

Inquiry about Domestic Violence against Women in Healthcare Uganda: Do Practitioner Attitudes, Role Conflicts, Efficacy, Safety Concerns and Support Networks Play a Role?

Louise Ehrenberg¹, Winnie Lawoko-Olwe², Bishop Loum³, Kenneth Oketayot⁴, Margarete Akot⁵, Charles Kiyembe⁶, Emmanuel Ochola⁴, David Guwatudde⁷, Stephen Lawoko^{1*}

¹Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

²Associated Children Empowerment Network (ACEN), Gulu, Uganda

³Anaka Hospital, Gulu, Uganda

⁴Lacor Hospital, Gulu, Uganda

⁵Gulu Referral Hospital, Gulu, Uganda

⁶Iganga Hospital, Iganga, Uganda

⁷Department of Epidemiology and Biostatistics, Makerere University School of Public Health, Kampala, Uganda
Email: [*Stephen.lawoko@ki.se](mailto:Stephen.lawoko@ki.se)

Received 10 February 2014; revised 12 March 2014; accepted 9 April 2014

Copyright © 2014 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Objectives: We scrutinized the extent of inquiry about domestic violence against women by practitioners in healthcare Uganda, and its relationship with individual, professional and organization factors. Specifically, we hypothesized that the frequency of IPV inquiry in healthcare would be associated with practitioner attitudes, professional role conflicts, self-efficacy, provider/client safety and system support. **Methods:** The Domestic Violence Healthcare Provider Survey Scale questionnaire was administered to a random sample of 376 health care providers (n = 250 valid responses) from Gulu, Anaka, Lacor and Iganga hospital situated in northern and eastern Uganda. The data was analyzed using chi-square tests, correlation tests and ordinal regressions analyses. **Results and Conclusions:** We found that over a three-month period, the majority of participants (31%) had inquired about domestic violence exposure among clients between 4 - 6 times, with 18% having not inquired at all. As hypothesized, low self-efficacy, poor availability of a support network, high professional role conflicts/fears of offending patients, and concerns about victim/provider safety

*Corresponding author.

How to cite this paper: Ehrenberg, L., Lawoko-Olwe, W., Loum, B., Oketayot, K., Akot, M., Kiyembe, C., Ochola, E., Guwatudde, D., & Lawoko, S. (2014). Inquiry about Domestic Violence against Women in Healthcare Uganda: Do Practitioner Attitudes, Role Conflicts, Efficacy, Safety Concerns and Support Networks Play a Role? *Psychology*, 5, 630-639.

<http://dx.doi.org/10.4236/psych.2014.57075>

reduced the probability of IPV inquiry. These findings have implications for the reorganization of the health care settings, review of organization policy and further training of care personal before IPV inquiry can develop into a universal routine practice in healthcare Uganda.

Keywords

Domestic Violence, Screening, Women, Healthcare, Uganda, Predictors

1. Introduction

In 2010, Uganda ratified the domestic violence act sending a clear message to the public, civil and state organizations of the government commitment toward gender-equity. Among other actors, the bill highlighted expectations of the healthcare organization which included accurate documentation of domestic violence, information of options for redress (e.g. judicial and police) and availing requisite medical assistance ([Republic of Uganda, 2010](#)). This shift in policy is prompting the development of tools and staff orientation to address gender-based violence in healthcare. Researchers have followed suite in the development of theoretical frameworks and tools to understand staff perceptions about and possible hinders to the practice of Domestic violence screening and management in healthcare settings in the country ([Lawoko, Seruwagi, & Marunga et al., 2013](#); [Lawoko, Mutto, & Guwatudde 2012](#)).

There are several reasons to involve the health sector in screening for the possibility of domestic violence, particularly among female clients. First, domestic violence is typically gender-based as the prevalence of victimization is substantially higher and health consequences better documented among women. Globally, between 10% - 69% of women experience Intimate Partner Violence (IPV), the most common form of domestic violence, with higher figures in low income countries. This coupled by the well documented physical, mental and reproductive health consequences of IPV ([WHO, 2002](#); [Campbell, 2002](#); [Emenike, Lawoko, & Dalal, 2008](#); [Okenwa, Lawoko, & Jansson, 2011](#); [Gage, 2005](#)), and higher frequency of healthcare seeking in this special group, when contrasted with the general population ([Hegarty, 2006](#)), is indicative that such violence may account for a significant portion of women's total health burden. In support of this notion, a recent systematic review of the literature by the World Health Organization (WHO) of over 80 countries including low, middle and high income countries concluded that Intimate Partner Violence (IPV) against women is a global health problem of epidemic magnitude ([WHO, 2013b](#)). Thus, from a proximity perspective, the healthcare sector is well positioned to handle gender-based violence and its consequences on health. Secondly, there is growing evidence showing that majority of women visiting healthcare acknowledge inquiry about IPV in healthcare as good practice, irrespective of whether they are victims of abuse or not, and that such inquiry increases women's satisfaction with care in general ([John, Lawoko, & Oluwatosin, 2011](#); [Stenson, Saarinen, Heimer, & Sidenvall, 2001](#); [Koziol-McLain, Giddings, Rameka, & Fyfe, 2008](#)). Thus, screening is motivated from a value-added perspective for the beneficiary. Finally, over their reproductive life course, women will seek primary healthcare extensively for healthcare issues and controls for themselves or their children, and identify primary care personal as their main source of support ([Wisner, Gilmer, Saltzman, & Zink, 1999](#)), making the health sector possibly the most frequently visited organization by most women. Thus, from a coverage perspective, the healthcare sector is probably the most effective setting for identification of abuse.

These advantages notwithstanding, the debate on screening for domestic violence in health care is not without controversy, particularly on whether screening should be a universal and routine practice (i.e. regular inquiry about the possibility of victimization of all patients regardless of whether they carry symptoms of abuse or not). Several factors including conflicting professional roles (e.g. respect for clients and fears of offending clients who may not have a history of abuse), safety concerns (i.e. inquiries could jeopardize patient or provider safety) and organizational unpreparedness (e.g. lack of referral services and protocols) may render the practice of routine universal screening for domestic violence against women in healthcare difficult ([Maiuro, Vitaliano, Sugg, Thompson, Rivara, & Thompson, 2000](#); [Lawoko, Seruwagi, Marunga et al., 2013](#); [Lawoko, Sanz, Helstrom, & Castren, 2011](#); [John, Lawoko, & Svanström, 2011](#)). The identification and remedy for such challenges to screening therefore deserve some attention before introduction of domestic violence screening in new settings.

The evidence base in support for the introduction and implementation of domestic violence screening in healthcare particularly in low income countries is weak. The development of theoretical frameworks and models to understand factors likely to hinder or promote emerging practices in healthcare such as domestic violence screening are fundamental before the imposition of such practices on healthcare providers. Baseline studies to understand and measure provider and consumer perspectives, healthcare system bottlenecks and societal deterrents of domestic violence inquiry in nursing care will provide the much needed evidence to inform the content, structure and strategy for screening in low income countries, as has been the case in some high- and middle income settings (Maiuro, Vitaliano, Sugg, Thompson, Rivara, & Thompson 2000; Lawoko, Sanz, Helstrom, & Castren, 2011; John, Lawoko, & Svanström, 2011). Typically, the public health approach provides a useful framework to support such works. According to this four-phased approach, a crucial first step is to develop a framework for defining and understanding the problem through systematic data and information gathering. The second phase comprises the assessment of risk and protective factors, followed by development and evaluation of interventions to assess what works in the third phase, and finally scaling up, implementation and impact/cost evaluation of promising interventions (phase 4) (WHO, 2013a).

In Uganda, the context of the current study, screening for domestic violence is not yet routine practice. In line with the public health approach therefore, we recently carried out qualitative studies in 4 regional hospitals to provide a theoretical framework for understanding possible barriers to the practice of screening and identified an inter-play of factors at individual, organizational and societal levels as potential determinants of domestic violence screening. At the individual levels, poor disclosure of abuse by patients, poor skills in inquiry by practitioners and attitudes endorsing domestic violence among staff were identified. At the organization level, under-staffing, conflicting professional roles, safety of the victim/provider, lack of protocols for the purpose, poor information on referral services, lack of support networks, to mention but a few, potentially weaken the health organizations' capacity to screen for domestic violence. With the same token, societal acceptance of abuse, poor laws or weak enforcement of existent laws and a lack of referral services represent some of the potential societal barriers to the practice of domestic violence screening (Lawoko, Seruwagi, Marunga et al., 2013). While the mentioned study provided a starting point for building hypotheses about possible risk and protective factors for domestic violence screening in healthcare Uganda, the quantification of such factors is deemed important in setting intervention priorities in preparation for domestic violence screening in healthcare, as emphasized in the public health approach. In the current study, we attempt to quantify a number of individual and organizational factors previously identified as potential determinants of domestic violence inquiry in healthcare Uganda in the preceding study (Lawoko, Seruwagi, Marunga et al., 2013).

The purpose of the current study therefore was to quantify some individual and organizational factors as risk factors for domestic violence screening in healthcare Uganda. Specifically, we studied Intimate Partner Violence (IPV) against women, and operationalized IPV screening as the frequency of IPV inquiry. We hypothesized that:

- 1) The frequency of IPV inquiry would increase with increasing self-efficacy among care providers.
- 2) The frequency of IPV inquiry would increase with decreasing role conflicts/fears among care providers.
- 3) The frequency of IPV inquiry would increase with decreasing concerns about victim/provider safety among care providers.
- 4) The frequency of inquiry would increase with decreasing negative attitudes towards victims among care providers.
- 5) The frequency of IPV inquiry would increase with increasing access to support networks.

2. Methodology

2.1. Study Design, Population and Participants

The study design was cross-sectional and self-administered structured questionnaires were used to collect participant data on IPV inquiry and individual and system factors hypothesized to associate with IPV inquiry.

The population of interest were healthcare providers in Northern and Eastern Uganda, where the prevalence of IPV is comparatively higher when contrasted with other parts of the country (UBOS, 2010). In northern Uganda, Gulu referral hospital (250 beds), Anaka district hospitals (120 beds) and Lacor Hospital (480 beds) were chosen, while in eastern Uganda, Iganga district hospital (120 beds) participated. These hospitals serve mainly patients from the northern and eastern Uganda regions, though patients are received from neighbouring communities and countries including DRC Congo, Southern Sudan and Kenya. Currently, there are no specific

guidelines on routine screening for IPV at these hospitals, as is the case in all Ugandan hospitals.

The inclusion criteria were healthcare providers in regular contact with female patients. Excluded workers comprised laboratory personnel, administrative personnel and other categories that do not interact with patients (e.g. administrative and technical staff). The eligible participants were randomly drawn from all relevant departments that female clients come in contact with. These include (but are not limited to) general outpatients unit, emergency department, obstetrics and gynaecology, maternity wards, Ear, Nose and Throat (ENT), pediatric care and dental care. At each hospital, a registry of eligible participants was obtained from the administration. At initiation of the study, the 4 hospitals together had approximately 620 healthcare workers meeting the inclusion criteria with the following approximate distribution 300 from Lacor hospital, 130 from Gulu hospital, 60 from Anaka hospital and 130 from Iganga hospital. Stratified random sampling was used to draw a representative sample of 376 participants, of which 282 agreed to participate in the study. Three questionnaires were returned unfilled, resulting in an effective sample of 279 participants with the following distribution per hospital; Lacor hospital $n = 122$, Gulu hospital $n = 63$, Iganga hospital $n = 61$, Anaka hospital $n = 33$). The total response rate was 79%. Of the 279 returned questionnaires, 250 responded to the question on IPV screening (the outcome variable in this study). This study thus comprised 250 participants.

2.2. Procedures and Ethical Considerations

Workers within all departments were informed verbally by department heads of the impending study a number of weeks in advance. The selected participants received the questionnaire and information while registering for their work session. The questionnaires, accompanied by information letters about the study, were self-administered. The information included background to the study, its relevance, procedures and ethical considerations. The ethical considerations emphasized informed consent, voluntary participation and confidentiality. Ethical approval was sought and granted by the Institutional Review Board (IRB) of Makerere University School of Public Health (MUSPH) and the Uganda National Council of Science and Technology (UNCST), the two bodies with mandate to approve research concerning human subjects in Uganda.

2.3. Study Variables

Healthcare providers responded to a previously validated questionnaire, the domestic violence healthcare provider survey scales (Maiuro, Vitaliano, Sugg, Thompson, Rivara, & Thompson, 2000) which assess healthcare provider individual and system factors likely to impede screening, as well as the frequency of actual inquiry of IPV. The instrument has been tested for reliability and validity in the study context Uganda (Lawoko, Mutto, & Guwatudde, 2012), and its contextual validity verified in a qualitative study in the same context (Lawoko, Seruwagi, Marunga et al., 2013).

2.3.1. Dependent Variable

In Uganda the study context, IPV screening is not yet routine practice and there are no systematic protocols for the purpose. We adopted therefore a proxy to IPV screening i.e. the *frequency of IPV inquiry* which was assessed using an open-ended question inquiring how often during the past 3 months the respondent had inquired about the possibility of domestic violence in his/her contact with patients. Due to the skewed distribution of responses to this question, they were transformed into a five category ordinal variable to allow for meaningful statistical, as follows: Category 1: did not screen at all during 3 months; Category 2: Screened 1 - 3 times; Category 3: Screened 4 - 6 times; Category 4: Screened 7 - 10 times; Category 5: Screened more than 10 times. This transformed variable was fairly normally distributed and formed the dependent variable for this study.

2.3.2. Independent Variables

The *perceived self-efficacy subscale scale (7 items)* assesses providers own perceived efficacy in inquiring about IPV with regard to time constraints, strategies for inquiry, access to information and confidence. Individual scores range between 7 - 35, and the higher the individual score the higher the perceived self-efficacy in handling IPV.

The *system support sub-scale (4 items)* assesses healthcare providers' access to support networks for referral/management of IPV victims. Individual scores range between 4 - 20, and the higher the individual score the higher the perceived system support.

The *professional roles resistant/fear of offending clients sub-scale (7 items)* assesses whether providers

perceive inquiries about IPV to conflict with ethical issues/roles governing their communication with clients (e.g. fear of offence, privacy invasion and provocative). Individual scores range between 7 - 35, and the higher the individual score the higher the professional role resistance/fear of offence.

The *blame victim sub-scale (7 items)*, assesses providers attitudes towards victims (e.g. views that victim's personality, breaking of normative roles, passivity and provocation are causes of abuse). Individual scores range between 7 - 35, and the higher the individual score the higher the propensity to blame the victim.

The *victim (4 items) and provider (5 items) safety sub-scales*, which assess whether providers perceive inquiries about IPV from batterers to jeopardize safety of victims and care provider. For provider safety, individual scores range between 5 - 25, and the higher the individual score the lower the concerns about care provider safety. For victim safety, individual scores range between 4 - 20, and the higher the individual score the lower the concerns about victim safety.

Demographic and professional attributes: The questionnaire gathered data on demographic and occupational information on each respondent (i.e., age, gender, ethnicity, profession and work experience).

2.4. Statistical Analysis

Demographic characteristics of participants, in relation to the outcome variable, were described using proportions and tested for association using Chi-square tests. Bivariate correlations were conducted to test for associations between continuous independent variables (i.e. self-efficacy, system support, blame victim, professional role resistance, victim and provider safety) and the ordinal outcome variable (i.e. IPV screening). Multiple ordinal Regression (McCullagh & Nelder, 2005) was used to refine these associations, while controlling for possible confounding by significant demographic/occupational variables. A probit link function was used in estimation of the model since the distribution of the ordinal outcome variable followed a normal distribution (Chan, 2005). The resulting estimates denoted the probabilities of a higher category of the outcome variable. For model diagnostics, goodness of fit of the regression models was assessed using Chi-square test (with $p > 0.05$ for chi-square indicating good fit), and $-2\log$ -likelihood chi-square used to test whether the model without predictors is as good as the model with predictors (in this case, $p < 0.05$ is suggestive that model with predictors has an upper hand). To determine the explanatory power of the independent variables on the dependent outcome Pseudo r-square was used. Statistical significance was assumed at $p < 0.05$ for all analyses (with the exception of $p > 0.05$ in the assessment of goodness of fit), and all data were analyzed in SPSS version 21.

3. Results

3.1. Demographic/Occupational Characteristics of Participants

As indicated in **Table 1**, majority of participants were female, 30 years and below, of Nilotic/nilohamite ethnicity, working at Lacor hospital, of midwife profession and had less than 6 years working experience.

3.2. Association between IPV Inquiry and Self-Efficacy, System Support, Attitudes towards Victims, Professional Role Resistance/Fear of Offence, Provider and Victim Safety

As indicated by the bivariate correlations in **Table 2**, significant correlations were observed between IPV inquiry and all the dependent variables except victim blame. The frequency of IPV screening increased with increasing self-efficacy, increasing system support, decreasing professional role resistant/fears of offending clients and decreasing concerns about provider/victim safety.

These associations held even after control for possible confounding with ethnicity and hospital belonging (**Table 3**). For all models (**Table 3**), ordinal regression was relevant (as expressed by the chi-square for goodness of fit statistic), and the model with predictors was better than the model without predictors (as expressed by the $-2\log$ likelihood chi-square statistic). In increasing order, self-efficacy, victim safety, system support, professional role resistant and provider safety explained between 6% - 14% of the variation in IPV inquiry among participants (as expressed by the Pseudo r-square).

4. Discussion and Conclusions

This cross-sectional quantitative study scrutinized inquiry about exposure to Intimate Partner Violence (IPV) in

Table 1. Demographic/occupational characteristics of participants in relation to IPV inquiry frequency.

	Inquired 0 times % of n	Inquired 1 - 3 times % of n	Inquired 4 - 6 times % of n	Inquired 7 - 10 times % of n	Inquired Over 10 times % of n
Sex					
Male (n = 64)	22	25	32	8	13
Female (n = 186)	17	27	31	13	12
Age					
30 or less yrs (n = 118)	18	30	33	11	8
31 - 45 yrs (n = 97)	19	21	30	12	18
46 or more yrs (n = 34)	18	29	23	18	12
Ethnicity*					
Nilotic/nilohamite (n = 182)	21	24	31	14	10
Bantu/hamite (n = 65)	9	34	34	6	17
Hospital*					
Lacor (n = 107)	24	27	32	11	6
Anaka (n = 31)	26	23	19	16	16
Gulu (n = 53)	9	24	34	21	12
Iganga(n = 59)	10	29	34	5	20
Profession					
Doctor (n = 24)	17	37	29	12	5
Nurse (n = 52)	17	25	37	6	15
Midwife (n = 120)	24	22	32	14	8
Other(n = 52)	8	29	27	13	23
Years in service					
0 - 5 years (n = 112)	19	29	34	8	10
6 - 10 years (n = 60)	18	27	22	21	12
11 - 15 years (n = 24)	17	21	46	8	8
Over 15 years (n = 52)	19	23	29	8	21
Total (n = 250)	18	27	31	12	12

*Statistically significant at $p < 0.05$.**Table 2.** Correlation coefficients for association between IPV screening frequency and independent variables.

Variables	Self-efficacy	System support	Blame victim	Professional role resistant	Provider safety	Victim safety
IPV screening frequency	0.33***	0.21***	0.11	-0.13*	0.14*	0.20**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Table 3. Ordinal regression models for the association between IPV screening frequency and the independent variables.

Variable	Adjusted ^a		
	Estimate	95% CI	Model diagnostics
Model 1			
Self-efficacy	0.08***	0.06, 0.12	<i>Pseudos r-square (negelkerke)</i> = 14% <i>-2log likelihood chi-square</i> = 36.3*** <i>Goodness of fit chi-square</i> = 251.2 ^b
Model 2			
System support	0.06***	0.01, 0.10	<i>Pseudos r-square (negelkerke)</i> = 7% <i>-2log likelihood chi-square</i> = 16.9** <i>Goodness of fit chi-square</i> = 239.6 ^b
Model 3			
Professional role resistant/fear of offence	-0.03*	-0.07, -0.001	<i>Pseudos r-square (negelkerke)</i> = 6% <i>-2log likelihood chi-square</i> = 13.5* <i>Goodness of fit chi-square</i> = 331.3 ^b
Model 4			
Provider safety	0.06*	0.03, 0.13	<i>Pseudos r-square (negelkerke)</i> = 6% <i>-2log likelihood chi-square</i> = 13.5* <i>Goodness of fit chi-square</i> = 215.6 ^b
Model 5			
Victim safety	0.10**	0.04, 0.16	<i>Pseudos r-square (negelkerke)</i> = 9% <i>-2log likelihood chi-square</i> = 21.1** <i>Goodness of fit chi-square</i> = 250.7 ^b

^aadjusted for demographic and occupational characteristics found to be associated with screening (i.e. hospital and ethnicity). ^b $p > 0.05$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Blame victim was not modeled as it did not associate with screening in the bivariate analysis.

healthcare Uganda, and its relationship with staff attitudes, professional role conflicts, self-efficacy, safety and system support. We found that over a three-month period, the majority of participants (31%) had inquired about IPV exposure among clients between 4 - 6 times, with 18% having not inquired at all. The extent of IPV inquiry in Uganda, a low income country, appears higher than what is observed in middle (John, Lawoko, & Svanstrom, 2011) and high income settings (Lawoko, Sanz, Helstrom, & Castren, 2011) where 75% respectively 50% of care-providers had not inquired about the possibility of IPV on any occasion among clients over a three month period. The differences in inquiry prevalence between different contexts may be reflecting circumstances where IPV inquiries are made based on the visible symptoms of physical abuse (e.g. bruises and fractures). It is plausible that due to the higher prevalence of IPV in low-income settings (WHO, 2002) more patients may bear such symptoms of abuse, prompting inquiry to a higher degree than in middle/high income countries. This is particularly true as, to the best of our knowledge, IPV inquiry is not yet a routine and universal practice universally.

We found IPV inquiry frequency to vary by ethnicity. Though the justification of wife abuse is wide spread in Uganda (i.e. 60% and 70% of men and women respectively appear to justify wife abuse for scenarios where a wife defies from normative roles) some ethnic groups appear more gender-restrictive than others (UBOS, 2010). Our findings indicating differences in IPV inquiry by ethnic belonging may be a reflection of such circumstances and are congruent with observations in other settings (John, Lawoko, & Svanstrom, 2011).

Hospitals differed in the frequency of IPV inquiry, with the government hospitals making inquiries on average more often than the private hospital (Lacor). Following the recent ratification of the domestic violence bill by the Ugandan government (Republic of Uganda, 2010), the health sector has been challenged to orient staff and health units in gender-based violence related healthcare. It is plausible that due to its proximity to govern-

ment, public owned healthcare units (e.g. Gulu, Anaka and Iganga hospitals) are at the forefront in this process when contrasted with privately owned facilities (e.g. Lacor hospital).

As hypothesized, low self-efficacy, poor availability of a support network, high professional role conflicts/fears of offending patients, and concerns about victim/provider safety reduced the probability of IPV inquiry. The dilemma of what follows after the identification of a victim of IPV has been an issue of debate among healthcare providers in Uganda (Lawoko, Seruwagi, Marunga et al., 2013), raising concerns about the continuity of care, possibly prompted by a lack of support networks and information. In addition, conflicts and fears of addressing domestic violence in healthcare and safety concerns appear important in Uganda, as in other settings (Maiuro et al., 2000; Lawoko et al., 2011; John et al., 2011). Together, these findings have important implications for organizational and/or individual level interventions, if the goal of universal screening is to be realized. At the organizational level, the findings elaborate the need to re-structure the health organization to improve support networks and referral services in relation to IPV screening. Clear information on available resources and guidelines on procedures from the initial detection to follow-up of IPV, safety measures and health management of IPV could serve to improve self-efficacy and diminish insecurities and fears among care providers. At the individual level, staff training to modify fears, adapt traditional professional roles to emerging practices such as IPV screening in healthcare and thereby establish clinical standards for such practices is paramount. Comprehensive training packages targeting attitudinal change, knowledge creation and skill development, have been found useful for the purpose, at least in the short term (Hawell, Casten, Armstrong, Dempsey, Coons, & Davis, 1998; Paluzzi, Gaffikin, & Nanda, 2000).

The methodology applied in this study responds adequately to the research questions. In addition, the questionnaire used was previously tested for structural validity in a pilot study in the same context with promising results (Lawoko, Mutto, & Guwatudde, 2012), and its contextual validity verified in a qualitative study in the same context (Lawoko, Seruwagi, Marunga et al., 2013). Nonetheless, the study shortcomings deserve some acknowledgement. Our data was geographically limited to northern and eastern Uganda. Apart from Iganga hospital, all other studied hospitals are located in regions that have only recently (2008) attained peace following a 20-year long civil war. When contrasted with hospitals in peaceful surrounding therefore, one may argue that healthcare facilities in recently hostile environments may be under-resourced, and therefore ill-prepared to address IPV issues. Our study did not however find support for this notion, as Iganga hospital did not differ significantly from two hospitals in the north (i.e. Anaka and Gulu hospitals) with regard to outcome. Whatever the case, caution should be exercised in generalizing these finding to Uganda as a country until the results can be replicated in other regions of the country. Secondly, we limited our study to subjective individual reporting of attitudes, professional role conflicts, self-efficacy, safety and system support. While some of these variables may accurately measure individual attributes likely to foster or hinder screening (e.g. individual attitudes) others which reflect organizational factors (e.g. system support) may have benefited from further verification of objective measures (e.g. observing the actual availability of referral opportunities at the studied settings). Indeed, individuals within the same organization varied in their perceptions of support networks, warranting further verification using objective measures. With the relatively recent emergence of multilevel analysis techniques, incorporation of such objective measures at a macro-level may have allowed for better distinction between organizational and individual factors likely to impede the practice of IPV screening. With the same token, inclusion of other macro-level societal attributes projected to impede IPV screening (e.g. community acceptance of IPV, availability of resources at the community level) (Lawoko, Seruwagi, Marunga et al., 2013), will in future research add value to the modeling of the ecological profile of determinants of IPV screening.

In conclusion, low self-efficacy, poor availability of a support network, high level of professional role conflicts/fears of offending patients, and concerns about victim/provider safety reduced the probability of IPV inquiry in healthcare Uganda, corroborating research from other settings. These findings have implications for the reorganization of the health care settings, review of organization policy and further training of care personal before IPV inquiry can develop into a universal routine practice in healthcare Uganda.

Funding

We are most grateful to the Swedish Council for Working Life and Social Research (FAS) and the Marie-curie program for funding this study as part of the COFAS program. We are also most grateful to the efforts of the administrative staff at each respective hospital, and all participants in the current study without whom this work

would not have been realized.

Competing Interest

None.

Ethical Approval

Granted by the Institutional Review Board (IRB) of Makerere University School of Public Health (MUSPH) and the Uganda National Council of Science and Technology (UNCST).

References

- Campbell, J. (2002). Health Consequences of Intimate Partner Violence. *Lancet*, 359, 1331-1336.
- Chan, Y. H. (2005). Biostatistics 305. Multinomial Logistic Regression. *Singapore Medical Journal*, 46, 259-269.
- Emenike, E., Lawoko, S., & Dalal, K. (2008). Intimate Partner Violence and Reproductive health of Women in Kenya. *International Nursing Review*, 55, 97-102.
- Gage, A. (2005). Women's Experience of Intimate Partner Violence in Haiti. *Social Science & Medicine*, 61, 343-364.
- Hawell, T. S., Casten, R. J., Armstrong, K. A., Dempsey, S., Coons, H. L., & Davis, M. (1998). Results of a Domestic Violence Training Program Offered to the Staff of Urban Community Health Centres. *American Journal of Preventive Medicine*, 15, 235-242. [http://dx.doi.org/10.1016/S0749-3797\(98\)00070-1](http://dx.doi.org/10.1016/S0749-3797(98)00070-1)
- Hegarty, K. (2006) What Is Intimate Partner Abuse and How Common Is It? Intimate Partner Abuse and Health Professionals. *New Approaches to Domestic Violence*. London: Elsevier.
- John, I., Lawoko, S., & Svanstrom, L. (2011). Screening for Intimate Partner Violence in Healthcare in Kano, Nigeria: Extent and Determinants. *Journal of Family Violence*, 26, 109-116. <http://dx.doi.org/10.1007/s10896-010-9348-y>
- John, I. A., Lawoko, S., & Oluwatosin, A. (2011). Acceptance of Screening for Intimate Partner Violence, Actual Screening and Satisfaction with Care amongst Female Clients Visiting a Health Facility in Kano, Nigeria. *African Journal of Primary Health Care & Family Medicine*, 3.
- Koziol-McLain, J., Giddings, L., Rameka, M., & Fyfe, E. (2008). Intimate Partner Violence Screening and Brief Intervention: Experiences of Women in Two New Zealand Health Care Settings. *Journal of Midwifery & Women's Health*, 53, 504-510.
- Lawoko, S., Seruwagi, G. K., Marunga, I., Mutto, M., Ochola, E., Oloya, G., Piloya, J., & Lubega, M. (2013). Healthcare Provider's Perceptions on Screening for Intimate Partner Violence in Healthcare: A Qualitative Study of Four Health Centres in Uganda. *Open Journal of Preventive Medicine*, 3, 1-11.
- Lawoko, S., Mutto, M., & Guwatudde, D. (2012). Piloting the Domestic Violence Healthcare Providers' Survey for Use in Uganda: Testing Factorial Structure and Reliability. *Psychology*, 3, 947-952. <http://dx.doi.org/10.4236/psych.2012.311142>
- Lawoko, S., Mutto, M., & Guwatudde, D. (2012). Piloting the Domestic Violence Healthcare Providers' Survey for Use in Uganda: Testing Factorial Structure and Reliability. *Psychology*, 3, 947-952.
- Lawoko, S., Sanz, S., Helstrom, L., & Castren, M. (2011). Screening for Intimate Partner Violence against Women in Healthcare Sweden: Prevalence and Determinants. *ISRN Nursing*, 2011, Article ID: 510692, 7 pages. <http://dx.doi.org/10.5402/2011/510692>
- Lawoko, S., Seruwagi, G. K., Marunga, I., Mutto, M., Ochola, E., Oloya, G., Piloya, J., & Lubega, M. (2013). Healthcare Provider's Perceptions on Screening for Intimate Partner Violence in Healthcare: A Qualitative Study of Four Health Centres in Uganda. *Open Journal of Preventive Medicine*, 3, 1-11. <http://dx.doi.org/10.4236/ojpm.2013.31001>
- Maiuro, R. D., Vitaliano, P. P., Sugg, N. K., Thompson, D. C., Rivara, F. P., & Thompson, R. S. (2000). Development of a Health Care Provider Survey for Domestic Violence: Psychometric Properties. *American Journal of Preventive Medicine*, 19, 245-252.
- McCullagh, P., & Nelder, J. A. (2005). *Generalized Linear Models*. London: Chapman Hall.
- Okenwa, L., Lawoko, S., & Jansson, B. (2011). Contraception, Reproductive Health and Pregnancy Outcomes among Women Exposed to Intimate Partner Violence in Nigeria. *Eur J ContraceptReprod Health Care*, 16, 18-25
- Paluzzi, P., Gaffikin, L., & Nanda, J. (2000). The American College of Nurse-Midwives' Domestic Violence Education Project: Evaluation and Results. *Journal of Midwifery & Women's Health*, 45, 384-391. [http://dx.doi.org/10.1016/S1526-9523\(00\)00056-8](http://dx.doi.org/10.1016/S1526-9523(00)00056-8)
- Republic of Uganda (2010). The Domestic Violence Act 2010 http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_172625.pdf

f

- Stenson, K., Saarinen, H., Heimer, G., & Sidenvall, B. (2001). Women's Attitudes to Being Asked about Exposure to Violence. *Midwifery*, 17.
- Uganda Bureau of Statistics (UBOS) and Macro International Inc. (2010). Uganda Demographic and Health Survey 2011. Calverton, MD: UBOS and Macro International Inc.
- WHO (2013a). World Health Organization Violence Prevention Alliance: Global Campaign for Violence Prevention. http://www.who.int/violenceprevention/approach/public_health/en/
- Wisner, C. L., Gilmer, T. P., Saltzman, L. E., & Zink, T. M. (1999) Intimate Partner Violence against Women: Do Victims Cost Health Plans More? *The Journal of Family Practice*, 48, 439-443.
- World Health Organization (2002). *World Report on Violence and Health*. Geneva: WHO.
- World Health Organization (WHO), London School of Hygiene, South African Medical Research Council (2013b). Global and Regional Estimates of Violence against Women: Prevalence and Health Effects of Intimate Partner Violence and Non-Partner Sexual Violence, WHO, Geneva. http://apps.who.int/iris/bitstream/10665/85239/1/9789241564625_eng.pdf