


Design and Evaluation of a Curriculum on Intimate Partner Violence for Medical Students in an Emergency Medicine Clerkship

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Purpose: Intimate partner violence (IPV) is a widespread public health issue that is relevant to all areas of medicine. Patients who suffer from IPV often contact the health care system via the emergency department, making this a particularly important but too often overlooked issue in this setting. Education on IPV varies in medical schools and emergency medicine (EM) educational programs, and evidence suggests that a barrier to assessing for IPV is a lack of adequate training of clinicians. In this study, we sought to design, implement and evaluate the efficacy of a curriculum on IPV geared towards medical students on an EM clerkship.

Methods: We assembled a multi-disciplinary team of EM education faculty, a resident content expert on IPV, and social workers to design a two-part curriculum that was administered to medical students on an EM clerkship. The curriculum involved a 20-minute narrated slide presentation viewed asynchronously, followed by a 1-hour case-based discussion session. The curriculum was evaluated using a 13-item self-assessment survey on knowledge, comfort level and skill in managing victims of IPV, administered electronically before and after the curriculum. Survey results were compared pre- and post-curriculum using Wilcoxon signed-rank test.

Results: Thirty-four students completed the curriculum and 26 completed both the pre and post self-assessment surveys. A statistically significant improvement in knowledge, comfort level and skills was observed in 11 of the 13 survey elements.

Conclusion: Based on the self-assessment survey results, this curriculum was well received and successfully increased participants' comfort, knowledge and skill level regarding assessment of patients for IPV. This is a focused and feasible curriculum that can be easily incorporated into an EM clerkship to provide effective education on a relevant but often overlooked topic.

Keywords: interpersonal violence, domestic violence, undergraduate medical education, intimate partner violence

Introduction

Intimate partner violence (IPV), as defined by the Centers for Disease Control, includes physical violence, sexual violence, stalking and psychological aggression by a current or former intimate partner (ie, spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner). According to the National Intimate Partner and Sexual Violence survey published in 2010, an estimated 35.6% of women and 28.5% of men have experienced rape, physical violence, and/or stalking by an intimate partner in their lifetime.¹ An updated Data Brief published in 2015 indicated that about 18.3% of women experienced contact sexual violence, 30.6% experienced physical violence, 10.4% experienced stalking, and 36.4% experienced psychological aggression by an intimate partner in their lifetime.² Globally, a 2022 study estimated that 27% of ever-partnered women age 15–49 had experienced IPV in their lifetime.³

IPV is associated with a range of adverse health outcomes, including acute traumatic injuries, infections, mental health consequences, and chronic pain syndromes.^{4–12} Contact with the healthcare system, and in particular the emergency department (ED), is common in those experiencing IPV.^{13–15} Healthcare providers can therefore be one important element in a broader, systems-based approach to this public health issue.¹⁶ Health professionals who receive

specific education and training are more likely to assess for IPV,^{17,18} and physicians and nurses often cite a lack of knowledge or lack of confidence as major obstacles to evaluating patients for IPV.^{19–21}

Training and education regarding IPV is not yet universal in undergraduate medical education or specialty-specific training in emergency medicine (EM). There is also evidence that medical students tend to feel IPV is less relevant to their practice as they advance in their studies.²² However, survey studies of IPV victims show that they expect their physicians to be knowledgeable about IPV and be able to provide a first line of support.¹⁶ Furthermore, the American College of Emergency Physicians (ACEP) specifically recommends that “medical schools, and emergency medicine residency curricula should include education and training in recognition, assessment and interventions in intimate partner violence, child and elder maltreatment and neglect”.²³

There have been several studies published regarding training medical professionals on IPV,^{24–27} most focusing on medical students in their preclinical years. There has been little published regarding curricula specifically for students and trainees in emergency medicine (EM).

Objectives

We aimed to create a curriculum on IPV that is effective at increasing learner knowledge and skills, while remaining feasible to implement within an EM clerkship. The educational objectives of the curriculum are:

1. Gain an understanding of the scope of intimate partner violence (IPV) and its associated health consequences
2. Recognize risk factors and “red flags” for IPV
3. Increase comfort and skill in screening for and discussing IPV with ED patients
4. Understand appropriate next steps to take when a patient discloses IPV, including mandatory reporting laws and available resources

Materials and Methods

Curricular Design and Implementation

The curriculum was developed by our multidisciplinary team including medical education faculty, an EM resident content expert on IPV, and members from our social work department and institution’s center for violence prevention and recovery. We first performed a needs assessment at our medical school, surveying the curriculum for areas that include this topic. We found there was no dedicated teaching about IPV in the emergency medicine clerkship curriculum and therefore sought to fill this gap. After conducting a literature review, we used principles of adult learning and curriculum design described by Kern²⁸ to develop a two-part curriculum on the topic of IPV. We used an asynchronous approach based on previous work demonstrating its efficacy in adult learners.^{29–31} Part one consisted of an online 20-minute educational video which was distributed via email and viewed asynchronously prior to the in-person session. The content included an introduction to the topic, overview of definitions and prevalence of IPV, review of potential health consequences, introduction to screening practices, and next steps and resources available when a patient discloses IPV. We uploaded the video to Vimeo, an online sharing platform, and shared the URL and password for the video with students via email. Students were instructed to watch the video during the first week of their EM clerkship.

Part two of the curriculum was a one-hour in-person case-based discussion session, conducted during one of the students’ regular didactic time blocks. We developed the cases with the input from our ED social work team based on an amalgam of actual patient encounters in the emergency department. Groups of up to six students participated in these sessions, which were facilitated by the medical education faculty, EM resident content expert and a social worker. At the start of each session, the preceptors acknowledged the sensitive nature of the material to be discussed and the potential for triggering very personal responses. Each case description was accompanied by prompts and discussion points to explore specific points of interest. For example, one case presented a history and physical exam, and then prompted participants to identify and discuss “red flags” and risk factors for IPV. Another involved a case of a victim of IPV who had a child in the household and then prompted participants to discuss how mandatory reporting laws might apply. Through these cases and the ensuing discussion, students also practiced formulating an “ice-breaker” question to begin

the conversation with a patient, reviewed the components of one validated IPV screening tool (the HITS screening tool),^{32,33} discussed resources available to patients at various stages of “readiness” to leave an abusive relationship, and reviewed specific language and practices to use or avoid. Cases allowed discussion of appropriate immediate responses to patients, including validation of feelings, acknowledgement of the difficulty of sharing, and avoidance of placing blame on a patient.³⁴ Cases intentionally touched on several “gray areas” related to IPV as well as our own systemic limitations in supportive resources. Time was provided for questions and to explore concepts that were unclear.

Curriculum Evaluation

All students enrolled in a required EM clerkship from January 2019 through September 2019 participated in the curriculum and were invited to complete pre- and post-curriculum self-assessment surveys to evaluate the curriculum. Participation in the surveys was anonymous and voluntary. No prior experience or knowledge beyond the preclinical medical school year was required to participate.

A previously published tool for evaluation of physician preparedness to evaluate for and respond to IPV, the PREMIS Tool-kit,³⁵ included an extensive survey with three parts. In designing the survey for this curriculum, we aimed to make it brief and easily reproducible and adapted themes in the “opinions” section of the PREMIS Tool-kit regarding participants’ beliefs and self-assessment. Of note, each survey included an initial acknowledgment of the potentially emotionally difficult nature of the topic to be addressed, and referred students (with a direct link) to counseling and mental health services at the university. Participants were asked to respond to each of 13 assessment statements using a visual analog scale, from a score of 1 to 5 (“completely disagree” to “completely agree”). The statements addressed the participants’ self-assessed knowledge and skill, comfort level, and attitudes regarding IPV as it pertains to patients. These surveys were designed to evaluate the curriculum at the level of participant reaction and reported learning. The post-curriculum survey included a space for open-ended feedback.

We created, distributed, and collected data from the surveys using Qualtrics software. Students received the anonymous surveys via email and completed them electronically. The authors had no knowledge of which students completed surveys.

The Beth Israel Deaconess Medical Center Institutional Review Board and the Harvard Medical School Institutional Review Board approved of the research procedures described above under exempt status.

Data Analysis

Pre-curriculum and post-curriculum responses were matched using a unique identifier. Each statement was analyzed individually for change using the Wilcoxon signed-rank test. The data are presented as median with interquartile range (IQR). P-value less than 0.05 was considered significant.

Results

Thirty-four students participated in the curriculum. Thirty-two students completed the pre-curriculum survey, and 26 then completed the post-curriculum survey. Prior to starting the curriculum, 31 of 32 respondents (97%) at least somewhat agreed (score of at least 4.0) that it is important to assess patients for IPV, and 22 of 32 (69%) also at least somewhat agreed that IPV is relevant to their future specialty. Despite this sense of importance, however, most students felt they lacked the expertise to help a patient suffering from IPV; only 2 of 32 respondents (6%) at least somewhat agreed to the statement “I feel I have the necessary knowledge and skills to help a patient suffering from IPV”. Similarly, only 2 of 32 (6%) at least somewhat agreed that if a patient disclosed that they have been a victim of IPV, they would know how to respond. Eleven of the 13 statements displayed a statistically significant change from before the curriculum to after, of varying magnitudes (Table 1).

Participants were also given the opportunity, in the post-curriculum survey, to provide open-ended feedback. Examples of positive feedback included the following: “The case-based approach was helpful and useful”, “Super important and well done - I wish we had more of it throughout the entire clerkship year”, “the video was really helpful (and the appropriate length).” Suggestions for improvement included providing a printed list of resources or laminated card for students to take with them, discussing in more depth the medical workup of a victim of IPV, and extending the case discussion time.

Table 1 Survey Elements with Paired Responses (Before–After)

Statement	Before, Median (IQR) ^a	After, Median (IQR) ^a	p-value
I believe it is important to assess patients for intimate partner violence (IPV). (n=26)	5.0 (4.1; 5.0)	5.0 (4.7; 5.0)	0.76
I am unlikely to initiate conversations with patients regarding IPV. (n=23)	2.1 (1.9; 3.0)	1.9 (1.5; 2.4)	0.044
I understand the potential health consequences of IPV. (n=26)	4.1 (4.0; 4.9)	4.4 (4.1; 5.0)	0.036
I feel comfortable discussing IPV with patients. (n=25)	2.9 (2.0; 3.9)	4.0 (3.1; 4.4)	0.001
I feel I have the necessary knowledge and skills to help a patient suffering from IPV. (n=26)	2.0 (1.8; 2.5)	3.6 (2.9; 4.1)	<0.001
If a patient disclosed that they have been a victim of IPV, I would know how to respond. (n=24).	2.3 (2.0; 3.0)	3.9 (3.6; 4.5)	<0.001
I understand the barriers to patients disclosing that they suffer from IPV. (n=26)	3.6 (2.9; 4.1)	4.2 (3.8; 5.0)	0.009
I am not well prepared to discuss IPV with patients. (n=24)	3.0 (2.1; 4.0)	2.2 (1.6; 2.5)	0.002
I lack the necessary tools to help patients who suffer from IPV. (n=23)	3.7 (2.6; 4.1)	2.1 (1.7; 2.4)	0.001
I understand mandatory reporting laws regarding interpersonal violence in my state. (n=23)	2.0 (1.5; 2.9)	4.4 (3.8; 5.0)	<0.001
I have the ability to help patients who suffer from IPV. (n=25)	3.0 (2.5; 3.5)	4.0 (3.0; 4.6)	0.007
I do not know where to go for additional resources and assistance for patients who suffer from IPV. (n=21)	3.7 (2.5; 4.2)	1.7 (1.2; 2.2)	<0.001
IPV is relevant to my (anticipated) medical specialty. (n=25)	4.6 (4.1; 5.0)	4.9 (4.2; 5.0)	0.18

Notes: ^aRated on a 5-point visual analog scale. Responses ranged from 1 to 5 (1 = completely disagree; 5 = completely agree).

Abbreviation: IQR, interquartile range.

Discussion

We set out to create a comprehensive yet efficient curriculum on IPV for students enrolled in an EM clerkship. Our curriculum consisted of 20 minutes of asynchronous learning followed by 1 hour of in-class, case-based discussion. The educational time commitment was manageable for participants and was easily integrated into student didactic learning. We found students to be quite engaged during the case discussions, which were used to review material, discuss nuances and gray areas, and discuss or practice particularly difficult parts of the conversation. Our social work team was able to provide expertise both in designing the cases and helping with guidance on the most complex aspects. While the participants in this study were medical students, the curriculum is generalizable to residents and other clinicians as well. Limited time availability in already packed student and resident didactic schedules can be a barrier to incorporating new educational initiatives. It is our hope that the design of this course allows for easier integration of an often neglected subject in emergency medicine.

The Association of American Medical Colleges (AAMC) has endorsed a set of competencies for undergraduate medical education regarding trauma-informed care.³⁶ As described by the Substance Abuse and Mental Health Services Administration (SAMHSA), a trauma-informed approach involves an awareness of the widespread incidence and effects of trauma; recognizes the signs and symptoms of trauma in patients; integrates knowledge of the effects of trauma into therapeutic approaches and policies; and seeks to avoid re-traumatization.³⁷ These principles of trauma-informed care should guide healthcare providers' approach to patients who may be suffering from IPV, as well as educators' approach to learners and trainees as they develop their own knowledge and skills in this area.³⁸

IPV is a complex, multidimensional issue without a one-size-fits-all solution. Affecting real change in this matter benefits from multidisciplinary education and intervention. Medicine is just one of the disciplines in which education and practice changes can likely make a difference for our patients. IPV is particularly relevant to emergency medicine. However, the fast-paced and often

high-pressure nature of emergency medicine also presents unique challenges to recognizing and adequately responding to those suffering from IPV.³⁹ This makes it even more imperative for providers to have an understanding and awareness of the issue and ways in which they can help to recognize it and intervene when appropriate. Patients' presentations may be subtle and for numerous reasons, including their history of trauma, patients may not be forthcoming or comfortable sharing openly with healthcare providers.¹⁴ In addition, overlapping diagnoses such as mental health conditions and substance use disorders introduce a high potential for bias.⁴ Providers must be specifically trained to recognize certain red flag symptoms or behaviors; to inquire about various forms of intimate partner violence, from physical to psychological, and to do so in an appropriate, confidential, and sensitive manner; to offer compassion and withhold judgment in their immediate response; to offer individualized supports and resources based on the patient's goals; and to respect the patient's autonomy while ensuring that the healthcare setting remains a safe place to seek help. Even with this supportive and trauma-informed approach, many patients will not disclose or will not accept assistance after a single brief interaction with an emergency medicine provider. However, wide use of these principles may help reinforce that healthcare settings such as the emergency department are places of safety, and encourage patients to seek help in the future.³⁴ Our curriculum specifically provides time and space for learners to explore some of the more difficult aspects of these interactions, particularly in the case-based discussion session. This type of education is one small but crucial piece of the multidisciplinary approach necessary to make an impact on a large and often underserved patient population.

Curricula on the topic of IPV have been implemented in preclinical medical student groups. Schrier et al developed a flipped-classroom-style learning module including a pre-course reading assignment followed by small group discussions, taught to second-year medical students. Similar to our results, they found high learner satisfaction in the ability to screen for IPV and counsel patients when indicated. This curriculum involved 3 hours of in-person time as opposed to ours, which was completed in 1 hour.²⁴ Another study, also designed for medical students, involved the use of standardized patients to practice communication skills surrounding IPV. The facilitators rated learner engagement and interaction favorably.²⁶ Our curriculum requires less time than that implemented by Schrier et al and thus may be easier to implement during a clinical rotation when scheduling long blocks of time or standardized patients is not feasible given students' varying concurrent clinical obligations.

IPV curricula have also been successfully implemented in learners during clinical training. In an internal medicine residency group, Insetta and Christmas²⁷ implemented a curriculum similar to ours involving an asynchronous 60-minute video followed by case-based discussion, role play, and debriefing. Resident participants showed significantly improved self-ratings of their knowledge, confidence, comfort, and ability to screen for IPV in their patients, similar to our findings. Our study is the first of its type to show efficacy of a multi-modal curriculum in emergency medicine learners and included cases specific to those encountered in the ED setting with often limited time and resources. It thus can serve as a model for educators in EM and medical school curriculum development committees.

Limitations and Future Directions

Limits to this study include its small sample size at a single institution. The assessment of the curriculum has inherent limitations, as the surveys were able to identify self-reported change in knowledge and comfort levels, but did not directly assess for change in behavior or patient outcomes. Future steps may include evaluating the curriculum at a higher level to assess for change in knowledge, behaviors, and patient outcomes. Regarding the design of the curriculum itself, while we feel that this practical approach is a strength, inevitably if learners spent more hours discussing cases and practicing conversations, comfort and skill level would continue to increase. In the future, we could transfer the course to other learners, including residents.

Conclusion

This multi-modal curriculum offers an efficient approach to teaching learners in EM about IPV, a challenging topic in a clinical setting in which it is frequently encountered. Lack of training and comfort in recognizing risk factors and red flags for IPV, appropriately assessing patients for violence, and providing support and resources is a significant barrier for healthcare providers addressing this issue with patients. An appropriate assessment and response can make significant positive change in the health and lives of individual patients and the community as a whole. This curriculum can help fill an educational gap and improve the quality of care learners provide to their patients who may be suffering from IPV. Our hope is that by extending the type of education described in this study, trainees will become more competent at addressing this health crisis on a daily basis and contribute to one aspect of the comprehensive approach necessary to make a difference for these patients.

Disclosure

The authors report no conflicts of interest in this work.

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