither a function of economic status nor education, as well as the following socioeconomic environments; age, marital status, religion and awareness/knowledge on avoiding HIV transmission from a mother to a baby. The results of the study, shows that economic status only influences the number of sexual partners and having sexual intercourse in exchange for money/gifts.

Keywords: Botswana; Economic Status; Education; Risky-Sexual Behavior; AIDS-Risk-Behavior; AIDS-Preventive-Behavior; Multivariate Analysis; AIDS Impact Survey.

Introduction

In this study we investigate the relationship between economic status, education and risky sexual behavior for urban Botswana women. That is whether a woman with no education, primary, secondary and higher education and with an economically better off, worse off and the same economic status with their sexual partner; *had more than one sexual partner; had sexual intercourse in exchange for money or gifts, and use condom*

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inconsistently. To prevent the spread of HIV/AIDS and unwanted pregnancies among urban females the following factors are examined: (a) having more than one sexual partner, (b) having had sexual intercourse in exchange for money or gifts, and (c) inconsistent condom use. The reason why only these three responses were selected is because other important variables like; having sexual intercourse under the influence of alcohol, having ten year older sexual partners, among others, had almost all variables missing and there was going to be nothing to analyze and interpret.

Risky sexual behavior displayed by both males and females in sub-Saharan African counties have been identified as the main factors contributing to the increase in the spread of HIV/AIDS and unwanted pregnancies. Such behavior among others include; having more than one sexual partner, inconsistent condom use, having sexual intercourse under the influence of alcohol, having older sexual partners, inability to negotiate safe sex with partners and many others. Economic factors like poverty have been found to be influential in the engagement of women in transactional sex for the simple reason of getting money, gifts or any gift that would help them earn a living. Women are the most hit by poverty the world around.

Poverty and HIV infection are deeply intertwined. As the burden of caring for the sick, the dying and the orphaned forces millions of African women deeper into poverty and batters their energy and self-esteem, so it increases the pressure to resort to high risk "transactional" sex- sex in exchange for money or goods- or sex with older "sugar daddies" who offer the illusion of material security. And as more and more women and girls take to the streets as their only means of survival, the need to confront gender inequality becomes inescapable. (http://www.icaso.org/publications/gender_EN_4.pdf)

In a study by the Henry J. Kaiser Family Foundation, Hoff, Green, and Davis (2003), alcohol and drugs were reported to play a significant role in decision-making about sex. Nearly a third of a nationally representative sample reported that alcohol and drugs had contributed to their doing "more" sexually than they would have done while sober. Also in the Kaiser Family Foundation et al. study, four out of five adolescents believed that people their age usually used drugs or alcohol prior to engaging in sexual activity, and 20% reported having had unprotected sex while under the influence of drugs or alcohol. Stueve and O'Donnell (2005) extended these findings by identifying that early drinking behavior (during middle school) increased a youth's risk for a number of risky sexual behaviors including unprotected sex and having multiple partners, and an unintended pregnancy outcome.

It is stated in Booysen (2004)'s study on 'HIV/AIDS, poverty and risky sexual behavior in South Africa' that risky sexual behavior is associated with poverty only in the case of multiple partnerships. Booysen further noted that affluent women that have engaged in risky sexual behavior were shown to be more likely to have cited negative perceptions about condom use as main reason for not using a condom at last sex. And poor women in turn were more likely to cite lack of knowledge about condoms and abstinence from condom use as main reason. Poverty plays little part in explaining differences in risky sexual behavior, although higher education in some cases was associated positively with risky sexual behavior.

Food insecurity is also hypothesized to increase sexual risk-taking—especially among women living in poverty who are often dependent on others for food and other resources, and whose human rights are inadequately protected (Letamo & Bainame,

1997). Women in parts of sub-Saharan Africa such as Botswana and Swaziland often lack control over resources, including the food supply at home, while also bearing responsibility for caring for children, elder household members, and household members who are ill (Kadiyala, 2005; Kadiyala & Gillespie, 2003; Reijarama, et al. 2006; Buseh, et al. 2002). Previous qualitative research has shown that women may engage in sex exchange or get involved with intergenerational relationships in order to procure food for themselves and their children (Kadiyala, 2005; WPF, 2003; Fields-Gardner & Fergusson, 2004; Mill & Anarfi, 2002).

Women who reported lacking sufficient food to eat had an 80% increased odds of selling sex for money or resources, a 70% increased odds of engaging in unprotected sex and reporting lack of sexual control, and a 50% increased odds of intergenerational sex. Their findings extend previous results by Dunkle et al. that women who reported hunger in the household were more likely to engage in transactional sex and by Oyefere at al. who found that low socioeconomic status and food insufficiency played a strong role in influencing women to become sex workers.

To realize an HIV/AIDS free generation in Botswana, there should be a clear understanding of the relationship between economic status, education and risky sexual behavior for urban Botswana women. This is very important for women in urban areas because there are many women in urban areas compared to rural areas and a lot of them still depend on men for meeting their basic needs. And this has resulted in women becoming commercial sex workers, having unprotected sex to please their sexual partners. Most of these risky sexual behaviors like the non-use of condoms, having many sexual partners expose individuals to the risk of getting infected with HIV/AIDS.

The 2007 sentinel surveillance estimated the adjusted HIV/AIDS prevalence at 33.7.0% and the crude HIV prevalence rate at 35.0%. HIV prevalence rates were found to be highest among those living together with 42.0% followed by those who were single with 34.5%. Prevalence level among marriage pregnant women was 30.2%. Differentials by employment status shows that the prevalence was high among pregnant women who were self employed (46.1%) followed by women who were temporarily employed (40.3%). The unemployed had the lowest prevalence rate (33.6%). Contrary to the Botswana AIDS Impact Survey II, differential by education shows that those with primary education had the highest HIV prevalence (45.6%) followed by those with no education (36.4%). However, estimates based on projections using surveillance data indicate that by 2009 HIV prevalence among the adult population aged 15-49 is 26.7% having increased from 26.5% in 2008 (NACA, 2008). There is indeed a need to conduct a study on the relationship between economic status, education and risky sexual behaviour so that we can be able to know where we can focus interventions regarding behaviour change.

Conceptual Framework

In understanding the relationship between economic status, education and risky sexual behavior for urban Botswana women a theoretical framework developed by Dintwa (2008) in his study titled 'Education and the spread of HIV/AIDS in Botswana' was adopted. The theory looks at education in terms of its levels: no education, primary, secondary and higher education. Education influences both traditional and modern culture; literacy level is increased, preference for modern life (nuclear family) and so on. The traditional culture gives great importance to family values, respect for elders and

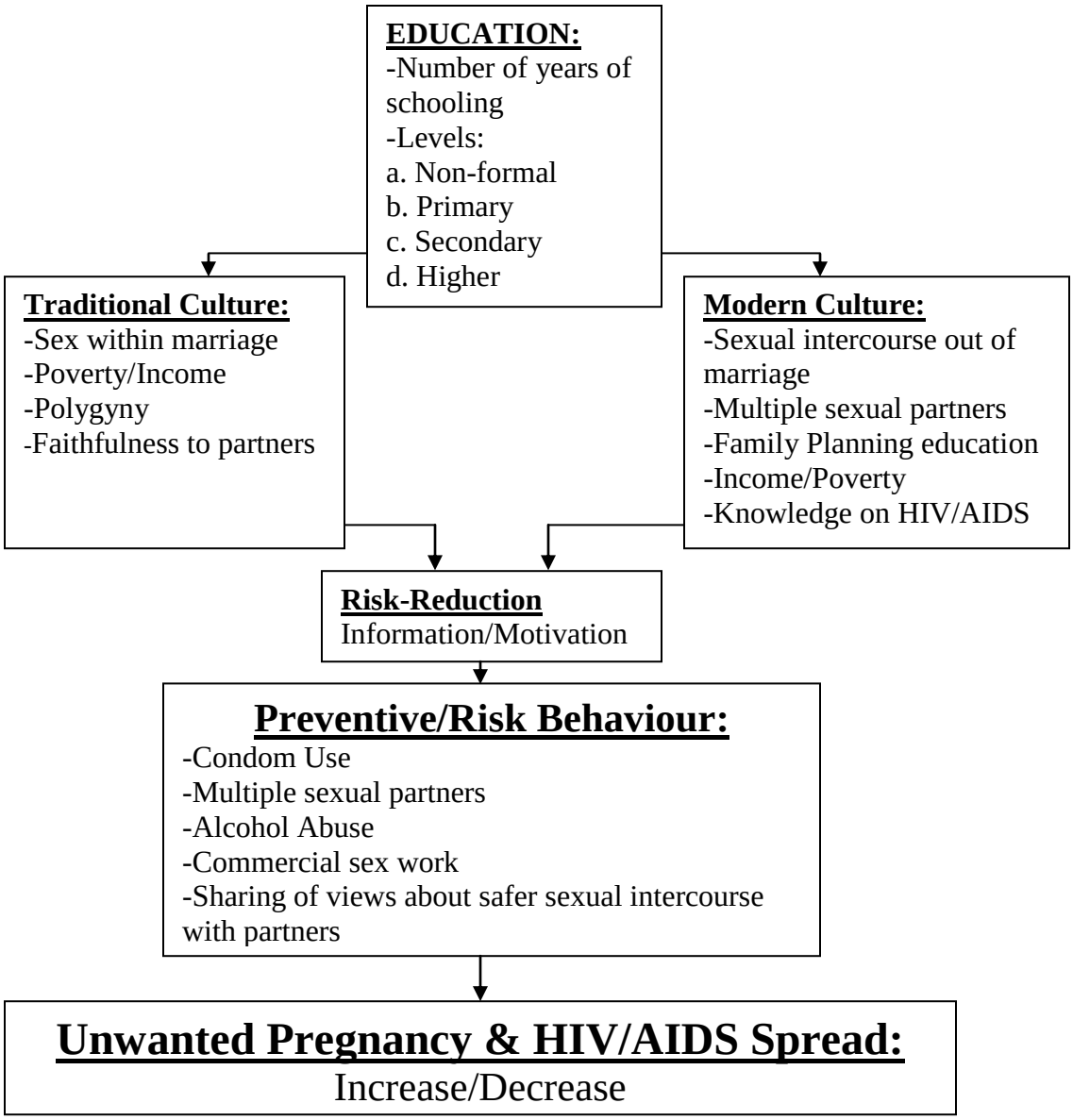
sexual activities within marriage, patriarchy and polygamy. On the other hand, modern culture a product of urbanization, greater income (economic well-off) does not give weight to some family values under the traditional culture.
Available data show that the erosion of cultural and social networks has led to the problems of drug abuse, and has encouraged risky sexual behaviors among the youth (Caldwell, et al. 1989; UNAIDS, 2002).

Some economically well-off men use their powers (greater income and possession of property) to have sexual intercourse with poor women and give them money or gifts thereafter. Education has a role it plays in all these acts in that poor women are mostly with no education and are taken advantage of because of their lack of ability to understand and utilize some information which could protect them from being victims. Traditional culture on the other hand has exacerbated women's indulgence in risky sexual behavior. For example polygamy which is practiced by many Botswana men, puts women at risk of contracting STDs and HIV/AIDS. According to the Population Council (2001); Letamo (2005), gender-based imbalance in power found in the economic and social spheres of life is reflected in sexual partnership relations. Women often have less control over the nature and timing of sexual intercourse and the practice of protective behaviors. A woman's ability to practice safe sexual intercourse may be influenced by her ability to communicate openly about sex with her partner, the power dynamic in their relationship, or how much the partner believes in the traditional gender roles.

Dintwa (2008) adds that individuals must be highly motivated to initiate and sustain AIDS behavioral changes. The core business of the framework is behavioral skills including the ability to share views about safe sexual intercourse issues with partners, condom use, having one sexual partner and not having sex under the influence of drugs and alcohol. It is in this manner that the spread of HIV/AIDS can be reduced. But lack of motivation to practice AIDS-Preventive-Behavior by the informed individuals fuels the increase of the spread of HIV/AIDS.

Figure 1: A Conceptual Framework for discussing "Economic status, Education and Risky Sexual Behaviour for urban Botswana women."

Adopted from Dintwa (2008) '*Education and the spread of HIV/AIDS in Botswana'*



Methods and Materials

This study is based on a secondary analysis of a subset of variables from a larger national survey of men and women in Botswana. Therefore, we did not obtain informed permission for individual participants.

Data

Data were drawn from the Botswana AIDS impact survey (BAIS) conducted in 2004 (secondary data). The structure of the 2004 BAIS-II consisted of 4,114 EAS being the total number of Enumeration Areas (EAs) delineated during the 2001 Population and Housing Census after taking out the 38 EAS of the CKGR, Delta and Institutions. The total number of households sampled was 8,275 and the sampled households were occupied. Of these households 7,600 were successfully interviewed, yielding a household response rate of 92 percent. The household response rate was the highest at 94 percent in urban villages followed by rural areas at 92 percent. People in the cities were the least forthcoming in the response, with a response rate of 88 percent. Within the 7,600 completed households, 16,992 eligible respondents aged 10-64 years were identified and out of these eligible respondents, 15, 878 were successfully interviewed, yielding an individual response rate of 93 percent. Out of the total number of people who were eligible for HIV testing 24,756, 15,161 provided a specimen for HIV testing. Overall, the HIV testing participation was 61 percent and this was highest in rural areas at 65 percent compared to 55 percent in the cities. Finally, for BAIS II, the sampling frame was based on the 2001 Population and Housing Census. In 2001 census the EAS were framed of manageable size (in terms of dwelling/ households), so the primary sampling units (PSUs) were EAs (Republic of Botswana, 2004).

Variables

The Botswana AIDS Impact Survey has several questions that were used for addressing this study's objectives. The following three *response variables* were used in this study as measures of the relationship between economic status, education and risky sexual behavior for urban Botswana women:

More than one sexual partner: Respondents were asked "How many sexual partners do they have?" This binary variable was coded one for 'more than one' and zero for 'one partner'.

Having sexual intercourse in exchange for money or gifts: Respondents were asked "If they have had sexual intercourse in exchange for money or gifts?" This binary variable was coded one for 'Yes' response and zero otherwise.

Inconsistent condom use: Respondents were asked "If they always use a condom with their sexual partner?" This binary variable was coded such that the response 'Yes' equals zero and one otherwise.

Questions asked about the economic status of the respondents' sexual partners and the respondents' levels of education were used as the main independent variables. Respondents were asked: "What was their sexual partner's economic status: better off, same & better off"; and "What was the highest level of school they attained: no-education, primary, secondary and higher education?"

Control variables used for this study include; age, marital status, religion, HIV/AIDS prevention and transmission knowledge. These variables were either dichotomous or categorical.

For the analysis of this study, a sample size of 2215 was used, with unweighted cases of eligible respondents. Female respondents residing in urban areas and aged 15-49 having had sexual intercourse were selected to cater for generalization when it comes to issues of sexual intercourse and other related activities.

Statistical methods

Logistic Regression Model

The question addressed here is whether or not economic status and education directly influences risky sexual behavior among urban Botswana women. If economic status and education directly determines risky sexual behavior among urban Botswana women, then there should be no change in the parameter estimates (coefficients) of a given explanatory variable even after controls are introduced. Model I and Model II presents the results of regressing economic status and levels of education on selected sexual behaviors: (a) having more than one sexual partner, (b) having had sexual intercourse in exchange for money/gifts, and (c) inconsistent condom use. Model III presents the results of regressing the economic status and levels of education of respondents plus the controls of the selected socioeconomic and biological variables. A change in the magnitude of coefficients for experiencing a given response on number of sexual partners, condom use, and having sexual intercourse in exchange for money or gifts, would suggest that part of economic status and educational level that influence the responses of individuals could be explained by other factors such as those introduced in Model III. For the i^{th} individual, the logistic regression model can be expressed as:

$$\ln P_I / (1- P_i) = \beta_0 + \sum \beta_K \chi_{ki},$$

Where P_I is the probability that the i^{th} individual will; not always use a condom, have more than one sexual partner, and have had sexual intercourse in exchange for money or gifts . β_0 is the baseline constant, χ_{ki} is an array of (k) independent variables, and β is the corresponding vector of unknown regression coefficients. The

SPSS-PC logistic program was used for estimating regression coefficients through the maximum likelihood procedure (Hosmer 1989).

The betas represent the change in the log odds due to unit increments in values of the predictors (DeMaris 1992). Interpreting logistic regression results in terms of odds, e^{β} , is a summary statistic for the partial effect of a given predictor on the odds, controlling for the other predictors in the model (Letamo and Rakgoasi 2003).

The logistic regression method was used because it provides an interpretable variable linear model for a categorical dependent variable. It also allows the significance of a given predictor to be tested for while controlling for all other predictors in the model (DeMaris 1992).

Analysis and Results

Sample Characteristics

The sample of this study shows that the majority of respondents with more than one sexual partner were economically worse-off than their partners; those who have had sex in exchange of money/gifts were economically worse-off than their sexual partners and did not agree that an HIV mother can avoid transmission to the baby. The married and those respondents affiliated to Muslim religion have engaged in inconsistent condom use in large numbers (see Table 1).

Multivariate Analysis

In this section we examine the relationship between independent/control variables with the three response variables: number of sexual partners, sexual intercourse in exchange of money/gifts, and condom use.

Number of Sexual Partners

Table 2 presents the results of logistic regression where the response variable was whether a respondent has one sexual partner or more. For the number of sexual partners, the respondents who were economically worse-off than their sexual partners compared to those who were economically equal had a lower chance (0.34 less likely) of having more than one sexual partner (*see Model I*) and this relationship was statistically significant at 5%. Statistically insignificant relationship was identified amongst all the respondents with more than one sexual partner at all levels of education compared to those at higher level of education (*see Model II*). When controls for age, marital status, religion and knowledge on avoiding HIV transmission from a mother to the baby of the respondents were introduced, the statistically significant relationship amongst respondents who were economically worse-off persisted though the statistical strength of the relationship reduced to a 10% significant level, whereas those for education remained statistically insignificant. *This finding shows that having more than one sexual partner is a function of economic status as well as the following socioeconomic environments; age and marital*

status. The married and the living together had a significantly ($p<0.01$) higher chance of having more than one sexual partner compared to the Not Married.

Sexual Intercourse in Exchange for money/gifts

As for having had sexual intercourse in exchange for money/gifts from Table 3, respondents who were economically worse-off compared to those who were economically equal with their sexual partners were 0.18 times less likely to have had sexual intercourse in exchange for money/gifts *(see Model I)* and this relationship was statistically significant at 5%. Statistically insignificant relationship was identified amongst all the respondents who have had sexual intercourse in exchange for money/gifts at all levels of education compared to those at higher level of education (*see Model II)*.

When controls for age, marital status, religion and knowledge on avoiding HIV transmission from the mother to the baby were introduced, the statistically significant relationship amongst respondents who have had sexual intercourse in exchange for money/gifts disappeared. *This finding shows that having had sexual intercourse in exchange for money/gifts is neither a function of economic status nor education but of other socioeconomic environment, specifically awareness/knowledge of avoiding HIV from the mother to the baby.* The respondents who believed that an HIV mother can avoid transmission to the baby appeared to have a significantly higher chance of having sexual intercourse in exchange for money/gifts.

Condom Use

The results from Table 4 show that there was no significant relationship between the two main control variables (economic status and education) and inconsistent condom use (*see Models I & II*). When controls were introduced it was observed that this insignificant statistical relationship still existed/persisted. *This finding shows that inconsistent condom use with a sexual partner is neither a function of economic status nor education as well as the following socioeconomic environments; marital status, age, religion and awareness/knowledge of avoiding HIV transmission from a mother to the baby.*

Discussion and Conclusion

Findings from this study show that having more than one sexual partner is a function of economic status as well as age and marital status. For example, women who were economically worse-off than their sexual partners compared to those with economically equal partners had a significantly lower chance of having more than one sexual partner. It is believed that most of these (the economically worse-off) women depend on their partners (male counterparts) for most of their needs and they wouldn't risk their relationship by engaging in other sexual relationship besides what they have because that means losing what provides for them. These findings do concur with the following literature;

'Previous qualitative research has shown that women may engage in sexual encounter exchange or get involved with intergenerational relationships in order to

procure food for themselves and their children' (Kadiyala, 2005; WPF, 2003; Fields-Gardner & Fergusson; Mill & Anarfi, 2002). On the other hand, the finding is inconsistent with the results from Booysen's study on 'HIV/AIDS, poverty and risky sexual behavior in South Africa' that risky sexual behavior is associated with poverty only in the case of multiple partnerships. Mehta (2006) asserts that "*The vulnerability of women and girls to HIV/AIDS is compounded by other human rights issues including inadequate access to information, education and services necessary to ensure sexual; sexual violence, etc*". Tlou (2001) also adds that in most countries, the legal systems and cultural norms reinforce gender inequality by giving men control over productive resources such as land, through marriage laws that subordinate wives to their husbands, and inheritance customs that make males the principal beneficiaries of family property. This is still happening despite the fact that most of these countries have ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). Such resolutions have far reaching consequences for the rights of women, the achievement of national development, and the transmission of HIV.

The findings also show that the married and the living together had a significantly higher chance of having more than one sexual partner compared to the Not married. The norm is that the married should be faithful because now they are married and should respect their husbands but this is not the case in this study. According to Schapera (1971), extremely few people never married as marriage offered social status, companionship, economic cooperation and, for men, legal paternity of children. Dintwa (2008) also adds that beliefs or norms about masculinity and femininity often encourage men to have multiple partners and women to be passive and ignorant on matters of sexuality and reproduction. The belief by men that it is acceptable to have extramarital affairs, although they are not necessarily keen on using condoms and would use only when do not trust the other partner. This influences the increase of the spread of HIV/AIDS. According to Tlou (2001) the special vulnerability of girls and young women to HIV/AIDS has been documented in many studies and discussed at the various United Nations fora. While most states agree that young people have the right to develop their capacities, to access a range of services and opportunities, to live, learn and earn a safe and supportive environment, and to participate in decisions and actions that affect them, one finds that social institutions such as schools, NGO's, the media, the private sector, and the governments are doing very little to support these rights. For example, access to information relating to sexual health is still a controversial issue despite extensive research showing that school-based life skills education empowers youth and does not increase their sexual activity (Kirby et al., 1994).

Women who believed that an HIV mother can avoid transmission to the baby appeared to have a significantly higher chance of having sexual intercourse in exchange for money/gifts than those who did not believe that an HIV mother can avoid transmission to the baby. In this regard women who are knowledgeable about HIV transmission are the same ones who engage themselves in risky-sexual behaviour. This implies that no matter how much information about transmission and prevention of HIV/AIDS is disseminated, if people do not change their behaviour, more people would be at risk of contracting HIV/AIDS.

According to Letamo (2005); Dintwa (2008), lack of motivation to practice AIDS-Preventive-Behavior by the informed individuals (being aware and having

knowledge about the dangers of HIV/AIDS and how it can be prevented) fuels the increase of the spread of HIV/AIDS. For example, studies have revealed that people can be highly informed about HIV transmission and prevention but still engage in risky behavior because they lack motivation or believe this knowledge does not apply to them according to Letamo's study on 'Gender Dimensions in Misconceptions About HIV/AIDS Prevention and Transmission in Botswana'. Lack of motivation influences AIDS-Risk-Behaviour (inconsistent condom use, multiple partnership, commercial sex work and alcohol abuse) therefore increasing the spread of HIV/AIDS.

Research in Botswana and Zambia showed gaps in community knowledge about HIV transmission, particularly from mother to child, and yielded insights into community perspectives about the barriers to using Voluntary Counseling and Testing services; the stigma and fear associated with HIV; traditional norms on breastfeeding; and the role of family and community members in women's decisions to participate in programs to prevent mother-to-child transmission of HIV (Nyblade & Field-Nguer, 2000).

Lastly the findings of this study revealed that inconsistent condom use is neither a function of economic status nor education, as well as the following socioeconomic environments; age, marital status, religion and awareness/knowledge on avoiding HIV transmission from a mother to a baby. The findings differs from that of Dintwa (2008) on their study on "Education and the Spread of HIV/AIDS in Botswana", the study revealed the following through the study was based on both males and females:

> "That not always using a condom with a partner is a function of education as well as the following socioeconomic environments: marital status and age of respondents. That is individuals aged 15-49 years were significantly more likely to have not always used a condom compared to those aged 50-64 years."

The result of this study does not also support the research finding that confirms that higher education levels are associated with higher rates of consistent condom use. Moreover, this finding does not support research done elsewhere (UNAIDS 2000). The reason why may be the findings are the way it has just been mentioned above, is the fact most women depend on men for condom use because even though they both use it, men are the ones who insert it on their genitals before sexual intercourse.

Population Council, (2001); Letamo, (2005) adds that women often have less control over the nature and timing of sex and the practice of protective behaviors. A woman's ability to practice safe sexual intercourse may be influenced by her ability to communicate openly about sex with her partner, the power dynamic in their relationship, or how much the partner believes in the traditional gender roles.

The afore-mentioned findings have implications for interdisciplinary studies by researchers worldwide. Longitudinal studies are needed to unstitch the real causes, consequences and prevention of risky sexual behaviour and violation of women's Sexual and Reproductive Health Rights. Quantitative studies should be complimented with qualitative research. The combination of these methods might shred light to the understanding of the specific cultural context of and barriers to HIV/AIDS-Preventive - Behavior.

There is need therefore to design and implement specific and culturally sensitive interventions.

Advocacy groups should come up with new and comprehensive strategies of combating violation against the rights of women, by empowering women and coming up with laws that deals with marital rape and other violence faced by women.

We conclude by suggesting that efforts at multiple levels such as personal, interpersonal, and cultural regarding safe sexual intercourse and elimination of the violation of Sexual Reproductive Health Rights be intensified.

> "As the burden of caring for the sick, the dying and the orphaned forces millions of African women deeper into poverty and batters their energy and self-esteem, so it increases the pressure to resort to high risk 'transactional' sexual intercourse- sex intercourse in exchange for money or goods- or sexual intercourse with older 'sugar daddies' who offer the illusion of material security. And as more and more women and girls take to the streets as their only means of survival, the need to confront gender inequality becomes inescapable".
> (http://www.icaso.org/publications/gender_EN_4.pdf)

Limitations of the Study

The major limitations of this study were that secondary data was used, thereby limiting the researcher to variables collected by the survey. The second limitation was that the information collected was self reported, which was subject to reporting errors and bias. The third limitation was that the study was based on cross-sectional data, implying that the direction of casual relationships cannot be determined. The interpretation of results therefore limits it to associations between variables rather than the cause and effect relationship. The last limitation is of the use of UNAIDS model questionnaire from United States of America in the original study (BAIS II) from which the data here was sourced. This therefore limits the researcher to the variables which were initially meant to be used in a developed country instead of variables or questions which were specifically for developing countries like Botswana in particular.

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Table 1: Percentage of women who: had more than one sexual partner; had sexual partners who are ten years older; have had sexual intercourse intoxicated with alcohol; had sexual intercourse in exchange for money or gifts; and did not use condoms consistently by selected individual characteristics

Characteristics	More than one sexual partner	Sexual intercourse in exchange of money/gifts	Inconsistent Condom use
Partner's Economic status:			
Better off	8.1	3.1	11.7
Worse off	15.0	10.0	33.0
Equal	9.9	2.6	14.0
Education:			
No education	8.3	0.0	0.0
Primary	5.1	2.3	15.2
Secondary	5.7	1.5	10.9
Higher	2.8	0.8	11.0
Age (years):			
<20	5.5	1.8	12.6
20-34	5.7	1.9	10.5
35+	2.8	0.6	15.0
Marital Status:			
Married	2.4	0.3	12.7
Living Together	3.7	2.2	11.9
Not Married	7.1	1.8	11.6
Religion:			
Christian	4.8	1.6	11.7
Muslim	0.0	0.0	40.0
Other Religion	3.9	3.9	8.7
No Religion	6.4	1.0	12.9
HIV mother can avoid transmission to the baby:			
Yes	5.2	1.2	11.8
No	1.6	4.8	12.5

Table 2: Relative odds for the number of sexual partners (more than one sexual partners)
Table 3: Relative odds of having sexual intercourse in exchange for money/gifts

Explanatory Variables	Model I Exp (B)	Standard Error	Model II Exp (B)	Standard Error	Model III Exp (B)	Standard Error
Partner's Economic Status:						
Better	0.794	0.294			0.981	0.351
Worse	0.34**	0.509			0.282*	0.685
Equal	1.000	____			1.000	____
Education:						
No Education			1.325	1.051	0.119	1.428
Primary			0.831	0.244	0.590	0.496
Secondary			0.805	0.211	1.438	0.454
Higher			1.000	____	1.000	____
Age (years):						
<20					0.263*	0.762
20-34					0.41**	0.435
35+					1.000	____
Marital Status:						
Married					4.904***	0.566
Living Together					4.831***	0.427
Not Married					1.000	____
Religion:						
Christian					1.332	0.515
Muslim					2.765	1.391
Other Religion						
No Religion					1.000	____
HIV mother can avoid transmission to the baby:						
Yes					0.423	1.070
No					1.000	____

Note: The group with 1.000 represents the reference category. ***Significant at p<0.01; **Significant at p<0.05; *significant at p<0.1

Explanatory Variables	Model I Exp (B)	Standard Error	Model II Exp (B)	Standard Error	Model III Exp (B)	Standard Error
Partner's Economic Status:						
Better	0.811	0.621			2.530	0.928
Worse	0.176**	0.798			0.170	1.338
Equal	1.000	____			1.000	____
Education:						
No Education			13277876	10378	0.806	22878.755
Primary			0.344	0.662	0.000	4714.963
Secondary			0.552	0.635	0.000	4714.963
Higher			1.000	____	1.000	____
Age (years):						
<20					21803364	9359
20-34					0.307	0.993
35+					1.000	____
Marital Status:						
Married					26580150	4411
Living Together					0.284	0.855
Not Married					1.000	____
Religion:						
Christian					0.000	6055
Muslim					4.017	15902
Other Religion						
No Religion					1.000	____
HIV mother can avoid transmission to the baby:						
Yes					6.831*	0.994
No					1.000	____

Note: The group with 1.000 represents the reference category. ***Significant at p<0.01; **Significant at p<0.05; *significant at p<0.1

Table 4: Relative odds for inconsistent condom use

Explanatory Variables	Model I Exp (B)	Standard Error	Model II Exp (B)	Standard Error	Model III Exp (B)	Standard Error
Partner's Economic Status:						
Better	0.750	0.491			0.832	0.625
Worse	3.833	0.990			0.000	22414
Equal	1.000	____			1.000	____
Education:						
No Education			1.024	1.086	0.000	40193
Primary			1.504	0.294	5.170	1.143
Secondary			0.978	0.275	2.854	1.143
Higher			1.000	____	1.000	____
Age (years):						
<20					0.834	1.301
20-34					0.758	0.647
35+					1.000	____
Marital Status:						
Married					0.836	0.706
Living Together					0.644	0.702
Not Married					1.000	____
Religion:						
Christian					2.320	10973
Muslim					1.643	41664
Other Religion						
No Religion					1.000	____
HIV mother can avoid transmission to the baby:						
Yes					0.253	1.051
No					1.000	____

Note: The group with 1.000 represents the reference category. ***Significant at p<0.01; **Significant at p<0.05; *significant at p<0.1