Orthopaedic Surgeons' Knowledge and Misconceptions in the Identification of Intimate Partner Violence Against Women

Gregory J. Della Rocca MD, PhD, FACS,
Sheila Sprague MSc, Sonia Dosanjh MSW,
Emil H. Schemitsch MD, FRCS(C), Mohit Bhandari MD, PhD, FRCS(C)

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Abstract

Background Intimate partner violence (IPV)—physical, sexual, psychologic, or financial abuse between intimate partners—is the most common cause of nonfatal injury to women in North America. As many IPV-related injuries are musculoskeletal, orthopaedic surgeons are well positioned to identify and assist these patients. However, data are lacking regarding surgeons' knowledge of the prevalence of IPV in orthopaedic practices, surgeons' screening and management methods, and surgeons' perceptions about IPV.

Questions/purposes We aimed to identify (1) surgeon attitudes and beliefs regarding victims of IPV and batterers

and (2) perceptions of surgeons regarding their role in identifying and assisting victims of IPV.

Methods We surveyed 690 surgeon members of the Orthopaedic Trauma Association. The survey had three sections: (1) general perception of orthopaedic surgeons regarding IPV; (2) perceptions of orthopaedic surgeons regarding victims and batterers; and (3) orthopaedic relevance of IPV. One hundred fifty-three surgeons responded (22%).

Results Respondents manifested key misconceptions: (1) victims must be getting something out of the abusive relationships (16%); (2) some women have personalities that cause the abuse (20%); and (3) the battering would stop if the batterer quit abusing alcohol (40%). In the past year, approximately 1/2 the respondents (51%) acknowledged identifying a victim of IPV; however, only 4% of respondents currently screen injured female patients for IPV. Surgeons expressed concerns regarding lack of knowledge in the management of abused women (30%).

Conclusion Orthopaedic surgeons had several misconceptions about victims of IPV and batterers. Targeted educational programs on IPV are needed for surgeons routinely caring for injured women.

All ICMJE Conflict of Interest Forms for authors and *Clinical Orthopaedics and Related Research* editors and board members are on file with the publication and can be viewed on request. Each author certifies that his or her institution approved the human protocol for this investigation, that all investigations were conducted in conformity with ethical principles of research, and that informed consent for participation in the study was obtained. This work was performed at Division of Orthopaedic Surgery, Department of Surgery and the Department of Clinical Epidemiology and Biostatistics, McMaster University, Hamilton, Ontario.

G. J. Della Rocca (✉)
Department of Orthopaedic Surgery, University
of Missouri, 1 Hospital Drive, N116, DC053.10,
Columbia, Missouri 65212, USA
e-mail: dellarocca@health.missouri.edu

S. Sprague, S. Dosanjh, M. Bhandari
Division of Orthopaedic Surgery, Department of Surgery
and the Department of Clinical Epidemiology and Biostatistics,
McMaster University, Hamilton, Ontario, Canada

E. H. Schemitsch
Division of Orthopaedics, Department of Surgery, University
of Toronto, St. Michael's Hospital, Toronto, Ontario, Canada

Introduction

Injuries are among the leading causes of death for females aged 1 to 34 years and represent major sources of morbidity and mortality for middle-aged and elderly women [9, 14]. According to the Federal Bureau of Investigation, more than 1/2 of murdered women were killed by a person with whom they were acquainted, and approximately 30% of women were killed by a current or former intimate partner [27]. In North America, domestic violence is also

the most common cause of nonfatal injury to women [9, 14]. Greater than 40% of women have experienced one or more forms of violence: child abuse (17.8%), physical assault (19.1%), rape (20.4%), and/or intimate partner violence (IPV) (34.6%) [20].

Intimate partner violence, also known as domestic violence, spousal violence, and battery has been receiving increased attention as a serious public health problem. Intimate partner violence represents a pattern of assaultive and coercive behaviors, which can include one or more of the following: physical, sexual, and psychologic attacks, and economic coercion. Victims of IPV are known to use health services at higher rates than women who have not been abused [12, 18, 20, 21]; therefore, healthcare providers are in good positions to identify and assist victims of IPV.

Musculoskeletal injuries are commonly seen in victims of IPV. The most prevalent of these are head and neck injuries (40%) followed by other musculoskeletal injuries (28%) [3], and one report on 144 victims of IPV detailed the types of musculoskeletal injuries seen, which included sprains (15%), fractures or dislocations (12%), and foot injuries (1%) [3]. Orthopaedic surgeons, as providers of musculoskeletal care, can be first-contact healthcare practitioners for many patients. They establish ongoing relationships with these patients and have the opportunity to help victims of IPV. The importance of identifying IPV has been recognized by national orthopaedic organizations. The American Academy of Orthopaedic Surgeons (AAOS) guidelines suggest that orthopaedic surgeons appropriately screen for problems of domestic violence and document them in the medical record, assess and assure the safety of the victim, appropriately treat victims, and take steps to prevent further harm [1]. The Canadian Orthopaedic Association (COA) notes that orthopaedic surgeons are well-positioned to identify patients living with IPV and initiate intervention, encourages members to educate themselves further about IPV, and states that it is good medical practice to take steps to identify and offer assistance to IPV victims [7].

We conducted an observational study to identify (1) surgeon attitudes and beliefs regarding batterers and victims of IPV and (2) surgeon perceptions regarding the identification and role in assisting victims of IPV in their orthopaedic practices.

Materials and Methods

All 690 active members of the Orthopaedic Trauma Association (OTA) were asked to participate in the survey. We chose OTA members, as their clinics have high proportions of acutely injured patients. Requests for participation were sent via three mass electronic mail communications from the OTA headquarters. Participants

chose to take part in the survey independently, and therefore, passive consent was implied. The survey was limited to members of the OTA by allowing access to the survey site only through the members-only logon at the OTA website (approved by the OTA Research Committee). Of 690 members, 153 surgeons responded to the survey (22% response rate). Respondents were 90% male (137/153), and 96% (147/153) of them practiced in North America. All but four respondents were 30 to 60 years old. Our response rate (153/690) yielded a 95% CI in the accuracy of the survey, with a 7% margin of error.

The survey was administered from a website independent of the OTA's website (SurveyMonkey®, www.surveymonkey.com, Palo Alto, CA) and therefore the respondents' identities could not be discerned. No incentives were provided to the study participants. All data were password protected and only OTA staff members and the current authors had access to the data. Participants were able to choose to abstain from answering some or all of the study questions without obviating their ability to complete the survey and submit the results of the questions that were answered. All survey results were pooled to minimize the likelihood of identifying individual participants by their demographics. The results were presented in tables. "Preferred responses" were indicated based on past studies that identified attitudes and beliefs of domestic violence among providers as barriers against effective clinical response [5, 6, 10, 11, 15, 22, 25]. The survey was administered over approximately 4 months during the summer of 2009.

The survey questionnaire was minimally modified from the original provider survey, developed by the Violence Against Women Health Research Collaborative [5] and is divided into three sections. After a section that asks basic questions regarding the age and sex of the practitioner and the scope of his or her practice, surgeons were asked about their general attitudes toward IPV, their attitudes toward victims of IPV and batterers, and their beliefs regarding the relevance of IPV in orthopaedic practice. The surgeons' knowledge was assessed by a series of nine questions regarding exposure to victims of IPV in their clinics, their perceived ability to manage this problem, and their interest in attending training regarding identification and management of victims of IPV. The next section of the survey was comprised of 39 individual items and has been validated [5, 15]. This part of the survey was divided into three subsections. The first subsection was designed to identify perceptions of surgeons regarding identification and treatment of victims of IPV in orthopaedic clinics. The second subsection asked questions regarding the attitudes and beliefs of the surgeons regarding batterers and victims of IPV (Table 1), perceived factors that increase or decrease the likelihood of violence (Table 2), and attitudes toward the surgeon's role in addressing IPV (Table 3). The third

Table 1. Responses regarding attitudes towards batterers and victims

Issue (total number of respondents)	Number of respondents	%
Treatment programs for batterers are not effective (n = 104)		
Agree	24	23%
Neutral	50	48%
Disagree	30	29%
Victim must be getting something out of relationship (n = 129)		
Agree	20	16%
Neutral	24	19%
Disagree	85	66%
Not my place to interfere with couples' conflict resolution (n = 130)		
Agree	10	8%
Neutral	28	22%
Disagree	92	71%
I don't have time to ask about IPV (n = 130)		
Agree	18	14%
Neutral	30	23%
Disagree	82	63%
I am afraid of offending patient if I ask about IPV (n = 129)		
Agree	27	21%
Neutral	20	16%
Disagree	82	64%
Asking about IPV is an invasion of privacy (n = 128)		
Agree	7	5%
Neutral	14	11%
Disagree*	107	84%
Investigating cause of injury is not part of medical care (n = 128)		
Agree	2	2%
Neutral	7	5%
Disagree*	119	93%
Patients who do not reveal abuse feel it is not my business (n = 128)		
Agree	12	9%
Neutral	27	21%
Disagree*	89	70%
It is demeaning to question patients about abuse (n = 129)		
Agree	10	8%
Neutral	19	15%
Disagree*	100	78%
Nonabused patients will get angry if asked about IPV (n = 128)		
Agree	25	20%
Neutral	29	23%
Disagree*	74	58%
People are victims because they choose to be (n = 129)		
Agree	7	5%
Neutral	13	10%
Disagree*	109	84%

Table 1. continued

Issue (total number of respondents)	Number of respondents	%
It takes two to tango - both victim and batterer are responsible (n = 129)		
Agree	9	7%
Neutral	14	11%
Disagree*	106	82%
Victim has done something to bring about violence (n = 128)		
Agree	6	5%
Neutral	18	14%
Disagree*	104	81%
I am reluctant to ask batterers about abusive behavior due to personal safety concerns (n = 126)		
Agree	33	26%
Neutral	34	27%
Disagree	59	47%
Insufficient security at my workplace to permit IPV discussion with batterers (n = 112)		
Agree	29	26%
Neutral	29	26%
Disagree	54	48%
Afraid of offending patients if I ask about their abusive behavior (n = 126)		
Agree	50	40%
Neutral	26	21%
Disagree*	50	40%
No way to ask batterers about IPV without putting victim in danger (n = 126)		
Agree	23	18%
Neutral	44	35%
Disagree	59	47%
If I talk to batterer, I will increase risk for victim (n = 126)		
Agree*	49	39%
Neutral	42	33%
Disagree	35	28%
I can effectively discuss issues of abuse with a battering patient (n = 125)		
Agree	24	19%
Neutral	45	36%
Disagree	56	45%

* Preferred responses where applicable [4, 15, 17–21]; IPV = intimate partner violence.

subsection asked questions regarding presentations of patients to orthopaedic trauma clinics that might lead to suspicions on the part of the abusers, and the necessity of written guidelines for detection and treatment of patients with IPV in orthopaedic clinics. The survey previously had been administered to the COA [5] and chiropractors in the United States [26]. Descriptive modifications were made to the original provider survey [15] such that the analysis

would be applicable to the orthopaedic field, and it was identical to the COA survey [5].

Results

Surgeons had several key misconceptions regarding IPV: victims get something out of the abusive relationships (16%) (Table 1), some women have personalities that cause the abuse (20%), and the battering would stop if the batterer quit abusing alcohol (40%) (Table 2). Most respondents (71%) disagreed that they could do little to help the patients since victims of IPV are unlikely to leave the abusive relationships, and 5% indicated that victims of IPV choose to be victims. Regarding victims' culpability in their own abuse, 5% of respondents indicated that the victims do something that directly brings about violence, and 7% answered that the victims and the batterers are responsible for the abuse (ie, "it takes two to tango") (Table 1). Only one set of responses varied based on respondent age. Respondents aged 51 to 60

Table 2. Responses regarding perceived factors that influence IPV

Issue (total number of respondents)	Number of respondents	%
IPV gets more frequent and severe over time (n = 131)		
Agree	111	85%
Neutral	18	14%
Disagree	2	2%
I have patients whose personalities cause them to be abused (n = 129)		
Agree	26	20%
Neutral	29	22%
Disagree*	74	57%
Women in nontraditional roles cause IPV (n = 128)		
Agree	3	2%
Neutral	13	10%
Disagree*	112	88%
The victim's passive-dependent personality leads to abuse (n = 128)		
Agree	29	23%
Neutral	35	27%
Disagree*	64	50%
Batterers direct anger towards providers when challenged (n = 126)		
Agree	31	25%
Neutral	58	46%
Disagree*	37	29%
Battering will stop if batterer quits abusing alcohol (n = 126)		
Agree	54	43%
Neutral	38	30%
Disagree*	34	27%

* Preferred responses where applicable [4, 15, 17–21]; IPV = intimate partner violence.

Table 3. Responses regarding perceived surgeon roles in addressing IPV among their patients

Issue (total number of respondents)	Number of respondents	%
There are ways to ask about abusive behavior without putting myself at risk (n = 124)		
Agree	75	60%
Neutral	37	30%
Disagree	12	10%
Strategies exist that I can use to encourage batterers to get help (n = 125)		
Agree	57	46%
Neutral	48	38%
Disagree	20	16%
There are ways I can ask batterers about behavior that will minimize victim risk (n = 126)		
Agree	52	41%
Neutral	57	45%
Disagree	17	13%
Role of the healthcare provider is limited in helping IPV victims (n = 131)		
Agree	31	24%
Neutral	22	17%
Disagree	78	60%
I don't know what to do if I find an IPV victim (n = 129)		
Agree	42	33%
Neutral	22	17%
Disagree	65	50%
Nothing I can do because victim is unlikely to leave relationship (n = 129)		
Agree	7	5%
Neutral	30	23%
Disagree	92	71%
I don't know how to ask about the possibility of IPV (n = 129)		
Agree	37	29%
Neutral	21	16%
Disagree	71	55%
Identifying IPV victims is relevant to my practice (n = 145)		
Not at all relevant	1	1%
Possibly relevant	36	25%
Somewhat relevant	54	37%
Very relevant	54	37%
Assessing female patients for IPV is a low-priority issue (n = 146)		
Agree	32	22%
Neutral	40	28%
Disagree	73	50%
Reporting of IPV is mandatory in my jurisdiction (n = 145)		
Yes	49	34%
No	19	13%
Unsure	77	53%

Table 3. continued

Issue (total number of respondents)	Number of respondents	%
I have attended an educational/training session on IPV (n = 146)		
Yes	33	22%
No	109	75%
Unsure	4	3%
My clinic has written guidelines for detection or management of IPV (n = 129)		
Yes	10	8%
No	82	63%
Unsure	37	29%
Providing more IPV information to ortho surgeons could be beneficial to stopping abuse in some cases (n = 145)		
Agree	104	72%
Unsure	27	19%
Disagree	14	9%
I would like to receive training on the assessment and treatment of IPV (n = 146)		
Yes	71	49%
No	39	27%
Unsure	31	21%
Not applicable to my practice	5	3%

IPV = intimate partner violence.

years were more likely to agree with the statement “In many cases, the battering would stop if the batterer would quit abusing alcohol” than those 40 years or younger or 41 to 50 years ($p = 0.04$, χ^2 with Yates correction).

Most respondents (82%) indicated that 26% to 50% of their practices involved treating female patients, and 80% of respondents indicated that greater than 25% of their female patients were treated after sustaining injuries (causes included falls from heights, motor vehicle crashes, work injuries, and IPV-related incidents). Most surgeons (74%), however, responded that female victims of IPV represented 5% or less of all injured female patients treated per year.

Barriers to screening for IPV included time constraints (14%) (Table 1), lack of knowledge regarding what to ask (29%), and lack of knowledge regarding what to do if a patient responds that she is a victim of IPV (33%) (Table 3). Some surgeons were uncomfortable with asking about IPV owing to concerns about invasion of patient privacy (5%), personal and patient safety (26% and 18%, respectively), and offending the patient (21%) (Table 1). Most respondents indicated that identifying victims of IPV was relevant to their practices (74%), and 51% of respondents disagreed that assessing female patients for IPV is a low-priority issue (Table 3). Seventy-seven of 145 respondents (53%) reported being unsure if reporting IPV

was mandatory in their jurisdictions (Table 3). Only 23% of respondents had attended an educational or training session regarding IPV. Few respondents' clinics (8%) had written guidelines for IPV detection and treatment. Most respondents (72%) agreed that provisions of information of signs and indicators of IPV to orthopaedic surgeons could be beneficial to stopping the abuse in some cases. Nevertheless, only 49% of respondents said they would like to receive training on the assessment and treatment of IPV as it relates to the orthopaedic profession.

Discussion

Domestic violence is the most common cause of nonfatal injury to women, many of which are musculoskeletal injuries and therefore relevant to orthopaedic surgeons. However, there is a paucity of data regarding how surgeons perceive, identify, and ultimately treat victims of IPV in the orthopaedic clinical setting. This study aimed to identify (1) surgeon attitudes and beliefs regarding batterers and victims of IPV and (2) surgeon perceptions regarding the identification and role in assisting victims of IPV in their orthopaedic practices.

Our study had multiple limitations that must be considered. First, the low response rate (22%) may indicate a nonresponder bias. Although our response rate is similar to other surveys of IPV among healthcare providers (range, 14%–83%) [8, 13, 16, 19, 23, 26, 28], the data should be interpreted with caution. Second, our results may not be generalizable to practices across the world, as the survey was administered to North American orthopaedic traumatologists only. Third, the survey specifically targeted orthopaedic surgeons with greater than 50% of their practices, research, and/or educational programming related directly to orthopaedic traumatology—a requirement for OTA membership. This survey, therefore, likely misses a substantial number of orthopaedic surgeons in general practice (and perhaps, not members of the OTA) who may be first-line providers of care to victims of IPV. Fourth, our study specifically focuses on surgeons' perceptions of violence perpetrated by men on their female intimate partners; no inferences can be made regarding their perceptions of the prevalence of IPV by women on men or in same-sex relationships.

The main purpose of our study was to determine surgeons' attitudes and beliefs regarding victims of IPV and batterers. Approximately 20% or more respondents revealed multiple misconceptions, such as victims must be getting something out of the abusive relationships, some women have personalities that cause the abuse, and the battering would stop if the batterer quit abusing alcohol. This shows a strong need for implementation of standard

practice guidelines and continuing education concerning IPV screening and management in orthopaedics.

The second aim of our study was to determine how orthopaedic surgeons identify and treat potential victims of IPV. Respondents indicated that identifying victims was relevant to their orthopaedic practices although they believed that the prevalence of IPV among their patients was rare. This is likely a gross misperception. A recent study examining the prevalence of IPV in orthopaedic fracture clinics found a 12-month prevalence rate of 17.8% across North American centers [4]. Respondents also were uncomfortable with identifying and treating victims of IPV and believed that multiple barriers existed for effective identification and assistance of victims. Barriers included lack of knowledge regarding what to ask, what to do if patients report a positive history of IPV, and the community resources available. They also reported a lack of time available for such an inquiry. Targeted educational programs may help to alleviate some or all of these barriers. It is likely that training in this area will help providers recognize signs and symptoms of IPV, direct their inquiries appropriately and efficiently, and allow them to provide appropriate advice and treatment to victims. Physician training in the recognition and management of female patients with IPV was associated with greater preparedness on the part of providers for screening and assistance of such patients [17, 24]. Only approximately 1/2 of responding surgeons knew whether reporting IPV was mandatory in their jurisdictions. Less than one in 10 respondents had clinics with written guidelines for detection or management of IPV. The importance of recognizing and dealing with IPV is noted by some states but is not countrywide. Reporting of domestic violence, in most circumstances, is required only in California, Colorado, Florida, Georgia, Kentucky (children only), Michigan, and Ohio [2]. Some states do indicate that reporting is required if the injury results as a consequence of a "criminal act". Alaska, Florida, and Kentucky are the only states that mandate training for healthcare professionals regarding domestic violence, although many states have created (optional) programs for training healthcare professionals [2].

Our survey suggests members of the OTA believe that IPV is relevant to their practices, but hold multiple misconceptions regarding victims and batterers, and perceive multiple barriers to screening and treating these patients. Future research on IPV in orthopaedic patients may include studies of prevalence among patients in orthopaedic fracture clinics and studies evaluating the effectiveness of different screening and intervention methods. This research would be beneficial for informational purposes and in providing a rationale for encouraging education in IPV recognition, counseling, and management among orthopaedic surgeons who routinely treat female patients with

musculoskeletal injuries. Targeted educational programs to orthopaedic surgeons involved in the routine care of patients with musculoskeletal injuries might be beneficial to improve the care delivered to female victims of IPV.

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