

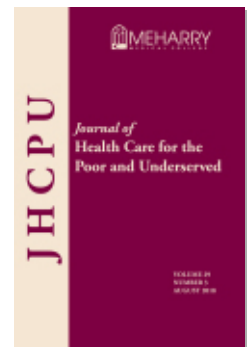


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# Intimate Partner Violence and Women's Health-seeking Behaviors in Northwestern Botswana

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*Abstract:* Despite evidence suggesting a strong association between women's experience of violence and their health-seeking behaviors, limited research has been conducted to date that explores factors associated with these behaviors in Botswana. A prospective, cross-sectional study involving semi-structured interviews with 479 women took place in Maun, Botswana, in 2012. Twenty-five percent of those interviewed reported not having visited a medical clinic at least once despite wishing to do so. Sequential binary-logistic regressions identified three factors associated with women's health services utilization: travel time, frequency of clinic visits, and experience of recent sexual intimate partner violence (IPV). Women who had experienced recent sexual IPV had over two and a half times the odds of having foregone medical care compared with women with no recent sexual IPV experience. Interventions that identify and encourage victims of sexual violence to seek timely screening and treatment may reduce overall disease burden in this population.

*Key words:* Botswana, intimate partner violence, health-seeking behavior, sexual violence, domestic violence, women's health.

Health service utilization among vulnerable populations is important to consider when developing health care programs. Globally, many factors have been identified that create and/or exacerbate barriers in health service utilization among the general population, including distance to health services, lack of transportation, and lack of finances.<sup>1,2</sup> Additional factors affect the utilization of health care services among vulnerable populations, including recent victimization, mental health status, substance abuse, and the existence of competing needs.<sup>3</sup> Such socio-behavioral factors are of particular

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concern with respect to health services utilization in that they may affect health-seeking behaviors. Higher utilization of health services among women in general results in more positive health outcomes, as evidenced within various health contexts including use of pre- and post-natal care, infant mortality, and HIV prevention.<sup>4-6</sup>

Research examining health care utilization by women in the United States has suggested that women who experience intimate partner violence are more likely than their non-abused counterparts to utilize both primary care and specialized health care services.<sup>7-10</sup> Culture and local customs may also play a significant role in the health-seeking behavior of victims of intimate partner violence. Rodriguez and colleagues, for example, identified a substantial difference in health care utilization among ethnically diverse survivors of intimate partner violence in the United States.<sup>11</sup> Studies in several developing countries have demonstrated that women who experience violence are less likely to use antenatal care or assistance with delivery.<sup>12-14</sup>

**The health care setting in Botswana.** Health services for women in Botswana have increased generally over the past several decades, largely due to a major scale-up of research, prevention efforts, and treatment in response to the HIV epidemic. Over the period 2006–2011, the government of Botswana increased its spending on social services by an average of 16% annually, averaging 45% of total government expenditure, and with approximately 20% of this spending dedicated to health services.<sup>15</sup> Botswana was one of the first countries in Africa to offer free antiretroviral therapy services and to improve the overall general health of the nation by establishing widespread clinics for primary care services.<sup>16,17</sup> According to the 2011 National Health Plan, 95% of the total population and 89% of the rural population live within eight kilometers of a health facility.<sup>18</sup> Slightly more than three-quarters of health care expenditures in Botswana are covered by government financing services, and antiretroviral treatment and reproductive health services are provided for free to all citizens.<sup>19</sup> The remaining 24% of health care costs are covered through insurance schemes, private household expenditures, and NGOs. At 13%, Botswana records the lowest level of out-of-pocket expenditures for health of any country in sub-Saharan Africa.<sup>20</sup>

Despite this improved level of access, utilization of high-impact interventions continues to be hampered by challenges of local scale-up, cost, and social factors that influence service utilization. Literature on the barriers to health care utilization in Botswana is limited and has largely focused on reproductive health, HIV testing, and HIV adherence. A 2003 study using data from the 1996 Botswana Family Health Survey found that factors associated with non-use of maternal health services included low-parity, lack of education, residence in rural areas, and low socioeconomic status.<sup>21</sup> Weiser and colleagues identified user fees as a barrier to long-term adherence by HIV-positive patients attending private clinics in Botswana.<sup>22</sup>

Violence against women (VAW) is a major social problem in Botswana, with recently reported lifetime rates ranging from 45–73.9% in the adult population.<sup>23-25</sup> To date, however, there has been no systematic investigation of the extent to which VAW may affect women's health-seeking behaviors. This study aims to address that gap by examining women's utilization of health care services in Botswana and the factors that may influence women's health-seeking behaviors. Specifically, the study explores the nature

and extent of VAW and the relationship between experience of partner violence and health-seeking behaviors among adult women in northwestern Botswana.

## Methods

This study was designed as a prospective, cross-sectional survey of women in Maun, Botswana, a semi-urban settlement in the northwestern quadrant of the country with a population of approximately 55,000. An in-depth, semi-structured interview instrument was designed to elicit information from adult women about themselves and their partners, their health-seeking behaviors, and their experience with various forms of domestic violence. The study was developed and implemented in collaboration with Women Against Rape, a local organization that assists survivors of violence and their families.

**Population studied.** Multi-stage sampling was used to identify eligible adult women 18 years and over to participate in this study. An initial round of sampling identified six wards (neighborhoods) from the 21 wards into which Maun is divided. Within each ward, a second round of sampling using a methodology developed by Afrobarometer for use in rural areas in Africa-identified specific households.<sup>26</sup> One woman within each household, randomly identified by means of a Kish Grid, was interviewed.<sup>27</sup> If the eligible woman was not available to be interviewed, field staff attempted to interview her at a subsequent time. In the event that she refused, field staff moved on to the next household in the sample.

Consent was elicited following procedures used by the World Health Organization in its 2005 *Multi-Country Study on Women's Health and Violence against Women*.<sup>28</sup> At the household level, the study was presented as an effort to understand the lives of women in the area. Spoken consent was obtained from all respondents prior to their participation in the study. To conform to Botswana law and the social custom that unmarried daughters under the age of 21 are still considered children, general permission was sought from parents or legal guardians prior to the field staff directly approaching the prospective subject. Once the eligible woman was identified and alone with the interviewer, she was given a more detailed spoken explanation of what the study entailed and asked for her consent.

Care was taken to ensure the safety of study participants. Botswana households are rarely quiet and women are almost always in the company of family members. Neighbors drop in at the first sign of an unknown visitor. Field staff asked research participants if they were comfortable being interviewed while in the presence of others, and if yes, would proceed with the interview. However, under no circumstances did field staff ask questions relating to a woman's experience of violence if they were not in private. At the end of the interview, a resource card with contacts for local support organizations was given to and discussed with each interviewee. If a woman asked for immediate assistance, a phone call was placed to Women Against Rape to arrange necessary social services.

**Study instrument.** The interview instrument included semi-structured questions relating to socio-demographic characteristics, health, utilization of health services, self-efficacy, and domestic violence. The core of the instrument was adapted from one used

successfully in a prior study in the same district.<sup>25</sup> Questions pertaining to domestic violence followed those developed by Measure DHS for the Demographic and Health Surveys that had also been successfully adapted for use in northwestern Botswana in 2010.<sup>29</sup> The survey was translated into Setswana by native Setswana-speakers, then back-translated into English to assess consistency in meaning. Any necessary corrections were made to the Setswana version before the interviews began.

A group of five local women who lived in Maun and were bilingual in Setswana (the local language) and English (the official language) were recruited to carry out the interviews. The field staff was hired through Women Against Rape and was trained by a member of the study team (DD) using a pre-designed training workshop that was based on optimal methods recommended for use when speaking with women about violence.<sup>30</sup> The training included relevant topics such as the importance of participation consent, confidentiality, Kish grid randomization, conducting the interviews, strategies to minimize under-reporting and incomplete responses, and safety in the field. The team of five interviewers completed three days of interview training, a seven-day trial period, and carried out six weeks of interviews. Field staff work was reviewed by a member of the study team (DD) and interview methods reinforced in daily discussions with the team. The majority of the field staff had worked with this study team on previous VAW-related research projects in Maun.

**Measures.** Respondents were asked a series of questions relating to their age, education, employment, relationship status, tribal affiliation, and children. In addition, they were asked to identify activities or chores (e.g., cooking meals, building fires, washing clothes, cleaning, bathing children, buying food) for which they were responsible on a daily basis. Two additional variables were included in the analysis to capture the economic status of the respondent: whether or not she was involved in money-making activities outside formal employment (e.g., selling phone cards or handcrafts) and the monthly income in her household.

A series of categorical questions was asked to determine how a woman rated her health (poor, average, or good), the number of visits she had made to a clinic in the past year, the time required for her to reach the clinic, the mode and cost of transportation to the clinic and the cost of health services. Respondents were also asked whether they had ever wished to go to the clinic but had not done so. Women who responded “yes” to the previous question were also asked an open-ended question to identify the barriers, if any, that had prevented them.

For the purposes of this study, intimate partner violence (IPV) was defined in accordance with the work of Heise, Ellsberg, and Gattemoeller as “any act of verbal or physical force, coercion, or life-threatening deprivation, directed at an individual woman or girl that causes physical or psychological harm, humiliation, or arbitrary deprivation of liberty and that perpetuates female subordination.”<sup>31</sup> [p. 1165] The IPV module used in this study included questions about physical as well as sexual violence. Intimate partner violence scores were based on women’s report of their partner’s behavior within the past 12 months. Dichotomous variables were created from responses to reflect whether or not a woman had experienced any episode of each form of IPV within the past year.

**Analysis strategy.** Descriptive statistics were run for all variables. Multiple imputation with chained equations (MICE) in Stata/MP 13.1 was used to impute household income

for 79 women in the original sample who had responded “don't know” to the question regarding monthly household income.<sup>32,33</sup> Responses to the question of tribal affiliation were collapsed into a dichotomous variable to reflect whether a woman belonged to one of the eight major Tswana tribes (Tswana) or was a member of an ethnic minority group (non-Tswana). All data analyses were conducted using Stata/MP 13.1 statistical software.<sup>32</sup> Four sequential binary-logistic regressions were run to identify factors associated with women's health care utilization in Botswana. In Model 1, the primary health care utilization variable (“did not visit clinic despite wanting to go”) was regressed on a number of demographic variables to investigate whether health utilization was associated with specific individual or household-level characteristics. In Model 2, several health-related variables were added to the base demographic model to explore whether women's health utilization was associated with characteristics of women's access to health services (e.g., the proximity and cost of accessing a clinic), her self-reported health, and the number of visits she had made to a health clinic in the past year. Finally, women's recent experiences of physical and sexual IPV were added to the demographic and health-related variables in Models 3 and 4, respectively, to examine whether women's experiences of recent IPV were associated with their health care utilization choices.

Preliminary correlations were computed and examined for evidence of multicollinearity between all independent variables in each model and all outcome variables were within an acceptable range (correlation coefficients between predictor variables,  $|r| < 0.7$ ).

**Ethical review.** The study protocol was reviewed and approved by the Institutional Review Boards at the University of Michigan and Rutgers University and by the Botswana Ministry of Labor and Home Affairs. Spoken informed consent was obtained from all participants. Databases excluded all personal identifiers.

## Results

A total of 479 interviews were conducted for this study. Item non-response indicated minimal missing data (less than 4%) on all independent, dependent, and control variables included in these analyses. Therefore, list wise deletion was used to remove cases with missing values for any of the variables included in the models. The final analytic sample consists of 419 women.

**General descriptive statistics.** Descriptive statistics for the analytic sample of women are summarized in Table 1. The mean age of respondents was 32.7 years (SD 13.14), and a majority had completed some secondary education. Forty-six percent of women identified themselves as belonging to a Tswana tribe. A majority (58%) of the women reported being in a relationship with a partner to whom they were not married; 21.3% were married, defined as being in a union sanctioned by family and recognized under Botswana's customary law and/or registered as a legal marriage under Botswana's Roman-Dutch legal system. A large number of children are born out of wedlock, with women having an average of 2.7 children (SD 2.14). These findings are similar to those found in a study conducted in the same population in 2009–2010.<sup>34</sup>

Approximately one third of the respondents reported monthly household income below 400 Botswana pula (approximately US\$62). Twenty-nine percent reported

**Table 1.**  
**DESCRIPTIVE STATISTICS<sup>A</sup>**

(n=419)	Freq	%
Dependent variables		
Did not visit clinic despite wanting to go	104	24.8
Domestic violence variables		
Physical violence by current partner (past 12m)	177	42.2
Sexual violence by current partner (past 12m)	53	12.6
Demographic variables		
Age (continuous)	32.7 (13.14)	32.7 (13.14)
Highest education		
None	78	18.6
Primary	246	58.7
Secondary	43	10.3
Higher	52	12.4
Member of a Tswana Tribe	192	45.8
Number of children (continuous)	2.7 (2.14)	2.7 (2.14)
Relationship Status		
Single	55	13.1
Divorced/widowed/separated	34	8.1
In relationship, living separately	133	31.7
In relationship, living together	108	25.8
Married (customary law)	22	5.3
Married (Roman-Dutch law)	67	16.0
Employed	105	25.1
Involved in additional money-making activities	91	21.7
Household poverty		
Less than 250 pula/month	69	16.5
Between 250–400 pula/month	53	12.6
More than 400 pula/month	224	53.5
Not aware of household finances	73	17.4
Number of daily responsibilities (continuous)	3.1 (1.00)	3.1 (1.00)
Health-related variables		
Self-reported health status		
Poor	89	21.2
Average	41	9.8
Good	289	69.0
Visits to Clinic		
Never in the last year	139	33.2
One time in the last year	54	12.9
A few times in the last year	148	35.3
Many times in the last year	78	18.6
Clinic in respondent's ward	388	92.6

(continued on p. 870)

**Table 1. (continued)**

(n=419)	Freq	%
Time to reach clinic		
Less than 10 minutes	41	9.8
10–30 minutes	269	64.2
30 minutes or more	109	26.0
Mode to clinic		
Respondent's car	45	10.7
Taxi or Combi	57	13.6
On foot (walking)	317	75.7
Cost to get to clinic (without children)		
Less than 5 pula	319	76.1
At least 5 pula	100	23.9
Cost for services at clinic		
Pay nothing	35	8.4
Pay at least 5 pula	384	91.6

*Note*

<sup>a</sup>Not aware of household finances responses on the household poverty level variable were imputed for use in regressions.

monthly household incomes below Botswana's national poverty line; this finding is in keeping with nationally reported poverty rates of approximately 30% in Ngamiland (North West) at the time of the study. Seventeen percent of respondents didn't know their household income. Only about 25% of the respondents reported they were employed for wages outside the home, and about 22% reported being involved in additional money-making activities. On average, women reported that they were responsible for at least three household chores every day, the most common among these being cooking, bathing children, and washing clothes.

Forty-two percent of women interviewed reported having experienced physical abuse by their current partner in the last 12 months, and about 13% reported sexual IPV in the last 12 months. Despite these figures, the majority of women in this sample reported that they were in good health. At the time of this study, 10 or more visits to a health clinic in a year was usually an indication of monthly prescription refills for treatment of HIV, hypertension, and/or diabetes; approximately 19% of women sampled were therefore categorized as living with a chronic disease based on their high frequency of visits to a clinic. Over 90% of the women do not have a health clinic in their ward, but the majority of women report a travel time to a health clinic of only 10 to 30 minutes. Over three-quarters of the women travel to the health clinic on foot.

Twenty-five percent of the women in the study reported that there had been at least one occasion on which they had wanted to go to the clinic but had not done so. Reasons given for their decisions are reflected in Table 2. Among the most common reasons cited were demands of household chores and problems with transportation.



**Table 2.****REASONS WOMEN PROVIDED FOR NOT VISITING THE CLINIC DESPITE WANTING TO GO**

(n=104)	Frequency	Percent
Did not have enough money to pay for clinic services	4	3.8
Did not have enough money to pay for transportation to clinic (or general transportation problem- no one to take them)	25	24.0
Had to do chores in the house	29	27.9
Could not get time off of work or school	11	10.6
Did not want anyone to know they were sick	4	3.8
Had to care for children at home	7	6.7
Laziness	14	13.5
Decided to self-treat at home or got better quickly	2	1.9
Too sick to get there, or unable to walk	4	3.8
Did not want to go because of the waiting time or the bad service at the clinic	3	2.9
There was no clinic available	1	1.0

**Factors associated with women's health care utilization.** Results from the regression models are summarized in Table 3. When demographic factors alone were taken into account (Model 1) a significant association was found between women's health-seeking behavior and women's education and number of children. Findings show that the odds of a woman not seeking health services when she wanted to do so increased 19% ( $p < .05$ ) with each additional child. In addition, women with higher education had more than two times the odds (2.27) of having foregone seeking health services. While the number of children and education were statistically important when controlling for other demographic factors at the individual level, their statistical significance disappeared when additional health and violence variables were included in the model.

Results from Model 2, which reflect the relationship between women's utilization of health care services and demographic as well as health factors, suggest that the single most important factors associated with health utilization are the frequency of visits to the clinic and travel time. Compared with women who report never having visited a health facility in the past year, women who report occasional visits to a clinic have 94% greater odds that they will have not gone to the clinic at least once despite wishing to do so. Women who regularly visit the health clinic are no more likely to have deferred or decided against a visit than women who never went to health facilities. Women who traveled between 10 and 30 minutes had almost four and one half times (4.4) the odds of not visiting the clinic despite wanting to go than women with travel times under 10 minutes. Women who reported having to travel more than 30 minutes did not have significantly different odds of going to the health clinic compared with women who travel less than 10 minutes.

Table 3.

FACTORS ASSOCIATED WITH WOMEN NOT VISITING THE HEALTH CLINIC<sup>A</sup>

	Model 1 Demographic Controls Only		Model 2 Demographic and Health Controls		Model 3 Physical Violence		Model 4 Sexual Violence	
	OR	CI	OR	CI	OR	CI	OR	CI
Demographic Variables								
Age (continuous)	0.97+	0.943–1.003	0.97	0.939–1.003	0.97+	0.938–1.004	0.97	0.937–1.002
Highest education (ref: no education)								
Primary	0.63	0.313–1.27	0.63	0.297–1.339	0.65	0.301–1.381	0.60	0.278–1.285
Secondary	0.84	0.315–2.26	0.89	0.306–2.607	0.93	0.318–2.712	0.83	0.282–2.428
Higher	2.27*	1.012–5.072	2.05	0.877–4.795	1.99	0.847–4.688	2.01	0.840–4.794
Member of a Tswana Tribe	0.88	0.542–1.431	1.00	0.595–1.678	1.00	0.591–1.676	0.98	0.580–1.651
Number of children (continuous)	1.19*	1.007–1.410	1.14	0.950–1.378	1.16	0.960–1.400	1.14	0.947–1.379
Relationship Status (ref: single)								
Divorced/widowed/separated	0.44	0.128–1.502	0.42	0.113–1.557	0.4	0.107–1.497	0.44	0.117–1.643
In relationship, living separately	0.67	0.316–1.442	0.79	0.352–1.772	0.61	0.256–1.435	0.74	0.325–1.665
In relationship, living together	0.77	0.346–1.693	0.8	0.343–1.887	0.59	0.235–1.484	0.67	0.279–1.616
Married (customary law)	0.6	0.173–2.091	0.9	0.234–3.446	0.72	0.183–2.810	0.78	0.197–3.088
Married (Roman-Dutch law)	0.92	0.348–2.447	0.95	0.328–2.724	0.78	0.263–2.296	0.89	0.307–2.584
Employed	0.82	0.415–1.624	0.73	0.351–1.508	0.79	0.380–1.655	0.78	0.375–1.637
Informal employment	1.36	0.733–2.513	1.44	0.744–2.781	1.51	0.778–2.938	1.51	0.779–2.938
Household poverty (ref: less than 250 pula/mnth)								
Between 250–400 pula/month	0.74	0.324–1.710	0.69	0.286–1.677	0.69	0.281–1.687	0.76	0.306–1.876
More than 400 pula/month	0.96	0.463–2.012	0.94	0.423–2.108	0.92	0.411–2.063	0.97	0.427–2.202
Number of daily responsibilities (continuous)	0.98	0.771–1.233	0.99	0.768–1.273	0.97	0.757–1.251	0.97	0.749–1.244
Health-related variables								
Self-reported health status (ref: poor)								
Average			1.32	0.531–3.298	1.31	0.525–3.285	1.28	0.506–3.237
Good			0.70	0.369–1.310	0.70	0.369–1.317	0.70	0.370–1.344

(continued on p. 873)

**Table 3. (continued)**

	Model 1 Demographic Controls Only		Model 2 Demographic and Health Controls		Model 3 Physical Violence		Model 4 Sexual Violence	
	OR	CI	OR	CI	OR	CI	OR	CI
Visits to clinic (ref: never in the last yr)								
One time/yr	1.30		0.557-3.015		1.21	0.519-2.831	1.24	0.531-2.901
A few times/yr	1.90*		1.037-3.472		1.94*	1.054-3.565	1.98*	1.071-3.658
Many times/yr	0.86		0.378-1.937		0.91	0.398-2.056	0.92	0.402-2.095
Clinic is located in respondent's ward	0.74		0.427-1.299		0.74	0.424-1.295	0.74	0.419-1.298
Time to clinic (ref: less than 10 min)								
10-30 minutes	4.54*		1.299-15.88		4.37*	1.249-15.307	4.69*	1.331-16.555
More than 30 minutes	2.57		0.676-9.731		2.41	0.634-9.147	2.35	0.614-8.971
Mode to clinic (ref: on foot)								
Respondent drives car	0.99		0.156-6.237		1.04	0.163-6.587	0.96	0.149-6.208
Taxi/combi	1.21		0.175-8.386		1.30	0.189-8.879	1.17	0.167-8.232
Has to pay at least 5 pula to reach clinic	1.85		0.288-11.863		1.81	0.285-11.481	1.91	0.293-12.458
Has to pay at least 5 pula for services at clinic	0.87		0.375-2.042		0.79	0.337-1.872	0.88	0.369-2.091
Domestic Violence Variables								
Physical violence by current partner (past 12m)					1.7	0.966-2.975		
Sexual violence by current partner (past 12m)							2.79**	1.374-5.684

Notes  
 †Imputed responses to the “not aware of household finances” category of the household poverty variable were used in all regression models.  
 \* p<.05  
 \*\* p<.01  
 \*\*\* p<.001  
 OR = Odds Ratio  
 CI = Confidence Interval

In Model 3, in which physical IPV was included as a factor, the frequency of clinic visits continues to be a significant predictor of health-seeking behavior for women who are infrequent visitors to health clinics. Consistently with models 1 and 2, women who reported travel-to-clinic times of 10–30 minutes had more than four and one-half times the odds of foregoing desired clinic visits than women whose travel time to clinic was less than ten minutes. The influence of travel-to-clinic times greater than 30 minutes on health-seeking behavior was not significant compared with women with travel times shorter than 10 minutes. Physical IPV was not found to be a significant predictor of women's health-seeking behavior.

When sexual IPV was substituted for physical violence in Model 4, the significance of travel times of 10–30 minutes and the frequency of visits per annum remained. However, unlike physical IPV, sexual IPV appears to be an important predictor of women's health-seeking behaviors. Women who have experienced recent sexual IPV have over 2.8 times the odds of not going to the health clinic despite wanting to go even when controlling for numerous health and demographic variables.

## Discussion

Studies in other countries have identified a number of factors that may influence health care utilization by women: distance to health services, lack of transportation, poverty, competing needs, and various health conditions, among them recent victimization. Research specific to Botswana, though scarce, has implicated lack of education, low parity (with respect to antenatal care), and low socioeconomic status in under-utilization of health services.<sup>19</sup> This study examined a number of these factors with respect to women's health-seeking behaviors and health services utilization in northwestern Botswana, where many women live in poverty and where previous research indicates high rates of gender-based violence.<sup>21–23</sup>

A number of factors shown in these earlier studies to be associated with women's under-utilization of health services, including lack of resources and cost of health care, physical IPV, and ethnicity, lacked significance in our models when controlling for other demographic and health factors. The majority of the health care provision in Botswana is public; thus, patients pay only a small fee for most health services and nothing for antiretroviral therapy and sexual reproductive health services at public clinics. Even with more than 29% of the sample living on household income levels reported at or below the national poverty line, cost of medical services was not a significant predictor of health-seeking choices in this population. Although more than four out of 10 women have had recent experiences of physical abuse by an intimate male partner, the physical and emotional effects of such abuse do not seem to have a significant effect on the odds that a woman will forego desired health services. Similarly, although more than one half of the women interviewed did not belong to one of the major Tswana tribes, tribal affiliation was not significantly associated with health care utilization.

Just as previous research has linked underutilization of health care with competing needs, participants in this study identified a number of responsibilities and necessities that prevented them from accessing desired health care, particularly the demands of household chores. However, no statistically significant relationship was found between

accessing health care when it was desired and the number of daily responsibilities a woman reported she had at home. While the number of children was associated with a woman's failure to access desired health services when examined in the context of demographic attributes only, the explanatory weight of this factor disappeared in the more complex models that included health-related and domestic violence variables.

Three factors, however, were significantly linked to women's failure to access desired health care in every model in which they appeared: travel times of 10–30 minutes to the nearest clinic, infrequent utilization of health care services, and recent experience of sexual violence by an intimate partner. It has previously been demonstrated that an increased travel time to clinic makes it less likely for a person to seek health care.<sup>35</sup> The results of this study correspond with this finding in that women who report a travel time of 10–30 minutes have higher odds of deferring or deciding against a clinic visit than women who report a travel time of less than 10 minutes. Interestingly, the significance of travel time in women's health-seeking behavior disappears when travel times exceed 30 minutes. This finding could be due to the fact that when clinics are further away and less accessible, the decision to go to the health clinic is more deliberate, requiring advance planning for chores, transportation, and childcare. It might be that, in this population, a travel time of 10–30 minutes is a middle ground in which the clinic is close enough to visit without special arrangements yet far enough away to cause inconvenience and daily interruption if the services required are not considered to be too important. In these situations, a woman might delay or decide not to seek medical attention when the time required in doing so is weighed against time taken away from her household chores.

This study also found that women in northwestern Botswana who have experienced recent physical IPV are just as likely to access desired health care as women who have not. This finding corresponds with similar findings in western literature with regards to health care usage among survivors of IPV. In contrast, however, women who had experienced recent sexual violence by an intimate partner were found to have greater than two and a half times the odds of having foregone desired health care services than women who had not. Although our data did not allow us to determine whether there is a causal relationship between sexual IPV and foregone health care utilization, there are a number of potential explanations that should be explored in future research. As a society, Botswana is by tradition highly patriarchal, with gender norms that emphasize a woman's duties to her husband, as reflected in a common Setswana saying, *mosadi wa e tshoka* (a woman must submit), and sexual care of one's husband is considered one of the domestic responsibilities of a wife.<sup>36,37</sup> Women are not expected to air their grievances against their husbands in public, and in a culture in which physical violence against women is commonplace,<sup>21</sup> women may well feel that they should go about their business rather than risk being seen as complaining outside of the family unit or as criticizing their male partners for behavior that is traditionally viewed as within their spousal rights. Elsewhere, research has shown that women often tolerate abuse by their husbands for fear of being criticized themselves for disobedience or failure as wives.<sup>38</sup> Although no respondent cited shame or embarrassment over signs of partner abuse as reasons for deferring or deciding against a clinic visit, it is not likely in this setting of male dominance that women would want to draw attention to their partners' acts of violence, even if such acts were the underlying reason for their decisions to forego health care.

Women may view sexual IPV differently, fearing that taking time away from chores and perceived household responsibilities may result in renewed acts of sexual violence. Although marital rape is not recognized within either customary or Roman-Dutch law in Botswana,<sup>39</sup> sexual violence by an intimate partner can have long-lasting debilitating effects on a woman's physical as well as mental health, and can result in stigma and social ostracism of its victims.<sup>40</sup> A considerable body of evidence suggests that rape carries with it substantial social stigma in many cultures,<sup>41,42</sup> something women may go to great lengths to avoid, particularly if rape occurs within marriage or union. Elsewhere, it has been shown that women who were both physically and sexually abused by their partners had significantly higher levels of self-rated depression than those who were only physically abused.<sup>40,43</sup> Women who suffer from even mild forms of depression often experience fatigue and lack of interest in daily activities, both of which may be factors contributing to a woman's foregoing health care. Concerns that evidence of sexual violence may, in a health care setting, trigger questions relating to her and her partner's HIV status could serve as another disincentive to health care-seeking given the highly-stigmatized nature of the disease in Botswana.<sup>44</sup> Failure to seek medical attention for sexual IPV may have long-term health implications for victims, including gynecological problems, sexually transmitted diseases, unintended pregnancies, and depression.<sup>7</sup>

**Conclusion.** Women's timely access to and utilization of health services are important features of effective health care delivery. Understanding the nature and extent of underutilization is particularly important in Botswana, where women's low social status exposes them to risk of poor health outcomes directly or indirectly resulting from intimate partner violence. This study is the first of its kind to examine the underlying barriers to health-seeking by women in northwestern Botswana as well as the first to examine the possible association between women's failure to seek health care and experiences of violence. Because the study findings are based on cross-sectional data, however, it is limited in its ability to draw specific conclusions about the temporal or causal relationships between phenomena. Nonetheless, the strong correlation found in this study between sexual IPV and a women's delay or deferral in accessing health services warrants further examination as part of national efforts to expand health coverage to all its citizens. Information on the importance of seeking health care should, where appropriate, be offered to victims of violence who seek counseling from social service organizations in Botswana such as Women Against Rape. Health care providers should regularly screen for experiences of violence as part of routine care for female patients who visit health facilities for any reason. Interventions that encourage women to seek care regardless of the nature of their health concern, but particularly in cases of sexual violence, may reduce overall disease burden in this population and allow for targeted, timely screening and treatment for victims of abuse.

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