Perceptions of infidelity and intimate partner violence among couples from rural Malawi

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INTRODUCTION

Intimate partner violence (IPV) is an important public health issue of global significance. IPV is generally understood to include physical, sexual, and psychological abuse within close relationships. In sub-Saharan Africa, studies have shown high levels of IPV among women over the course of their lifetime (Fonck et al., 2005; Jewkes et al., 2010; Ntaganira et al., 2008). The negative consequences of IPV can be quite severe for women with significant impacts on physical, reproductive, sexual, and mental health (Campbell, 2002; Garcia-Moreno et al., 2006). In high HIV prevalence settings in sub-Saharan Africa, IPV has been documented as a critical risk factor for HIV/AIDS among women (e.g., refer to Dunkle et al., 2004; Jewkes et al., 2010).

The majority of studies from sub-Saharan Africa on IPV focus specifically on men's violent actions towards their female partners. While there is strong evidence that women are more frequently the targets of violence as compared to men, men are not always the sole perpetrators of IPV (Dunkle et al., 2007; Were et al., 2011). An overemphasis in the literature on women's vulnerability to IPV may mask men's experiences of physical and sexual abuse. There are a few accounts from sub-Saharan Africa of young men being coerced into sex by older, and perhaps wealthier women (Dunkle et al., 2007; Sikweyiya & Jewkes, 2009; Simpson, 2007). Beyond sexual abuse, Gass and colleagues (2011) found that rates of physical abuse perpetration were equally high among both men and women in South Africa (26.5% and 25.2%, respectively). In addition, a study from Uganda found that approximately 20% of women reported verbally or physically abusing their current male partner (Koenig et al., 2003). Globally, the "self defense" explanation for male victimization is currently being challenged by evidence suggesting that women and men's experience

of abuse may share many of the same underlying predictors and correlates (Gass et al., 2011; Giordano et al., 1999; Marvell & Moody, 1999).

Dyadic level research provides a novel opportunity to simultaneously study both men and women's experiences without divorcing individuals from the sexual unions in which IPV occurs. Studies among heterosexual dyads have identified a variety of partnership characteristics that predict IPV, including power imbalances, communication patterns, and economic discrepancies (e.g., see Babcock et al., 1993; Choi & Ting, 2008; Karakurt & Cumbie, 2012). In sub-Saharan Africa, one important relationship-level factor that has received inadequate attention from a dyadic perspective is infidelity. Marital infidelity is a strong area of contention in African couples, particularly given its role in shaping spouses' risk for HIV/AIDS. In individual-level analyses, multiple sexual partnerships have been strongly linked to IPV in South Africa, Tanzania, and Uganda (Dunkle et al., 2004; Jewkes et al., 2006; Karamagi et al., 2006; Maman et al., 2002; Townsend et al., 2011). The present study examines the dyadic context through an investigation of perceived partner infidelity and two types of IPV victimization, physical abuse and sexual coercion, in rural Malawi.

Infidelity may be connected to physical abuse through the following possible pathways. First, men who have concurrent sexual partners may have characteristics that make them more prone to physical violence in general, such as through the attachment to strong masculine identities that emphasize sexual conquests (Malamuth et al., 1991). Second, women who suspect that their husbands have other sexual partners may become disrespectful and abusive towards men out of jealousy and anger (Karamagi et al., 2006). Third, men may use violence in response to their partner's accusations of infidelity (Van der Straten et al., 1995). Finally, men who suspect their wives are cheating may use violent means to reinstate their role as head of the household and to reprimand a disobedient wife (Kim & Motsei, 2002). In Uganda and South Africa, women who had other

sexual partners were at a significantly higher risk for IPV (Jewkes et al., 2006; Karamagi et al., 2006; Zablotska et al., 2009).

For sexual coercion, the connection with infidelity is conceptually different, and likely to be mediated by perceived risk for HIV infection. It is well established that spouses formulate perceptions of risk using what they know and perceive about a partner's sexual history. In one particular study from Malawi, marital infidelity was found to be the strongest correlate of overestimating one's own and a spouse's risk for HIV (Anglewicz et al., 2008). Recent demographic health data from Malawi reports that almost 90% of women believed that a wife was justified in taking action to protect herself from HIV, for example, by refusing to have sex with a risky spouse (National Statistical Office & ORC Macro, 2011). Yet, in practice, many women fail to successfully negotiate the circumstances of sex with a risky partner, especially given social pressures for women to bear children and maintain sexual ties with their husbands. Indeed, a study from Uganda showed that a woman's experience of undesired sex was strongly tied to her perceptions of a male partner's risk for HIV (Koenig et al., 2004). As the logic follows, we could presume that suspicions of a partner's infidelity may be correlated with higher reports of sexual coercion with a partner deemed to be at risk for HIV.

Physical violence and sexual coercion are considered interdependent behaviors, that is, the acts cannot occur without the participation of both partners. Interdependence theory suggests in order to understand the effects of couple interactions both partner's perspectives must be taken into account (Kelley & Thibalt, 1978). Given the background literature and theory, the current study accomplishes three main research goals: 1) to describe the prevalence of sexual, physical, and reciprocal violence among a sample of young couples from rural Malawi; 2) to test for gender differences in IPV and the independent variables thought to be associated with IPV; and 3) to test

the hypothesis that an individual's perception that their partner is cheating influences both their own (called an "actor effect") and their partner's experience of IPV (called a "partner effect").

For physical IPV, I also hypothesize that partner effects will be stronger for women than for men. In other words, when men suspect that their female partners are the ones cheating, women will experience higher levels of physical IPV as compared to men whose female partners suspect they are cheating. Multiple sexual partners signify economic prosperity and bring social status to men (Smith, 2009; Swidler & Watkins, 2007). While some women challenge these social norms by threatening to divorce an unfaithful partner who could bring HIV into the family (Schatz, 2005; Watkins, 2004), there still exists a "sexual double standard" around infidelity that makes it more socially acceptable for men to cheat on their partners than women (Hunter, 2010).

METHODS

The data for the present study come from *Tsogolo la Thanzi* (TLT; "Healthy Futures" in Chichewa), a population-based panel study of young men and women living in and around the southern Malawian town of Balaka. TLT was designed to study how young adults who have grown up during the HIV/AIDS epidemic make decisions about marriage, childbearing, and sexual behavior. In 2009, a random sample of women was selected from a complete household listing of all residents aged 15-25 living within a 7-kilometer radius of the town center. Women were given enumerated tokens and asked to recruit up to three male partners (husbands and boyfriends). In this setting, multiple concurrent relationships are relatively common and both women and men could have more than one sexual partner at a given time, even if they were married. Female respondents were asked to give the tokens to their partners allowing them to participate in the study. A secure data file linked each female respondent to the enumerated tokens. The use of enumerated tokens allowed for the verification of each male participant's status as a named partner and the ability to identify his female

partner in the sample. The decision to enroll male partners through the random sample of women was made for ethical and logistical reasons, and given the success of other population-based studies in Malawi using similar sampling strategies.

Longitudinal survey data was collected at 4-month intervals over a period of approximately three years for a total of 8 waves. This study uses data from the 3rd wave when a special module containing questions on relationship power and IPV was added to the TLT partnership survey. Respondents were asked these questions if they reported a current serious sexual partner including a spouse, live-in partner, steady boyfriend/girlfriend, or new boyfriend/girlfriend. It is important to note that for respondents with multiple partners, only the most serious partner was considered the reference partner. For married respondents, the spouse was automatically considered the reference partner. A couple dataset was created for all respondents who answered the power questions about each other using a separate database linking women and their male partners. All participants provided informed consent and all study procedures were approved by Pennsylvania State University Office for Research Protections and the National Health Sciences Research Committee in Malawi. The study investigator only had access to de-identified data.

Measures

Demographic characteristics

Multivariate models included controls for socio-economic variables likely to be associated with IPV, namely, gender, age, years of education, marital status, and household economic status. Gender was a binary variable (0=female, 1=male). Age and years of education were modeled as continuous variables. Up to and including 8 years of education is considered primary school, 9 to 12 years is considered secondary school, and greater than 12 years is considered tertiary school. Marital status was captured as a binary variable (married/cohabitating or unmarried). Finally, an index of 9

common household goods (bicycle, television, bed with mattress, radio, land line/mobile phone, motorcycle, animal-drawn cart, car/truck, or Bible/Koran) was used to approximate household economic status.

Couple characteristics

Relationship duration and shared children were included for descriptive purposes, but not in the analytical models. Relationship duration was computed by subtracting the date of the survey from the date the respondent first started spending time with their partner. For shared children, respondents were asked how many living children they have with their partner. Given that the sample was young and the mean number of shared children was around 1, a binary variable was created to indicate whether a couple had at least one child together. Discrepancies were sometimes noted between couple members' account of relationship duration and whether or not the couple had children together. For relationship duration, the average between female and male partner's reports was calculated and replaced individual reports. For shared children, the female couple member's report was used—with the assumption that the mother's report might be more accurate.

Perceived partner HIV status

Perceived risk of partner was captured with the statement: "What is the likelihood that your partner is currently infected with HIV?" Response options included no likelihood, low, medium, high, and "I know she/he is" (infected with HIV). I created a 3-level categorical variable for perceived risk of partner, where 0 referred to no or low likelihood of infection, 1 referred to medium likelihood of infection, and 2 referred to high or certain likelihood of infection. For the statistical models, the medium category was collapsed into the with the high/certain category given the low number of responses.

Perceived infidelity

The likelihood of a partner having an affair was measured by the statement: "My partner is probably having sex with someone else". TLT interviewers asked respondents whether they strongly agreed (1), agreed (2), disagreed (3), or strongly disagreed (4) with this statement. The statement was reverse coded so that higher scores refer to higher perceptions of infidelity. A binary variable was then created for perceived partner infidelity by collapsing strongly agreed/agreed (set to 1) and strongly disagreed/disagreed (set to 0).

Intimate partner violence

Respondents were asked if they were victims of sexual and physical IPV (but not if they were perpetrators) in relation to the reference partner noted in TLT's power module. Sexual coercion was captured as a binary variable that asked respondents if their partner has ever forced them to have sex when they did not want to. Here, use of the term "forced" does not apply physical force or rape, but rather verbal pressure or persuasion to have sex in the face of opposition. Physical abuse was also captured with a binary variable that asked respondents if their partner ever hurt them by beating them. While multiple forms of physical abuse are possible such as hitting, kicking, or punching, the question on physical abuse in this study was restricted to "beating" in order to reflect the predominant local term used to describe physical abuse in Malawi.

Statistical Analysis

The Actor-Partner Interaction Model (APIM) was used as the primary analytical framework for this study. For the analysis, the data were organized in a pairwise fashion such that each individual had their own record, but their partner's information was also duplicated in the same record. The APIM

is based on the premise that one partner's attributes and behaviors can affect the other partner's outcomes. Each partner's independent variable (i.e., perceived infidelity) is thought to affect both their dependent variable (i.e., IPV) (actor effect) and their partner's dependent variable (partner effect). If partner effects were discovered, there would be evidence that the two couple members are part of an interdependent system (Kenny et al., 2006). Figure 1 provides a conceptual model for the APIM analysis used in this study. Rather than modeling a series of interaction terms for gender, I ran separate logistic regression models for men and women. Socio-demographic controls for age, years of education, the household goods index, and marital status were included in the final multivariate models (in Table 2). In addition, the sexual IPV models also controlled for perceived risk for HIV of partner. All models were estimated using *logistic* command in Stata 11.2.

ANOVA was used to test for gender differences in continuous variables including age, years of education, and household wealth. Chi-square tests were used to test for gender differences for all remaining categorical variables.

RESULTS

932 men and women (466 couples) were asked the power and IPV questions at TLT's wave 3. Table 1 presents the descriptive statistics for the analytic sample. The mean age for the study population was 24.8 years. Men were on average 5.5 years older than women and differences by gender were significant (p=0.000). The mean years of education was 7.3 years, reflecting a primary school education. Men had approximately 1.3 more years of education than women and differences by gender were significant (p=0.000). The mean number of owned household items, a measure of household wealth ranging from 0 to 9, for the total sample was 3.0. Men also reported slightly higher household goods (3.1) as compared to women (2.8) and differences by gender were significant (p=0.000). The majority of the sample reported being married (91.4%). 73.5% of all couples

reported having at least one child together (the mean number of shared children was 1.2). On average, couples had been together for 5.2 years.

93.9% of all respondents believed that their partners were at no or very low risk for HIV. The remaining 6.1% believed their partners had a medium, high, or certain likelihood of HIV infection. Women more likely to believe their partners were at an elevated risk for HIV (8.7%) as compared to men (3.7%) and the gender difference was significant (p=0.002).

Most respondents disagreed that their partner was cheating, with a mean of 1.61 (range: 1-4). Men were less likely to perceive that their partner was cheating (1.48) compared to women (1.74). When the perceived infidelity measure was dichotomized, most respondents (85.7%) believed that their partners were faithful. Women were more likely to believe that their partner was having an affair than men (18.2% compared to 10.3%) and the gender difference was significant (p=0.001).

Approximately 16.5% of respondents reported sexual IPV. Statistically significant gender differences in sexual IPV were found with women indicating higher levels of sexual IPV (21.5%) than men (11.6%) (p=0.000). Approximately 4% of respondents reported being physically abused by their partners. Statistically significant gender differences in physical IPV were found with women reporting higher levels of abuse (6.0%) than men (1.9%) (p=0.001). Only around 3% and 1% of couples reported that both couple members had experienced either sexual or physical IPV, respectively. Reciprocal violence was also calculated as a proportion of total violence (either sexual or physical IPV). In 18.2% of all sexually violent couples, both couple members reported sexual coercion. In 5.4% of all physically violent couples, both couple members reported physical abuse. Physical IPV only occurred within married couples. Sexual and physical IPV were moderately correlated in the overall sample (r=0.22) indicating that for some couples, physical abuse and sexual abuse may occur simultaneously or in serial.

It was predicted that an individual's perception that their partner was cheating would influence both their own (actor effect) and their partner's experience (partner effect) of sexual and physical IPV. In addition, it was expected that partner effects would be stronger predictors of physical IPV for women than for men. The results for sexual IPV are as follows. After controlling for other covariates, women's odds of experiencing sexual IPV were 2.45 times higher when they perceived that their partners were having an affair (actor effect for women). No significant actor effect was found for men. However, men's odds of experiencing sexual IPV were 1.98 times higher when their partners perceived that they were having an affair, after controlling for other covariates (partner effect of women on men). There was no significant partner effect found for men's perceptions of female infidelity on women's experience of sexual IPV (partner effect of men on women).

The results for physical IPV are as follows, starting with the actor effects. After controlling for other covariates, women's odds of experiencing physical IPV were 2.70 times higher when they perceived that their partners were having an affair (actor effect for women). No significant actor effect was found for men. However, men's odds of experiencing physical IPV was 5.88 times higher when their female partners perceived that they were having an affair, after controlling for other covariates (partner effect of women on men). There was no significant partner effect found for men's perceptions of a woman's infidelity on her experience of physical IPV (partner effect of men on women). To summarize, women's perception of her partner's infidelity effects both their own and their partner's risk for both sexual and physical IPV.

DISCUSSION

This study documented the prevalence of IPV and the role of perceived infidelity using a young sample of women and their male partners from rural Malawi. As expected, women reported higher levels of both sexual and physical IPV than men. Lower rates of both sexual and physical IPV were

found in this study as compared to national estimates among female adults aged 15-49 (National Statistical Office & ORC Macro, 2011), which could be attributed, in part, to the younger sample. Younger women may be more supportive of wife beating than older women (Hindin, 2003; Lawoko, 2008) and thus more likely to underreport physical abuse. For men, the study data are unique in capturing the frequency of sexual and physical IPV committed against men by their female partners in Malawi. Overall, the men in this study reported relatively low rates of physical abuse (less than 2%) and reciprocal physical violence was rare. Interestingly though, approximately 12% of men reported that they felt pressured by their partners to have sex when they did not want to.

As expected, this study found that perceptions of a partner's infidelity affected both couple member's experiences of sexual IPV. For example, if a wife perceived that her partner was having sex with someone else, she was more likely to experience sexual IPV herself. Her perceptions of infidelity also influenced her partner's experience of sexual IPV. Koenig and colleagues (2004) found that women's sexual coercion results when the other partner is perceived to be at risk for HIV, giving credence to our findings. However, the associations found for sexual IPV were not attenuated after adjusting for perceived risk of a partner. This suggests that reluctance to have sex with a partner presumed to be cheating goes beyond worries of contracting HIV. One explanation may be that women purposefully attempt to withhold sex from their partners to punish them for engaging in unacceptable behaviors, as noted by Watts et al. (1998) in Zimbabwe. For the men presumed to be cheating, higher reports of unwanted sex could be attributed to decreased sexual desires within the marriage due to extramarital sexual relations. Sexual jealousy may explain higher levels of sexual IPV among men whose partners suspect them of cheating (Frieze, 1983; Gage & Hutchinson, 2006).

For physical IPV, the same actor-partner patterns were present. Women's suspicions of infidelity were associated with higher reports of physical IPV among both women and their male partners. Several explanations are possible. First, women who perceive their male partner to be at higher risk

for HIV may be more likely to resist sexual advances and their refusals may result in physical force or abuse by a male partner (Balmer et al., 1995). Women's experience of physical abuse may also result from bringing up concerns—justified or not—about their partner's affairs, as others have found elsewhere (Van der Straten et al., 1995). This assertiveness may come at a cost if a woman is perceived to violate traditional gender norms around being a respectful wife.

It was surprising that evidence was not found for men beating their wives if they suspected she was unfaithful, especially in a setting where a double standard around morality and infidelity makes it more socially acceptable for men to cheat than women (Hunter, 2010). Yet, poor men who are unable to provide for their families may plead ignorance if their wives are bringing home money and material items in exchange for sex with other partners. Leach (1991) comments on women from Sierra Leone who seek lovers to make up for the financial neglect of husbands, who in turn may tacitly accept their wives' infidelity as a way of getting by. In another study from Nigeria, Cornwall writes: "men who are unable, or unwilling, to sustain the obligations of being a husband and those who have come to rely on their wives' income to make up for their own social position are in a poor position to enforce control over their wives" (Cornwall, 2002). We do know that women cheat on their spouses for a variety of different reasons other than economic necessity (e.g., see Parikh, 2009; Tawfik & Watkins, 2007) and thus, this speculation may only apply to destitute families.

Regardless of the underlying reasons for female infidelity, wife beating may not be the most appropriate course of action for a man to take. Rather than using violence in an attempt to reform behavior, a husband who truly believes his wife is cheating may simply tell her to pack her bags and leave. In her discussion of female infidelity in rural Malawi, Schatz (2002) notes how if a man catches his wife "red-handed", there is no choice but to divorce. She adds, "There is no such way a man can negotiate with his wife in such as situation".

Limitations

Several limitations of the present investigation are noteworthy. First, measures of violence are plagued by self-report biases around social-desirability, reference group norms, and other factors, and this study is no exception. This study is further complicated by the problem of disentangling "forced sex" from normal marital sexual intercourse in this sample of mostly married couples, which may have biased the estimates of sexual IPV. While it is likely that violence is underreported among the study participants to some extent, the IPV data was collected at the 3rd wave of the TLT study and respondents were likely to have felt more comfortable disclosing their personal information since they were already familiar with the study. Regardless, it is expected that violence underreporting is non-systematic and would bias the results towards the null hypothesis.

Second, it is possible that the two IPV outcome measures used in this study may have not been sensitive enough to capture the full range of experiences of IPV. Sexual and physical IPV were based on a single response to two dichotomous questions regarding a history of forced sex and physical abuse. More sensitive measures that include a series of questions about specific sexual, verbal, emotional, and physical actions may yield higher levels of reported IPV than what was reported in this study. Finally, it is important to point out that the results of this study are less conclusive for men's experiences of physical abuse due to low levels of reported abuse in our sample. We caution readers when interpreting these findings.

Implications and Conclusions

Extramarital sexual partnerships are widely recognized as fueling the HIV/AIDS epidemic in sub-Saharan Africa (Garrett & Johnson, 1997; Halperin & Epstein, 2004; Wilson & Halperin, 2008). Coercive sex with a partner who is potentially engaging in extramarital partnerships has serious implications for HIV transmission, especially if it occurs during marriage when condom use is likely

to be low (Chimbiri, 2007). In summary, findings in this study illustrated that risk for IPV goes beyond individual-level perceptions or risk factors. Future studies should continue to explore the role of couple context when studying IPV in sub-Saharan Africa in order to gain broader understandings of how sexual partners mutually affect each other's experiences.

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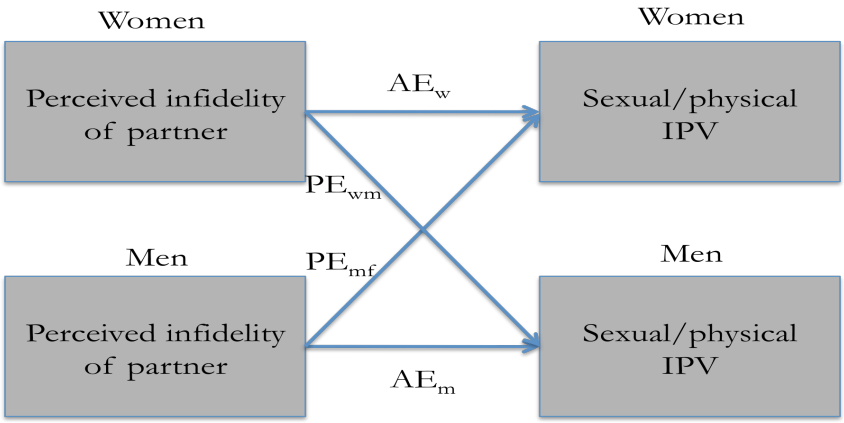

Figure 1. Actor-Partner Interdependence Model (APIM) for Perceived Infidelity and IPV. Note: AE refers to "Actor Effect". PE refers to "Partner Effect". Subscripts refer to men (m) or women (w).

Table 1. Descriptive statistics for the analytic sample of 466 couples, Tsologo La Thanzi wave 3

Variable	Total (N=932)		Women (N=466)		Men (N=466)	
	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)
Individual characteristics						
Age (16-57)		24.8 (4.8)*		22.1 (2.7)		27.6 (4.9)
Years of education (0-13)		7.3 (3.0)*		6.6 (2.6)		7.9 (3.1)
Household goods (0-7)		3.0 (1.5)*		2.8 (1.5)		3.1 (1.5)
Couple characteristics						
Married	91.4		90.8		92.1	
Relationship duration (1-14)		5.2 (2.9)		5.2 (2.9)		5.2 (3.0)
At least one living child with partner	73.5		72.3		74.7	
Perceived risk of partner for HIV						
No or low likelihood of infection	93.9*		91.3		96.4	
Medium likelihood of infection	2.5		3.8		1.4	
High or certain likelihood of infection	3.6		4.9		2.3	
My partner is probably having an affair						
Strongly disagree/disagree	85.7*		81.8		89.7	
Strongly agree/agree	14.3		18.2		10.3	
Intimate partner violence (IPV)						
Sexual coercion	16.5*		21.5		11.6	
Physical abuse	4.0*		6.0		1.9	

*Chi-square and ANOVA differences for gender were significant at $p<.05$.

Table 2. Actor-partner interdependence models for sexual and physical IPV

APIM parameters	Sexual IPV			Physical IPV		
	Odds Ratio	95% CI	*p*	Odds Ratio	95% CI	*p*
Actor effects						
F perception of partner having affair => F experience of IPV	2.45	1.41, 4.30	0.002	2.70	1.16, 6.29	0.022
M perception of partner having affair => M experience of IPV	0.94	0.34, 2.55	0.896	2.51	0.46, 13.55	0.286
Partner effects						
F perception of partner having affair => M experience of IPV	1.98	1.03, 3.83	0.041	5.88	1.36, 25.39	0.018
M perception of partner having affair => F experience of IPV	1.77	0.91, 3.45	0.093	2.22	0.76, 6.45	0.143

Odds ratios were adjusted for age, years of education, marital status, and the household goods index. An additional control was added to the actor effects models for sexual IPV: perceived HIV status of partner.
M=Male; F=Female

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