Published in final edited form as:

J Hum Behav Soc Environ. 2016 ; 26(6): 533–540. doi:10.1080/10911359.2015.1114820.

Contextualized theory-based predictors of intention to practice monogamy among adolescents in Botswana junior secondary schools: Results of focus group sessions and a cross-sectional study

Bagele Chilisa¹, Irene Mohiemang¹, Kolentino Nyamadzapasi Mpeta¹, Tumane Malinga², Poloko Ntshwarang², Bramwell Walela Koyabe¹, and G. Anita Heeren³

¹Department of Educational Foundations, University of Botswana, Gaborone, Botswana

²Department of Social Work, University of Botswana, Gaborone, Botswana

³Department of Statistics, University of Fort Hare, Alice, South Africa

Abstract

Culture and tradition influences behaviour. Multiple partner and concurrent relationships are made responsible for the increase of HIV infection in Sub-Saharan Africa. A contextualized “Theory of Planned Behaviour” was used to identify predictors of intention to practice monogamy. A mixed method design using qualitative data from focus groups, stories and a survey were analyzed for quantitative data. The qualitative data added to the behavioural beliefs a socio-cultural belief domain as well as attitudes, subjective norms, and perceived behavioural control predicted the intention to practice monogamy. The adolescents showed a tendency towards having more than one sexual partner. The normative beliefs and the socio cultural beliefs also predicted intentions while hedonistic belief and partner reaction did not. In contextualizing theory-based interventions, it is important to draw from stories and the language that circulate in a community about a given behaviour. More studies are needed on ways to combine qualitative approaches with quantitative approaches to inform the development of theory based culturally appropriate and context specific intervention strategies to reduce the risk of HIV.

Keywords

Contextualized Theory of Planned Behaviour; HIV/AIDS; multiple partners; adolescents; Sub-Saharan Africa

Introduction

There is a growing need to carry out research to inform the development of culturally, gender and age sensitive interventions to help curb the spread of HIV and AIDS. The “Theory of Planned Behaviour” (TPB) is a theoretical framework for understanding the

predictors of individual behaviour that has been frequently applied to understanding health behaviours. The TPB incorporates a structured data-collection approach that utilizes specific, direct questions to assess behavioural, normative, and control beliefs about the behaviours of interest (in this case practising monogamy). However, the use of this structured format stands to overlook the contextual information necessary to understand responses to these questions within specific cultural contexts. In predominantly oral societies such as Botswana, cultural knowledge, beliefs, and values are expressed and transmitted through language, stories, songs, myths, and proverbs. These modes of communicating are an important means of understanding the cultural context of behaviour.

Multiple sexual partnerships, particularly overlapping or concurrent partnerships by both male and females lie at the root of the generalized epidemic of HIV in southern and east Africa (Halperin & Epstein, 2004). In Botswana factors fueling the epidemic also include incidence of unprotected sex and intergenerational sexual relationships (World Bank, 2010). Studies in Botswana indicate that 10–25% of the population studied reported multiple partners (Carter, et al 2007; Kalichman, et al 2007; Laetsang, et al 2009). The preliminary results for (BAIS III) for 2008 revealed that 11.2% of individuals aged 15–49 had multiple partners. This figure is higher compared to 10.6% and 5.4% for the 2001 and 2004 surveys respectively.

The number of people with multiple partners doubled between 2004 and 2008 and a key contributor to this increase is multiple concurrent partnerships. The National Operational Plan for the years 2008 – 2010 calls for Botswana to scale up HIV prevention and embark on a multi-year behaviour change campaign with multiple concurrent partnerships identified as the initial focus (Republic of Botswana, 2009). In response to this call, strategies for behavioural change have been embarked upon. One strategy is the recently launched ‘O icheke-Break the chain’ campaign led by National AIDS Coordinating Agency (2009). Mass media approaches include billboards, printed advertisement, TV and radio, including call in shows (Shelton, 2009). This knowledge does not necessary translate into the desired behavioural change. Approaches to behavioural change require knowledge of what makes an individual to have an intention to adopt the desired behaviour. Theory is very crucial to the development of effective behavioural interventions, but the above intervention strategies do not mention the use or development of a theory to explain behavioural change. The Theory of Planned Behaviour (TPB) offers a model that can assist in designing interventions that can lead to change in behaviour towards multiple partners (Ajzen, 1991).

The TPB posits that a person’s behaviour is determined by their intention to perform that behaviour and that this intention is determined by (a) attitudes towards the behaviour, (b) subjective norms, and (c) perceived behaviour control (Ajzen, 1991). Attitudes are the beliefs about the outcomes associated with that behaviour. Subjective norms are a person’s belief about how people most significant to the individual will perceive the behaviour in question. The perceived behavioural control is the extent to which a person feels able to enact the behaviour. Hedonistic beliefs are about the consequences of having multiple partners –whether it is good or increases the pleasure of sex. (Jemmott III, et al 2007). The TPB would predict that people will intend to practice monogamy if their evaluation of one

partner is positive, if they believe significant others think it is okay to do so and if they feel confident in their ability to practice monogamy. (Jemmott 2012)

Several studies have been conducted in sub Saharan Africa on the predictive power of the TPB on intention to condomize and abstain among different populations (Jemmott et al 2007, 2010). Few studies have been conducted in Botswana on the predictive power of the theory on intentions to practice monogamy (Kalichman et al 2007).

This article explains how contextual and theory based factors that measure intention to practice monogamy were identified and tested for significance in predicting 14 to 17 year old adolescents' intentions to practice monogamy. This study intends to fill the gap in the literature on using a contextualized, context specific TPB to predict intentions to practice monogamy.

Methodology

The Ethic Committee of the University of Botswana and the Department of Health approved the study.

The participants for the focus group sessions and interviews were selected from two randomly sampled junior secondary schools in the city of Gaborone. Screening criteria were adolescent between the ages 14 to 17 years and being a student at the selected schools. The participants for the survey were randomly selected from 8 junior secondary schools the three regions of Gaborone, Kgatleng and Molepolole in Botswana. Using simple random sampling without replacement, one class stream was selected from each school.

The participants' parents signed a consent form and the adolescents signed an assent form in order for them to participate in the study.

Focus group sessions

Eleven focus group sessions were conducted; of these five sessions were conducted in semi-urban schools and six in urban schools. Each focus group had ten to twelve participants, a total of 104 students participated in the focus groups. The focus group sessions were led with a structured standardised script. Each session were followed by the same script.

Interviews

Structured individual interviews were held to identify behavioural, normative, and control beliefs as outlined in the TPB method. Twenty-four participants were interviewed individually, assessing behavioural, normative, and control beliefs related to having one partner. Behavioural belief questions included a) What is good about the topic, and b) What is bad about the topic. Normative belief questions included a) Who approves of adolescents engaging in the behaviour, b) Who disapproves of adolescents engaging in the behaviour, and c) Who do you know that engages in the behaviour. Control belief questions included a) What is easy about the behaviour, and b) What is hard about the behaviour.

Survey

An anonymous survey was conducted with 284 students, age 14 to 17.

Sexual behaviours—The participants reported whether they had ever had sexual intercourse, age at first sexual intercourse, number of lifetime partners with whom they ever had sexual intercourse and the number of sexual partners their partners had. They were also asked whether they had sexual intercourse in the last 3 months.

Intention to practice monogamy—The intention to practice monogamy was assessed on a 5 point Likert scale to the following questions: a) ‘How likely is it that you would stick to one partner if you were to have a partner in the next 3 months? Responses were on a scale from very unlikely (1) to very likely (5). b) I plan to stick to one partner if I am to have a partner in the next 3 months. C) ‘ I will try my level best to stick to one partner in the next 3 months Responses were from ‘disagree strongly’ (1) to ‘agree strongly’ (5).

Attitude towards multiple partners—This was assessed with the question, ‘How would you feel about sticking to one partner if you were to have a partner in the next 3 months?’ This was rated on a scale from ‘very bad idea’ (1) to ‘very good idea’ (5).

Subjective norm regarding multiple partners—This was measured by the item, “most people who are important to me would think it is okay for me to stick to one partner if I was to have a partner in the next 3 months”. Adolescents were asked to rate on a scale from ‘disagree strongly’ (1) to ‘agree strongly’ (5).

Normative beliefs—Normative beliefs were assessed with four items concerning whether the adolescents’ lover, mother, father and friends would agree to their sticking to one partner if they were to have a partner in the next 3 months. Each item was rated on a scale from ‘disagree strongly’ (1) to ‘agree strongly’ (5).

Perceived behavioural control—The adolescents’ perceived behavioural control over sticking to one partner was assessed with two items: ‘How sure are you that you could stick to one partner if you were to have a partner in the next 3 months?’ and ‘I am sure that I will stick to one partner if I am to have a partner in the next 3 months’ Responses were rated on a scale from not sure at all (1) to completely sure (5).

Socio cultural beliefs—Socio cultural beliefs were assessed by four items: ‘A man must be shared, “monna ke selepe o a adimanwa”’; ‘If I have multiple partners, I will be respected’; ‘If I have multiple partners, I will not be lonely if one of the relationships ends’ and ‘When a man/woman sticks to one man/woman, it is a sign that he/she is bewitched. Responses were rated from disagree strongly (1) to agree strongly (5).

Hedonistic beliefs—Two items assessed hedonistic beliefs: ‘Having multiple sexual partners increases the pleasure of sex’ and ‘Having sexual partners is good’. The adolescents were asked to rate the extent to which they agreed or disagreed with each statement on scales from disagree strongly (1) to agree strongly (5).

Partner reaction—The partner reaction to a lover being monogamous was assessed by seven items to the question, ‘I have been worried that if I talked to my partner I intend to date about sticking to one partner he/she might ignore my request; threaten to hit me; swear at me and call me ugly names; threaten to leave me; hit/push or kick me; leave me and go out with other boys/girls’. Responses were rated from ‘disagree strongly’ (1) to ‘agree strongly’ (5).

Analysis: The Pearson product moment correlation, t-tests, multiple regression, and logistic regression were used to analyze the theory-based mediators of behaviour.

Results

Qualitative Data

A total of 10 proverbs emerged from the adolescent stories and focus group sessions. Of these, four encouraged men to have multiple partners while two discouraged multiple partners. The theme from the interviews was expressing the following: pervasive and related mainly to male sexuality:

1. Monna poo ga a gelwe lesaka
(A man is like a bull; he should not be confined to one kraal)”
2. Monna phafana o a hapaanelwa/amoganwa
(“A man is like a calabash; he must be shared.”)
3. Monna selepe o a adimanwa
(“A man is an axe so he can be shared.”)
4. Monna nawa o a nama
(A man, like a bean seed, spreads out)

By far the dominant discourse expressed in the proverbs is that of unbridled male sexual drive in which a man is represented as someone whose sex drive must find an outlet and whose scope of operation must know no limits. A man’s infidelity is implicitly sanctioned because, like a bull, he should go outside his kraal to look for mates. Just as a bull can be rotated in several kraals to mate with other cows, a man can also meet the sexual needs of several females. In addition, in the same way that neighbours can share an axe used for chopping firewood or a calabash of water or drink, a man can be passed from one female to the other. The proverbial metaphors: ‘a man is an axe’, or ‘calabash’ (*monna ke phafana o a amoganwa*) also encourage women to *accept* to share a man. The ‘bean seed’ metaphor encourages males to spread their seeds (genes) as far and wide as possible. This is possible if a man has sexual intercourse with several women.

Such proverbs greatly influence how people behave sexually and shape the societal attitude towards promiscuous behaviour. For example, one male student related how his friend dated three girls in the same school but they never got to know of his cheating. A female respondent indicated that a male friend of hers who was studying outside the country had

seven girlfriends. He had confessed to the female friend that he had had sex more than a thousand times.

The story confirms the messages articulated in the proverbs that a man just like a bull, a beer calabash and an axe, can be shared or that a man can move from one homestead to the other without fear of social consequences because such male behaviour is tolerated, if not expected. These proverbs make specific reference to 'man', which indicates that the man is allowed to have multiple sex partners; hence this encourages men (rather than female) promiscuity. The discourse of unbridled male sexuality is pervasive in Botswana. One man said it is impossible for a Motswana man to stick to one partner, and that multiple sexual partnerships are part of "Tswana masculine culture" (Report of the Law Reform Committee, 1986). Supporting the multiple partner common saying circulated that sticking to one partner is a sign that one is bewitched. This is passed from one generation to the next through such proverbs as those noted above, and this may contribute to shaping behaviours that lead to the spread of HIV. Adolescent boys grow up with the attitude that for one to show their manhood, they have to have multiple sexual partners.

An analysis of the interviews revealed a deep sense of insecurity in monogamous relationships for adolescents, with promiscuity construed as a possible solution to the issue of insecurity in relationships. Someone with more than one partner is construed as more secure because he/she will still have someone to hang on to should one of the relationships collapse.

Findings on the qualitative data above were used to construct a socio-cultural belief domain on limiting the number of partners with the following items:

'monna ke selepe o a adimanwa' a man must be shared

If I have multiple partners I will be respected

When a man/woman sticks to one partner, it is a sign that he/she is bewitched

If one has one multiple partners, they will be lonely when one relationship ends

The qualitative data from the structured questions that follow the TPB approach showed patterns of hedonistic, prevention and partner reaction beliefs on limiting number of sexual partners that is found in the literature. Responses on the normative belief category also offered insight into adolescents' perceptions of the views of influential people in their lives. These views were also consistent with what is found in the literature.

Quantitative data

The results of the survey are shown in Table 1. Out of a total of 286 students participated in the survey, males constituted 34.3% (98) while 64% (183) were females. Five (1.7%) of the respondents did not fill in their gender. Three (3.1%) males and 1.1% females respectively reported living alone. Equal proportions of males and females (7.1%) indicated they lived with their siblings most of the time. A total of 36 respondents (13%) had indulged in sexual intercourse. The proportion of males who had indulged in sexual intercourse was 24% compared to 7.2% for the females. About 22% of the males had not used condoms during sexual intercourse while 31% of the females had not used condoms the last time they had

sex. Females recorded a higher maximum frequency of sexual intercourse than males in the 3 months prior to the survey. The maximum frequency was 10 for girls compared to 4 for boys. The mean age of sexual partners for males was 14.9 years compared to 16.1 years females.

Measures were tested for reliability using Cronbach alpha. Tables 1 and 2 show the descriptive statistics and the reliability index using Cronbach alpha for the scales measuring the intention to practice monogamy and predictors of the intention. All the scales except the hedonistic belief scale are highly reliable with alpha coefficients between .720 and .92.

The Predictive power of a contextualized Theory of Planned Behaviour

As shown in table 3 zero order correlations indicate that intentions were significantly related to attitude, subject norm and perceived behavioural control. Multiple regression analysis revealed that attitude, subjective norm and perceived behavioural control were independent predictors to practice monogamy. Consistent with the TPB, adolescents who had a more positive attitude towards sticking to one partner and those who scored higher on subjective norm and perceived behavioural control were more likely to practice monogamy in the next three months.

Hedonistic, normative, socio cultural beliefs and partner reaction as predictors

An additional multiple regression analysis was performed to determine if the above can predict intention. Table 4 indicates that all the beliefs predicted intention. The model accounted for 65% of the variance. The regression coefficients for normative beliefs (sexual partner, father and friends) socio cultural beliefs were statistically significant, which shows that they had an independent effect on intention. The regression coefficient for mother approval, hedonistic belief and partner reaction were not significant.

Discussion and Conclusion

This study supports the need for contextualized theory based interventions using qualitative approaches such as stories, myths and language. The approach brings into existence socio-cultural behavioural beliefs that would otherwise not be visible. The multiple regression analysis in this study revealed that socio-cultural behavioural beliefs, attitudes, subjective norms, and perceived behavioural control predicted the intention to practice monogamy.

These beliefs are modifiable and can be targeted based on these findings. Interventions in schools should therefore employ strategies that will instill positive attitudes, subjective beliefs, and perceived control beliefs. The socio cultural beliefs revealed from the study do not encourage monogamy and make it a less feasible option for HIV prevention. The intervention informed by a contextualized and context specific intervention allows researchers to use the materials in the form of proverbs, sayings, myths and stories they collected to dispel beliefs that interfere with acceptance.

The TPB has been used in some studies in Africa on different studies on HIV/AIDS prevention (Jemmott et al 2010; Casper et al 2007). A study conducted by Jemmott et al. (2007) in Xhosa adolescents in South Africa found that attitude and perceived behavioural

control predicted the intention to use condoms while subjective norm did not. A study conducted by Heeren, et al (2007, 2012) among university students in South Africa found that attitudes, subjective norms, and self-efficacy predicted intention to use condoms. What is consistent in these studies is that attitudes and perceived behavioural control predict intention to engage in condom use and sticking to one partner.

What we need to know however is whether there are other subscales of the behavioural beliefs that are context specific that would have emerged if other modes of data collection such as stories, language and myths were used to compliment the structured questions in TPB.

Acknowledgments

We thank all teachers, facilitators, and participants for their time.

Funding

This research was supported in part by a NIH grant 124HD056693-05.

References

- Altun I. Knowledge, attitudes and beliefs of maritime college students concerning. *HIV/AIDS Rev.* 2004; 3:51–56.
- Ajzen I. The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes.* 1991; 50:179–211.
- Carter MW, Kraft JM, Koppenhaver T, Galavotti C, Roels TH, Kilmarx PH, Fidzani B. “A bull cannot be contained in a single kraal”: concurrent sexual partnerships in Botswana. *AIDS Behaviour.* 2007; 11:822–830.
- Casper ES. The Theory of Planned Behaviour applied to continuing education for mental health professionals. *Psychiatric Services.* 2007; 58(10):1324–1329. [PubMed: 17914010]
- Central Statistics Office. Preliminary results Botswana AIDS Impact Survey (BAIS) III, 2008. Gaborone: 2009.
- Halperin D, Epstein H. Concurrent sexual partnership help explain Africa’s high HIV prevalence, implications for prevention. *Lancet.* 2004; 364:4–6.
- Heeren GA, Jemmott JB III, Mandeya A, Tyler C. Theory Based predictors of condom use among university students in the United States and South Africa. *AIDS Education and Prevention.* 2007; 19(1):1–12. [PubMed: 17411385]
- Heeren, GA.; Jemmott, JB., III; Mandeya, A.; Ngwane, Z.; Tyler, C. A Randomized Controlled Pilot Study of an HIV Risk-Reduction Intervention for Sub-Saharan African University Students. *AIDS and Behavior.* 2012. online. Available: <http://www.ncbi.nlm.nih.gov/pubmed/22246515>
- Jemmott JB III, Heeren GA, Ngwane Z, Hewitt N, Jemmott LS, Shell R, O’Leary A. Theory of Planned Behaviour predictors of intention to use condoms among Xhosa adolescents in South Africa. *AIDS Care.* 2007; 19(5):677–684. [PubMed: 17505930]
- Jemmott JB 3rd, Jemmott LS, O’Leary A, Ngwane Z, Icard LD, Bellamy SL, Jones SF, Landis JR, Heeren GA, Tyler JC, Makiwane MB. School-based randomized controlled trial of an HIV/STD risk-reduction intervention for South African adolescents. *Arch Pediatr, Adolesc Med.* 2010 Oct; 164(10):923–9. DOI: 10.1001/archpediatrics.2010.176 [PubMed: 20921349]
- Jemmott JB 3rd. The reasoned action approach in HIV risk-reduction strategies for adolescents Year: 2012. *Journal: The Annals of the American Academy of Political and Social Science.* 640:150–172.
- Kalichman SG, Ntseane D, Nthomang K, Segwabe M, Phorano O, Simbayi LG. Recent multiple sexual partners and HIV transmission risks among people living with HIV/AIDS in Botswana. *Sexually Transmitted Infection.* 2007; 83:371–375.

- Laetsang, D.; Ho-Foster, A.; Masisi, M.; Anderson, M.; Tlhoiwe, D.; Cockcroft, A.; Anderson, N. [7 April 2010] Who has multiple concurrent sexual partnerships? Results of a national cross sectional survey. AIDS Impact.com. 2009. Available: <http://www.aidsimpact.com/2009/academics/programme/abstract/?id=170>
- Republic of Botswana. [8 April 2010] National campaign plan: Multiple concurrent Partnerships. 2009. Available: <http://www.commit.com/en/node/304747/2674>
- Republic of Botswana. Botswana National Policy on HIV/AIDS. Gaborone: Ministry of Health; 1993.
- Shelton, JD. [8 April, 2010] Why multiple sexual partners?; Lancet. 2009. p. 367-369. Available: <http://www.usaid.gov/our-work/globalhealth/aids/news/multiple-partners>
- World Bank. Botswana and HIV/AIDS: Helping Botswana confronting a challenging future. 2010

Table 1

Socio demographic variable of respondents

Variables	boys (n=98)	girls (n=183)	all (n=286)
Ever had sexual intercourse	24%	7.2%	13%
Mean age at first sexual intercourse	10.85	14.55	12.27
Minimum number of partners	1	5	
Maximum number of partners	15	4	
Mean of sexual partners	3.19	2.0	2.68
Sexual partner other partners had	2	2	2
Had sexual intercourse last 3 months	13.7%	3.3%	6.9%

Table 2

Descriptive Statistics and Reliability Index for the Dependent and Predictor Variables

Variable	Mean	SD	Coefficient Alpha
Intention to limit partners	3.85	1.11	0.83
Behavioural beliefs			
Hedonistic beliefs	2.07	1.02	0.552
Normative beliefs	3.90	1.04	0.846
Perceived behavioural control	3.82	1.35	0.782
Socio-cultural beliefs	2.10	0.91	0.720
Partner reaction	2.24	1.03	0.924

Table 3

Multiple regression analysis of intention to limit sexual partners on attitude towards practicing monogamy, subjective norm and perceived behavioural control (N = 286)

Predictor	R	B	SE _B	R ²
				0.659
Attitude towards limiting partners	0.703 **	0.288 **	0.039	
Subjective norm	0.671 **	0.270 **	0.043	
Perceived behavioural control	0.679 **	0.281 **	0.036	

*
p<0.05

**
p< 0.01

p<0.001

Table 4

Multiple regression analysis of intention to limit sexual partners on hedonistic beliefs, normative beliefs, control beliefs, socio-cultural beliefs and partner reaction. (N = 286)

Predictor	R	B	SE _B	R ²
				0.652 ***
Hedonistic beliefs	-0.263 **	0.070	0.050	
Normative beliefs				
Sexual partner approval	0.636 **	0.213 ***	0.036	
Mother approval	0.542 **	-0.016	0.047	
Father approval	0.574 **	0.165 ***	0.044	
Friends approval	0.567 **	0.119 **		
Socio-cultural beliefs	-0.474 **	-0.231 ***	0.064	
Partner reaction	-0.143 *	-0.050	0.041	

*
p<0.05

**
p< 0.01

p<0.001