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ORIGINAL ARTICLE

Screening for Intimate Partner Violence in Healthcare in Kano, Nigeria: Extent and Determinants

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Abstract There has been increased advocacy to involve healthcare providers in domestic violence prevention through screening for it in healthcare. The extent and determinants of screening for Intimate Partner Violence (IPV) against women in a healthcare facility in Kano, Nigeria was assessed. Two hundred and seventy four healthcare providers responded to the *Domestic violence healthcare provider survey* probing the frequency of screening for IPV, staff attitudes towards domestic abuse, efficacy in screening, availability of support networks and staff/patient safety in regard to IPV inquiry. *T*-test and logistic regression were employed to study determinants of screening. The majority of participants (74%) had not screened for IPV during the preceding 3 months. Male gender, old age, and being of Yoruba ethnic belonging increased the likelihood of screening. With increasing perceived efficacy and increasing blame of the victim for abuse the likelihood of screening for IPV increased. Implications of findings for staff education and research are discussed.

Keywords Intimate partner violence · Screening · Extent · Determinants · Health care providers · Nigeria

Intimate Partner Violence against women (IPV) is now acknowledged as a global public health problem owing to its extent and health consequences. About 10–69% of women globally report having experienced IPV at some point in their lifetime. Comparable statistics (between 21% and 50%) are reported in the Sub-Saharan African context (Elliot and Johnson 1994; Helton et al. 1987; Koenig et al. 2003; Morse 1995; Odujinrin 1993). Moreover, a substantial number of women suffer from impaired reproductive health outcomes and injuries as a result of IPV (Emenike et al. 2008). The extent and health consequences of IPV have prompted increased advocacy for screening for this phenomena in healthcare worldwide (City Health Information 2007; Ramsay et al. 2002; Reid and Glasser 1997; Webster et al. 2001; WHO 2001). Yet, data from developing countries suggest that such advocacy has not translated into screening per se. Only one in 10 of healthcare practitioners routinely screen for IPV (Erickson et al. 2001), suggesting hinders. These discrepancies warrant an assessment of possible factors hindering screening for IPV against women.

Studies conducted in developed country context have indicated that health professionals' education, knowledge, roles, and facilitation in the subject of IPV against women may affect screening. For example, the lack of/or inadequate usage of approved guidelines on dealing with IPV, conflicting professional roles, privacy concerns, and a weak staff support system have been implicated as negatively affecting screening for IPV (Cabana et al. 1999; Chamberlain and Perham-Hester 2000; Davis and Harsh 2001; Erickson et al. 2001; Furniss et al. 2007; Knight and Remington 2000; Scholle et al. 2003). In addition, work environmental factors, such as high demands, time shortage, and forgetfulness may impede effective screening for IPV (Davis and Harsh 2001; Elliot et al. 2002; Ortiz and Ford 2005; Owen-smith et al. 2008; Rodríguez et al. 1999). Other studies have suggested that healthcare providers' beliefs and attitudes towards abuse of women may constitute setbacks to effective screening for IPV(Elliot et al. 2002; Kahan et al. 2000; Rabin et al. 2000; Rodríguez et al. 1999).

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These factors may be particularly pertinent in societies where intimate partner violence remains an acceptable societal norm (Crandall et al. 2005; Fawole et al. 2005; Gill 2004; Karamagi et al. 2006; Lawoko 2006; Lawoko et al. 2007; Obi and Ozumba 2007; Pallito and O'Campo 2005; Rani et al. 2004; Schuler et al. 1996;).

Data further suggest that demographic and occupational characteristics of care providers may account for differences in screening among care providers. Female Care Providers tend to screen to a higher degree than male peers (Lo Fo Wong et al. 2006; Reid and Glasser 1997; Sugg and Inui 1992). In addition, experienced providers (Jaffe et al. 2005), nurses, and medical social workers tend to screen to a higher degree than peers with less experience and working in other occupational groups (Eisenstat and Bancroft 1999; Elliot et al. 2002; Felblinger and Gates 2008; Furniss et al. 2007; Leung et al. 1999; Malecha 2003; Rodríguez et al. 1999; Scholle et al. 2003). While studies have identified race and ethnicity as predicting disclosure of IPV among clients (Ellison et al. 2007; Lockhart 1987; Montalvo-Liendo 2009), the literature on how differentials in race and ethnicity may affect professionals IPV screening behavior is limited (Knight and Remington 2000; Weeks et al. 2008). Further analysis is, therefore, warranted. The rationale for understanding how demographic factors (e.g., gender and ethnicity) may work to impede screening is two-fold. First, cultural differences regarding gender roles and equality may vary from one ethnic group to another and this may have implications on care providers' willingness or ability to screen. Second, and to the best of our knowledge, such data are lacking in the region of Sub-Saharan Africa, limiting policy work to promote screening for IPV in healthcare. Similarly, studies on how occupational and enabling factors (e.g., availability of referral support networks and attitudes toward abuse) may be associated with screening in the Sub-Saharan African context are lacking, despite a myriad of research in the field in the developed country context. Clearly, there is a gap in knowledge on the extent and determinants of screening for IPV in the Sub-Saharan African context. The following study attempts to bridge this gap with input from healthcare providers at a community hospital in Nigeria. Basing on this background, we hypothesized that: 1) few healthcare providers would routinely screen for IPV; 2) there would be variations in screening depending on demographic and occupational factors 3) factors, such as conflicting professional role, attitudes toward women, perceived efficacy, fear of offending clients and availability of support networks for referral of IPV victims, would affect screening for IPV against women. The specific aims of this study are: (1) To assess associations between demographic characteristics (e.g., gender, ethnicity, or religious affiliation of healthcare provider) and screening for IPV among healthcare providers at Aminu Kano Teaching Hospital, Kano, Nigeria; (2) To assess associations between occupational characteristics of HCP (e.g., being a nurse/doctor, years of work experience) and screening for IPV at Aminu Kano Teaching Hospital, Kano, Nigeria; (3) To assess the association between screening for IPV against women and professional roles, attitudes toward women, perceived efficacy, fear of offending clients, and availability of support networks for referral of IPV victims.

Methods

Context, Study Design, and Participants

This study was carried out at the Amino Kano Teaching Hospital, in Kano, Nigeria, which is the largest multi-departmental federal health institution in Kano state. Kano is the second largest city in Nigeria with an estimated population of 3,848,885 by 2007 (Kano 2009). It is cosmopolitan with representation of all the 250 ethnic groups of Nigeria. Hausa is the dominant group of the inhabitants and Islam is the majority religious affiliation of the population. The staff and patients visiting the hospital are of multi-ethnic constitution.

In general, staff members at this hospital have not undergone any specific training in screening for IPV. Of the 693 clinical staff at the hospital, 430 had regular contact with patients and were available at the time of data collection. Forty-four percent were doctors, 50% nurses and the remaining 6% were laboratory scientists, opticians, and social workers. Self-administered questionnaires were delivered to the eligible participants at their work stations. Two hundred and seventy four (response rate of 64%) returned the completed questionnaire. The response rate was higher among doctors than other professions. Respondents did not differ from non-responders regarding age, gender, ethnicity and religion. Participants included Psychiatrists, Obstetricians and Gynaecologists, Paediatricians, Physicians, Laboratory Scientists, Opticians, Social workers, Nurses, and Midwives. The study design was cross-sectional.

Ethical Considerations

Ethical approval for this study was obtained from the Nigerian Institute of Medical Research, Lagos, Nigeria. The study was also approved by the authorities of Aminu Kano Teaching Hospital, Kano where participants were recruited. The aims and relevance of the study were further emphasized in a separate document accompanying the questionnaires. Questionnaires were delivered to all the departments within the hospital. Voluntary participation was emphasized, privacy guaranteed, and informed consent obtained.

Measures

Healthcare providers responded to a previously validated instrument, The *Domestic violence healthcare provider survey scales* (Maiuro et al. 2000).The instrument consist of six subscales (perceived self efficacy, system support, blame victim, roles resistant/fear of offending clients, victim/provider safety, and frequency of DV inquiry). The internal reliability of the *Domestic violence healthcare provider survey scale* was tested in the Nigerian sample. In general, the instrument assesses; Providers knowledge/ capabilities in screening using the *perceived self efficacy subscale scale (7 items)*; Provider fears for their own or clients safety using the *victim/provider safety sub-scale (10 items);* Provider awareness of/access to support networks where abused clients can be referred using the *system support sub-scale (4 items)*; Professional roles e.g. fear of offending clients using the *professional roles resistant/fear of offending clients sub-scale (6 items)*; Attitudes towards IPV using the *blame the victim sub-scale (7 items)*. All items are scored on a likert scale that ranges from 1 (strongly disagree) to 5 (strongly agree).

The frequency of violence 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 (i.e., many had not screened) responses were later transformed into a dichotomous variable where those who had inquired about violence at least once (i.e., Screened for violence) formed one group and those had not screened at all during the same period (i.e., had not screened for violence at all) formed the other group of the dichotomy.

The questionnaire also collected demographic and occupational information on each respondent (i.e., age, gender, marital status, religion, ethnicity, profession, departments, and years of work experience). To enhance statistical power, some responses were merged to increase the number within categories (e.g., departments with very few participants were merged to form the group "other" department).

Data Analysis

The Domestic violence healthcare provider survey scales was subjected to reliability test and the internal consistency of each scale expressed in the Cronbach α coefficient. A *t*-test was utilized to assess the association between inquiry for violence and years in service; age perceived self efficacy, victim/provider safety, system support, professional roles resistant/fear of offending clients, and blaming the victim.

Associations between categorical variables were assessed using a Chi-square test. Simple Logistic regression was used to adjust for possible confounding i.e., all variables that were significantly associated with screening in the univariate analysis were adjusted for possible confounders (adjusted odds ratios presented). All data were analyzed using SPSS version 16.0 for Windows®.

Results

Reliability of Scales

Cronbach's alpha coefficients for the five subscales were as follows: perceived self efficacy (0.76), system support (0.67), blame victim (0.74), professional roles resistant/fear of offending clients (0.75), and victim/provider safety (0.13). The overall scale had an alpha coefficient of 0.52.

Characteristics of Participants

As indicated in Table 1, most respondents were married (55%), of Hausa ethnic group (31.5%), Muslim (42.7%) and males (56%). Doctors constituted the majority of participants (58%), most of whom were from the General practice department (30%). Response rate was higher among doctors than among other employment categories.

Screening for IPV and Associations with Demographic/ Occupational Characteristics of Participants

The majority of participants (74%) had not inquired about the possibility of IPV among their patients in the past 3 months. Age was significantly associated with IPV inquiry (t (255)= 2,722, $p<0.001$). The average age was higher among providers who had in the past 3 months inquired about IPV (35.4/yrs) than peers who had not (32.6/yrs).

As shown in Table 2, participants of Yoruba ethnicity (50%) more frequently inquired about the possibility of IPV among their clients than peers of Hausa, Ibo and "other" ethnic belonging (χ^2 (1)=8,828, $p<0.005$). Gender was significantly associated with screening, where male care providers were more likely to screen for IPV among clients than their female peers (χ^2 (1)=8,300, $p<0.005$). Social workers, when contrasted with doctors, nurses, and mid-wives, more often screened for IPV among clients (χ^2 (1)= 4,391, $p<0.05$). There were no statistically significant differences in screening in relation to marital status, religion, and the department of care.

Screening for IPV and Perceived Self Efficacy, System Support, Blaming the Victim, Professional Role and Victim/Provider Safety

As indicated in Table 3, participants who screened for IPV scored higher on perceived self efficacy and blaming the

Table 1 Characteristics of participants

	N	%
Profession		
Doctor	156	58
Nurse	61	22.7
Midwife	12	4.4
Social worker	29	10.8
Others	11	4.1
Gender		
Male	147	56.5
Female	113	43.5
Age (years)		
21–30	116	45.1
31–40	105	40.9
41–60	36	14.0
Marital Status		
Married	145	55.1
Single	108	41.1
Divorced	6	2.3
Separated	4	1.5
Religion		
Muslim	114	42.7
Catholic	47	17.6
Protestant	76	28.5
Others	30	11.2
Ethnicity		
Hausa	84	31.5
Ibo	70	26.2
Yoruba	28	10.5
Others	85	31.8
Department		
Medicine	41	15
Surgery	41	15
Paediatric	44	16.1
Obstetrics/Gynaecology	36	13.2
General practice	81	29.7
Others	30	11

N absolute number %=percentage of total within the group

victim scales, indicating that they perceived a higher efficacy but were more likely to blame the victim.

Adjusted Relationship Between Screening for IPV and Age, Gender and Ethnicity

As indicated in Table 4, demographic factors (age and gender) were significantly associated with screening for IPV after adjusting for perceived self efficacy and blaming the victim. Ethnicity, however, did not reach significance after adjusting for the same factors.

Adjusted Relationship Between Screening for IPV and Self Efficacy & Blaming the Victim

Self efficacy and blame victim scales remained significant after adjusting for age, gender, and ethnicity as demonstrated in Table 5. With increasing perceived efficacy, the likelihood of screening for IPV increased. Blaming the victim however was associated with an increased likelihood of screening for IPV

Discussions

The findings indicate a low extent of screening for IPV among HCP in Kano, Nigeria (26%) corroborating findings of global research (Elliot et al. 2002; Furniss et al. 2007; Ortiz and Ford 2005; Rodríguez et al. 1999) and calling for urgent health policy changes to incorporate routine IPV screening as an integral part of healthcare.

The findings with regard to demographic and occupational factors as predictors of screening corroborate some previous work in the field, but contradict others. That male HCP were more likely to inquire about IPV than their female colleagues was unexpected and contradicted previous work in the field (Lo Fo Wong et al. 2006; Reid and Glasser 1997; Sugg and Inui 1992). A plausible explanation for this discrepancy could be contextual. Most of the mentioned studies were from western countries. Research from the Sub-Saharan African context has consistently demonstrated the acceptance of wife abuse as a societal norm (Fawole et al. 2005; Obi and Ozumba 2007). Ironically, representative national samples from over 19 Sub-Saharan African countries indicate in fact that endorsement of wife beating is more prevalent among women than men (Lawoko 2008; Uthman et al. 2009). The current finding that female HCPs tend to screen to a lower degree than male peers thus may be a reflection of norms observed in the general population.

One in two HCP from the Yoruba ethnic group inquired about the possibility of IPV from their female patients compared to one in four among peers from other ethnic groups. A lucid understanding of this behavior among care providers of Yoruba extraction requires further scrutiny, more still as ethnicity did not however reach significance after adjustment for perceived self efficacy and blaming the victim. This observation implies that the association between ethnicity and screening mediated these factors. It is plausible, for example, that certain ethnic groups may be more prone to blame the victim. And it is the later that may affect screening and not ethnicity per se. Indeed, our findings seem to point in that direction as blaming the victim and efficacy remain significant after adjusting for ethnicity. Further investigations, however, will be valuable

Table 2 Proportion of heath care providers not screening for IPV by demographic and occupational characteristics

Variables	Number Within Category[a]	% not screening clients for IPV
All Participants	274	74.1
Gender		
Male	147	69.4
Female	113	83.2
Marital status		
Married	145	73.1
Single	108	78.7
Divorced	6	66.7
Separated	4	50.0
Religion		
Muslim	114	74.6
Catholic	47	70.2
Protestant	76	69.7
Others	30	86.7
Ethnicity		
Hausa	84	79.8
Ibo	70	78.6
Yoruba	28	50.0
Others	85	71.8
Profession		
Doctor	156	76.9
Nurse	61	75.4
Midwife	12	75.0
Social worker	29	41.4
Others	11	100
Department		
Medicine	41	78.0
Surgery	41	85.4
Paediatric	44	86.4
Obstetrics/Gynaecology	36	63.9
General practice	81	63.0
Others	30	76.7

[a] Absolute numbers

to understand how historical and cultural factors inherent in the different cultures in multiethnic Nigeria may influence health providers' practices such as screening for IPV.

Social workers were more likely to inquire about violence than doctors, nurses and midwives, consistent with some previous data (Eisenstat and Bancroft 1999), but contrary to others (Davis and Harsh 2001; Furniss et al. 2007). That social workers in Nigeria are most likely to screen could be explained by virtue of their training and duties which primarily are to provide support, social as well as psychological, for their clients. Contrary to our expectations, screening was rather low among nurses who often

Table 3 Association between screening for IPV and perceived self efficacy, system support, blaming the victim, professional role and victim/provider safety

	Perceived Self efficacy (7–35) [§] Mean (SD)	System Support (4–20)[§] Mean (SD)	Blame Victim (7–35)[§] Mean (SD)	Professional role (7–35)[§] Mean (SD)	Victim/Provider Safety (10–50)[§] Mean (SD)
Screen	24.81 (6.37)	14.30 (3.65)	22.25 (6.72)	14.73 (5.67)	30.92 (4.37)
Not Screen	22.23 (5.42)	13.97 (3.58)	19.78 (5.77)	16.04 (5.49)	30.46 (4.20)
P-Value	0.003[*]	0.516	0.007[*]	0.098	0.486

SD Standard Deviation () [§] =Range [*] $P<0.05$

Table 4 Adjusted odds ratios for the relationship between screening for IPV and age, gender and ethnicity

	Adjusted for Self Efficacy OR (95% CI) *P-Value*	Adjusted for Blame the Victim OR (95% CI) *P-Value*
Age	0.95 (0.91–1.00) 0.05*	0.96 (0.92–1.00) 0.06§
Gender-Male	0.33 (0.17–0.69) 0.003*	0.42 (0.22–0.83) 0.01*
-Female	1.00	1.00
Ethnicity -Hausa	1.00	1.00
-Ibo	1.18 (0.47–2.93) 0.72	0.99 (0.42–2.40) 0.99
-Yoruba	0.32 (0.11–0.87) 0.03 *	0.27 (0.10–0.74) 0.01*
-Others	0.71 (0.32–1.58) 0.40	0.67 (0.31–1.47) 0.32

CI confidence Interval. *OR* Odd Ratio

Significance * $P<0.05$; § Marginal significance

are at the forefront of care and should ideally be the primary source of inquiry about IPV. This finding has implications for training and education directed toward specific healthcare provider occupations.

Health care providers with a high perceived efficacy related to IPV screening were more likely to screen for IPV than peers with low perceived efficacy. This finding was expected and highlights the need for guidelines and information to support providers in routine screening for IPV previously acknowledged in the research (Cabana et al. 1999; Erickson et al. 2001).

Healthcare providers who felt the victim was responsible for being abused (i.e., blamed the victim) were more likely to screen for IPV. This finding is rather controversial and raises concerns regarding the motive of screening for IPV among healthcare providers in Nigeria. Intimate Partner Violence screening should not provide opportunity for healthcare providers to take a position on who bares the blame for abuse as it may seem from our findings. This finding implies further education of healthcare providers regarding the aims and benefits of screening. The findings also point to further research on the issue. A more in-depth analysis of the association between screening for IPV and provider attitudes towards domestic violence using qualitative methods is warranted.

There was no distinction between providers who screened and those who did not with respect to professional role resistance, system support, and victim/provider safety, contradicting previous work where associations were insinuated (Chamberlain and Perham-Hester 2000; Davis and Harsh 2001; Furniss et al. 2007; Knight and Remington 2000; Scholle et al. 2003). Our data indicated however, that the scores, in general, for these aspects were low to moderate. The findings thus may be reflective of circumstances where all care providers irrespective of their screening behavior perceived these factors as general problems in healthcare.

Implications for Intervention

The findings of the current study have important implications for further training of healthcare providers. Doctors, nurses, and midwives in all departments may need further sensitization on the importance of routine screening. Alongside training on screening per se, healthcare providers of female gender, Hausa, Ibo, and minority ethnic groups may need specific gender and ethnic sensitive training that may require attitudinal change on issues pertaining to gender equity. A rigorous awareness campaign for attitudinal changes denouncing IPV, and concerted efforts to institutionalize routine screening, supported by guidelines, for all HCP are warranted. These may need to be supported up by health policy modifications/changes.

The strength of the current study is that it is one of the first of its kind in the Nigerian and perhaps sub-Saharan African setting providing important results with implications on policy and training of HCP on issues of screening for IPV. However, the weaknesses of our study deserve some acknowledgement. Generalization of our findings to the entire healthcare provider community in Nigeria should be done with caution or not at all. Moreover, doctors were

Table 5 Adjusted odds ratios for the relationship between screening for IPV and Self efficacy & blaming the victim

	Adjusted for Age OR (95% CI) *P-Value*	Adjusted for Gender OR (95% CI) *P-Value*	Adjusted for Ethnicity OR (95% CI) *P-Value*
Self Efficacy	0.94 (0.88–0.99) 0.04*	0.92 (0.87–0.98) 0.01*	0.92 (0.87–0.98) 0.009*
BlameVictim	0.94 (0.89–0.99) 0.03*	0.94 (0.89–0.99) 0.04*	0.93 (0.88–0.98) 0.01*

CI Confidence Interval. *OR* Odd Ratio

Significance * $P<0.05$

overrepresented among participants. The figures presented on screening proportions could, therefore, be subject to an over or underestimation. Still, our results confirm some hypotheses regarding the determinants of screening, but may need more data to confirm the results with regard to occupation. The Kano region has a different demographic distribution from other Nigerian cities particularly with regard to ethnicity a variable which was significant in predicting screening for IPV by healthcare providers. Studies, such as the current one, are, therefore motivated on their own right, and should be replicated in several unique communities before generalisation can be done.

Conclusion

The demographic and occupational characteristics of healthcare providers together with attitudes towards IPV and perceived self efficacy may constitute barriers to an effective screening of intimate partner abuse. The findings have important implications for further training of doctors, nurses, and midwives as well as female care providers of Hausa, Ibo, and minority ethnic groups in the Kano region. Further analysis of the mechanism linking attitudes towards abused women and screening for IPV is warranted.

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