Implementation of a Family Planning Clinic–Based Partner Violence and Reproductive Coercion Intervention: Provider and Patient Perspectives

CONTEXT: Despite multiple calls for clinic-based services to identify and support women victimized by partner violence, screening remains uncommon in family planning clinics. Furthermore, traditional screening, based on disclosure of violence, may miss women who fear reporting their experiences. Strategies that are sensitive to the signs, symptoms and impact of trauma require exploration.

METHODS: In 2011, as part of a cluster randomized controlled trial, staff at 11 Pennsylvania family planning clinics were trained to offer a trauma-informed intervention addressing intimate partner violence and reproductive coercion to all women seeking care, regardless of exposure to violence. The intervention sought to educate women about available resources and harm reduction strategies. In 2013, at the conclusion of the trial, 18 providers, five administrators and 49 patients completed semistructured interviews exploring acceptability of the intervention and barriers to implementation. Consensus and open coding strategies were used to analyze the data.

RESULTS: Providers reported that the intervention increased their confidence in discussing intimate partner violence and reproductive coercion. They noted that asking patients to share the educational information with other women facilitated the conversation. Barriers to implementation included lack of time and not having routine reminders to offer the intervention. Patients described how receiving the intervention gave them important information, made them feel supported and less isolated, and empowered them to help others.

CONCLUSIONS: A universal intervention may be acceptable to providers and patients. However, successful implementation in family planning settings may require attention to system-level factors that providers view as barriers.

The prevalence of intimate partner violence among women seeking sexual and reproductive health services is higher than the prevalence estimated from population-based studies. Women with histories of such violence seek family planning and sexual health–related care more often than their nonabused peers. This care seeking is likely related to the well-documented association of partner violence victimization with increased risk for pregnancy and STDs. Thus, providers working in sexual and reproductive health settings are particularly well positioned to intervene with a large number of women affected by intimate partner violence.

Sexual and reproductive health care providers also may be well positioned to identify and support, women experiencing reproductive coercion within a relationship—behaviors by males that promote pregnancies that their female partners do not want, such as interference with contraceptive use, condom manipulation, and coercion or pressure to get pregnant. Clinical guidelines recommend that family planning clinicians assess patients for intimate partner violence and, specifically, reproductive coercion. Reproductive coercion is generally not assessed in screening for intimate partner violence and may occur in the absence of such violence. Clinical interventions that facilitate awareness of reproductive coercion and communicate strategies for reducing harm associated with it may help reduce the reproductive health consequences of partner violence (e.g., unintended pregnancy, abortion and STDs, including HIV).

Despite multiple calls for clinic-based screening and interventions to identify and support women victimized by partner violence, screening rates remain low. Health providers’ discomfort in addressing this topic is often cited for this lack of uptake. Further, while female patients report positive feelings about being asked about violence in their relationships, fear, shame and, for those with children, fear of child welfare involvement may be barriers to disclosure. Provider discomfort with discussing partner violence and victim reluctance to disclose it compound difficulties in reaching and supporting survivors. Qualitative studies, meanwhile, have indicated that survivors want providers to talk to them about partner violence without pushing them to disclose. They want providers to offer information, resources and support regardless of disclosure, suggesting that universal prevention education about partner violence during clinical encounters would be welcome.

Given the high prevalence of partner violence exposure among patients in family planning settings, a trauma-informed approach may be particularly relevant to the
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... provision of sexual and reproductive health services. Such an approach encompasses four elements: realization among clinical care providers that the impact of trauma is widespread and that there are paths to recovery; recognition of signs and symptoms of trauma exposure among patients; integration of knowledge about trauma into clinical policies and practices; and efforts to resist retraumatization. Additionally, a trauma-informed approach is survivor-centered, meaning that providers offer choices for support and services to those exposed to trauma, they demonstrate compassion and understanding of the impact of trauma on victims’ lives, and the provision of information about services is not predicated on disclosure of trauma.

A trauma-informed approach also recognizes the limitations of focusing solely on screening. Disclosure-driven practice—the traditional use of a yes-or-no screening question—leaves many who are suffering without help and resources because they are not ready to discuss their experiences or feel unsafe discussing them. In other words, the conversation stops when a patient replies no to a screening question. Moreover, screening in the absence of follow-up support has not been shown to reduce violence victimization or improve women’s quality of life.

A few health care–based interventions have shown promise in assisting victims of partner violence. Most, however, require additional trained professionals external to existing standard-of-care structures. Thus, trauma-informed interventions that can be integrated readily into clinical practice are needed.

ARCHES (Addressing Reproductive Coercion in Health Settings) is a brief trauma-informed prevention education and counseling intervention designed to facilitate patient and provider comfort in discussing reproductive coercion and related abuse. It aims to move the field beyond the limitations of disclosure-driven screening practices by offering all female patients support and information about reproductive coercion and partner violence, regardless of disclosure of such violence. It is intended to increase providers’ ability to counsel women on reproductive coercion (and partner violence more broadly), reduce risks for poor reproductive health outcomes and improve safety. One of its key tools is a business-size educational card, designed by Futures Without Violence (a national nonprofit violence prevention organization), which serves as a discussion aid for providers and a resource for patients. Notably, the intervention also encourages patients to share information or the card itself with others in their social network who may need support.

In a cluster randomized controlled trial involving 25 family planning clinics and more than 3,600 women, ARCHES was found to increase adolescent and young adult women’s self-efficacy to enact harm-reducing behaviors, as well as to increase awareness and use of victim services, such as a domestic violence hotline. For women experiencing reproductive coercion at baseline, the more forms of such coercion reported at that time, the greater the reduction at one-year follow-up. Despite these promising findings, however, intervention uptake varied across sites. Exit surveys, which patients completed immediately after their clinical encounter, revealed that 68% of patients (range across clinics, 37–91%) had a provider discuss relationships with them, and 73% (range, 62–94%) received the educational card. The purpose of this qualitative study was to explore how patients and providers perceived the intervention and to elucidate how the intervention was actually delivered, as a step toward refining implementation of such interventions.

INTERVENTION AND STAFF TRAINING

ARCHES has three major elements: education and enhanced assessment, harm reduction and supported referral. Because lack of recognition of abuse is associated with decreased help-seeking, ARCHES aims to educate all patients about ways in which reproductive coercion and partner violence can affect sexual and reproductive health. When the provider opens the eight-panel, accordion-folded educational card to review it with a patient, the first panel that the patient sees is titled “Are you in a healthy relationship?” This panel lists elements of safe, respectful relationships, and is especially relevant for women who experienced abusive relationships in childhood and adolescence and may accept poor treatment as the norm. (Other panels cover unhealthy relationships, pregnancy-related decision making within relationships, possible effects of abusive relationships and where to get help.)

Clinicians are encouraged to use the following suggested script to introduce the card: “We have started giving these cards to all of our patients. It talks about healthy relationships and ones that aren’t, ways a partner might try to get you pregnant when you don’t want to be. We give you two cards because we want you to have the information for yourself, but also so you have the information to help a friend or a family member.” This approach gives patients a way to obtain the information even if they do not want to disclose abuse and empowers them by highlighting their role in helping others who may be experiencing abuse.

Furthermore, it may serve as both primary prevention for patients who have not experienced partner violence and secondary prevention by helping to promote safety for others in patients’ social networks. This way of initiating a conversation about partner violence and reproductive coercion also is intended to increase provider comfort. In particular, if providers share several cards with a patient, they may feel less that they are targeting someone as having a problem.

Harm reduction strategies seek to manage a range of health risk behaviors by “meeting patients where they are.” Interventions specific to partner violence promote safety among victimized women (including women involved in sex trade) by, for example, increasing their ability to refuse sex and encouraging them to reduce substance use in dating contexts or to carry copies of important documents (such as health insurance and social security cards) with them. ARCHES includes educating...
women, via the card and provider discussion, about ways to reduce risk for reproductive coercion (such as using contraceptives that do not require partner knowledge); the program also assists with partner notification for treatment of STDs.

Supported, or “warm,” referrals—for example, having a victim advocate speak with a patient during a clinical encounter or offering the patient use of a phone to call a hotline—assist patients in overcoming such barriers to services as self-blame, lack of recognition of abuse, limited knowledge of services and perception that services are solely crisis-oriented. Such referrals may facilitate use of victim services, alleviate distress and reduce subsequent victimization.

METHODS

Study Design
As part of a larger study of the intervention's effectiveness, 11 family planning clinics in western Pennsylvania were randomly selected to receive training on ARCHES. The clinics serve primarily low-income, young women. All personnel at each site, including front desk staff, medical assistants, nurses, clinicians and administrators, received one half-day training, which included an opportunity to meet staff from local domestic violence agencies. Training, conducted by Futures Without Violence, highlighted reproductive health care providers’ unique position to help patients recognize reproductive coercion and promote patients’ reproductive health through safety assessment and education about harm reduction.

The 11 sites had 35 clinic providers (11 nurse practitioners, 23 medical assistants and one health educator) and eight administrators, all of whom received e-mail invitations to participate in an interview; 18 providers and five administrators agreed to participate. One member of the research team conducted the interviews by phone and audio-recorded them. Participants were all women; almost two-thirds had been working in reproductive health care for more than 10 years. To preserve anonymity, we did not assess participants’ race, ethnicity or age. The interviews elicited feedback on providing the intervention and guidance on improving implementation.

We wanted to assess whether survivors of partner violence found the approach relevant, so women who reported a history of such violence in the final computerized survey of the randomized trial were invited to participate in semi-structured face-to-face interviews. Given Pennsylvania’s reporting requirements for abuse of minors and concerns about breach of confidentiality, we interviewed only participants who were 18 or older. In all, 57 women (86% of those approached) agreed to participate; we interviewed 49. Interviews were conducted in private spaces in the clinics and were audio-recorded; they took place at the end of the larger trial (one year after the baseline clinical encounter), so that our assessment of women’s reflections on the intervention would not interfere with measurement of intervention effects. Sample size was determined through a purposeful sampling approach to balance by age and clinic site; even after content saturation was reached (after the first one-third or so of interviews), we conducted additional interviews to fill the sampling matrix.

All study procedures were approved by the University of Pittsburgh Human Research Protection Office. The data were protected with a federal certificate of confidentiality.

Analysis

Audio-recorded interviews were transcribed verbatim and uploaded to a qualitative coding software program (Atlas.ti). The provider interviews were reviewed by two members of the research team, who identified codes related to intervention delivery and developed a codebook. Using a consensus coding approach, they added codes as subsequent transcripts were reviewed. Each interview was coded and reviewed by two members of the research team, and the lead investigator adjudicated discrepancies.

Similarly, two independent coders reviewed the first five patient interviews and created an initial codebook; additions to the codebook were made via consensus. Major themes identified in the open coding process were refined using axial and selective coding. For this analysis, we reviewed codes specific to patients’ experiences receiving the intervention and feedback about the clinical encounter.

RESULTS

Administrator Interviews
All five administrators (three of whom provided counseling support and distributed educational cards) found the intervention straightforward to implement. They considered the half-day training feasible and the low cost of the educational cards sustainable. They reported that after implementing the intervention, they had greater contact with local victim service agencies (e.g., they invited advocates to staff meetings and, in one case, participated in quarterly countywide human services meetings).

A manager who provided counseling shared the following: “[Giving the card to a patient] made me feel like I wasn’t just helping this patient, but empowering her to discuss it with someone once she read it. Maybe… her sister, her mom, cousin, friend, or [whoever] might be dealing with issues.”

In addition to offering the card to patients, administrators underscored the intervention during staff meetings to remind providers to integrate it into standard care to ensure sustainability.

Provider Interviews
All providers were first asked structured questions about changes in their attitudes and practices once they began implementing ARCHES. Seventeen of the 18 reported increased confidence talking with their patients about partner violence and reproductive coercion. Fifteen reported giving the card to patients, and eight reported always discussing and assessing for partner violence and reproductive coercion. Since a key harm reduction strategy for
reproductive coercion is use of long-acting reversible contraceptive methods, we also asked providers whether they had offered these methods more often since the training; 12 reported that they had. And while the intervention was not focused on disclosure, 10 providers noted an increase in disclosures about partner violence and reproductive coercion by their patients once they implemented the intervention. Providers discussed strategies they had used to integrate the intervention into their clinical flow, how the intervention increased their awareness of partner violence and its impact on women’s reproductive health, how it nourished their desire to help their patients and challenges to implementation they had encountered.

**Strategies for integration.** While some providers noted lack of time as a barrier, others indicated the intervention did not take more time than standard care. In fact, 11 of the 18 noted how this intervention allowed them to streamline their contraceptive counseling. Almost all described a team approach to delivering the card to patients, although the specifics varied: A medical assistant introduced the card, and a clinician went into it in greater detail; a medical assistant described the card, and a clinician asked the patient if she had questions; a clinician gave and described the card to the patients in the exam room during the visit; and an exit counselor offered the card with all checkout materials. One provider described the process at her site as follows:

“[Patients] get checked in, and then they go into the lab with the medical assistant, and that’s when [the medical assistant] would give them the card, talk to them a little about the card…. [Our] theory was that…there’s waiting time in between… the lab and seeing [the nurse practitioner], and there was some more time between seeing [the nurse practitioner] and the exiting counselor, so there was a lot of time during which they could read the card if they were just sitting around waiting.”

Most providers stated that the card was useful in reminding them to assess for partner violence and reproductive coercion with each encounter, served as an “ice breaker” for approaching these topics, and gave suggestions for tailoring their assessment for violence exposure according to patients’ reasons for visiting the clinic. Introducing the card also allowed providers to avoid the pitfalls of yes-or-no screening questions; every patient got information, whether she felt safe disclosing or not. A provider described how helpful it was to shift focus away from identifying a case (getting a disclosure) and toward signaling to patients that the provider is comfortable addressing partner violence: “[The card] made me feel empowered because…you can really help somebody…that might have been afraid to say anything or didn’t know how to approach the topic. This is a door for them to open so they can feel…more relaxed about talking about it.”

**Increased provider awareness.** All of the providers discussed how helpful the training was for their understanding of the impact of partner violence and reproductive coercion on women’s reproductive lives and decision making. They also remarked on how this intervention differed from disclosure-based screening. For example, one provider noted that when patients are routinely asked about violence exposure, “maybe…they see that we truly do care and want to make sure they’re okay, [and then] they may be more open the next time.”

This understanding of the complexities of reproductive coercion and partner violence also helped providers develop greater empathy toward patients who were struggling with adhering to clinical recommendations. One provider described how she came to see that patients’ exposure to partner violence might interfere with their ability to use contraceptives:

“I think all of us had that epiphany. We didn’t make the connection between [reproductive coercion] and women that were perpetually late for their Depo, or women who kept calling and saying they lost a pack of pills or coming in three months late to refill their pills.”

This provider went on to say that the intervention helped providers “[reframe] our thinking on various obstacles in women’s lives and how they are affecting their reproductive choices.”

**Nurturing providers’ desire to help.** As a unique aspect of the intervention was involving the patient in helping others, we listened for how providers discussed this critical aspect. Providers described how sharing the card, with its list of resources, made them feel that they were making a positive change in their patients’ and others’ lives. One provider reflected that giving the card and providing warm referral to domestic violence advocates “makes you feel good that you helped…somebody get help.” Another described her feeling this way:

“It made me feel really good. It made me feel if [patients] were in a situation that they were afraid to talk about it, they had these cards. They have them, and they could take them…and put them in the purse, and [they could] just…offer that little bit of help to anyone.”

Another provider shared that she had started routinely giving two cards to her patients. Reflecting on how patients responded, she said: ‘They usually were just like ‘Uh, okay.’ But they would always take both cards… I think actually once or twice the patients said like, ‘Oh, yeah, I have a friend that might be interested in reading it.’”

Most providers also shared stories about the ripple effect and how that contributed to their positive views about the intervention. For example, one provider told of a patient who said that a friend had given her the card and told her that she could visit the clinic to talk about it:

“It was…wonderful that she was able to come in and get more information.…She did know enough to come in and get more information.…Sometimes you just feel good about something you did that day.”

**Challenges and suggestions.** Despite having positive feelings about the intervention and having placed the card in strategic locations in the clinic to remind them to deliver the intervention, most providers shared that they often forgot to give patients the card. When they had reminders such as e-mails from the practice manager or when a
Researchers at a domestic violence center gathered to discuss the effectiveness of a newly created brochure. The brochure provided information on recognizing and addressing partner violence, and encouraged readers to discuss the topic with their healthcare providers. The session aimed to explore how providers could integrate the brochure into their clinical workflows.

Providers had concerns about the brochure's implementation, particularly regarding the time required to discuss partner violence. Many noted that clinicians often did not have sufficient time to address this sensitive topic. Some providers expressed a need for more training and sample scripts to facilitate discussions about partner violence. However, some providers appreciated the suggested scripts provided with the brochure.

Patient interviews revealed that the majority of patients identified as white, with smaller proportions identified as African American or black, multiracial, or other. Over 70% of patients perceived the card as useful, with 20% indicating that it would help if clinicians discussed partner violence more frequently. The remaining 10% did not feel that it would be helpful to bring up the subject of partner violence.

Acceptability

Patients described receiving the card in different ways. Three-quarters of patients received it from clinic staff, while 10% received it from other people. The card was perceived as helpful by most patients, with some noting that it could be improved by integrating it into clinic flow and reminding providers to distribute it.

Sharing the card

Almost all patients said that they kept the cards, gave them to friends or family members, or did both. All women who kept a card stored it in an easily accessible place, like a dresser drawer or wallet, or with important documents. One woman commented that she uses the card every day. Some patients noted that the card might be stored in inaccessible places, but they would bring it out when the time was right.
friends or family members. Having a resource to share with others felt rewarding as well as empowering. One woman said, “It makes me actually feel like I have a lot of power to help somebody… It was good to know that I had it on hand.” Another stated, “It makes me feel nice that I can help someone else.” Others also described whom they had shared the information with. For example, one woman related the following:

“[My mother’s] situation is way worse than mine. So I try to share things with her as much as I can. I gave the card to her] just so she knew that I cared about her. She doesn’t think anybody cares about her at all, and she has nobody really, so I wanted her to know that I do think about her, and I do care about her.”

Another patient talked about picking up additional cards during subsequent visits:

“I take one every time I go, just in case they ever get lost. They’re small. So I try to keep one like in my car sometimes now, even if it’s not [just for] me…. Working where I work and who I work with, I meet a lot of girls in the same position or worse than I was, so [I keep it] just in case anybody else needs help, ‘cause I’m doing okay at this point.”

About half of the women who passed the card along to a friend or family member modeled their language on how providers presented the card during their clinic visit, and conveyed that the clinic is a safe place to get connected to help. As one woman recounted, “[The clinic staff] told me when they started [giving] this card that this place is a safe place. It’s like if your boyfriend ever trying to abuse you, you can come here, and [they’ll] take care of you. And I told [my coworker] that—there’s people that’ll help you.”

• Suggestion. While patients were positive about the intervention overall, some noted that just handing over the educational card was not enough; they desired deeper conversations with their provider about partner violence and reproductive coercion. One woman explained that she wanted the provider to take more time, to ask more specific questions—not just casually ask something and move on…. [but get] a little deeper into it.” Interviewees were all fully supportive of partner violence discussions in the family planning setting, they appreciated the educational card, and none questioned the rationale for providing it.

**Discussion**

Our study demonstrates the acceptability to providers and patients of a family planning clinic–based universal intervention for addressing reproductive coercion and partner violence. Providers reported that the intervention is feasible and acceptable to implement in their busy clinical practices, although barriers remain. Patients revealed how the intervention helped increase their knowledge about violence-related services (including their recognition of the clinic as a safe resource) and reduced isolation.

Provider barriers to inquiring about partner violence are well described in the literature; these include concerns with time constraints, fear of opening a “Pandora’s box” of complex problems if a woman discloses exposure to violence, and a sense of helplessness in the face of such violence. Providers described how implementing this intervention helped them understand patients’ needs and context, and encouraged them to offer help. The universal education approach shifts the role of the provider away from being gatekeeper of resources for women who have disclosed an experience of violence to ensuring that everyone receives information that may be needed now or in the future. As family planning clinics in the ARCHES trial serve adolescents and young adults just learning about relationships, education about healthy relationships may serve as primary prevention. Positive experiences with assessment for partner violence and reproductive coercion may motivate greater uptake of this universal approach as clinic culture shifts toward the trauma-informed principles that are foundational for this intervention.

Despite providers’ positive reactions to the intervention, they did not assess for partner violence and reproductive coercion consistently. While some reported that the intervention did not require more time than standard practice, others cited time constraints as a barrier. Providers also commonly reported being distracted because their clinic was initiating use of a new electronic record system during the study period and forgetting about the intervention during busy sessions. Further study is needed to explore barriers to implementation and strategies to increase uptake. Providers suggested that system-level factors (such as prompts in the electronic health record) may be needed to ensure consistent provision of partner violence and reproductive coercion assessment.

Subsequent iterations of the intervention might include reminders and scripted prompts (potentially embedded in the electronic medical record), and might test the use of computerized tools for patients.

A recently recognized barrier for providers, which was notably absent from the provider interviews, was the potential role of secondary, or vicarious, trauma. Some staff may not be ready to participate in conversations about violence because of their own history of abuse, and may need to opt out of participation. Given the prevalence of violence among staff in helping professions and among paraprofessional staff in related fields, including home visitation, steps should be taken to help staff who are struggling with partner violence themselves. Trauma-informed care emphasizes safety in discussing violence and trauma not only for patients, but for providers as well. Training could include acknowledging the prevalence of violence among staff and highlighting employee assistance programs and local resources.

Patients perceived the intervention as a buffer against isolation and an experience that conveyed support and caring. They felt empowered by a provider’s telling them they could help someone else. The power of altruism is a critical part of trauma-informed and patient-centered interventions that make patients a part of the solution, rather than regarding them simply as victims to be helped. Providers’ use of scripts that avoided assumptions about violence experiences
factored heavily into the intervention’s acceptability. This finding is consistent with past research documenting that women in abusive relationships prefer for providers to be neutral and not make assumptions about violence experiences.29,30,35 The feedback from patients also suggests that patients appreciate knowing that the family planning clinic is a safe place in which to seek care in response to partner violence and reproductive coercion. Notably, the script providers used to encourage patients to share information with friends or family appeared to increase the relevance of the educational materials, empowered patients to help others and emerged as a core feature of the intervention that patients appreciated most.

**Limitations**

Our results should be interpreted in light of the study's limitations. Findings from these clinics in western Pennsylvania do not generalize to women's sexual and reproductive health clinics more broadly. Only a subsample of providers and administrators in intervention clinics were interviewed. Feedback was highly positive, suggesting that the sample may have been biased toward participants who felt positively about the intervention. While the patient interviews were guided by a sampling matrix and content saturation, the interviews may not capture the heterogeneity of experiences with the intervention, including negative aspects. Descriptions of intervention implementation relied on self-report by patients and providers (who may not recall the content of the clinical encounter), rather than observations or recordings of the visits. Recall bias is likely because of the interval between clinical encounter and interview.

**Conclusion**

The study's limitations notwithstanding, results suggest that integrating partner violence and reproductive coercion education, harm reduction counseling and connection to victim services into the reproductive health visit is acceptable to providers and patients. Training on this intervention that emphasizes patients’ enthusiasm about being asked to share the information with others may assuage provider discomfort with implementing the intervention. Successful implementation of a universal intervention in family planning settings will likely require attention to system-level factors to overcome providers’ concerns about time limitations. Future implementation studies might assess the impact of prompts in the electronic health record to remind providers to offer the educational intervention, and might tie partner violence assessment to quality measures and clinical incentives. Additionally, evaluation of ARCHES in other clinical settings where women seek reproductive and sexual health care is indicated.

**REFERENCES**

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37. Tancredi DJ et al., Cluster randomized controlled trial protocol: Addressing Reproductive Coercion in Health Settings (ARCHES), BMC Women’s Health, 2015, 15:57.


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