# ORIGINAL RESEARCH ARTICLE

# Bride Price and Sexual Risk Taking in Uganda

David Bishai<sup>1</sup>, Kathryn L. Falb<sup>1</sup>, George Pariyo<sup>2</sup> and Michelle J. Hindin<sup>1</sup>

# **ABSTRACT**

This study assessed the relationship of bride price to sexual risk taking based on a large, population-based survey. Data were collected on bride prices for 592 married women in 12 districts in Uganda in 2001. Controlling for covariates, we found that having had a bride price significantly lowered the wife's odds of sexual intercourse with a partner other than the spouse (OR= 0.222; 95% CI= 0.067, 0.737). Controlling for covariates, bride price increased the husband's odds of non-spousal sexual intercourse (OR=1.489; 95% CI= 0.746, 2.972), although this finding is not statistically significant. Bride price payment is statistically significantly associated with lower rates of non-spousal sexual contact in women, but is not statistically significantly associated with higher rates in men (*Afr J Reprod Health 2009; 13[1]:147-158*).

# **RĖSUMĖ**

La dot et la prise de risque sexuel. Cette étude a évalué le rapport entre la dot et la prise de risque sexuel, en se fondant sur une grande enquête qui est basée sur la population. Nous avons collecté les données sur les dots de 592 femmes mariées dans 12 districts de l'Ouganda en 2001. Tout en contrôlant pour les covariables, nous avons découvert que le fait d'avoir eu une dot a baissé de manière importante la possibilité chez la femme d'avoir un rapport sexuel avec un partenaire qui n'est pas son mari (OR = 0,22; 95% CI = 0,067, 0,737). En contrôlant pour les covariables, la dot a augmenté la possibilité chez le mari d'avoir des rapports sexuels avec d'autres femmes (OR = 1,489; 95% CI = 0,746, 2,972), bien que ces résultats ne soient pas statistiquement significatifs. La dot est statistiquement et considérablement liée aux taux inférieurs des rapports sexuels en dehors de mariage chez les femmes, mais elle n'est pas liée statistiquement et considérablement aux taux supérieurs chez les hommes (*Afr J Reprod Health 2009; 13[1]:147-158*).

KEYWORDS: Marriage, Sexual Behaviour, Bride Price

For Correspondence: David Bishai, Email: dbishai@jhu.edu Fax: 410 955-2303

.

<sup>&</sup>lt;sup>1</sup>Department of Population, Family, and Reproductive Health, Johns Hopkins University Bloomberg School of Public Health, 615 N. Wolfe St, Baltimore, MD 21030; <sup>2</sup>Institute of Public Health, Makerere University, Uganda

Bride price, or the exchange of money and valuable items from the groom to the bride and/or her family, remains a prevalent custom in many societies, particularly in Africa. The way bride price is practiced ranges from a mainly ritualistic transfer of tokens of esteem to an outright purchase in which the man reserves a right to ask for a refund from the woman's parents if he backs a claim that her behaviour is unsatisfactory. There is wide concern that the practice is associated with both domestic violence and sexual risk for women. Governments and women's rights groups are calling for restrictions or the elimination of the practice, or that existing regulations be better enforced <sup>1</sup>.

One of chief concerns in Uganda is the custom of bride price refundability in which a husband who is displeased by his wife can return her to his father in law. This sets up a power imbalance which can be abused by husbands. The Domestic Relations Bill of Uganda (DRB) seeks reform by setting a minimum age for marriage; condemning coercion, violence, and rape within marriage and defending property rights for women. The DRB also states that bride price is not a necessary practice and demanding the repayment of such gifts, in the event of a divorce, is an offence <sup>2</sup>.

Unfortunately, the DRB has been stalled for almost two decades in the Parliament of Uganda. To date, there are primarily two distinct clauses in the DRB that are the most controversial, which relate to marital property rights

and restrictions placed on polygamy. The section on property rights for women includes a clause that would allow the coownership of land and assets between a married couple. It would also allow a wife to inherit land from her husband. thus the husband's family would lose the land in the event of his death. The second contentious issue is the restrictions the DRB places on polygamy, especially the provision to limit the number of wives to four. The DRB also demands that the man demonstrate in court that he is able to financially support all of his wives <sup>2</sup>. Opponents argue that the bill discriminatory against Muslims and other African religions that practice polygamy. This clause could also have negative effects on men because many males that practice polygamy will be excluded from the marriage market because they cannot economically provide for their wives <sup>3</sup>.

Anthropologists like Kressel, note a number of functions that can be played by bride price including compensating bride's father for loss of daughter's work or child-bearing potential <sup>4</sup>. Kressel notes that a cultural norm of marital stability would be a precondition for a system of bride price payments to take hold otherwise the payment would lack meaning 4. In some cultures the size of bride price payments has become an element of family honour <sup>5</sup>. For the groom's side the ability to pay a large bride price is a measure of wealth. For the bride's side, the amount received can gauge both the social esteem of the family and the moral (or sexual) integrity of the bride. Literature can also include the term bride wealth. For the purposes

of this paper, bride price is synonymous with bride wealth.

Throughout sub-Saharan Africa. cattle and goats are the norm for bride price payments <sup>1</sup>. In Uganda, the substance of bride price can vary among the different tribes. The largest tribe is the Buganda, typically located in central Uganda, which uses mwenge or banana wine, traditional dresses, and a plethora of other food items for bride price <sup>6</sup>. The Bugisu and Japadhola tribes, traditionally use cattle and goats, similar to other tribes found in northern and eastern Uganda <sup>6</sup>. The variation of bride price payments can change depending on the status of the family. In addition, the mode of payment is transitioning from livestock to cash in many areas <sup>1</sup>. Polygamy and arranged marriages also occur within the different groupings. As bride price values can vary across ethnicity in Uganda, this can also account for different behaviours for the marital couple.

Almost all of what is known about the potential harms of bride price is based on small qualitative studies or anecdotal recollection. In a series of 10 single-sex focus groups in Wakiso district of Uganda in 2003-2004, respondents voiced concern that bride price limits women's independence, perpetrates unequal gender power relations, and is perceived as related to domestic violence<sup>7</sup>. Respondents also stated that the amount of money or the value of the gifts used for bride price is representative of what the girl is worth in the community <sup>6</sup>. In another qualitative study, 62.2% of focus groups polled

stated that bride price was a leading cause of domestic violence in their community <sup>7</sup>. The sense that the bride price payment involves a loss of a woman's control over her sexual life was a common theme at the International Conference on Bride Price held in Uganda in February, 2004 <sup>1</sup>, but the evidence was limited to anecdotal reports. The evidence about harmful effects of bride price is limited to small qualitative studies. Small studies can be prey to sample selection bias. example, one effort to gather 72 marital life histories from couples in the Iganga region of Uganda concluded that "male extramarital relations remain the norm in Iganga" <sup>8</sup>. In contrast, household surveys from a nationally representative sample in Uganda found that only 25% of all men reported more than one sexual partner in the last 12 months Although anthropologists have described general features of the prevalence of bride price among specific populations, there is a sense that bride price payments have detrimental effects on women, which can in turn, increase their risk for HIV by decreasing their ability to negotiate abstinence, faithfulness, condom use by their partners 10 11. However, there have been no large, population-based studies to assess the interaction of bride price on women's health outcomes.

The social science literature, particularly in economics, has viewed payments at the time of marriage as institutions to rebalance asymmetries in what is known as a "marriage market" that matches supply of mates of one sex

to the demand by mates of the opposite sex <sup>12</sup>. Bronfenbrenner was the first economist to note that bride price is more commonly observed when polygyny or other factors reduce the ratio marriageable women men to According to Becker, polygyny leads naturally to a shortage of women relative to men and a relative female advantage due to scarcity and higher demand by men for women than vice versa 14 15. Bride price payments from grooms' families to brides' are the male expression of their higher demand  $^{13}$ .

An extension of the economics paradigm suggests that male suitors with deficiencies, such as a reputation for sexual promiscuity, might overcome these deficiencies by approaching a girl's father with a generous offer of bride price. Conversely a suitor who lacked resources to offer a girl's father might still succeed in his proposal of marriage if he had a reputation for other good qualities such as kindness and sexual fidelity<sup>16</sup>. Thus we hypothesized that the payment of bride price in Uganda would be associated with decreased marital fidelity in men and an increased risk of the spread of HIV.

#### Methods

We conducted a survey assessing sexual risk behaviour and attitudes towards HIV prevention in 12 districts of Uganda in 2001 which included questions about whether money or valuable items were transferred at marriage for all married women. The main objective of this contingent valuation survey was to assess

the demand for a hypothetical HIV/AIDS vaccine among adults aged 18-60 years old. This survey was an interview-administered fully structured survey. Questions regarding risk behaviour and HIV/AIDS knowledge were based on the Ugandan Demographic and Health Survey.

The households sampled were based on the Ugandan Demographic and Health Survey sampling frame for 2000 in 12 districts of Uganda. These districts were selected in order to achieve representative sample in Uganda and Kampala. Contiguous districts that spoke the same language were grouped into 2-3 district groupings (districts where more than one language was spoken were excluded due to logistical concerns). One language grouping of 2-3 districts was selected from each of the regions in Uganda. Kampala was included to represent urban Uganda. Of each household selected, the survey was administered for up to three adults. Inclusion criteria included being between 18-60 years of age, residing in the household for at least 6 months out of the last 12 months, not being mentally impaired and giving informed consent. Because the sampling is based on the Demographic and Health Ugandan Survey sampling frame, selection bias should be minimal. Ethical approval was obtained through the AIDS Research Committee of the Ugandan Ministry of Health, the Ugandan National Council for Science and Technology, and Johns Hopkins Institutional Review Board. More details of the methods and sampling procedures are given elsewhere 17

To assess bride price, all currently married women were asked if money or other valuable items were given to her family by the groom's family as part of the marriage contract. Whether bride price was paid coded as a was dichotomous variable. Whether there were extramarital sexual relations was defined as non-spousal sex during the prior months coded and 12 dichotomously. Respondents who had been married for less than 12 months were not excluded from the sample. Women asked about were not pregnancies in the last 12 months, but the prevalence of pregnancy is estimated at less than 10% and should not be systematically correlated with having received bride price. There have been qualitative statements by men women in West Africa that the abstinence taboos surrounding pregnancy are associated with male extramarital sexual contact <sup>18</sup>, but this phenomenon cannot be assessed with our data. The districts were grouped into North, West, These three regional and Central. dummy variables were included so that regional differences in the frequency of marital infidelity could accommodated. Whether the household practiced polygamy was included as a separate variable. Therefore, this variable should be interpreted as whether or not residing in a household where polygamy is practiced is associated with extramarital sex. Whether the household owns three or more items from an asset list was used as a measurement of overall

household income. The assets assessed by the survey were: radio, telephone, refrigerators, gas stove, bicycle, motorcycle, car, bus/tractor, electric generator, electric stove, television, video player, cassette player. This asset list was identical to the list assessed by the 2000 Uganda Demographic and Health Survey.

The number of months the husband was away in the prior year is a continuous variable and the odds ratio changes for every additional month away. The total number of years the wife was in school was also a continuous variable and ranged from never attending school through the university level; the highest grade completed for husband's was also continuous and ranged from never attending through secondary school. The age of the husband and wife were also continuous variables.

A total of 1,758 individual interviews There were 839 were conducted. currently interviews with married women, and 430 interviews with the husbands of interviewed women. Sample size reductions because of missing bride price data yielded 594 non-missing observations of whether bride price was paid, and 382 observations of whether bride price was paid in households where husbands were also interviewed. observations with missing data were analyzed to assess any systematic differences and the effect on validity is discussed in the results section. Table 1 lists the dichotomous variables used and their frequencies.

STATA 9 was the statistical package used <sup>20</sup>. Logistic regression was used to produce odds ratios of the likelihood that

**Table 1:** Distribution of dichotomous variables used in analysis

Variable	Observations	Yes (%)
Wife Had Bride Price	594	406 (68.4%)
Husband had non spousal sex in last 12 months	346	66 (19%)
Wife had non spousal sex in last 12 months	556	26 (4.7%)
Husband is a Farmer	382	233 (61%)
West	594	188 (31.7%)
North	594	94 (15.8%)
Central	594	112 (18.9%)
Household Owns 3 or More Items	594	189 (31.8%)
Wife Perceives HIV Not Possible	515	327 (63.5%)
Polygamy	585	45 (7.7%)

a man or woman would report sexual partners other than their spouse in the last months based on personal 12 characteristics and bride price. Models adjusted by identifying and retaining covariates that showed evidence of confounding with bride price in the correlation matrix. The initial variable list was created from literature searches and our own hypotheses. In stepwise regression, variables that had p-values less than 0.10 were retained in a parsimonious model. In addition, a saturated model included all of the variables found to be confounded with bride price including region of residence, husband's highest grade completed, and occupation (farmer/nonhusband's farmer). The final model for husband reporting a sexual partner other than their spouse was based on our hypothesis that extramarital bride price affects Stepwise analysis showed behaviour. that variables that might confound the correlation of bride price payment with the likelihood of husband's extramarital contacts were wife's age, North region, wife's perceived HIV risk, polygamy, husband's months away, husband is a farmer, household income, and bride price. The final variables included the robust model based on our hypothesis included having bride price, region of residence, husband is a farmer, wife's total schooling, husband's age, and husband's highest grade completed. This final model produces an adjusted pseudo R<sup>2</sup> statistic of 0.093.

From stepwise results, the variables that confounded the likelihood of a wife reporting extramarital contacts, were polygamy, husband's highest grade completed, wife's perceived HIV risk, wife's age, husband is a farmer, household income, and wife's total schooling. Therefore, these variables were also included in our final model for wife's extramarital sexual contact and generated an adjusted pseudo R<sup>2</sup> statistic of 0.075.

Additional models for the likelihood of reporting a sexual contact other than a spouse included wife demographics; wife and husband demographics; and a full model including wife and husband demographics, region of residence, and polygamy.

#### Results

In the sample, 406 of 594 (68%) women reported that a bride price was paid for them. Of these 594 women, only 556 responded to the questions on whether they had had extramarital sex. Of these women, 26 of 556 (4.7%) answered affirmatively. In contrast, 430 men were asked if they had non-spousal sex in the last 12 months and 66 of the only 346 who replied answered affirmatively. Men that only had sexual contact with their wives in polygamous unions were not considered to have had non-spousal sex. Men whose wives did not respond to the bride price question had female extramarital contact frequencies that were intermediate between those with and without bride price. Women who did not respond to the bride price question had higher rates of male extramarital contact.

Age is a continuous variable in the logistic models, and we found that the incidence of bride price declined with age from 91% women age 50-60; 72% of women age 30-49; and 63% of women age 18-29 reporting bride price. The average number of years of schooling completed were 4.59 (SD 3.71) and 5.45 (SD 3.93) respectively among women who reported bride price versus those did not. In six respondents bride price was reportedly paid prior to a girl's birth, and in an additional 13 women bride price was paid prior to a girl's 10<sup>th</sup> birthday.

An analysis of unadjusted bivariate relationships showed that having had a

bride price paid statistically significantly lowered the odds of whether or not the wife reported having sex with someone other than her spouse (OR=0.232, 95%CI=0.094, 0.574, p=0.002). number of months the husband was away increased the odds of extramarital relationships for the wife for each month away (OR=1.139, 95%CI=0.982, 1.321) as did Western region of residence (OR=2.15, 95%CI=0.991, 4.665), and had the largest effect on reporting although these extramarital unions. findings are not statistically significant. Unadjusted bivariate analysis showed statistically significant relationships for the odds of husband reporting sex with someone other than their spouse include wife's age (OR=0.954, 95%CI =0.915, age (OR=0.961. 0.996). husband's 95%CI = 0.931, 0.992), and Central residence region of (OR=2.027.95%CI=1.206, 3.408).

Tables 2 and 3 display models of the probability that a married man or woman will report extramarital sexual liaisons. The final models indicate that men who have paid bride price are about 50% more likely to report having a sexual partner other than their spouse (OR=1.489, 95%CI=0.746, 2.972), although this was not a significant finding (p=0.259). Reporting a bride price lowered the odds of a wife reporting having a sexual partner other than their spouse by 78% (OR=0.222, 95% CI=0.671, 0.737). This finding was statistically significant (p=0.014). To check for confounding of bride price effects by socioeconomic status we compared bride price effects in models with and without controls for husband's schooling and asset ownership. This comparison showed similar effects.

**Table 2:** Odds ratio between bride price and husband's extramarital liaisons

Logistic regression on whether the husband had sex with someone other than spouse in the last 12 months

Variable	Bivariate	Final Adjusted	Adjusted for	Adjusted for	Full model
Variable	Relationships	Model	husband	husband and	Tun moder
	Relationships	Wiodei	demographics	wife	
			demograpmes	demographics	
Wife Had	1.307	1.489	1.600	2.080	1.744
Bride Price <sup>+</sup>	(0.727, 2.350)	(0.746, 2.972)	(0.822, 3.117)	(0.952, 4.545)	(0.783, 3.886)
Wife's	1.034	1.207	(0.00=2, 0.000)	1.219	1.276
Schooling	(0.973, 1.099)	(1.035, 1.407)*		(1.031, 1.442)*	(1.072, 1.518)**
Farmer <sup>+</sup>	0.684	0.644	0.612	0.660	0.579
	(0.492, 1.166)	(0.332, 1.251)	(0.333, 1.125)	(0.317, 1.373)	(0.270, 1.241)
Highest Grade	1.004	0.809	0.974	0.783	0.761
Completed	(0.924, 1.092)	(0.666, 0.982)*	(0.891, 1.065)	(0.639, 0.959)*	(0.615, 0.941)*
Age	0.961	0.950	0.958	0.975	0.961
	(0.931, 0.992)**	(0.920, 0.982)**	(0.929, 0.988)**	(0.924, 1.028)	(0.909, 1.017)
West <sup>+</sup>	1.758	3.248			3.728
	(0.979, 3.158)	(1.400, 7.533)**			(1.362, 10.201)**
North <sup>+</sup>	0.496	1.316			1.426
	(0.208, 1.178)	(0.465, 3.716)			(0.357, 5.692)
Central <sup>+</sup>	2.027	3.723			5.532
	(1.206, 3.408)**	(1.625, 8.529)**			(2.055, 14.892)***
Household	1.039			0.609	0.553
Owns 3 or	(0.628, 1.719)			(0.267, 1.394)	(0.239, 1.281)
More Items <sup>+</sup>					
Wife Perceives				1.596	1.369
HIV Not	(0.776, 2.642)			(0.802, 3.175)	(0.661, 2.883)
Possible <sup>+</sup>					
Number of	0.990		1.000	1.045	1.199
months away	(0.759, 1.289)		(0.768, 1.303)	(0.780, 1.399)	(0.872, 1.650)
in last 12 Mos.					
Wife's Age	0.954			0.989	1.004
	(0.915, 0.996)*			(0.928, 1.053)	(0.941, 1.071)
Polygamy <sup>+</sup>	1.245				1.830
	(0.515, 3.007)				(0.549, 6.099)
No. of		340	342	282	282
Observations					Viele et em eure manialel e

\*p < 0.05 \*\*p < 0.01 \*\*\*p < 0.001; Parentheses indicate 95% confidence intervals; + Dichotomous variable, OR=1.00 for reference group

The final adjusted models showed that the number of months of husband's absence is positively associated with wife's extramarital sexual unions (OR=1.668, 95%CI=1.13, 2.462). Only 36 of 347 households reported any husband's absence and 3 of these 36

husbands had extramarital sex. Models (not shown) in which husband's absence was coded dichotomously showed that this effect had a wide confidence interval (OR=3.753, 95% CI=0.812-17.344). If this finding on husband's absence is indeed significant, it may be due to a

**Table 3:** Odds ratio between bride price and wife's extramarital liaisons

Logistic regression on whether the wife had sex with someone other than spouse in the last 12 months

Variable	Bivariate	Final Adjusted	Adjusted for wife	Adjusted for	Full model
v arrable	Relationships	Model	demographics	husband and	Tull model
	Kelationships	Wiodei	demographics	wife	
				demographics	
Wife Had Bride	0.232	0.222	0.317	0.383	0.180
Price <sup>+</sup>		(0.067, 0.737)*	(0.133, 0.755)**		(0.378, 0.855)*
Number of	(0.094, 0.574)***	1.668	(0.155, 0.755)***	(0.096, 1.533) 1.473	1.951
months					
	(0.982, 1.321)	(1.13, 2.462)**		(1.107, 2.135)*	(1.212, 3.141)**
husband away					
in last 12 Mos.	0.50	0.477		0.620	0.224
Farmer <sup>+</sup>	0.58	0.477		0.639	0.334
TT 1 11	(0.217, 1.548)	(0.145, 1.553)		(0.153, 2.662)	(0.072, 1.537)
Husband's	0.971	1.042		0.992	1.051
Highest Grade	(0.848, 1.112)	(0.864, 1.258)		(0.661, 1.488)	(0.650, 1.699)
Completed	0.0=4	0.020		0.007	0.0=0
Husband's Age	0.976	0.930		0.906	0.872
	(0.939, 1.105)	(0.868, 0.997)*		(0.788, 1.041)	(0.746, 1.102)
West <sup>+</sup>	2.15	33.446			55.795
	(0.991, 4.665)	(3.040,			(3.746,
		368.033)**			831.082)**
North <sup>+</sup>	0.564	26.076			37.754
	(0.194, 1.645)	(1.926,			(1.745, 816.678)*
		353.073)**			
Central <sup>+</sup>	1.084	20.381			18.201
	(0.470, 2.499)	(1.721,			(0.980, 338. 195)
		241.429)**			
Household	0.8106			0.134	0.103
Owns 3 or	(0.323, 1.891)			(0.013, 1.390)	(0.008, 1.313)
More Items <sup>+</sup>					
Wife Perceives	1.313			0.680	0.765
HIV Not	(0.559, 3.084)			(0.175, 2.647)	(0.171, 3.412)
Possible <sup>+</sup>					
Wife's	1.046		1.001	1.134	1.158
Schooling	(0.918, 1.088)		(0.914, 1.111)	(0.803, 1.603)	(0.785, 1.707)
Wife's Age	0.955		0.936	1.059	1.053
	(0.918, 1.102)		(0.879, 0.996)*	(0.908, 1.235)	(0.902, 1.230)
Polygamy <sup>+</sup>	1.056			2.204	0.943
	(0.251, 4.401)			(0.211, 22.966)	(0.059, 15.137)
Number of	, ,	347	534	287	287
Observations					
	1	1	1	I .	1

<sup>\*</sup> p<0.05 \*\* p<0.01 \*\*\*p<0.001; Parentheses indicate 95% confidence intervals; + Dichotomous variable, OR=1.00 for reference group.

selection bias in that the women who are likely to have extramarital relations may also have unstable marriages in which husband's absence is not surprising. Conversely, the association may be mediated by women with absent husbands finding surrogates to take care of financial and/or physical needs.

Husband's age (0.930, 95%CI=0.868, 0.997) was also found to be statistically significant. It was hypothesized that age differences between spouses could affect the odds of extramarital relationships in that there are different power imbalances between couples with larger age gaps compared to smaller gaps, however spousal age difference had a non significant relationship with either extramarital spouse's behaviour in models where it was entered alone or together with either spouse's age. It does appear that older couples had fewer extra-marital relationships. The variable wife perceives 'HIV not possible' was not found to be statistically significant in the adjusted models.

Wife's total schooling (OR=1.207, 95% CI=1.035, 1.407), husband's age (OR=0.950, 95%CI=0.919, 0.982), and husband's highest grade completed (OR=0.809, 95% CI= 0.666, 0.982) were statistically significant in the final model husbands reporting extramarital unions. Husband's time away was not found to be a statistically significant predictor for increased husband's extramarital relationships. This could be due to the fact that those men who travelled the most were not home during the time the survey was administered, so this subsection of the population might have been missed in the analysis.

### Discussion

Bride price payments were significantly correlated with women being less likely to participate in non-spousal sex. Men who have paid bride price had no

statistically significant increase in odds of non-spousal sex. There are several possible explanations for these results. It may simply be that bride price is a underlying marker for other characteristics such as adherence to traditional values. Predictors of bride price being paid included husband being a farmer and husband's highest grade completed, both increasing the likelihood that a bride price was paid. characteristics might also influence whether or not the man or woman will participate in non-spousal sex. It may also be the case that women who had a bride price paid for them may be less likely to report extramarital relationships related to fear of repercussions from their husbands and their families. In addition, women may not have felt comfortable disclosing extramarital relationships to interviewers, introducing bias. At the same time, men may also underreport their extramarital relationships. If there is self-selection of couples into the practice of bride price, policies to eliminate bride price payments would not necessarily make men more faithful or women less so.

The low R<sup>2</sup> statistic implies that bride price and all of the other variables measured account for less than 10% of the variance in extramarital relationship. This suggests that most of the variance in extramarital relationships is related to unspecified and unmeasured factors. Given the study design, it remains possible that these unmeasured factors are correlated with having had bride price. Thus the relationships uncovered in this study need to be interpreted as an

association and any causal influence cannot be determined.

As stated previously, there are no large, population-based studies to assess the interaction of bride price on women's health outcomes. The conclusions made about the potential harms of bride price have been based on small qualitative studies or anecdotal recollection. Due to the low R<sup>2</sup> statistic in this study, it is possible that bride price is not a strong predictor of the sexual behaviours within marital unions, which is a divergence from the previously held assertion that bride price is a catalyst for the poor treatment of women and related negative A population-based health outcomes. whose primary quantitative study objective was to assess the impact of bride price payment on women's health outcomes would be warranted to clarify this issue.

Another limitation in our study stems from non-response to the question about whether bride price was paid, with 29% of women declining to answer this question. However, the non-responders to this question did not differ markedly by age and education. One possible reason for the low response rate is that the woman might not know if a bride price was given, as marriage gifts are given traditionally from the future husband to the father. Furthermore, it could be due to a recall bias in that couples married for a substantial period of time may not remember a bride price payment. Husband and wife interviews were not matched in this study, which is another limitation because there could be inconsistencies in reporting. Also, it is

unlikely that the husbands of the wives that reported they were away for many months during the past year were available to take the survey. This could underestimate the impact of husband's absence on the husband's odds of reporting sex with someone other than their spouse. Despite these limitations, a relationship between bride price and sexual risk taking has been demonstrated; other however. studies should undertaken to assess this relationship in other cultures.

Both policymakers debating women's rights issues, such as the Domestic Relations Bill and men and women seeking marital partnerships may find it useful to be aware of the sorting properties associated with bride price payments. Bride price payments may not "cause", but rather serve to sort out which couples are more likely to adhere to traditional norms of marriage. Given the health risk from HIV that attends extramarital relationships in Uganda, makers policy may target counselling and testing programs towards men who paid and women who were not paid bride price.

# References

- 1. Wendo C. African women denounce bride price. Campaigners claim payment for wives damages sexual health and contributes to AIDS spread. *Lancet* 2004;363(9410):716.
- 2. Government of Uganda. A compendium of laws relating to domestic relations in Uganda. Kampala: LDC Publishers, 2001.
- 3. Becker GS. *A Treatise on the Family*. Second Edition ed. Cambridge: Harvard University Press, 1981.

- 4. Kressel G. Bride-Price Reconsidered. *Current Anthropology* 1977;18(3):441-458.
- 5. Papps I. The Role and Determinants of Bride-Price: The Case of a Palestinian Village. Current Anthropology. *Current Anthropology* 1983;24(2):203-215.
- Wakabi K. Bride Price and Domestic Violence Briefing Paper. Kampala: The Mifumi Project, 2000.
- 7. Kaye DK, Mirembe F, Ekstrom AM, Kyomuhendo GB, Johansson A. Implications of bride price on domestic violence and reproductive health in Wakiso District, Uganda. *Afr Health Sci* 2005;5(4):300-3.
- 8. Parikh S. The Political Economy of Marriage and HIV: The ABC Approach, "Safe" Infidelity, and Managing Moral Risk in Uganda. *American Journal of Public Health* 2007;97(7):1198-1208.
- 9. ORC Macro. MEASURE DHS+STATcompiler, 2004.
- 10. Mulder MB. Bridewealth and Its Correlates: Quantifying Changes Over Time. *Current Anthropology* 1995;36(4):573-603.
- 11. Goldschmidt W. The Economics of Brideprice among the Sebei and in East Africa. *Ethnology* 1974;13(3):313-331.
- Grossbard A. Towards a Marriage Between Economics and Anthropology and a General

- Theory of Marriage. *American Economic Review* 1978;68(2):33-37.
- 13. Bronfenbrenner M. A Note on the Economics of the Marriage Market. *Journal of Political Economy* 1971;79(6):1424-1425.
- 14. Becker G. A Theory of Marriage I. *Journal* of *Political Economy* 1973;81(4):813-846.
- 15. Becker G. A Theory of Marriage II. *Journal* of *Political Economy* 1974;82(2):S11-S26.
- 16. Far above rubies: The Association between Bride Price and Extramarital Liaisons in Uganda. Population Association of America; 2003 May 1, 2003; Minneapolis.
- 17. Bishai D, Pariyo G, Ainsworth M, Hill K. Determinants of personal demand for an AIDS vaccine in Uganda. *Bulletin Of The World Health Organization* 2004;82(9):652-660.
- 18. Lawoyin TO, Larsen U. Male sexual behaviour during wife's pregnancy and postpartum abstinence period in Oyo State, Nigeria. *J Biosoc Sci* 2002;34(1):51-63.
- 19. Onah HE, Iloabachie GC, Obi SN, Ezugwu FO, Eze JN. Nigerian male sexual activity during pregnancy. *Int J Gynaecol Obstet* 2002;76(2):219-23.
- 20. Stata Corporation. *Stata Reference Manual Release* 9. College Station, TX: Stata Press, 2005.