Training reproductive health providers to talk about intimate partner violence and reproductive coercion: an exploratory study

H. Zachor¹*, J. C. Chang², S. Zelazny³, K. A. Jones³ and E. Miller³

¹University of Pittsburgh School of Medicine, 3550 Terrace St, Pittsburgh, PA 15213, USA, ²Department of Obstetrics, Gynecology, and Reproductive Sciences and the Magee-Women's Research Institute, Department of Medicine, University of Pittsburgh, 3380 Boulevard of the Allies, suite 309, Pittsburgh, PA 15213, USA and ³Division of Adolescent and Young Adult Medicine, Department of Pediatrics, Children's Hospital of Pittsburgh, University of Pittsburgh Medical Center, 3420 Fifth Ave., Pittsburgh, PA 15213, USA

*Correspondence to: H. Zachor. E-mail: Hadas.zachor@uchospitals.edu

Received on October 5, 2016; accepted on February 5, 2018

Abstract

To explore the effect of provider communicationskills training on frequency of intimate partner violence (IPV) and reproductive coercion (RC) assessment, four family planning clinics were randomized to IPV/RC communication-skills building workshop or standard knowledgebased IPV/RC training and compared to historical controls from the same clinics (before any training). Female patients aged 16-29 completed after-visit surveys. Primary outcomes included provider discussion about IPV/RC, receipt of safety card with IPV/RC resources and patient disclosure of IPV/RC. Chi-square tests were used to compare groups that received training and historical controls. Participants (training: n = 103; historical control: n = 576) were predominantly white with mean age of 22. More patients reported discussion about healthy relationships in both training groups (78–90%) compared to historical controls (49–52%, P < 0.001 for both). Discussion on birth control sabotage and pregnancy coercion was infrequent with patient-participants in both groups (6-17 and 4-13%, respectively). More patients in the clinics that received training reported receiving a safety card (72–84%) as compared to historical controls (9%, P < 0.001) for both). Overall, in this exploratory study, both communication-skills and standard training improved frequency of IPV

communication when compared to historical controls but with few differences when compared to each other.

Introduction

Intimate partner violence (IPV) is a 'pattern of assaultive and coercive behaviors' [1] and can include physical or sexual violence or threats of violence, aimed at establishing control over a partner or former partner [1-3]. IPV is prevalent among and disproportionately affects young women seeking care in family planning clinics [4–6]; in one study, 53% of female patients aged 16-29 years seeking care at family planning clinics reported experiencing physical or sexual IPV during their lifetime [4–6]. Reproductive coercion (RC), one mechanism that links IPV to increased risk of unintended pregnancy [7], includes coercive behaviors to exert control over a partner's reproductive life; this includes intentionally sabotaging her contraceptive method or forcing her to become pregnant [1]. IPV and RC are associated with a variety of negative health consequences such as unwanted pregnancies, sexually transmitted infections, smaller birthweight babies, chronic pain and gastrointestinal disorders and mental health disorders such as depression and substance abuse [8-13]. In addition, women who have experienced IPV utilize more health care services at health costs 19-42% higher than women who have not experienced IPV [14-16].

Despite the prevalence of IPV and RC, associated health consequences, and high health care costs, there is limited evidence regarding how to best address these issues within health care settings. Although advocacy groups and medical organizations have recommended that providers implement routine IPV screening and intervention [2, 17–20], few recommendations specify what strategies providers should use to assess for IPV beyond recommendations to screen. Health providers report multiple barriers to IPV/RC assessment and intervention, including not enough time, discomfort with the topic and uncertainty about how to raise the topic or respond to positive disclosures [21–24]. Unfortunately, simply having a screening tool in place does not always translate to increased awareness of the need for IPV assessment; some providers at clinics that had incorporated an IPV screening tool into their health history questionnaire continued to perceive reproductive health as unrelated to IPV [25]. In addition, providers reported using the tool inconsistently, often only following up verbally when patients disclose IPV [26]. While some studies showed that health provider IPV training led to providers' increased likelihood to address IPV [27, 28] other studies have shown limited effects from provider education [29, 30]. However, these prior IPV training sessions all focused on information about IPV or recommended guidelines rather than the communication skills or strategies to talk about IPV.

Previous studies have focused on the effectiveness of screening in detection and reduction of IPV [31–36]; two reviews of these interventions have been equivocal in terms of providing strong evidence to support universal screening for IPV in health care settings [3]. A review by O'Campo et al. [32] found that 'comprehensive' programs, i.e. programs that incorporate multiple screening components at various levels and had institutional support, reported significantly increased rates of screening, disclosure and identification when compared to 'non-comprehensive' programs [32]. Zaher et al.'s [31, 37] review found that while interventions and outcome measures varied among studies, brief interventions did not improve provider behavior, while studies that provided system-level support

demonstrated significant improvement in provider knowledge, attitudes and identification of victims. In particular, one study that used standardized patients to train post-graduate physicians was successful in improving knowledge and skills and led to more reporting of IPV [31, 37]. While interventions and outcome measures varied among studies, brief interventions did not improve provider behavior, while studies that provided system-level support demonstrated significant improvement in knowledge, attitudes and identification of victims. They concluded that training programs that contain interactive learning components combined with systemlevel support may be beneficial in increasing awareness and victim identification. None of the studies reviewed compared two different types of training, and few details were provided about specific training programs.

When considering provider training around IPV/ RC, patient perspectives must also be taken into account. In a study among female patients receiving care at the Veterans Health Administration, participants cited the importance of provider communication style, provision of resources, and follow-up support, as well as having the option to choose the situation in which they disclose abuse [38]. Chang et al. [39] identified positive and negative consequences of IPV screening. Positive consequences included patient realization that they were in an abusive relationship, decreased sense of isolation and general feeling that their provider cared about them. Patients cited disappointment in provider's response to disclosure as a negative effect of screening, as well as increased anxiety and feeling of stigma as a result of IPV screening. The authors concluded that the positive aspects described by patients support that assessing for IPV in a 'compassionate, nonthreatening' manner can help victims, but the negative aspects identified suggest that screening without an appropriate manner and response can be harmful. Thus, while patients may benefit from IPV assessment, how providers assess plays a crucial role in determining the degree of benefit or harm of IPV assessment.

There is limited information regarding whether different types of training approaches to IPV/RC

are more effective in improving health providers' assessment and discussion of IPV/RC. In our exploratory study, we developed and implemented two different IPV/RC training programs. One was a program using traditional approaches to health provider education—lectures, examples and group discussion. The other focused more specifically on teaching communication skills for addressing sensitive topics such as IPV/RC using a simulated patient and role-playing exercises. Our study sought to address two questions: (1) whether any IPV/RC training improved the frequency of IPV/RC assessment and counseling in the family planning clinic setting, and (2) whether one type of IPV/RC training was associated with greater levels of improvement.

Materials and methods

In this exploratory study, our study sites were four family-planning clinics (similar in size and services provided) in western Pennsylvania that had participated as control sites (standard of care only) in the Addressing Reproductive Coercion in Health Settings (ARCHES) study, a randomized trial on IPV assessment and brief counseling. The intervention studied in the ARCHES study included training of staff at family planning clinics in western Pennsylvania to implement an IPV/RC universal education and brief counseling intervention designed to facilitate patient and provider discussion about IPV and RC using semi-scripted assessment tools, harm reduction counseling and connection to victim advocacy resources [40, 41]. The ARCHES study had used a 2-arm cluster randomization process and had fourteen clinics in the waitlist control arm that were eligible for training only after all data collection for the randomized trial was completed. The present study involved only clinics who had been waitlist control sites in the original study who were interested in participating in more research studies and, prior to the current study, had not received any training around IPV/RC. We limited participation in this study to four clinics due to budget limitations. We asked the senior managers from the two organizations overseeing these clinics

to identify two sites each to participate in this study about training strategies. The four sites were stratified by organization (two in each). We used a computer-generated randomization program to randomly assign clinics to receive one of two 3-h trainings for clinicians, nurses, medical assistants and other support staff: an IPV/RC communication skills building workshop using a simulated patient or a standard knowledge-based IPV/RC training. The standard knowledge-based IPV/RC provider training program in this study reported here consisted of the ARCHES intervention.

The communication skills training were modeled after existing effective programs designed to teach medical professionals specific skills in approaching sensitive topics such as IPV/RC [42, 43]. The first section was a didactic overview of the prevalence and health consequences of IPV/RC, harm reduction counseling and local and national IPV resources. The communication skills portion focused on two specific types of communication skills that could benefit their patients, particularly those with prior experiences of IPV or RC. The first, 'Ask-Tell-Ask' (also known as 'Elicit-Provide-Elicit'), which involves asking the client what she understands about IPV or RC, requesting permission to provide information, then asking the client to confirm what she understood, emphasizes patient autonomy and a patient-centered approach to IPV/RC assessment [44-46]. The second, 'N-U-R-S-E' (Name the client's emotion, Understand and validate their emotion, Respect their strengths, Support without conditions and Explore the context for their emotions), helps providers to learn skills to respond to any perceived emotions [45, 46]. After the didactic portion, participants practiced various scenarios as a group with volunteers role-playing conversations with a simulated patient (trained actress) seeking clinic services and received suggestions and feedback from the group and the trainer on what aspects of the interviewing strategies worked well and suggestions for other alternate approaches. The didactic portion generally took around 20-30 min followed by 3.5 h for the role-playing portion.

Providers were asked to complete a training satisfaction survey immediately following completion

of the training that asked about the effect of the training on their knowledge about IPV/RC and how likely they are to implement the strategies they learned from the training session. Provider participants at each clinic site (n = 23 out of 23 providers total) included clinicians (nurse practitioners and nurse-midwives), health care assistants, front-desk staff, and clinic managers. All providers who participated in the study were female.

Following these trainings, patient participants were recruited at each clinic by research staff in the waiting room prior to patients' normal clinic visits. Subject enrollment and data collection for this portion of the study occurred from February 2013 to August 2015. Female patients were eligible for study participation if they were English-speaking, 16-29 years, and scheduled to see a provider who had participated in either of the study training sessions. We approached 120 patients for recruitment; 103 enrolled (86% participation) and completed a baseline survey prior to their visit and an exit survey following their visit. In addition, these patient participants agreed to permit audio-recording of their clinic visit. The focus of this paper, however, is the data from the baseline and exit surveys.

The baseline survey assessed demographics, recent (past 3 months) and lifetime IPV (one item on physical violence, two items on sexual violence [7]), recent RC (10 items [4, 6]) and unintended pregnancy (nine items from National Survey of Family Growth [47]). The exit survey asked patients whether they discussed IPV/RC during their clinic visit and whether they shared information with their providers about any prior exposure to such violence. Patient participants received a \$30 gift card for completing the surveys.

Primary outcomes were assessed through exit survey responses and included provider discussion about IPV/RC, receipt of a safety card with IPV/RC resources, and if the patient disclosed any history of IPV/RC during the visit. Descriptive statistics from the baseline survey characterized client demographics and compared the communication skills training to the standard training with respect to key measures.

Data from both training groups were compared to data collected from those same clinic sites during the previous ARCHES study (patients enrolled from October 2011 to November 2012) [40]. These data serve as a historical control group that received no training about IPV or RC and matches the clinic-level (e.g. same providers, patient population, geographical location) variables of the current clinic sites. Historical control participants reported IPV, RC, unintended pregnancy and experiences with their providers using the same items as this study.

In the main analysis, Chi-square or Fisher's exact tests were used to compare frequency of discussion items between each training group and its respective historical control. Due to the small sample size and exploratory nature of this study, clustering was not accounted for in statistical analyses. We used the sample sizes recruited and baseline levels of key outcomes in each historical control to determine the effect sizes we were powered to detect between each post-training group and their respectively historical control. We have at least 80% power to detect increases of 14-16 percentage points in each training group for receiving a safety card and provider discussion of birth control sabotage, and 20–22 percentage points increase in discussing healthy and unhealthy relationships.

After randomization and training, one clinic site withdrew from the study. Another family-planning clinic in the same geographical area was randomly chosen from the group of clinics that participated in the ARCHES study and were waitlist control groups, as described above. This clinic replaced the clinic that withdrew and received the provider communication skills training, resulting in two communication skills training sites and two standard-knowledge based IPV/RC training sites in the final analysis of patient exit-survey responses. Responses from the clinic that withdrew (but completed the initial training) were included in the analysis of the provider post-training survey.

Study protocol and procedures were approved by the University of Pittsburgh Human Research Protection Office and reviewed by Planned Parenthood Federation of America and Adagio Health.

Table I. Demographics, by intervention arm

| | Historical control | Communication skills | Standard training $(n=50)\%$ (n) | |
|---|--------------------|----------------------|------------------------------------|--|
| Characteristic | (n=600)% (n) | (n=53)% (n) | | |
| Race | | | | |
| Asian | 1.3 (8) | 1.9 (1) | 0 (0) | |
| Black/African-American | 10.3 (62) | 15.1 (8) | 8.0 (4) | |
| Hispanic or Latina | 1.2 (7) | 3.8 (2) | 2.0 (1) | |
| White | 82.8 (497) | 71.7 (38) | 88.0 (44) | |
| Multiracial/other | 3.7 (22) | 7.6 (4) | 2.0 (1) | |
| Fisher exact p value | | | 0.306 | |
| Age, mean (SD) | 21.9 (0.13) | 23.0 (3.8) | 21.9 (3.4) | |
| Two sample t-test p value | | | 0.137 | |
| Education | | | | |
| Less than 12 th grade | 12.8 (77) | 17.0 (9) | 18.0 (9) | |
| Finished high school | 24.2 (145) | 20.8 (11) | 16.0 (8) | |
| Some college | 37.5 (225) | 28.3 (15) | 48.0 (24) | |
| College degree or higher | 25.3 (152) | 34.0 (18) | 18.0 (9) | |
| Chi-squared p value | | | 0.141 | |
| Relationship status | | | | |
| Single | 30.0 (180) | 22.6 (12) | 34.0 (17) | |
| Dating more than 1 person | 1.2 (7) | 1.9 (1) | 0 (0) | |
| In a serious relationship | 63.0 (378) | 64.2 (34) | 62.0 (31) | |
| Married | 5.2 (3) | 11.3 (6) | 4.0 (2) | |
| Fisher exact p value | | | 0.251 | |
| Past 3 months experience | | | | |
| Any recent IPV | 11.0 (66) | 7.6 (4) | 8.0 (4) | |
| Fisher exact p value | | | >0.99 | |
| Any recent RC | 5.2 (27) | 7.1 (3) | 4.4 (2) | |
| Fisher exact p value | | | 0.734 | |
| Lifetime IPV | 42.2 (253) | 37.7 (20) | 52.0 (26) | |
| Chi-squared p value | | | 0.306 | |
| Past 12 month unintended pregnancy ^a | 10.2 (61) | 20.8 (11) | 8.0 (4) | |
| Chi-squared p value | | | 0.047 | |

Note P values are for statistical tests comparing intervention to control participants.

Results

Patient–participants (historical control group: n = 600; communication skills: n = 53; standard training: n = 50) were predominantly white with a mean age of 22 years (SD = 0.12), and most had completed some college or higher (Table I). Recent (past 3 months) IPV and RC were reported in 11 and 5% of participants, respectively. Past-year unintended pregnancy rate was higher in sites that

received communication skills (CS) training (21%) as compared to standard knowledge-based training sites (ST; 8%) and historical control group (10%, P = 0.047).

Comparison of each training methodology's pre-training to post-training after-visit responses

Patients in both training groups reported getting a safety card more often than their respective historical

IPV, intimate partner violence; RC, reproductive coercion

^aIncludes any patients who were pregnant in the last 12 months and answered yes to at least one of the nine unintended pregnancy items

Table II. After-visit patient report of provider communication

| Outcome | Communication skills (CS): pre-training ^a $(n = 383)$ versus post-training $(n = 53)$ | | Standard training (ST): pre-training ^a $(n = 193)$ versus post-training $(n = 50)$ | | CS versus ST |
|---|--|--------|---|-------------------|----------------------|
| Cutcome | Pre % | Post % | Pre % | Post % | P-value ^b |
| Safety card given during visit | 8.7 | 71.7* | 9.4 | 83.7* | 0.148 |
| Provider discussion | | | | | |
| RC Birth control sabotage | 11.5 | 14.9 | 6.3 | 17.0^{\dagger} | 0.681 |
| Pregnancy coercion | 8.8 | 3.9 | 3.7 | 13.3^{\dagger} | 0.141^{3} |
| LARC | 57.1 | 64.7 | 53.3 | 60.4 | 0.659 |
| IPV Healthy versus unhealthy relationships | 51.8 | 90.4* | 48.9 | 78.0* | 0.086 |
| What you deserve in a relationship | 10.7 | 14.0 | 6.5 | 21.3^{\dagger} | 0.346 |
| How to help a friend who is in an unhealthy relationship by giving them the card ^d | 47.5 | 56.8 | 54.6 | 78.6 [†] | 0.038 |
| STI Safe ways to notify partner about infection ^e | 34.2 | 50.0 | 47.1 | 50.0 | >0.99 |
| Resources | | | | | |
| Domestic violence advocacy service | 5.2 | 41.5* | 10.9 | 46.0* | 0.646 |
| Rape crisis center | 1.0 | 1.9 | 2.6 | 12.0^{\dagger} | 0.055^{c} |
| National domestic violence hotline | 7.6 | 32.1* | 6.2 | 48.0* | 0.099 |
| Teen dating abuse hotline | 1.3 | 5.7 | 5.7 | 24.0* | 0.008 |
| Did not receive any information | 77.3 | 45.3* | 74.1 | 34.0* | 0.646 |
| about resources | | | | | |
| Disclosed to provider | n/a | 9.8 | n/a | 12.3 | 0.739 |

^{*}P < 0.001: †P < 0.05.

control groups (9%; P < 0.001 for both) (Table II). Patients in post-training groups also reported more discussions about healthy versus unhealthy relationships than their respective pre-training historical control groups (P < 0.001 for both). Patients in the post-ST group reported their provider talking about how to help a friend in an unhealthy relationship more often (79%) than in the pre-training historical control group (55%; P = 0.046). Patient–participants in both pre- and post-training groups reported low rates of provider discussion about what they deserve in a relationship, but patients in the post-ST group reported more discussion on this topic (21%) than the respective historical control group (7%; P = 0.004). In the CS group, patients reported discussion about how to help a friend and what they deserve in a relationship more often following training (57 and 14%, respectively) when compared to pre-training responses (48 and 11%, respectively), but these differences did not reach statistical significance.

Patient–participants in both pre- and post-training groups reported infrequent provider discussion about birth control sabotage (range 6–17%) and pregnancy coercion (range 4–13%). However, the post-ST group reported significantly higher rate of discussion about birth control sabotage (17%) and pregnancy coercion (13%) than the respective pre-training control group (6%; P=0.018 and 4%; P=0.012). Discussion of birth control methods that the patient can control such as long-acting reversible contraceptives (LARC) was higher in both post-training groups when compared to their

IPV, intimate partner violence; RC, reproductive coercion; STI, sexually transmitted infection.

^aHistorical control groups received no training prior to collection of data; the historical control groups are comprised of the same clinics in the corresponding training group.

^bChi-squared, unless otherwise stated.

^cFisher's exact test.

^dDenominator includes only participants who reported receiving a safety card from their provider.

eResponses from patients who reported an STI diagnosis at clinic visit.

Table III. Post-training provider attitudes in communication skills training versus standard training^a

| Outcome | Communication skills training $\%^b$ | Standard knowledge-based (ARCHES) % ^c |
|--|--------------------------------------|--|
| Training increased understanding of | | |
| how to assess for RSC | 94.1 | 100.0 |
| how to use LARC as a harm-reduction strategy | 76.5 | 100.0 |
| how to use EC as a harm reduction strategy | 76.5 | 100.0 |
| how to provide safer partner notification | 62.5 | 87.5 |
| how to provide supported referrals to local and national resources | 94.1 | 100.0 |
| Following training, more likely to | | |
| offer safety card to all clients | 70.6 | 77.8 |
| assess client's safety and discuss ways to stay safe | 76.5 | 77.8 |
| assess for DSV with any client | 70.6 | 77.8 |
| assess for RSC with any client | 70.6 | 77.8 |

^aReported numbers include participants who answered 'strongly agree' or 'agree'.

respective pre-training groups (53–57%) but these differences were not statistically significant.

Compared to each pre-training group, patients in both post-training groups reported receiving information about IPV/RC resources significantly more often, as presented in Table II. Significantly fewer participants in the post-CS group (45%) reported not receiving any information about resources when compared to their respective pre-training group (77%; P < 0.001). Similarly, fewer participants in the post-ST group (34%) reported not receiving any information about resources when compared to their respective historical control group (74%; P < 0.001).

Comparison of communication skills training to standard training

Although not statistically significant, more patients reported receiving a safety card in the ST arm (84%) than in the CS arm (72%; P = 0.148), whereas more patients reported discussion about healthy and unhealthy relationships in the CS arm (90%) compared to ST (78%, P = 0.086). Patients in the ST group were significantly more likely to report their provider talking about how to help a friend in an unhealthy relationship (79%) compared to patients in

the CS group (57%; P = 0.038). Patient disclosure of IPV/RC did not differ by training type (CS: 10%; ST: 12%, P = 0.739) (this item was not included in the historical control survey).

Discussing RC, including birth control sabotage and pregnancy coercion, was reported more frequently in the ST arm (17 and 13%, respectively) as compared to the CS arm (15 and 4%, respectively) but these differences were not statistically significant (P = 0.681 and 0.141, respectively). LARC discussion also did not differ by training type (CS: 65%; ST: 60%; P = 0.659). Receipt of information about IPV/RC resources was reported with similar frequency in training arms, except for information about the teen dating abuse hotline (CS: 6%; ST: 24%; P = 0.008).

Provider perception of training

Responses from the post-training survey (five clinics; n = 26 female providers and clinic staff) are reported in Table III. Overall, most provider–participants agreed that the training increased their understanding of RC assessment, harm reduction strategies and providing referrals. Most respondents also agreed that they would be more likely to hand out safety card, assess client safety and assess for

 $^{^{\}rm b}n = 17$ providers and staff from three clinics; denominator includes missing responses.

 $^{{}^{}c}n = 9$ providers and staff from two clinics; denominator includes missing responses.

RSC, reproductive or sexual coercion; LARC, long acting reversible contraception; EC, emergency contraception; DSV, domestic and sexual violence.

IPV and RC following the training. No statistically significant differences were found between the two training groups. However, there was an overall trend toward increased understanding and likelihood of implementation in the ST group.

Discussion and conclusion

Discussion

Overall, when comparing patient report of provider communication at the clinics before and after both training types, there was a significant difference in provider communication about IPV and RC. Regardless of training type, patients at sites that received training reported increased safety card provision, discussion of healthy versus unhealthy relationships, and provision of information about IPV resources. The clinics that underwent standard knowledge-based training discussed RC topics more often following training. In summary, our findings suggest that training of either type, but more so with standard knowledge-based training, significantly improved provider communication about IPV and RC.

The strength of this study over previous work is that we directly compared two different types of training to determine if one type of program is superior.

Another strength is that our findings are based on patient reports of specific provider discussion items and are therefore better able to capture patients' perspectives regarding assessment. Our study findings provide additional details regarding content of discussion; we noted that providers' descriptions of what constitutes healthy versus unhealthy relationships and invitations to take a safety card were aspects of IPV communication that could be effectively taught with either of the two types of IPV training we provided.

In comparing the communication skills and standard knowledge-based training sites, we found that they did not differ significantly on most provider communication markers measured in this small pilot study. However, there was a trend toward increased reporting of discussion about healthy and unhealthy relationships at the sites that received communication skills training, while a higher proportion of patients at the sites that received the

standard training recalled talking with a provider about how to help a friend in an unhealthy relationship. Overall, these findings indicate that these two training modalities have similar patient-reported outcomes. The standard training approach is more like the interventions described in previous studies, focusing on didactic knowledge and access to community resources. This training is fairly easy to replicate since it is based on a widely available resource from Futures Without Violence [1] and is less resource-intensive than a simulated patient-based program.

Future analyses will need to be performed on the audio-recorded visits to identify any potential differences in communication details such as style of communication and use of empathetic or validating statements between the training. Currently, our findings show little difference regarding provider screening behavior and slightly higher satisfaction and confidence in implementation among the ST group. We would need a larger study to detect any potential differences in training type and would need to explore potential reasons for the differences. For example, satisfaction differences could be explained by familiarity with a didactic teaching method compared to the interactive method involving role-played simulations.

Increasingly, women-centered approaches to IPV assessment are being proposed. A primary component of a model detailing elements of the health system and health-care response necessary to address violence against women is ensuring respect for women's autonomy and choices [48]. Consequently, measures of intervention 'success' should reflect the factors that patients have identified as important, and not just whether screening and disclosure occurred. A meta-analysis of qualitative studies exploring experiences, expectations and desires of women who have experienced IPV found that a key construct was women's desires for health providers to be nonjudgmental, nondirective, and to individually tailor their responses based on the woman [49]. Thus, outcomes for IPV interventions should take into account the complexity of women's IPV experiences and ensure that health providers are indeed meeting women 'where they're at.' For

future studies, data gathered must include more specific questions on what was discussed during clinic visits and the manner in which it was discussed. Qualitative analyses would be helpful to better understand the experiences and impact of each training method among participants.

This study had several limitations. Given the small sample size and the exploratory nature of the study, we did not correct for multiple comparisons. In addition, the data presented here represent patient recall of provider discussion and are consequently open to recall bias. The patients' report also solely focused on their recall of whether the IPV/RC conversations occurred but did not assess quality, wording or impact of that communication. The participants in this study represent the demographics of western Pennsylvania and may not be generalizable to other geographic areas or more diverse clinic settings. In addition, while we intended to train all providers and staff, and the managers mandated the training, it is possible that a small number of staff was not trained or new additions to staff occurred after the training. As we did not collect this data, we are not aware of the proportion of untrained versus trained staff during the time of post-training data collection.

This study sought to explore how health provider IPV/RC training affects the frequency of provider discussion of IPV and RC using a brief client feedback survey. We also sought to compare different styles of providing this IPV/RC training. We found that while communication skills training improved provider communication about IPV and RC, it was not significantly better than standard-knowledgebased training, and in some aspects, the standard training appeared to be superior to communication skills training. However, the quantitative survey data presented here do not provide in-depth detail on the specific communication behaviors or skills providers used during their conversations with the patients. Prior studies have noted that how health providers talk about sensitive subjects like IPV/RC matter just as much or perhaps more than just whether these discussions are occurring [26, 39, 50-52]. Qualitative research examining recorded clinic visits and interviews with patients and

providers is needed to further explore the effects of training type and to assess for differences in quality of discussion on these topics.

Conclusion

The findings from this small-scale exploratory study showed that both provider communication skills training and standard-knowledge-based training about IPV and RC significantly increased provider communication about IPV/RC when compared to no training. In deciding the best training modality, the higher cost of simulated patient-based training versus standard training would need to be considered; the former includes paying a trained actor and devoting time for participants to engage in the simulation and obtain feedback, while the latter includes one individual presenting a didactic training. A larger-scale study is needed to determine the overall effectiveness as well as cost benefit of an enhanced communication skills approach for training providers to assess for IPV/RC consistently, comfortably and effectively.

Funding

This study was supported with funding from the National Institutes of Health R03HD079507 (Chang/Miller) and K24HD075862 (Miller).

Conflict of interest statement

None declared.

References

- Chamberlain L, Levenson R. Addressing Intimate Partner Violence, Reproductive and Sexual Coercion: A Guide for Obstetric, Gynecologic, and Reproductive Health Care Settings: Futures Without Violence, 2012.
- Committee Opinion No. 518: Intimate Partner Violence: American College of Obstetricians and Gynecologists, 2012.
- O'Doherty L, Hegarty K, Ramsay J et al. Screening women for intimate partner violence in healthcare settings. Cochr Database Syst Rev 2015; 7: CD007007.
- Miller E, Decker MR, Raj A et al. Intimate partner violence and health care-seeking patterns among female users of urban adolescent clinics. Matern Child Health J 2010; 14: 910–7.

- Keeling J, Birch L. The prevalence rates of domestic abuse in women attending a family planning clinic. J Fam Plann Reprod Health Care 2004; 30: 113–4.
- Miller E, Decker M, McCauley HL et al. Pregnancy coercion, intimate partner violence and unintended pregnancy. *Contraception* 2010; 81: 316–22.
- Miller E, McCauley HL, Tancredi DJ et al. Recent reproductive coercion and unintended pregnancy among female family planning clients. Contraception 2014; 89: 122–8.
- Chisholm CA, Bullock L, Ferguson JE. Intimate partner violence and pregnancy: epidemiology and impact. *Am J Obstet Gynecol* 2017; 217: 141–4.
- Miller E, Chang JC. Addressing reproductive and sexual coercion and partner violence in women's health settings. Contemp Ob Gyn 2015; 60: 34–40.
- Chang JC. Intimate partner violence: how you can help female survivors. Cleve Clin J Med 2014; 81: 439–46.
- Sugg N. Intimate partner violence. Med Clin North Am 2015;
 629–49.
- Iverson KM, Dardis CM, Pogoda TK. Traumatic brain injury and PTSD symptoms as a consequence of intimate partner violence. *Compr Psychiatry* 2017; 74: 80–7.
- East L, Peters K, Jackson D. Violated and vulnerable: women's experiences of contracting a sexually transmitted infection from a male partner. *J Clin Nurs* 2017; 26: 2342–52.
- Bonomi AE, Anderson ML, Rivara FP et al. Health care utilization and costs associated with physical and nonphysical-only intimate partner violence. Health Serv Res 2009; 44: 1052–67.
- 15. Rivara FP, Anderson ML, Fishman P *et al*. Healthcare utilization and costs for women with a history of intimate partner violence. *Am J Prev Med* 2007; **32**: 89–96.
- Fishman PA, Bonomi AE, Anderson ML et al. Changes in health care costs over time following the cessation of intimate partner violence. J Gen Intern Med 2010; 25: 920–5.
- American Nurses Association. Position Statement on Physical Violence against Women. Washington, DC: American Nurses Association, 1991.
- Final Recommendation Statement: Intimate Partner Violence and Abuse of Elderly and Vulnerable Adults: Screening: U.S. Preventive Services Task Force, 2014.
- Lee DJL, Sawires P. Preventing Domestic Violence: Clinical Guidelines on Routine Screening. San Francisco, CA: The Family Violence Prevention Fund, 1999.
- American College of Obstetricians and Gynecologists.
 ACOG Committee opinion no. 554: reproductive and sexual coercion. Obst Gynecol 2013; 121: 411–5.
- Colarossi L, Breitbart V, Betancourt G. Barriers to screening for intimate partner violence: a mixed-methods study of providers in family planning clinics. *Perspect Sex Reprod Health* 2010: 42: 236–43.
- Elliott L, Nerney M, Jones T et al. Barriers to screening for domestic violence. J Gen Intern Med 2002; 17: 112–6.
- Erickson MJ, Hill TD, Siegel RM. Barriers to domestic violence screening in the pediatric setting. *Pediatrics* 2001; 108: 98–102.
- Waalen J, Goodwin MM, Spitz AM et al. Screening for intimate partner violence by health care providers. Barriers and interventions. Am J Prev Med 2000; 19: 230–7.

- Miller E, McCauley HL, Decker MR et al. Implementation of a family planning clinic-based partner violence and reproductive coercion intervention: provider and patient perspectives. Perspect Sex Reprod Health 2017; 49: 85–93.
- Ramachandran DV, Covarrubias L, Watson C et al. How you screen is as important as whether you screen: a qualitative analysis of violence screening practices in reproductive health clinics. J Commun Health 2013; 38: 856–63.
- Beynon CE, Gutmanis IA, Tutty LM et al. Why physicians and nurses ask (or don't) about partner violence: a qualitative analysis. BMC Public Health 2012; 12: 473.
- Gutmanis I, Beynon C, Tutty L et al. Factors influencing identification of and response to intimate partner violence: a survey of physicians and nurses. BMC Public Health 2007; 7: 12.
- Hamberger LK, Guse CE, Patel D et al. Increasing physician inquiry for intimate partner violence in a family medicine setting: placing a screening prompt on the patient record. J Aggress Maltreat Trauma 2010; 19: 839–52.
- Minsky-Kelly D, Hamberger L, Pape D et al. We've had training, now what? Qualitative analysis of barriers to domestic violence screening and referral in a health care setting. J Interpers Violence 2005; 20: 1288–309.
- Zaher E, Keogh K, Ratnapalan S. Effect of domestic violence training: systematic review of randomized controlled trials. Can Fam Phys Medecin De Famille Canadien 2014; 60: 618–24.
- O'Campo P, Kirst M, Tsamis C et al. Implementing successful intimate partner violence screening programs in health care settings: evidence generated from a realist-informed systematic review. Soc Sci Med (1982) 2011; 72: 855–66.
- Bair-Merritt MH, Lewis-O'Connor A, Goel S et al. Primary care-based interventions for intimate partner violence: a systematic review. Am J Prev Med 2014; 46: 188–94.
- Bacchus LJ, Bewley S, Vitolas CT et al. Evaluation of a domestic violence intervention in the maternity and sexual health services of a UK hospital. Reprod Health Matters 2010; 18: 147–57.
- Campbell JC, Coben JH, McLoughlin E et al. An evaluation of a system-change training model to improve emergency department response to battered women. Acad Emerg Med 2001; 8: 131–8.
- MacMillan HL, Wathen CN, Jamieson E et al. Screening for intimate partner violence in health care settings: a randomized trial. JAMA 2009; 302: 493–501.
- Shefet D, Dascal-Weichhendler H, Rubin O et al. Domestic violence: a national simulation-based educational program to improve physicians' knowledge, skills and detection rates. Med Teacher 2007; 29: e133–8.
- 38. Iverson KM, Huang K, Wells SY *et al.* Women veterans' preferences for intimate partner violence screening and response procedures within the Veterans Health Administration. *Res Nurs Health* 2014; **37**: 302–11.
- Chang JC, Decker M, Moracco KE et al. What happens when health care providers ask about intimate partner violence? A description of consequences from the perspectives of female survivors. J Am Med Women's Assoc (1972) 2003; 58: 76–81.
- Tancredi DJ, Silverman JG, Decker MR et al. Cluster randomized controlled trial protocol: addressing reproductive coercion in health settings (ARCHES). BMC Women's Health 2015; 15: 57.

- Miller E, Tancredi DJ, Decker MR et al. A family planning clinic-based intervention to address reproductive coercion: a cluster randomized controlled trial. Contraception 2016; 94: 58–67.
- Back AL, Arnold RM, Baile WF et al. Efficacy of communication skills training for giving bad news and discussing transitions to palliative care. Arch Intern Med 2007; 167: 453–60.
- Back AL, Arnold RM, Tulsky JA et al. Teaching communication skills to medical oncology fellows. J Clin Oncol 2003; 21: 2433–6.
- 44. Miller WRS. *Motivational Interviewing: Helping People*. New York, NY: The Guilford Press, 2013.
- 45. Cole SBJ. *The Medical Interview: The Three Function Approach.* St. Louis, MO: Mosby, 2000.
- Back AL, Arnold RM, Baile WF et al. Approaching difficult communication tasks in oncology. CA: Cancer J Clin 2005; 55: 164–77.
- 2011–2013 NSFG: Public Use Data Files, Codebooks, and Documentation: CDC/National Center for Health Statistics, 2016.

- García-Moreno C, Hegarty K, d'Oliveira AFL et al. The health-systems response to violence against women. Lancet 2015; 385: 1567–79.
- Feder GS, Hutson M, Ramsay J et al. Women exposed to intimate partner violence: expectations and experiences when they encounter health care professionals: a meta-analysis of qualitative studies. Arch Intern Med 2006; 166: 22– 37
- Chang JC, Decker MR, Moracco KE et al. Asking about intimate partner violence: advice from female survivors to health care providers. Patient Educ Counsel 2005; 59: 141–7.
- Hamberger LK, Rhodes K, Brown J. Screening and intervention for intimate partner violence in healthcare settings: creating sustainable system-level programs. *J Women's Health* (2002) 2015; 24: 86–91.
- 52. Morse DS, Lafleur R, Fogarty CT *et al.* "They told me to leave": how health care providers address intimate partner violence. *J Am Board Fam Med: JABFM* 2012; **25**: 333–42.