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Community Pharmacists' Awareness of Intimate Partner Violence: An Exploratory Study

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Key Words: Community Pharmacy, Domestic Violence, Public Health, Health Screening

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Abstract

Background: Intimate partner violence (IPV) is a serious public health problem, impacting more than 12 million people in the United States each year. The only known effective health care intervention is routine screening for IPV exposure; however, this intervention has been poorly adopted. Expansion of screening efforts to the community pharmacy setting provides an opportunity to have a substantial impact on the health and well-being of pharmacy patients. However, little is known about pharmacists' knowledge, attitudes, and behaviors related to IPV.

Objective: The objective of this study was to conduct an exploratory investigation of community pharmacists' current level of knowledge, attitudes, behaviors, and intentions related to IPV and to IPV screening.

Methods: A cross-sectional study using an online questionnaire was conducted. Surveys were distributed via email. Descriptive analyses of survey responses were conducted.

Results: A total of 144 community pharmacists completed the survey. Results indicated most (67.4%) had no IPV education/training. Participants were significantly more willing to conduct screening with targeted patients compared to all patients. ($X^2=129.62$; $df=36$; $p<0.0001$). There was strong agreement with interest in and willingness to participate in continuing education.

Conclusions: Most respondents indicated relatively low levels of IPV knowledge and training and very little current IPV screening activity. Continuing education on IPV should be considered for pharmacists to increase knowledge and awareness of IPV.

Introduction

Intimate partner violence (IPV), also known as domestic violence, is a public health problem impacting more than 12 million people in the United States each year.¹ According to the National Intimate Partner and Sexual Violence Survey, 35.6% of women and 28.5% of men are physically assaulted, sexually assaulted, or stalked by an intimate partner in their lifetime.¹ Intimate partner violence negatively impacts health and well-being by causing injury or worsening health conditions. Physical injuries can range from cuts and bruises to injuries such as broken bones, brain injuries, and even death.² Victims of IPV experience exacerbation of chronic diseases due to stress and poor health behaviors, report pain more frequently, and use prescription pain medications more than those not exposed to IPV.^{3-5 6} Women exposed to IPV have greater health care utilization and health care costs, incurring costs approximately 60% higher than women not experiencing abuse, including 27% higher pharmacy costs per year.^{7,8} According to the Centers for Disease Control and Prevention (CDC), IPV cost \$8.3 billion annually when the

economic impact was last updated in 2003.⁹ The harm of IPV extends beyond the immediate victim. Children of mothers exposed to IPV have increased health care utilization and costs,¹⁰ and are at a greatly increased risk for child abuse.^{11,12} For these reasons, IPV reduction remains a key Healthy People 2020 goal.¹³

The health care system is actively engaged in intervening to decrease the impact of IPV-related injuries by providing medical treatment for injuries. However, care of this nature is an intervention that only addresses the physical injuries and does not serve as a preventive measure to lessen the future impact of violence. Efforts to prevent IPV and to reduce the impact of IPV require intervention of a different nature. Screening for IPV has been proposed as the most effective method to prevent and reduce the impact of IPV in the future.¹⁴ Screening, identifying, and referring patients exposed to IPV presents an opportunity to prevent further physical injuries and to positively impact both the physical and mental health of patients. Routine and regular screenings by skilled health care providers has been shown to significantly increase the identification of IPV¹⁵⁻¹⁷ and is recommended or included as a treatment guideline by most health care provider groups.¹⁸⁻²²

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To date, pharmacists have not been involved in the effort to address IPV. This is unfortunate as community pharmacists are both accessible and trusted members of the health care team.²³ Extending IPV screening to the community pharmacy environment offers the potential for a significant expansion of this effort that may have a significant impact on IPV in the U.S. However, a thorough literature review indicates that there has been little investigation of this clinical topic. Understanding community pharmacists' knowledge and attitudes related to IPV and IPV screening in their practice is critical before developing any educational or training activities that would facilitate conducting IPV in the community pharmacy environment.

Objectives

The objective of this study was to conduct an exploratory investigation of community pharmacists' current level of knowledge, attitudes, behaviors, and intentions related to IPV and to IPV screening. The end goal is to determine if community pharmacies could be an accessible, reliable location to conduct IPV screening.

Methods

Study Design and Sample

A cross-sectional survey design was utilized for this investigation. The sampling frame was an electronic list of 6,000 practicing community pharmacists across the U.S. purchased from Integrated Medical Data. An online questionnaire was sent via email in Spring 2012 to these pharmacists using the Qualtrics software program (Qualtrics, Inc., Provo, UT). An email describing the purpose of the study and inviting participation was sent to the pharmacists. Respondents were provided a \$10 gift certificate for participation. Participant incentives were funded via internal research support. To maximize response the Dillman method was utilized and up to 4 reminder emails were sent to non-responders.²⁴ The study was approved by the University of Mississippi's Institutional Review Board.

Study Questionnaire

The survey instrument utilized in this investigation was adapted from the Physician Readiness to Manage Intimate Partner Violence Survey (PREMIS). This instrument was originally developed to assess physicians' knowledge, attitudes, and beliefs regarding IPV using current IPV literature as the standard and to assess self-reported practice behaviors related to IPV.²⁵ PREMIS has previously been used in studies of physicians and health care students (medicine, dentistry, nursing, and social work) and has been found to be comprehensible, reliable, valid, and adaptable to health care providers beyond physicians.²⁵⁻²⁷ The current study was part of a validation study of an adaptation of the PREMIS

instrument specifically for pharmacy practice. These adaptations were made to address the unique practice characteristics, activities, and concerns of a community pharmacy practitioner. The study survey is included as Appendix 1.

Data Analysis

Descriptive analysis of respondents' demographic, training and practice characteristics, and items assessing knowledge, attitudes, behaviors, and intentions related to IPV and IPV screening was performed. Means and standard deviations were calculated for continuous items and frequencies and proportions were calculated for categorical items. Analyses were conducted utilizing Statistical Package for Social Sciences Version 20.0 (SPSS, Inc., Chicago, IL).

Results

Demographic and Practice Characteristics

A total of 189 pharmacists responded; however, 45 of these were not included in the final sample as they had more than 20% missing data, resulting in a final sample of 144 participants. Potential non-response bias was assessed by comparing study respondents to the population values of the population from which the study sample was drawn on pharmacy type and position in the pharmacy and no significant differences between the groups were found. Further, a time trends extrapolation comparing the first 20% (n=29) of respondents to the last 20% (n=29) of respondents was conducted utilizing Student's *t*-tests and Chi-square tests to determine if differences in demographic and practice variables existed between these two groups. No significant differences between the groups were found.

The mean age of participants was 47.9 years (± 11.8 years). The demographic and pharmacy training characteristics of the study sample are listed in Table 1. Examination of the practice characteristics of the study participants indicates that they work in a variety of types of pharmacies and hold a variety of positions. Interestingly, approximately half of the study sample reported working in a pharmacy that offers advanced pharmacy services such as MTM, diabetes education, and asthma management. As anticipated given the reported level of advanced pharmacy services offered, 57.6% reported that their pharmacy had a private counseling area, with 34.9% reporting that this area is used often. Daily fill rates and other practice characteristics are included in Table 2.

Knowledge and Attitudes

Community pharmacists' exposure to IPV training is included in Table 3. Overall, participating pharmacists reported little exposure to IPV-related training, with the majority (67.4%)

reporting no training at all. The PREMIS instrument includes questions to assess both actual and perceived knowledge about IPV and perceived preparation to manage IPV. The mean score on the actual knowledge scale in this sample of pharmacists was 20.83 ± 6.04 , lower than the reported scale mean in a sample of physicians (26.0 ± 5.18) and a sample of health care students (23.9 ± 5.68).^{25,26} Most pharmacy participants were uncertain if there is a legal mandate to report IPV cases involving competent adults in the state in which they practice (77.6% reported “Unsure”). Pharmacists also reported low levels of perceived preparedness and perceived knowledge related to IPV screening (Table 4). These perceptions had an impact on both self-efficacy and workplace-efficacy related to IPV screening, with participants reporting low levels of both, as well as indicating concern about constraints related to time and training for IPV screening.

Behaviors and Intentions

Participants reported minimal identification of IPV cases in their clinical practice. When asked “How many new cases would you estimate you have identified in the past six months?”, only 3 participants (2.2%) reported identifying a case. Six respondents (4.2%) reported screening patients with abuse indicators. Three respondents (2.1%) reported screening patients periodically and 4 (2.8%) reported screening all female patients periodically. For respondents who identified a case, the most common actions were to refer the patient to other assistance, to provide information, and to counsel the patient about options she/he may have. Participants responded to 3 items related to intention to participate in continuing education and screening for IPV on a scale of 1 (strongly disagree) to 7 (strongly agree). Respondents endorsed intention to participate in continuing education (Table 5). There was a significant difference between intentions to conduct screening with all patients compared to targeted patients, with respondents more willing to conduct screening with targeted patients ($\chi^2=129.62$; $df=36$; $p<0.0001$).

Two open-ended questions regarding IPV and community pharmacies were included in the survey. Several pharmacists noted their lack of training. One pharmacist responded, “*I feel that pharmacists are not trained in this area but we should be.*” Others indicated screening could be possible and valuable in the community pharmacy environment. For example, one reported “*If we have referral sites (which we do in our community) these screenings could be done at the pharmacy level.*” Another indicated IPV screening “*would be a useful resource.*” Other response themes included concerns regarding time and acceptability.

Discussion

Intimate partner violence is one of the most highly prevalent health threats in the U.S. population. The only known health system intervention that has the possibility to reduce and prevent negative health outcomes from IPV is routine screening for IPV exposure. Community pharmacists are uniquely positioned to conduct screening as they are highly accessible, with patients often having repetitive exposure to the pharmacists, in an environment in which patients are already receiving health-related educational information. To the best of our knowledge, this is the first study to assess pharmacists’ training, knowledge, and practice activities related to IPV.

The data from this investigation indicate that there is minimal awareness, knowledge, training, and skills related to IPV and IPV screening in community pharmacists, despite patients’ easy access to these health care providers. These findings are not surprising given the reported lack of training or education related to this topic. This translates into nearly no reported screening, identification, nor referrals related to IPV in their practices. Given the significant health impact of IPV and the relevant impact IPV has on medication usage patterns, this is a clinical opportunity to improve pharmacy provision of patient care. Initial efforts should be targeted at the predisposing factors related to IPV screening in the community pharmacy environment. Given the minimal level of awareness of IPV, priority should be placed on developing continuing education programs to inform practicing pharmacists of the prevalence of this health threat and increase awareness of the value of routine screening. A similar initiative in curricula in pharmacy training programs should immediately be considered as well. In fact, there is likely significant demand for education on this issue. The respondents in this survey indicated that they would enroll in continuing education about IPV [mean = 5.15 ± 1.79 ; scale 1 (strongly disagree) to 7 (strongly agree)], with the largest response, 27.5%, endorsing strongly agree. The next steps would be to further evaluate the potential barriers in the pharmacy setting, particularly at the consumer level, and to develop educational and training programs to prepare pharmacists to engage in screening.

Limitations

There are several limitations to this investigation. First, participants responded to a survey on what they may consider a sensitive issue. It is possible that their discomfort with this topic may have impacted their responses. Second, based on a review of the literature and the results of this investigation it is clear that community pharmacists have had little formal education or exposure to issues related to intimate partner violence. With more education, opinions

and perspectives may change and as a result responses to many of the survey items may be impacted by this lack of knowledge and awareness. Finally, while this study had more subjects than the prior investigations in other health care practitioner groups with this instrument, the generalizability of the results of this study are limited by the relatively small sample size due to a low response rate.

There are several potential reasons for the low response rate. First, this study was conducted as part of a larger survey validation project and the survey time burden was quite substantial and may have impacted participation rates. Second, email surveys have been found to have lower response rates compared to postal surveys.²⁸ Third, the topic of this survey is out of the traditional practice realm for community pharmacists and is of a sensitive nature. These factors combined may have made the survey less interesting to pharmacists. Finally, this study utilized a national sample in order to avoid regional differences in practice and attitudes related to IPV. However, pharmacists likely felt no relationship with the investigators as the study was not from a practice group or national association, reducing the interest in completing the study. An analysis of early and late responders was completed to attempt to ascertain potential non-response bias and no difference between these groups was identified, indicating a reduced chance of non-response bias.

Conclusion

Intimate partner violence is a highly prevalent, serious health threat that is amenable to prevention efforts through routine screening programs. While respondents expressed concern regarding IPV training and time burden for IPV screening, they indicated that participation in screening may be valuable to patient health and offer a relative advantage for their pharmacies. Interestingly, female pharmacists were more likely to report intent to screen targeted patients for IPV. There was strong support for continuing education related to IPV in pharmacy practice. Continuing education would be an important first step in facilitating community pharmacists' understanding of an important factor influencing patients' medication consumption and would be needed prior to the development of IPV screening programs in the community pharmacy environment. As solutions are sought to reduce the rates and impact of IPV in the U.S., policy makers and victim advocacy groups should consider pharmacists as potential care partners to address this highly prevalent health problem.

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Table 1. Participant Characteristics

	Percent	n
Sex		
Female	52.8%	76
Male	47.2%	68
Race		
White	84.7%	122
Black/African American	3.5%	5
Asian	7.6%	11
Native Hawaiian/Pacific Islander	0.7%	1
American Indian/Alaskan Native	0.7%	1
Other	2.8%	4
Hispanic		
Yes	5.6%	8
No	93.8%	135
Don't know/Not sure	0.7%	1
Most advanced pharmacy training		
B.S. in Pharmacy	59.7%	86
Pharm.D.	37.5%	54
M.S. in Pharmacy	2.1%	3
Other	0.7%	1
Postgraduate training		
Residency	16.0%	23
Fellowship	2.8%	4
Graduate School	19.4%	28
Other	31.9%	46

Table 2. Practice Characteristics

	Percent	n
Type of pharmacy		
Chain	11.8%	17
Grocery/General Merchandise	28.5%	41
Independent	34.0%	49
Other	32.6%	47
Position		
Owner/Partner	18.1%	26
Employee manager/Asst Manager	27.8%	40
Staff/employee pharmacist	47.2%	68
Relief pharmacist	2.1%	3
Other	4.9%	7
Extent involved in key decisions		
Not at all	15.3%	22
A little	17.4%	25
Some	16.0%	23
A good amount	27.1%	39
To a great extent	24.3%	35
Offer advanced pharmacy services		
YES	53.5%	77
NO	46.5%	67
Have a dedicated private counseling area		
YES	57.6%	83
NO	42.4%	61
Frequency of use of private counseling area		
Never	--	0
Rarely	13.3%	11
Sometimes	51.8%	43
Often	34.9%	29
	Mean (±SD)	
Average number of fills per day in your pharmacy	326.3 (±674.3)	
Percent of fills involving patient counseling other than ordinary prescription consultation	22.7% (±26.3)	
Average number of pharmacist FTEs in your pharmacy	5.76 (±17.1)	
Average number of pharmacy tech FTEs in your pharmacy	7.58 (±26.8)	

Table 3. Pharmacist Intimate Partner Violence Training Activities

	Percent	n	Mean (SD)
None	67.4%	97	
Read institution's protocol	13.2%	19	
Watched a video	11.1%	16	
Attended lecture/talk	9.0%	13	
Attended skills based training/workshop	2.8%	4	
Pharmacy/other school classroom workshop	2.8%	4	
Pharmacy/other school clinical training	2.8%	4	
Residency/fellowship/post-grad training	--	0	
Continuing Education	8.3%	12	
Other	2.1%	3	
Total hours of training			5.5 (7.1)

Table 4. Pharmacist PREMIS Scales

Scale	Alpha	Total Items	Item Mean (SD)*	Sample Item
Actual Knowledge	n/a	18	20.83 (6.04)	<i>What is the strongest single risk factor for being a victim of intimate partner violence?</i>
Perceived Knowledge	0.978	16	2.21 (0.004)	<i>How much do you feel you know about what questions to ask to identify IPV?</i>
Perceived Preparation	0.970	12	2.31 (0.003)	<i>How prepared do you feel to appropriately respond to disclosures of abuse?</i>
Efficacy – Workplace/Self	0.856	7	2.68 (0.013)	<i>I feel comfortable discussing IPV with my patients. My practice setting allows me adequate time to respond to victims of IPV.</i>

***On a scale from 1 (strongly disagree) to 7 (strongly agree)**

Table 5. Intentions Related to Continuing Education & Screening for Intimate Partner Violence

	Mean (SD)*
<i>I would enroll in continuing education about IPV.</i>	5.15 (1.79)
<i>I would conduct IPV screening with all pharmacy patients.</i>	3.34 (1.83)
<i>I would conduct IPV screening with targeted pharmacy patients.</i>	4.74 (1.75)

*On a scale from 1 (strongly disagree) to 7 (strongly agree)