The influence of gender role attitudes on risky sexual behaviour: evidence from the 2008 Botswana AIDS impact survey III

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Abstract

Previous studies have posed seemingly contradictory arguments that either traditional attitudes or egalitarian attitudes are associated with riskier behaviour. Little research has been conducted to document how gender role attitudes influence sexual behaviour in Botswana. The purpose of this study is to examine the association between gender role attitudes and risky sexual behaviour. Data used in this study are from the 2008 Botswana AIDS Impact Survey which was a nationally representative, population-based survey. Cross-tabulations and logistic regression analysis were used to assess the influence of gender role attitudes on risky sexual behaviour such non-use of condom and multiple sexual partners. The cross-tabulated results of the study showed that generally women had egalitarian gender role attitudes towards sexual behaviours compared to the men. Bivariate analysis showed that about 47% of the respondents believed men can have more than one sexual partner at a time while 42% indicated that women can have more than one sexual partner at a time. Over one in ten reported that it is a wife's duty to have sex with her husband even if she does not want to and about 24% of the respondents reported that it is not a woman's right to decide if she will have safe sex. The logistic regression results showed that the selected gender role attitude variables were not significantly associated with risky sexual behaviour except the belief that it is acceptable for a partner to be in possession of a female condom. In short, after controlling for important socio-demographic variables, the analysis showed that traditional gender role attitudes were not significantly associated with risky sexual behaviour of non-use of condoms and engagement in multiple sexual relationships. The relationship between gender role attitudes and sexual behaviour is very complex and detailed qualitative research may provide more answers to the research questions than a cross-sectional study design. Additional research is required to understand this complex relationship.

Keywords: Gender role attitudes; risky sexual behaviour; Botswana

Résumé

Les études précédentes ont posé les arguments apparemment contradictoires que des attitudes traditionnelles ou les attitudes égalitaires sont associé au comportement riskier. Peu de recherche a été conduite au document comment les attitudes de rôle de genre influencent le comportement sexuel au Botswana. Le but de cette étude est d'examiner l'association entre les attitudes de rôle de genre et

le comportement sexuel risqué. Les données utilisées dans cette étude sont de l'enquête 2008 d'impact de SIDA du Botswana qui était un aperçu nationalement représentatif et basé sur la population. des Croix-tabulations et l'analyse logistique de régression ont été employées pour évaluer l'influence des attitudes de rôle de genre sur le comportement sexuel risqué tel sur-emploient du condom et des associés sexuels multiples. Les résultats croix-sous forme de tableaux de l'étude ont prouvé que généralement les femmes ont eu des attitudes égalitaires de rôle de genre envers des comportements sexuels comparés aux hommes. L'analyse Bivariate a prouvé qu'environ 47% des répondants a cru que les hommes peuvent avoir plus d'un associé sexuel à la fois tandis que 42% indiquait que les femmes peuvent avoir plus d'un associé sexuel à la fois. Plus d'un dans dix a rapporté que c'est le devoir d'une épouse pour avoir le sexe avec son mari même si elle ne veut pas à et environ 24% des répondants signalait qu'il n'est pas le droit d'une femme de décider si elle aura le sexe sûr. Les résultats logistiques de régression ont prouvé que les variables choisies d'attitude de rôle de genre n'ont pas été sensiblement associées au comportement sexuel risqué excepté la croyance qu'il est acceptable que un associé soit en possession d'un condom femelle. En bref, après contrôle pour des variables socio-démographiques importantes, l'analyse a prouvé que des attitudes traditionnelles de rôle de genre n'ont pas été sensiblement associées au comportement sexuel risqué du non-usage des condoms et à l'enclenchement dans des rapports sexuels multiples. Le rapport entre les attitudes de rôle de genre et le comportement sexuel est très complexe et la recherche qualitative détaillée peut fournir des réponses aux questions de recherches et à une conception d'étude transversale. La recherche additionnelle est exigée pour comprendre ce rapport complexe.

Mots-clés: Attitudes de rôle de genre; comportement sexuel risqué ; Le Botswana

Introduction

Culturally-based beliefs about gender roles influence women's sexual behaviour and their ability to protect themselves from unwanted sexual experiences (Moore 2006). Attitudes of people towards women's sexual and reproductive health behaviour are crucial to understand because they facilitate or obstruct adoption of healthy behaviours. It is generally acknowledged that there are gender disparities in sexual and reproductive health decision making processes. Moore (2006) argues that many experiences often take place according to the man's dictates, without regard for the woman's desires. Thus most of the sexual and reproductive health decisions are the prerogative of males. More often than not, the women simply comply with decisions made by their male counterparts. These gender-based power inequalities can contribute to poor sexual and reproductive health outcomes such as hindering communication between partners about reproductive health decisions, constraining women's access to reproductive health services, by preventing women's and men's attainment of sexual health and pleasure, and by increasing their risk of contracting HIV infection and other sexually transmitted infections (Speizer, Whittle and Carter

2005; Population Council and Interagency Gender Working Group 2001).

Shearer *et al*. (2005) cited Lawrance *et al*. (1996) who found that women with traditional gender role attitudes described themselves as more expressive and less instrumental in sexual situations. Young people with traditional gender role attitudes have been found to be poorer contraceptive users than those with less traditional attitudes (Morrison 1989: cited in Shearer 2005). Traditional gender role ideologies are the perceptions of how men and women are supposed to think and behave in society and within the context of heterosexual relationships (Santana *et al*. 2006). MacCorquodale (1984) cited in Shearer (2005) found that 18-23 year olds with egalitarian gender role attitudes used contraceptives more frequently in current and prior sexual relationships and used contraceptives more effectively. Pleck, Sonenstein and Ku (1993) studied young men and found that those with traditional attitudes were less likely than those with non-traditional attitudes to use condoms consistently with their current partner. They also found that men with traditional attitudes reported more sexual partners in the previous year and a less intimate relationship at last intercourse with their most recent partner. Thus people with traditional gender role attitudes are more likely to engage in risky sexual behaviour. However, in Botswana there are no studies that have investigated the association between gender role attitudes and risky sexual behaviour. The purpose of this study is to fill in this research gap.

Literature review and theoretical framework

Feminist theorists view traditional gender roles as those in which there is an unequal distribution of power between men and women (Amaro 1995; Wingood and DiClemente 2000). Because traditional gender roles depict men as leaders and decision makers, the endorsement of such attitudes may reflect the belief that women should leave important decisions to men. Women who espouse such beliefs may place themselves in risky sexual situations if their male partners prefer not to use condoms or do not introduce the option of taking such precautions. On the other hand, men who hold such traditional attitudes may be inclined to maintain control over sexual encounters (Kalof 1995). Casual sex or sex with multiple partners may be desired by men who espouse such beliefs, whereas taking precautions such as using condoms may seem undesirable. Although we know of no research on links between sexual behaviour and gender role attitudes specific to the family arena, other gender role attitudes are known to predict sexual behaviour. Gender roles may influence sexual behaviour at the relationship level by defining the general behaviour of men and women toward each other in relationships and by playing a role in how sexual behaviour is negotiated and ultimately enacted (Shearer *et al*. 2005).

In Botswana, Tabengwa, *et al*. (2001) have argued that cultural stereotypes dictate that men behave as they please and are the sole decision makers regarding the welfare of women and men. Olawoye *et al*. (2004) stated that the domination of males over females is common in many societies in develop-

ing countries and often form the basis for gender relations. Whether or not a condom is used depends on the male partner's decision (Muvandi and Busang 2005). Pleck, Sonenstein and Ku (1993) studied young men and found that those with traditional attitudes were less likely than those with non-traditional attitudes to use condoms consistently with their current partner. They also found that men with traditional attitudes reported more sexual partners in the last year.

Institutional factors promote violence against women in marriage. For example, the current laws of Botswana do not recognize marital rape. By implication, the husband can forcefully have sexual intercourse with his wife with impunity. Schapera (1940) observed that the many young married women he talked to, most told him that, no matter how tired they were, if they refused or resisted sexual intercourse, they were usually beaten into submission. The implication of this behaviour is that marriage imposes certain "rights" that favour men, which may include the refusal to use condoms, even if the husband is known to be HIV positive (Letamo 2008).

To actualize the 1994 International Conference on Population & Development (ICPD) Programme of Action that highlighted and emphasized addressing sexual and reproductive health needs for all, gender equality and the need for male involvement in all spheres of life, the Government of Botswana has formulated a number of policies. These policies which incorporate and contribute to the improvement of sexual and reproductive health (SRH) include the National Population Policy, the National HIV/AIDS Policy, the National Youth Policy, the Adolescent Sexual and Reproductive Health Implementation Strategy, and the Policy Guidelines and Service Standards for Sexual and Reproductive Health. Over the years, the reproductive health services have been designed largely to benefit women and children through the maternal and child health care services (Republic of Botswana n.d.). The focus on women and children created a misconception that reproductive tasks such as pregnancy, childbearing and childrearing were the responsibilities of women alone and that men were passive participants. However, lessons learnt from previous programming experience clearly showed that the exclusion of men in sexual and reproductive health care provision disregarded the immense power and control men have on sexual decision making and its influence on the sexual and reproductive health of their families.

It is this realization that led the international community to reorganize their sexual and reproductive health programmes to deliberately include men as key partners. This move has led the Government of Botswana to reorient her Maternal and Child Health/ Family Planning programme into the Sexual and Reproductive Health Programme in 2002.

It should also be noted that the sexual behaviours of both women and men are dependent upon their perceptions of women's and men's sexuality, sexual and reproductive health capacities, societal norms and values, attitudes and the power relations that exist in society between men and women. In order to enhance the sexual and reproductive

health of couples in a country, it is critical to understand the gender role attitudes of men and women influence sexual behaviour. Little research has been conducted to document this information in Botswana. The purpose of this study is to document the gender role attitudes of men and women and their influence on risky sexual behaviour.

Research question and hypotheses

We proposed that traditional gender role attitudes were linked to risky sexual behaviour. That is, we expected that traditional gender role attitudes would be associated with respondents' reports of engaging in risky sexual behaviour such as non-use of condom at last sexual intercourse and reporting having had sexual intercourse with more than one partner in the past 12 months.

Data and methods

Data

The 2008 Botswana AIDS Impact Survey (BAIS) III data sets were used to investigate the perceptions and attitudes of men and women towards sexual and reproductive health and rights in Botswana. The current study uses secondary data derived from the Botswana AIDS Impact Survey III, which is a nationally representative population-based survey whose main objective was to provide up to date information of the HIV and AIDS pandemic in Botswana with respect to its prevalence, incidence as well as behavioural patterns and knowledge, care and support, attitude toward PLWHA, as well as socio-economic, demographic and household and living conditions associated with the disease (Republic of Botswana 2009). Using stratified two stage sample design a sample of 8275 households was drawn systematically from a listing of households within selected EAs prepared at the beginning of fieldwork. The response rate was 82% (Republic of Botswana 2009). The sample size varies depending on the restriction imposed by the criterion used during the analysis. For instance, analysis on condom use is restricted to respondents who have had sexual intercourse; otherwise the question will be irrelevant for other respondents who reported never ever having sexual intercourse.

Measures

In this study, we analyze responses to survey items assessing respondents' perceptions and gender role attitudes on whether women or men should obtain a condom, have more than one sexual partner at one time, whether it is a wife's duty to have sex with her husband even if she does not want to, whether it is a woman's right to decide if she will have safe sex, and whether she can protect herself from getting a sexually transmitted infection if her partner has it, and the actions a woman can do to protect herself. These perceptions and attitudes can compromise the sexual and reproductive health of both women and men, including promoting the spread of HIV infection.

Design

The study was a population-based, cross-sectional survey of individuals aged between 10 to 64 years conducted between August and September in 2008. Data were collected using a standardized, pre-tested question-

naire. The questions were closed-ended in nature. The study asked questions about socio-demographic issues, sexual history and behaviour male circumcision, sexually transmitted infections, HIV and AIDS, and gender issues. It was a third of the Botswana AIDS Impact Surveys that are planned to be conducted every 4 years.

Measurement of variables

The questionnaire had a set of questions that could be used as proxies for gender role attitudes measurement. A pool of eight (8) questions was selected as possible candidates for reflecting gender role attitudes. The selection of this set of questions was informed by theoretical considerations. These questions were: (i) Do you think it is acceptable for a woman to obtain male condoms? (ii) Do you think it is acceptable for a man to obtain female condoms? (iii) Is it acceptable for your partner to be in possession of male condoms? (iv) Is it acceptable for your partner to be in possession of female condoms? (v) Do you agree that it is a wife's duty to have sex with her husband even if she does not want to? (vi) Do you agree that it is a woman's right to decide if she will have safer sex? (vii) Do you agree that women can have more than one partner at one time? and (viii) Do you agree that men can have more than one partner at one time? The responses to these questions were either "yes", "no", "not sure", or "agree", "unsure", "disagree".

The initial coding of the variables was such that a "yes" was equal to 1, "no" equals 2 and "not sure" equals 3. In order to ensure that the created scale captures the latent dimension as desired, the variables' responses were recoded such that "yes" assumed a value of 3, "no" a value of 1 and "not sure" a value of 2. In this way, a high score reflects an egalitarian gender role attitude while a low score reflects a traditional gender role attitude.

Because there were many questions about the same latent variable, it was decided that a gender role attitudes scale be created to capture the dimension under investigation. Factor analysis was used as a method of data reduction on this latent variable. If these 8 questions all reflect the same underlying value dimension, they should all have high loadings on the first factor in a principal component factor analysis. Three components or factors were identified by factor analysis. The results of factor analysis showed that four variables explained about 86% of the total variation in the data and these factors were the first four questions above. The results indicated that only one factor was strong compared with other factors, implying that probably only one factor was an important reflection of gender role attitudes. This factor comprised these questions: (i) Do you think it is acceptable for a woman to obtain male condoms? (ii) Do you think it is acceptable for a man to obtain female condoms; (iii) Is it acceptable for your partner to be in possession of male condoms? (iv) Is it acceptable for your partner to be in possession of female condoms?

In order to measure how well the above four variables captured a single uni-dimensional latent construct called gender role attitudes scale, Cronbach's alpha was calculated. Cronbach's alpha shows how large a share of the total variation in the data that is explained by

a latent common factor and the conventional requirement is a minimum value of 0.7. Cronbach's alpha for the four items was 0.858, indicating that the four items had high internal consistency and that the four items could be lumped together to measure a single latent variable, in this case gender role attitudes. Therefore we used these four items to create a gender role attitudes scale.

The use of the gender role attitude scale created another problem during data analysis: reduction of the sample size where only 9% of the total cases were used in the analysis. The problem with using a small sample size is that the estimated parameters become very unstable and unreliable. In order to resolve this problem, it was decided that the four questions used for creating the gender role attitude scale be used separately. In doing so, 82.8% of the cases became available for use in the analysis and this is what we finally settled for.

For the logistic regression analysis, all the variables are coded in such a manner that sexual behaviours that are not health-compromising become reference categories. The reason for coding the variables this way was to ensure that health-compromising behaviours can easily be identified and noted for policy makers and programme managers to deal with. The dependent variables (non-use of condom at last sex and engagement in multiple sexual relationships) were also coded in such a manner that non-risky sexual behaviours become reference categories.

Statistical analysis

The data were analyzed using descriptive statistics and logistic regression analysis. Descriptive statistics were used to examine the relationship between socio-demographic variables and attitudes towards sexual and reproductive behaviours. Logistic regression analysis was performed to assess the influence of gender role attitudes on risky sexual behaviours.

Results

Descriptive statistics

Table 1 shows that most people (over three quarters) thought that it was acceptable for a woman to obtain male condoms, especially women. Among those who were against this behaviour, more men than women did not think it should be acceptable for a woman to obtain male condoms (18.4% of males verses 13.6% of females). Close to two thirds of the respondents thought that it was acceptable for a man to obtain female condoms while approximately a fifth thought that behaviour was unacceptable, especially men (26.1% of men compared to 18.7% of females).

With regard to age, the results showed that younger respondents, especially those aged 10-19 years) were more likely to portray negative gender role attitudes toward sexual and reproductive health behaviours. Most of the 10-19 year-olds (about a third) stated that it was unacceptable for a woman to obtain male condoms. About 38.5 percent of them said that it was unacceptable for a man to obtain female condoms; 27.2 percent reported that it was unacceptable for their partners to be in possession of male or female con-

Table 1 Percent distribution of respondents reporting the acceptability of various sexual & reproductive health behaviour by selected socio-demographic characteristics, Botswana 2008

Socio-demographic characteristics	It is acceptable for a woman to obtain male condoms		It is acceptable for a man to obtain female condoms		It is acceptable to me for my partner to be in possession of male condoms		It is acceptable to me for my partner to be in possession of female condoms	
	n = 14,038		n = 14,041		n = 13,972		n = 13,966	
	Yes	No	Yes	No	Yes	No	Yes	No
Sex								
Male	74.1	18.4	64.2	26.1	70.6	21.3	71.3	19.5
Female	78.2	13.6	69.4	18.7	80.0	11.5	66.6	22.9
	^{2} = 60.8, p=0.000		^{2} = 117.5, p=0.000		^{2} = 248.0, p=0.000		^{2} = 36.3, p=0.000	
Age								
10-19	48.6	33.5	42.4	38.5	51.3	27.2	46.5	31.4
20-29	89.6	7.9	77.9	16.2	88.4	9.6	79.3	16.8
30+	86.0	9.1	76.2	15.0	83.5	12.7	76.4	18.0
	^{2}=2413.5, p=0.000		^{2} = 1558.9, p=0.000		^{2} = 2065.4, p=0.000		^{2}=1520.7, p=0.000	
Education								
No education	66.4	19.4	58.0	25.0	64.1	26.0	58.8	29.6
Primary	58.5	26.0	51.6	30.2	58.8	23.5	54.0	27.0
Secondary	85.2	11.1	74.0	19.2	85.2	10.7	76.1	18.2
Post-secondary	94.4	3.4	86.5	9.1	91.2	7.4	84.6	12.0
	^{2}=1402.8, p=0.000		^{2} =1000.6, p=0.000		^{2} = 1350.8, p=0.000		^{2} = 961.8, p=0.000	
Religion								
Christianity	77.7	15.0	69.0	20.9	77.4	14.7	69.6	21.0
Badimo	75.2	16.9	61.4	27.9	73.6	21.5	68.5	26.2
Other religions	75.3	15.2	68.7	19.7	72.7	18.2	66.5	21.3
No religion	72.8	17.9	62.1	24.6	71.6	18.6	66.5	22.0
	^{2} = 36.4, p=0.000		^{2} = 68.5, p=0.000		^{2} = 60.5, p=0.000		^{2} = 117.5, p=0.000	

Residence								
Cities/towns	85.6	9.5	76.4	16.1	84.0	11.0	76.7	16.8
Urban villages	76.4	16.2	66.8	22.8	76.5	15.4	68.8	21.3
Rural villages	70.1	19.2	61.8	25.3	69.6	19.6	63.4	24.6
	^{2} = 302.6, p=0.000		^{2} = 245.8, p=0.000		^{2} = 255.7, p=0.000		^{2} = 187.0, p=0.000	
Marital status								
Married	87.4	8.8	77.0	15.4	84.3	13.1	76.3	19.4
Once married	82.4	9.5	73.2	14.5	82.3	11.1	73.4	17.8
Never married	69.4	20.3	60.8	26.4	70.2	17.9	63.9	22.9
	^{2} = 579.3, p=0.000		^{2} = 392.9, p=0.000		^{2} = 468.7, p=0.000		^{2} = 349.2, p=0.000	

N.B. The "Not sure" category is not included in Table 1. If included row percentages should add to 100.

doms (31.2%). Generally, the 20-29 and 30-39 year-olds were more likely to have a positive attitude toward sexual and reproductive health behaviours. Older respondents were also likely to express negative attitudes towards sexual behaviours.

As expected, people with higher levels of education were more likely to report egalitarian gender role attitudes toward sexual behaviours. For instance, 94.4 percent of the respondents reported that it is acceptable for a woman to obtain male condoms while only 3.4 percent stated that it is not an acceptable behaviour. Participants with no education or primary education reported high levels of negative attitudes toward desirable sexual and reproductive health.

Generally, people affiliated to Christianity were more likely to report egalitarian gender role attitudes toward sexual behavior while those affiliated to Badimo or had had no religious affiliation were more likely to portray traditional gender role attitude.

People living in cities or towns compared to those residing in rural areas showed egalitarian gender role attitudes toward sexual behaviour. Married people were more likely to report egalitarian gender role attitude toward sexual behaviour.

Overall, women were more likely than men to accept various sexual and reproductive health behaviour. Thus women had an egalitarian gender role attitude toward sexual behaviour compared to their male counterparts.

Table 2 Attitudes towards various sexual & reproductive health behaviour among Batswana by selected socio-demographic characteristics (%), Botswana 2008 (N=)

Socio-demographic characteristics	Men can have more than one partner at one time n = 14,027		Women can have more than one partner at one time n = 14,028		It is a wife's duty to have sex with her husband even if she does not want to n = 13,992		It is a woman's right to decide if she will have safe sex n = 13,966	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Sex								
Male	45.8	50.3	41.5	54.0	11.8	80.3	65.3	26.3
Female	47.4	48.2	41.5	53.9	12.0	81.6	70.9	21.9
	^{2} = 6.5, p=0.039		^{2} = 0.141, p=0.932		^{2} =13.3, p=0.001		^{2} =49.5, p=0.000	
Age								
10-19	37.0	54.1	33.3	57.4	7.4	76.7	59.8	23.9
20-29	53.6	44.7	48.9	48.9	11.0	85.5	71.6	24.9
30+	48.5	48.8	42.2	54.9	15.4	80.9	71.9	23.2
	^{2} = 461.5, p=0.000		^{2} = 425.8, p=0.000		$_2$ = 757.7, p=0.000		^{2}=591.4, p=0.000	
Education								
No education	44.6	49.1	38.9	54.5	20.3	72.3	61.3	26.2
Primary	38.9	52.8	34.2	56.9	12.4	74.0	62.1	23.2
Secondary	50.6	47.6	45.6	52.4	9.9	85.9	71.8	24.6
Post-secondary	53.2	45.7	46.9	51.7	10.0	87.9	76.1	21.2
	^{2} = 416.3, p=0.000		^{2} = 413.0, p=0.000		^{2} = 548.2, p=0.000		^{2} = 537.9, p=0.000	
Religion								
Christianity	46.9	49.2	41.6	54.3	11.5	81.8	69.9	23.1
Badimo	54.7	43.2	51.2	45.0	17.1	78.8	72.9	22.2
Other religions	37.9	58.1	32.3	62.1	19.9	73.5	75.5	19.4
No religion	45.6	49.3	40.5	53.7	12.2	79.4	63.3	26.6
	^{2} = 27.2, p=0.000		^{2} = 39.1, p=0.000		^{2} = 38.5, p=0.000		^{2} = 68.9, p=0.000	

Residence								
Cities/towns	45.9	51.6	41.3	55.7	10.3	85.1	74.5	21.2
Urban villages	47.9	48.2	42.5	53.2	11.6	81.4	67.1	25.7
Rural villages	46.1	48.4	40.9	53.4	13.3	77.8	65.4	24.1
	^{2} = 59.8, p=0.000		^{2} = 42.0, p=0.000		^{2} = 89.0, p=0.000		^{2} = 158.4, p=0.000	
Marital status								
Married	48.8	49.0	43.6	54.0	14.5	82.8	70.2	25.7
Once married	45.1	50.9	37.3	58.4	21.0	73.5	72.3	19.6
Never married	45.5	49.2	40.5	53.7	9.8	80.4	67.0	23.1
	^{2} = 79.9, p=0.000		^{2} = 91.1, p=0.000		^{2} = 327.6, p=0.000		^{2} = 156.1, p=0.000	
Total (%)	46.7	49.2	41.5	54.0	11.9	81.0	68.4	23.9

N.B. The "Unsure" category is not included in Table 2. If included row percentages should add to 100.

Attitudes towards health compromising behaviour are shown in Table 2. The results indicated that 45.8% of men compared to 47.4% of women stated that men can have more than one sexual partner at one time while an equal percentage of men and women (41.5%) indicated that women can have more than one sexual partner at one time. Roughly the same percentage of men and women (12%) stated that it is a wife's duty to have sex with her husband even if she does not want to and 26.3% of men compared to 21.9% of women reported that it is not a woman's right to decide if she will have safe sex. Attitudes towards health-compromising behaviour do not appear to differ much between sexes.

With regards to age, about 27.9% of young adolescents reported that men can have more than one sexual partner at one time and another 24.2% of them indicated that women can have more than one sexual partner at one time. Those in their twenties tended to be in support of health-compromising behaviour than their younger counterparts. Generally younger generations were more likely to be supportive of health-promoting behaviour than their older counterparts.

As regards education, more people with no education compared to those who had higher education supported health-promoting behaviour that men cannot have more than one sexual partner at one time (49.1% for no education versus 45.7% for those with post-secondary education). The same conclusions can be reached with the statement that women cannot have more than one sexual partner at one time (54.5% for no education versus 51.7%

for those with post-secondary education). However, people with post-secondary education compared to those with no education were more likely to state that it is a wife's duty to have sex with her husband even if she does not want to (10.0% compared to 20.3%) and that it is not a woman's right to decide if she will have safe sex (10.0% compared to 20.3%).

Another observation from the results was that rural dwellers compared to city/town residents were more likely to state that it is a wife's duty to have sex with her husband even if she does not want to (13.3% versus 10.3%) and that it is not a woman's right to decide if she will have safe sex (24.1% versus 21.2%).

Married people compared to those who were never married were more likely to report that it is a wife's duty to have sex with her husband even if she does not want to (14.5% compared to 9.8%) and that it is not a woman's right to decide if she will have safe sex (25.7% versus 23.1%).

Overall, the results show that 46.7% believed that men can have more than one sexual partner at one time while 41.5% indicated that women can have more than one sexual partner at one time. Over one in ten reported that it is a wife's duty to have sex with her husband even if she does not want to and 23.9% of participants reported that it is not a woman's right to decide if she will have safe sex.

Logistic regression analysis – Implications for risky sexual behavior and HIV infection

The results from logistic regression analysis showed that gender role attitudes variables did not significantly influence risky sexual behavior, except for those who stated that it was acceptable for their partners to be in possession of female condoms. It was hypothesized that respondents who did not consider it acceptable for a woman or a man to obtain either male or female condoms or consider it acceptable for their partners to be in possession of either male or female condoms were more likely to engage in risky sexual behavior such as not using condoms or indulging in multiple sexual partnerships. The results of the study found that the respondents who did not believe that it was not acceptable for their partners to be in possession of female condoms were more likely to have used a condom at their last sexual intercourse and this relationship was statistically significant at 99% level. Otherwise none of the gender role attitudes variables was statistically significant for predicting engagement in risky sexual behavior.

With regard to non-use of a condom, respondents who were females, those aged 20 years and over, those with primary or less education, those with other religious affiliations, and those who were formerly married or currently married were more likely not to have used a condom last time they had sexual intercourse. These relationships were statistically significant at 99% level.

For multiple sexual partnerships, only two variables were statistically significantly related to multiple sexual relationships. Females and respondents who were aged 30 years and over were less likely to report having had sexual intercourse with more than one partner in the past 12 months compared to their counterparts.

Table 3 Factors associated with non-condom use and multiple sexual partnerships, 2008 Botswana AIDS Impact Survey III (n = 2,455)

	Non-use of condoms		Multiple sexual partnerships	
Factors	Adjusted odds ratios	95% CI	Adjusted odds ratios	95% CI
Gender Role Attitudes Variables				
It should be acceptable for a woman to obtain male condoms				
Yes **(Ref)**	1.000	-	1.000	-
No	0.875	(0.469,1.635)	0.929	(0.569,1.516)
It should be acceptable for a woman to obtain male condoms				
Yes **(Ref)**	1.000	-	1.000	-
No	1.230	(0.764, 1.980)	0.904	(0. 640, 1.275)
It is acceptable for my partner to be in possession of male condoms				
Yes **(Ref)**	1.000	-	1.000	-
No	0.958	(0.624,1.473)	1.296	(0.901,1.865)
It is acceptable for my partner to be in possession of female condoms				
Yes **(Ref)**	1.000	-	1.000	-
No	0.448***	(0.267,0.751)	0.860	(0.552,1.340)
Socio-demographic Factors				
Sex				
Male **(Ref)**	1.000	-	1.000	-
Female	2.366***	(1.764,3.172)	0.456***	(0.357,0.583)
Age				
10-19 **(Ref)**	1.000	-	1.000	-
20-29	1.948***	(1.189,3.193)	1.235	(0.899,1.695)
30+	4.231***	(2.422,7.394)	0.535**	(0.347,0.825)

Educational level				
No education	3.830***	(2.141,6.851)	0.895	(0.517,1.552)
Primary	2.225***	(1.388,3.566)	0.895	(0.583,1.373)
Secondary	1.253	(0.890,1.764)	1.116	(0.860,1.446)
Higher (**Ref**)	1.000	-	1.000	-
Religion				
Christianity	0.993	(0.728,1.356)	0.867	(0.688,1.091)
Badimo	1.530	(0.723,3.239)	1.216	(0.690,2.143)
Other religions	3.222***	(1.337,7.768)	0.594	(0.241,1.466)
No religion **(Ref)**	1.000	-	1.000	-
Place of residence				
Cities/towns (**Ref**)	1.000	-	1.000	-
Urban villages	0.714*	(0.508,1.002)	0.789	(0.614,1.012)
Rural areas	1.197	(0.854,1.679)	0.736	(0.563,0.961)
Marital status				
Married	2.971***	(2.245,3.932)	0.920	(0.704,1.201)
Once married	3.287*	(0.840,12.863)	0.294	(0.038,2.272)
Never married **(Ref)**	1.000	-	1.000	-

N.B. ***p<0.001; **p<0.01; *p<0.05 CI represents 95% confidence interval

Discussion

The connection between gender role attitudes and risky sexual behavior remains unclear. Various scholars have argued that either traditional (Gavin *et al*, 2006; Greene and Faulkner, 2005; Klunklin and Greenwood, 2005; Lear, 1995; Tang, Wong and Lee, 2001) or egalitarian gender role attitudes (Lucke, 1998; Shearer *et al*., 2005) could be associated with risky sexual behavior. The purpose of this study was to assess the influence of gender role attitudes on risky sexual behavior in Botswana.

After controlling for important socio-demographic variables, the analyses showed that traditional gender role attitudes were not associated with risky sexual behavior of non-use of condoms and multiple sexual partnerships. Thus there was no significant difference between people who held traditional gender role attitudes and those who held egalitarian gender role attitudes in terms of engagement in risky sexual behavior. These conclusions seem to reinforce the findings that moderate gender role attitudes were associated with safer sexual practices (Leech, 2010). Evidence emerging from this study does not lend support to the hypothesis that people who hold traditional gender role attitudes tend to engage in risky sexual behavior.

One of the difficulties encountered in conducting the analysis was the use of a gender role attitude scale comprising of four items. Data reduction was carried out by using factor analysis to identify which questions out of the 8 could adequately measure the latent variable called gender role attitude scale. The results of factor analysis revealed that four items were lumped together and explained large variation in the dependent variable. The measure of internal consistency of the items, Cronbach's alpha, was 0.858 which was high. However, the use of the scale in the logistic regression analysis reduced the number of cases available for analysis substantially to less than 10% of the original number. Using this scale therefore created a problem of unstable parameter estimates because of the small sample size. It was then resolved to use to use the four items identified earlier to constitute the gender role attitude scale to address the problem of reduced sample size.

In this study, traditional gender attitudes refer to scores on the gender role attitudes scale that range between 0 and 1.4. Moderate attitudes refer to scores ranging between 1.5 and 2.4 and egalitarian attitudes range between 2.5 and 3.0. According to this measurement then, moderate attitudes indicate an "unsure" response. The traditional or egalitarian attitudes showed strong beliefs about the proper role of men and women. A "yes" response shows a strong belief that it is acceptable for men or women to behave in a particular manner. It was assumed that since traditional gender role attitudes endorse social norms that afford men more power than women and that men typically engage in risky sexual behavior such as having many sexual partners at a time, people who hold traditional gender roles attitudes would be more likely to engage in risky sexual behavior. It is clear from the results that how gender role attitudes relate to sexual behavior is complex (Shearer *et al*, 2005).

One of the major limitations of this study is its inability to estimate causal

associations between gender role attitudes and sexual behavior. Longitudinal research on these relationships would provide more insight into the predictive ability of gender role attitudes.

Conclusions

Despite its limitations, the present study revealed important linkages between gender role attitudes and sexual behavior. Although none of the hypotheses were supported, it is clear that age, marital status, religion and education are key predictors of non-use of condom. Traditional gender role attitudes were not statistically related to risky sexual behavior in this study. This lack of relationship probably portrays the complex nature of the linkage between gender role attitudes and risky sexual behavior. Further research is required in order to understand the intricate relationship between gender role attitudes and sexual behavior.

References

Amaro, H., 1995. "Love, sex, and power: Considering women's realities in HIV prevention", American Psychologist, 50, 437-447.

Gavin, L., Galavotti, C., Dube, H *et al*, 2006. "Factors associated with HIV infection in adolescent females in Zimbabwe". Journal of Adolescent Health. 39: 596-612.

Greene, K. & Faulkner, S., 2005. "Gender, belief in the sexual double standard, and sexual talk in heterosexual dating relationships". Sex Roles. 53: 239-251.

Kalof, L. 1995. "Sex, power, and dependency: The politics of adolescent sexuality", Journal of Youth and Adolescence, 24, 229-249.

Klunklin, A. and Greenwood, J. 2005. "Buddhism, the status of women and the spread of HIV/AIDS in Thailand". Health Care Women International. 26: 46-61.

Lear, D. 1995. "Sexual communication in the age of AIDS: The construction of risk and trust among young adults". Social Science and Medicine, 41: 1311-1323.

Leech, T.G.J. 2010. "Everything's Better in Moderation: Young Women's Gender Role Attitudes and Risky Sexual Behaviour". Journal of Adolescent Health. 46: 437-443.

Letamo, G. 2008. "Reproductive Health, Sexuality and HIV and AIDS in Botswana: The Family Connection?" In T. Maundeni, L. L. Levers and G. Jacques (Eds). Changing Family Systems: A Global Perspective. Bay Publishing, Gaborone: 362-380.

Lucke, J. 1998. "Gender role and sexual behavior among young women". Sex Roles. 39: 273-297.

Muvandi, I. and Busang L., 2006. "National HIV Prevalence and factors that Influence HIV Status in Botswana: Preliminary Insights", A Paper Presented at Dissemination Seminar of BAIS II Results, Gaborone, Botswana

Olawoye, J.E., Omololu, F.E., Aderinto, Y., Adeyefa, I., Adeyemo, D. & Osotimehin, B. 2004. "Social construction of manhood in Nigeria: Implications for male responsibility in reproductive health". African Population Studies. 19(2): 1-20.

Pleck, J.H., Sonenstein, F.L. and Ku, L.C. 1993. "Masculinity ideology: Its

impact on adolescent males' heterosexual relationships". Journal of Social Issues, 49, 11-29.

Population Council and Interagency Gender Working Group, 2001. Power in sexual relationships: an opening dialogue among reproductive health professionals, New York: Population Council.

Republic of Botswana, 2004. Policy Guidelines and Service Standards: Sexual and Reproductive Health. Ministry of Health, Gaborone, Botswana

Republic of Botswana (2009). *Preliminary Botswana HIV/AIDS Impact Survey Results*. Stats Brief. May. NACA and CSO.

Republic of Botswana, Undated. A National Strategy and Programme of Action for Male Involvement in Sexual and Reproductive Health & Rights, the Prevention of HIV/AIDS & Gender Based Violence 2007-2012. United Nations Population Fund, Gaborone, Botswana

Republic of Botswana, undated. A Social Mobilization Strategy for Male Involvement in Sexual and Reproductive Health: Prevention & Management of Gender Based Violence & STI/HIV/AIDS. Ministry of Health & UNFPA, Gaborone, Botswana .

Santana, M.C., Raj, A., Decker, M.R., Marche, A.L. and Silverman, J.G. 2006. "Masculine Gender Roles Associated with increased Sexual Risk and Intimate Partner Violence Perpetration among Young Adult Men". Journal of Urban Health: Bulletin of the New York Academy of Medicine. 83(4): 575-585.

Schapera, I. 1940. Married Life in an African tribe. New York. Sheridan House.

Shearer, C.L., Hosterman, S.J., Gillen, M.M. and Lefkowitz, E.S. 2005. "Are Traditional Gender Role Attitudes Associated With Risky Sexual Behaviour and Condom-related Beliefs?" Sex Roles. 52(5/6):311-324.

Speizer, I.S., Whittle, L. and Carter, M. 2005. "Gender and reproductive health decision making in Honduras". International Family Planning Perspectives: 31(3): 131-139.

Tabengwa, M., Menyatso, T., Dabutha, S., Awuah, M., and Stegline, C. 2001. "Human rights, gender and HIV/AIDS: Analysis of the existing legal system and its shortcomings", The First National Conference on Gender and HIV/AIDS, Gaborone, Botswana.

Tang, C.S., Wong, C.Y., Lee, A.M. 2001. "Gender-related psychosocial and cultural factors associated with condom use among Chinese married women". AIDS Education & Prevention, 13: 329-342.

Wingood, G.W., and DiClemente, R.J., 2000. "Application of the theory of gender and power to examine HIV-related exposure, risk factors, and effective interventions for women", Health Education and Behavior, 27, 539-565.