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Virtual Support and Intimate Partner Violence (IPV): A Knowledge Synthesis Report

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Background: The Issue

Intimate partner violence (IPV) is a pervasive public health issue that includes coercive control and emotional, psychological, physical, economic and/or sexual violence by an intimate or dating partner (Centers for Disease Control [CDC], 2019; Stark, 2007). The COVID-19 pandemic has had a significant impact on survivors of IPV and has been referred to as a pandemic, within a pandemic (Evans et al., 2020); doubling or tripling rates of IPV in some areas due to stay-at-home orders (Gosangi et al., 2021). More than ever, there has been a need for effective virtual alternatives to in-person support interventions for survivors of IPV. As service providers develop new guidelines for virtual IPV services, access to current and relevant research is essential in better understanding best practices, benefits, and challenges of virtual intervention.

Objectives

The objectives of this knowledge synthesis were to assess research literature related to virtual forms of IPV support interventions, provide an overview of associated empirically-based research, and identify potential gaps to inform next steps in future IPV practice and research.

Results

Twenty-five studies were reviewed and included qualitative, quantitative, or mixed-methods research. Relevant studies were found throughout 22 different journals related to the helping professions, indicating an awareness of the potential of technology to respond to IPV service barriers among a broad spectrum of disciplines. A majority of the studies came from health-related fields, with less frequent research found in the fields of counselling, social work, and psychology. Specific types of virtual IPV interventions in the review included internet-based and smartphone applications (apps), live videoconferencing, and email-based counselling. Study samples sizes ranged from 13 participants to 720 participants and mainly focused on the

experiences of English-speaking women. Many studies reported on virtual interventions that were self-administered and required participants to have safe access to internet and a personal device (e.g., laptop, smartphone, tablet), thus creating a potential access barrier for survivors of IPV. We identified several advantages and challenges related to the use of virtual IPV interventions, as well as next steps for further research. Overall, however, the research demonstrates that virtual IPV interventions can provide effective supports for survivors of IPV.

Key Messages

- Technology provides an opportunity for the creation of effective virtual IPV interventions

- There are several different types of empirically-based virtual IPV interventions (e.g., safety decision apps, live videoconferencing, email-based counselling)

- Virtual IPV interventions can provide an effective option to incorporate into existing in-person service provision

- There are several barriers to using virtual IPV interventions including inequities in access to technology and internet

- Additional research is necessary, particularly in understanding the fit of virtual interventions with the diverse identities and needs of all survivors of IPV

Methodology

This report presents findings of a scoping review of the empirical literature on virtual IPV interventions, which responds to the research questions: 1) What research evidence exists in virtual IPV service provision?; and 2) What interventions and solutions can inform next steps in virtual IPV service provision? This scoping review follows the nine-step Joanna Briggs Institute (JBI) methodology for scoping reviews (Peters et al., 2020), which is an extension of Arksey and O'Malley's (2005) five-step scoping review process.

Background

Intimate partner violence (IPV) is a pervasive public health concern with devastating worldwide impacts (World Health Organization [WHO], 2017). IPV disproportionately affects women-identified people, with one in three women experiencing some form of violence by an intimate partner in their lifetime (WHO, 2017). IPV is defined as coercive control and emotional, psychological, physical, economic and/or sexual violence by an intimate or dating partner (Centers for Disease Control [CDC], 2019; Smith et al., 2017; Stark, 2007). Incidents of IPV are known to increase during pandemics, epidemics, and economic recessions (Agüero, 2021; Moreira & da Costa, 2020; Roesch et al., 2020). The COVID-19 pandemic has had a significant impact on survivors of IPV and has been referred to as a pandemic, within a pandemic (Evans et al., 2020).

Throughout the pandemic, incidents of IPV have increased across regions and countries, with incidents of IPV doubling or tripling in some areas due to stay-at-home orders and confinement measures (Gosangi et al., 2021; WHO, 2020). Stay-at-home measures have been enforced by over 140 countries worldwide, forcing many survivors of IPV into lockdowns with abusive partners (Hall & Tucker, 2020). While public health interventions, including stay-at-home orders, social isolation, and social distancing, are intended to keep individuals safe, they have negatively impacted survivors of IPV (Buttell & Ferreira, 2020). For survivors of IPV, stay-at-home orders increase time spent with abusive partners and reduce contacts with friends, family, and social supports, raising risks of conflict and violence (WHO, 2020).

The COVID-19 pandemic has also disrupted how survivors of IPV access support services. Unfortunately, at various points during the pandemic, many IPV organizations needed to stop or restrict in-person services, leaving survivors of IPV with limited access to services

(Goodman & Epstein, 2020). This posed a challenge for many IPV organizations, especially those experiencing an increased demand for services (Jarnecke & Flanagan, 2020). Service providers quickly responded to these challenges by developing new virtual service protocols and procedures to ensure the safety of staff and service users. However, while virtual technologies such as online, internet-based, and/or smartphone applications (apps) can provide necessary forms of support, there are concerns about their safety, cost, and accessibility, particularly at a time when IPV survivors may be monitored more closely by abusive partners (Boserup et al., 2020; Bradbury-Jones & Isham, 2020; Jarnecke & Flanagan, 2020). Virtual services may also be difficult to access due to limited internet connections, particularly for those living in rural settings (Jarnecke & Flanagan, 2020). For many service providers, the COVID-19 pandemic created a need to rethink, mobilize, and create new technology-based strategies to enhance service provision (Emezue, 2020).

As service providers continue to develop new virtual protocols and service guidelines to meet the needs of survivors of IPV, it is essential for them to access current research outlining best practices in virtual support as they consider risks and advantages of various intervention approaches. Unfortunately, while the COVID-19 pandemic has created specific challenges in virtual service provision that are imperative to understand, this has not yet been addressed by the literature. This knowledge is essential in order for service providers to adequately support survivors of IPV in the many settings in which they seek support (e.g., counselling, health-focused, shelter, non-governmental community settings).

Objectives

In response to the critical need to support survivors of IPV and ensure that service providers are best equipped to provide virtual services, this scoping review assessed current

empirical knowledge on virtual IPV services. A scoping review methodology allows for the mapping of evidence and concepts in a particular area of study, and is useful for providing a systematic overview of an area of knowledge (Colquhoun et al., 2014).

Database searches of Medline, Cochrane Database of Systematic Reviews, and Joanna Briggs Institute (JBI) Evidence Synthesis were conducted to show no current systematic or scoping reviews on this specific topic. Earlier reviews in the area of virtual IPV interventions were focused on different areas of service provision such as screening and identification of IPV (Anderson et al., 2019; El Morr & Layal, 2020), or were conducted prior to recent empirical research in this area, and were inclusive of grey literature (Rempel et al., 2019). In contrast to previous reviews, this scoping review identifies current research in virtual IPV support interventions, rather than focusing specifically on screening and prevention, and summarizes empirically-based research.

Therefore, the objectives of this scoping review were to assess the extent of the research literature on virtual forms of support for survivors of IPV to provide an overview of research in this area, and to identify potential gaps to inform next steps in future practice and research in virtual IPV service provision. This scoping review sought to answer the following research questions: 1) What research evidence exists in virtual IPV service provision?; and 2) What interventions and solutions can inform next steps in virtual IPV service provision?

Methods

This scoping review was guided by the nine-step JBI methodology for scoping reviews (Peters et al., 2020), an extension of Arksey and O'Malley's (2005) five-step scoping review process, as well as the Preferred Reporting Items for Systematic Reviews and Meta-Analyses

extension for Scoping Reviews (PRISMA-ScR) checklist (Tricco et al., 2018). As part of this process, a scoping review protocol was developed and published at figshare.com (https://doi.org/10.6084/m9.figshare.14772897). In response to the research questions, inclusion criteria for the scoping review included empirical studies of virtual interventions to support adults (18+) who have experienced intimate partner violence, published in peer-reviewed journals, written in English, and published in 2010 or later. Exclusion criteria included studies focusing on couple relationships or families, interventions that were not focused on supporting survivors of IPV after an experience of abuse (e.g., IPV training, IPV screening, IPV legal services), and interventions focused on service providers or perpetrators of IPV rather than survivors of IPV. Empirical studies of interventions (quantitative, mixed-methods, qualitative) were included, but literature reviews, grey literature, and theoretical papers were excluded.

The search strategy was developed after an initial search of the literature and consultation with experts in the field, and included searching Medline, PsycINFO, Scopus, Social Services Abstracts, and Social Work Abstracts. The following key words were used for the search strategy: "virtual" OR "digital" OR "online" AND "intimate partner violence" OR "domestic violence" AND "intervention" OR "support." The reference lists of all included sources of evidence were screened for additional studies, as were related journals. From these database searches, all identified citations were collated for review by two members of the research team, with a third reviewer resolving any disagreements. After removal of duplicates, relevant sources were retrieved in full and uploaded into Covidence Systematic Review Software Management (2021) for full text review by two independent reviewers, with a third reviewer resolving any disagreements. After piloting a data extraction form, data from the selected studies was extracted into this form by two reviewers, with a third resolving any discrepancies. The data extraction

fields included author, journal, year of publication, field of study, country, study setting, study aim, methods, population, intervention type/focus, and study findings/results.

Results

A total of 2,479 articles were identified through database searches with 1,680 articles remaining after duplicate removal. After title and abstract review, 52 articles remained for full text review. Nineteen studies met the full inclusion criteria, with a further six articles identified from hand searching related journals and reviewing the reference lists of included studies; thus, the scoping review included a total of 25 peer-reviewed studies. The results of the search and the study inclusion process are presented in Figure 1 in a Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (see Appendix A) (Tricco et al., 2018). In response to our research questions, we have examined the extent and state of the empirical research in this area, as described below.

Year of Publication

Given our inclusion criteria, all articles were published in the last 11 years, beginning in 2010. However, there is a growing frequency of publications in this area, as seen by publications in 2010 ($n = 1$), 2011 ($n = 1$), 2013 ($n = 1$), 2014 ($n = 3$), 2015 ($n = 4$), 2016 ($n = 3$), 2017 ($n = 3$), 2018 ($n = 2$), 2019 ($n = 2$), 2020 ($n = 3$), and two already from the first half of 2021 (January-June) ($n = 2$).

Journal Name

Relevant studies were found throughout a variety of journals related to the helping professions ($n = 22$), indicating an awareness of the potential of technology to respond to IPV service barriers among a broad spectrum of disciplines. The journals focused on behavioural sciences, gender-based and interpersonal violence, human services, LGBTQ2S+ identities,

mental health, nursing, psychology, public health and health promotion, substance use, social

work, and technology-based medical interventions. The journals that most frequently published

research included in this review are: *Journal of Technology in Human Services* (*n* = 3) and

American Journal of Preventive Medicine (*n* = 2). The remaining papers were located among

twenty different journals (*n* = 1 for each): *Archives of Women's Mental Health*, *BMC Public*

Health, *Drug and Alcohol Dependence, Health Promotion Practice*, *Interacting with Computers*,

Issues in Mental Health Nursing, *Journal of Contextual Behavioral Science*, *Journal of Ethnic &*

Cultural Diversity in Social Work, *Journal of Gender-Based Violence*, *Journal of*

Homosexuality, *Journal of Interpersonal Violence*, *Journal of Medical Internet Research*, *Lancet*

Public Health, *Nursing Research*, *Psychology of Violence*, *Substance Abuse*, *Telemedicine*

Journal and E-Health, *Training and Education in Professional Psychology*, *Translational Issues*

in Psychological Science, and *Violence Against Women*.

Lead Author Field

The articles were spread across several different fields of study, indicating that this topic

is of interest to various disciplines. Represented disciplines included nursing (*n* = 8), fields of

medicine (e.g., emergency medicine, psychiatry) (*n* = 8), psychology (*n* = 6), sociology (*n* = 2),

and social work (*n* = 1).

Country

Authors of the majority of the studies were based in locations within the United States (*n*

= 18), followed by Australia (*n* = 3), New Zealand (*n* = 2), Canada (*n* = 1), and Switzerland (*n* =

1).

Study Design

Overall research design included a majority of quantitative studies ($n = 14$), with fewer mixed methods ($n = 6$) and qualitative studies ($n = 5$). More specifically, research designs included seven studies that were randomized controlled trials ($n = 7$), two non-randomized controlled trials ($n = 2$), and one randomized controlled feasibility study ($n = 1$). There were also four pilot or feasibility studies ($n = 4$).

Sample and Population Description

The studies ranged from sample sizes of 13 participants to 720 participants. All studies included IPV survivors who were women ($n = 23$), with the exception of two studies that were open to all undergraduate college students and did not specify gender ($n = 2$). When discussing research participants, studies did not define women or female, such as by discussing inclusion of cisgender and transgender women, or those identifying as both non-binary or gender fluid and women.

Study participants in this review include women with an IPV experience with the exception of two studies ($n = 2$) that included participants both with and without a history of IPV. Many of the participants had indicated that the IPV experience occurred within the past 6-12 months ($n = 11$). Most of the studies focused only on survivors of IPV ($n = 19$), with four studies also including service providers or advocates ($n = 4$), and one ($n = 1$) study also including friends of survivors. For the studies including service providers or advocates, participants represented key stakeholders in IPV service provision and included hospital-based clinicians in pediatric and family medicine, social workers, mental health workers, and IPV advocates. IPV survivors who were participants included those accessing community resources including

primary care, local IPV agencies, a college campus women's centre and LGBTQ2S+ centre, crisis centres, and emergency department services.

Most study participants spoke English; however, one study was conducted in German (n = 1) and two studies (n = 2) included both English and Spanish-speaking participants. Specific IPV populations included a focus on Native American survivors of IPV (n = 1), perinatal women (n = 1), pregnant women at 12 weeks gestation (n = 1), LGBTQ2S+-identified women (n = 1), and women who held veteran status (n = 1). There were four studies that focused on college-aged participants (n = 4).

Virtual Intervention Type and Details

Sourced papers indicate that a variety of virtual communication methods are being considered in the realm of IPV service provision including interactive internet-based (n = 18) and smartphone (n = 4) apps, videoconferencing (n = 2), and an asynchronous (not live) virtual chatroom-like platform (n = 1). The majority focus was on the assessment of safety decision aids (n = 13), including I-DECIDE (n = 3), iCAN (n = 1) IRIS, (n = 2), isafe (n = 1), myPlan/ourCircle (n = 1), and several that were not yet named (n = 5). The remaining interventions included those providing treatment interventions using motivational interviewing as a key component (n = 3) including BSAFER (n = 1), Safe and Healthy Experiences (SHE) (n = 1), and Strength for U in Relationship Empowerment (SURE) (n = 1); health and safety online interventions (n = 2) comprised of Health, Education on Safety, and Legal Support and Resources in IPV Participant Preferred (HELPP) (n = 1), and a smartphone app to address the well-being of mothers with a history of IPV called Thrive (n = 1). Other interventions focused on internet-based stress management techniques designed to increase present control (n = 2), videoconferencing-based treatment interventions (n = 2), an online drug use and IPV screening

and intervention tool (n = 1), an internet-based treatment intervention (n = 1), and an asynchronous virtual counselling intervention (n = 1).

The interventions varied in structure and length; many self-administered (n = 15). In contrast, a couple of interventions included follow-up responses from an IPV service provider (n = 2). Virtual programs ranged from 40 minutes in length, to five hours during one visit with a 20-minute follow-up call two weeks after the initial intervention, to 24/7 access. One study included a program that was one hour in length that could be completed over a period of six weeks (n = 1). Some programs included three modules to be completed during differing lengths of time, such as over a period of five weeks (n = 3), with another program providing 20 minutes to complete each module (n = 1). A different program included four modules (n = 1), while another included six modules that could be completed over a period of six weeks (n = 1).

Main Focus of Interventions

Of the 25 studies that examined IPV virtual interventions in this review, the main focus of IPV support differed. More than half of the interventions focused on safety interventions (n = 13) emphasizing the importance of creating action plans when leaving a violent situation. Other interventions focused on IPV treatment modalities (n = 9), including the use of motivational interviewing, psychoeducation, and psychological counselling techniques. Only three interventions (n = 3) had a primary focus on prevention and education.

Research Strengths

In examining the 25 articles, most of the studies (n = 15) were published from 2015 onward, which shows recent and relevant data in this area. Studies were from different journals (n = 22) related to health and human service professions, indicating a wide-ranging interest in the potential of technology to mitigate barriers to IPV service across different sectors (e.g., nursing,

medicine, psychology, sociology, social work). A variety of methodologies from quantitative, mixed-methods, and qualitative approaches were used to assess various interventions, offering a range of types of research evaluating virtual interventions. Many studies utilized randomized controlled trials ($n = 7$) or non-randomized controlled trials ($n = 2$) to evaluate the effectiveness of respective virtual IPV interventions. The majority of interventions focused on the use of safety decision aids ($n = 13$), and three studies ($n = 3$) used the I-DECIDE platform.

Research evidence in internet-based and smartphone safety-decision aid apps, including safety planning, is well documented among the studies and demonstrates the effectiveness of virtual IPV interventions in supporting survivors of IPV who are experiencing barriers to accessing in-person IPV service provision (e.g., residing in rural areas, feelings of shame, and stigma). Further, much of the research shows that though these internet-based and smartphone apps are an effective short-term service, these virtual supports cannot replace the effects of an empathetic and trust-building relationship garnered from in-person interactions. Additionally, findings signal the importance of including the perspectives and input of survivors of IPV in the development of virtual interventions. In particular, this is necessary to ensure that the diverse experiences and identities of all survivors of IPV are represented and valued in creating effective virtual interventions.

Research Gaps

The 25 articles in this scoping review provided an overview of the current research on virtual IPV support interventions. Research was primarily conducted from the nursing and medical fields, with fewer studies generated from the fields of psychology, sociology, and social work. Moreover, geographical areas were limited with a majority of the studies ($n = 18$) conducted in the United States, and with only one of these studies focused on Native American

populations. The remaining studies took place in Australia, New Zealand, Canada, and Switzerland. Most studies focused primarily on white, English-speaking women, showing a need to further explore how virtual interventions can meet the diverse needs and experiences of all survivors of IPV. For instance, research focusing on the use of virtual interventions with survivors of IPV who identify as newcomers, as racialized, with a disability, or of Indigenous background, are important next steps. Given that no studies specified whether research participants identified as cisgender, transgender, non-binary, or gender fluid, and only one study focused on survivors of same-sex IPV, there is a gap in understanding the fit of virtual interventions with the experiences of LGBTQ2S+-identified survivors of IPV.

There is limited research on the provision of synchronous (live) IPV interventions and interventions that could support those who are experiencing barriers to service access. Given that during the pandemic, much of IPV service provision has been conducted live over virtual videoconferencing programs (e.g., Zoom), this is an area that needs more examination (Sabri et al., 2020). Most of studies in this scoping review used virtual interventions that required survivors of IPV to safely access their own personal computer or smartphone and a secure internet connection. This raises concerns for those without access to a personal device, reliable internet, and those who may have less comfort using technology. Personal devices and internet service are costly and not always readily available to survivors of IPV who are experiencing financial insecurity or living in rural areas. This could create a digital divide among survivors of IPV who have greater access to technology and those who do not, and needs to be addressed in future research. More research is also needed on the use of virtual IPV interventions in a Canadian context. Finally, there is a gap in research on virtual group interventions, with all studies focusing on individual IPV interventions.

Limitations to Knowledge Synthesis

A limitation of this knowledge synthesis is that the quality of the articles was not assessed, which is consistent with the aims of a scoping review to provide an overview of the literature in a certain area. In addition, despite systematically searching the peer-reviewed literature, it is possible that some articles may have been missed. Finally, by only including studies written in English, the review could have missed articles written and published in different languages.

Implications

The findings of this scoping review illustrate the need for next steps in the following areas to better respond to the needs of survivors of IPV, as seen by the following implications for policy, practice, and research outlined below.

Policy Implications

- Given the growing need for virtual interventions to support survivors of IPV, important next steps include policies to ensure equitable access to technology and internet

- Funding should be allocated to support social service agencies providing IPV services with ways to provide access to technology to survivors of IPV (access to smartphones, internet hotspots, working with website designers to ensure safety and privacy)

- In rural and remote areas, government investment in infrastructure is necessary to increase internet availability and safety for survivors of IPV

- To increase accessibility for those experiencing financial insecurity, the implementation of a foundation to support survivors of IPV requiring internet access and a personal device could help with barriers to access

Practice Implications

- Current research supports the effectiveness of several different virtual interventions for IPV, such as virtual safety decision aids and safety planning interventions, which can be integrated in practice

- Service providers need to consider how virtual interventions can be utilized in collaboration with existing in-person interventions

- Some survivors of IPV will experience barriers to virtual forms of intervention and may require in-person support services to ensure their individualized needs are met

- Virtual IPV services and supports that address accessibility and financial barriers are important next steps

- Existing apps that focus on safety can integrate additional practice approaches including virtual individual counselling and virtual support groups

Research Implications

- More research is needed to adapt and test current apps and strategies in Canada as well as in more global settings, and to reflect the diverse identities and experiences of all survivors of IPV

- There is a particular gap in research on virtual IPV interventions with LGBTQ2S+ populations, including a need to look at the needs of experiences of non-binary, 2-spirited, trans, and gender-diverse populations

- Increased research from a wider range of disciplines and fields providing support to survivors of IPV (e.g., counselling, psychology, social work) to ensure that knowledge is built in all fields providing services to survivors of IPV

- Additional research into virtual individual and group IPV counselling services is necessary to fully understand these growing models of service

- More research is needed to conduct a cost-benefit analysis of the effectiveness of virtual IPV interventions such as safety apps, in contrast to live, synchronous virtual counselling

- Research needs to focus on the logistics and safety concerns associated with the provision of live, synchronous virtual IPV support, including group interventions

- Further focus among research to not only include women experiencing financial insecurity, but to specifically focus on this population when looking at the logistics involved in safely accessing virtual IPV interventions

Conclusion

The objectives of this knowledge synthesis were to understand the state of the current empirical research literature on virtual interventions to support survivors of IPV. Specifically, this scoping review aimed to understand the research evidence that exists in virtual IPV service provision and the interventions that can inform next steps in virtual IPV service provision. Based on the review of 25 empirical studies of virtual IPV interventions, we can conclude:

- Technology has provided the opportunity for the creation of virtual interventions to support women experiencing IPV, but barriers to accessing these interventions remain a concern

- There are several different options for empirically-based virtual IPV interventions

- Virtual IPV interventions can be considered an effective option for service providers to incorporate into their existing services

- Additional research is necessary, particularly in looking at the fit of virtual interventions with the many diverse identities and needs of survivors of IPV

<p style="text-align:center">Knowledge Mobilization Activities</p>

Our knowledge mobilization strategies aim to optimize uptake by different target audiences and ultimately meet the support needs of survivors of IPV as quickly as possible. In addition to this synthesis report and evidence brief, and presenting the findings at the Knowledge Synthesis Grant Knowledge Mobilization Forum, our strategies will be outlined below.

Virtual Practice Guidelines

Based on the Knowledge Synthesis Reports and two-page evidence brief, Virtual Practice Guidelines will be developed in plain language in English and French, summarizing the key study findings, recommendations, and interventions for service providers working virtually with survivors of IPV. These guidelines will provide service providers with necessary guidance in implementing research-based virtual interventions.

Virtual IPV Training Tools

The findings of the study will be presented to the target audience of IPV practitioners through presentations and through the creation of a short video tool for service providers, to be recorded in English and French and circulated widely to IPV service providers.

Scholarly Paper and Presentations

In order to reach academic and scholarly audiences, and to encourage wide dissemination and uptake of findings among multidisciplinary audiences, the findings will be presented at scholarly conferences, to target Canadian and international academic scholars. In addition, a manuscript will be written from the findings and submitted to a peer-reviewed, open access journal to ensure wide availability and knowledge uptake.

Student Involvement

      Two research assistants received training in conducting scoping reviews (database searching, review of articles, use of Covidence software), analyzing and writing up results, and will have additional opportunities to help develop knowledge mobilization tools and dissemination materials. Students will have opportunities to co-author dissemination products as appropriate (e.g., Knowledge Synthesis Report, scholarly paper, conference presentations), providing opportunities for building academic skills and increased research productivity.

References

Agüero, J. M. (2021). COVID-19 and the rise of intimate partner violence. *World Development, 137*, 105217. https://doi.org/10.1016/j.worlddev.2020.105217

Anderson, E. J., Krause, K. C., Meyer Krause, C., Welter, A., McClelland, D. J., Garcia, D. O., Ernst, K., Lopez, E. C., & Koss, M. P. (2019). Web-based and mHealth interventions for intimate partner violence victimization prevention: A systematic review. *Trauma, Violence & Abuse,* 152483801988888–1524838019888889. https://doi.org/10.1177/1524838019888889

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. *International Journal of Social Research Method, 8*, 19–32. https://doi.org/10.1080/1364557032000119616

Bagwell-Gray, M. E., Loerzel, E., Dana Sacco, G., Messing, J., Glass, N., Sabri, B., Jock, B. W., Arscott, J., Brockie, T., & Campbell, J. (2021). From myPlan to ourCircle: Adapting a web-based safety planning intervention for Native American women exposed to intimate partner violence. *Journal of Ethnic & Cultural Diversity in Social Work*, *30*(1), 163–180. https://doi.org/10.1080/15313204.2020.1770651

Bloom, T., Gielen, A., & Glass, N. (2016). Developing an app for college women in abusive same-sex relationships and their friends. *Journal of Homosexuality*, *63*(6), 855–874. https://doi.org/10.1080/00918369.2015.1112597

Bloom, T. L., Glass, N. E., Case, J., Wright, C., Nolte, K., & Parsons, L. (2014). Feasibility of an online safety planning intervention for rural and urban pregnant abused women. *Nursing Research, 63*(4), 243–251. https://doi.org/10.1097/NNR.0000000000000036

Boserup, B., McKenney, M., & Elkbuli, A. (2020). Alarming trends in US domestic violence

during the COVID-19 pandemic. *The American Journal of Emergency Medicine*, *38*(12),

2753–2755. https://doi.org/10.1016/j.ajem.2020.04.077

Bradbury-Jones, C., & Isham, L. (2020). The pandemic paradox: The consequences of COVID-

19 on domestic violence. *Journal of Clinical Nursing, 29*(13-14), 2047–2049.

https://doi.org/10.1111/jocn.15296

Bradley, N. L, DiPasquale, A. M., Dillabough, K., & Schneider, P. S. (2020). Health care

practitioners' responsibility to address intimate partner violence related to the COVID-19

pandemic. *Canadian Medical Association Journal (CMAJ)*, *192*(22), E609–E610.

https://doi.org/10.1503/cmaj.200634

Buttell, F., & Ferreira, R. J. (2020). The hidden disaster of COVID-19: Intimate partner violence.

Psychological Trauma, 12(S1), S197. http://dx.doi.org/10.1037/tra0000646

Centers for Disease Control and Prevention. (2019). *Intimate partner violence: Violence*

prevention. https://www.cdc.gov/violenceprevention/intimatepartnerviolence/fastfact.html

Choo, E., Ranney, M., Wetle, T., Morrow, K., Mello, M., Squires, D., Garro, A., Tape, C., &

Zlotnick, C. (2014). Attitudes toward computer interventions for partner abuse and drug

use among women in the emergency department. *Drug and Alcohol Dependence*, *146*,

e247–e247. https://doi.org/10.1016/j.drugalcdep.2014.09.137

Choo, E. K., Zlotnick, C., Strong, D. R., Squires, D. D., Tapé, C., & Mello, M. J. (2016).

BSAFER: A web-based intervention for drug use and intimate partner violence

demonstrates feasibility and acceptability among women in the emergency department.

Substance Abuse, *37*(3), 441–449. https://doi.org/10.1080/08897077.2015.1134755

Colquhoun, H. L., Levac, D., O'Brien, K. K., Straus, S., Tricco, A. C., Perrier, L., Kastner, M.,
& Moher, D. (2014). Scoping reviews: time for clarity in definition, methods, and
reporting. *Journal of Clinical Epidemiology, 67*(12), 1291–1294.
https://doi.org/10.1016/j.jclinepi.2014.03.013

Constantino, R. E., Braxter, B., Ren, D., Burroughs, J. D., Doswell, W. M., Wu, L., Hwang, J.
G., Klem, M. L., Joshi, J. B. D., & Greene, W. B. (2015). Comparing online with face-to-
face HELPP intervention in women experiencing intimate partner violence. *Issues in
Mental Health Nursing*, *36*(6), 430–438. https://doi.org/10.3109/01612840.2014.991049

Creech, S. K., Pulverman, C. S., Shin, M. E., Roe, K. T., Tzilos Wernette, G., Orchowski, L. M.,
Kahler, C. W., Shea, M. T., & Zlotnick, C. (2021). An open trial to test participant
satisfaction with and feasibility of a computerized intervention for women veterans with
sexual trauma histories seeking primary care treatment. *Violence Against Women*, *27*(3–4),
597–614. https://doi.org/10.1177/1077801219895102

Eden, K. B., Perrin, N. A., Hanson, G. C., Messing, J. T., Bloom, T. L., Campbell, J. C., Gielen,
A. C., Clough, A. S., Barnes-Hoyt, J. S., & Glass, N. E. (2015). Use of online safety
decision aid by abused women: Effect on decisional conflict in a randomized controlled
trial. *American Journal of Preventive Medicine*, *48*(4), 372–383.
https://doi.org/10.1016/j.amepre.2014.09.027

El Morr, C., & Layal, M. (2020). Effectiveness of ICT-based intimate partner violence
interventions: A systematic review. *BMC Public Health*, *20*(1), 1372–1372.
https://doi.org/10.1186/s12889-020-09408-8

Emezue, C. (2020). Digital or digitally delivered responses to domestic and intimate partner

    violence during COVID-19. *JMIR Public Health and Surveillance, 6*(3), e19831.

    https://doi.org/10.2196/19831

Evans, M. L., Lindauer, M., & Farrell, M. E. (2020). A pandemic within a pandemic—Intimate

    partner violence during Covid-19. *New England Journal of Medicine, 383*(24), 2302-2304.

    https://www.nejm.org/doi/10.1056/NEJMp2024046

Fiorillo, D., McLean, C., Pistorello, J., Hayes, S. C., & Follette, V. M. (2017). Evaluation of a

    web-based acceptance and commitment therapy program for women with trauma-related

    problems: A pilot study. *Journal of Contextual Behavioral Science*, *6*(1), 104–113.

    https://doi.org/10.1016/j.jcbs.2016.11.003

Ford-Gilboe, M., Varcoe, C., Scott-Storey, K., Perrin, N., Wuest, J., Wathen, C. N., Case, J., &

    Glass, N. (2020). Longitudinal impacts of an online safety and health intervention for

    women experiencing intimate partner violence: Randomized controlled trial. *BMC Public*

    Health, *20*(1), 260–260. https://doi.org/10.1186/s12889-020-8152-8

Glass, N., Eden, K. B., Bloom, T., & Perrin, N. (2010). Computerized aid improves safety

    decision process for survivors of intimate partner violence. *Journal of Interpersonal*

    Violence, *25*(11), 1947–1964. https://doi.org/10.1177/0886260509354508

Glass, N. E., Perrin, N. A., Hanson, G. C., Bloom, T. L., Messing, J. T., Clough, A. S.,

    Campbell, J. C., Gielen, A. C., Case, J., & Eden, K. B. (2017). The longitudinal impact of

    an internet safety decision aid for abused women. *American Journal of Preventive*

    Medicine, *52*(5), 606–615. https://doi.org/10.1016/j.amepre.2016.12.014

Gloor, D., & Meier, H. (2020). Does online counselling provide better access to victim services? Insights and reflections from a Swiss pilot evaluation. *Journal of Gender-Based Violence*, *4*(1), 123–131. https://doi.org/10.1332/239868020X15794803790621

Goodman, L. A., & Epstein, D. (2020). Loneliness and the COVID-19 pandemic: Implications for intimate partner violence survivors. *Journal of Family Violence,* 1-8. https://doi.org/10.1007/s10896-020-00215-8

Gosangi, B., Park, H., Thomas, R., Gujrathi, R., Bay, C. P., Raja, A. S., Seltzer, S. E., Balcom, M. C., McDonald, M. L., Orgill, D. P., Harris, M. B., Boland, G. W., Rexrode, K., & Khurana, B. (2021). Exacerbation of physical intimate partner violence during COVID-19 Pandemic. *Radiology, 298*(1), E38-E45.

Gray, M. J., Hassija, C. M., Jaconis, M., Barrett, C., Zheng, P., Steinmetz, S., & James, T. (2015). Provision of evidence-based therapies to rural survivors of domestic violence and sexual assault via telehealth: Treatment outcomes and clinical training benefits. *Training and Education in Professional Psychology*, *9*(3), 235–241. https://doi.org/10.1037/tep0000083

Hall, B. J., & Tucker, J. D. (2020). Surviving in place: The coronavirus domestic violence syndemic. *Asian Journal of Psychiatry, 53*, 102179. https://doi.org/10.1016/j.ajp.2020.102179

Hassija, C., & Gray, M. J. (2011). The effectiveness and feasibility of videoconferencing technology to provide evidence-based treatment to rural domestic violence and sexual assault populations. *Telemedicine Journal and E-Health*, *17*(4), 39–315. https://doi.org/10.1089/tmj.2010.0147

Hegarty, K., Tarzia, L., Valpied, J., Murray, E., Humphreys, C., Taft, A., Novy, K., Gold, L., & Glass, N. (2019). An online healthy relationship tool and safety decision aid for women experiencing intimate partner violence (I-DECIDE): A randomised controlled trial. *The Lancet. Public Health*, *4*(6), e301–e310. https://doi.org/10.1016/S2468-2667(19)30079-9

Jarnecke, A. M., & Flanagan, J. C. (2020). Staying safe during COVID-19: How a pandemic can escalate risk for intimate partner violence and what can be done to provide individuals with resources and support. *Psychological Trauma, 12*(S1), S202–S204. https://doi.org/10.1037/tra0000688

Kaukinen, C. (2020). When stay-at-home orders leave victims unsafe at home: Exploring the risk and consequences of intimate partner violence during the COVID-19 pandemic. *American Journal of Criminal Justice, 45,* 668-679. https://doi.org/10.1007/s12103-020-09533-5

Koziol-McLain, J., Vandal, A. C., Wilson, D., Nada-Raja, S., Dobbs, T., McLean, C., Sisk, R., Eden, K. B., & Glass, N. E. (2018). Efficacy of a web-based safety decision aid for women experiencing intimate partner violence: Randomized controlled trial. *Journal of Medical Internet Research*, *19*(12), e426–e426. https://doi.org/10.2196/jmir.8617

Lindsay, M., Messing, J. T., Thaller, J., Baldwin, A., Clough, A., Bloom, T., Eden, K. B., & Glass, N. (2013). Survivor feedback on a safety decision aid smartphone application for college-age women in abusive relationships. *Journal of Technology in Human Services*, *31*(4), 368–388. https://doi.org/10.1080/15228835.2013.861784

Moreira, D. N., & da Costa, M. P. (2020). The impact of the Covid-19 pandemic in the precipitation of intimate partner violence. *International Journal of Law and Psychiatry, 71*, 101606. https://doi.org/10.1016/j.ijlp.2020.101606

Nguyen-Feng, V. N., Frazier, P. A., Greer, C. S., Howard, K. G., Paulsen, J. A., Meredith, L., &
Kim, S. (2015). A randomized controlled trial of a web-based intervention to reduce
distress among students with a history of interpersonal violence. *Psychology of Violence*,
5(4), 444–454. https://doi.org/10.1037/a0039596

Nguyen-Feng, V. N., Frazier, P. A., Greer, C. S., Meredith, L., Howard, K., & Paulsen, J. (2016).
Testing the efficacy of three brief web-based interventions for reducing distress among
interpersonal violence survivors. *Translational Issues in Psychological Science*, *2*(4), 439–
448. https://doi.org/10.1037/tps0000099

Peters, M. D. J., Marnie, C., Tricco, A. C., Pollock, D., Munn, Z., Alexander, L., McInerney, P.,
Godfrey, C. M., Khalil, H. (2020). Updated methodological guidance for the conduct of
scoping reviews. *JBI Evidence Synthesis, 18*(10), 2119-2126. https://doi:10.11124/JBIES-
20-00167

Ragavan, M. I., Ferre, V., & Bair-Merritt, M. (2020). Thrive: A novel health education mobile
application for mothers who have experienced intimate partner violence. *Health Promotion
Practice*, *21*(2), 160–164. https://doi.org/10.1177/1524839919890870

Rempel, E., Donelle, L., Hall, J., & Rodger, S. (2019). Intimate partner violence: A review of
online interventions. *Informatics for Health & Social Care*, *44*(2), 204–219.
https://doi.org/10.1080/17538157.2018.1433675

Roesch, E., Amin, A., Gupta, J., & García-Moreno, C. (2020). Violence against women during
covid-19 pandemic restrictions. *British Medical Journal, 369*, m1712-m1712.
https://doi.org/10.1136/bmj.m1712

Sabri, B., Hartley, M., Saha, J., Murray, S., Glass, N., & Campbell, J. C. (2020). Effect of

    COVID-19 pandemic on women's health and safety: A study of immigrant survivors of

    intimate partner violence. *Health Care for Women International, 41*(11-12), 1294-1312.

Smith, S.G., Chen, J., Basile, K.C., Gilbert, L.K., Merrick, M.T., Patel, N., Walling, M., & Jain,

    A. (2017). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010-2012*

    State Report. https://www.cdc.gov/violenceprevention/pdf/nisvs-statereportbook.pdf

Stark, E. (2007). *Coercive control: How men entrap women in personal life.* Oxford University

    Press.

Tarzia, L., Cornelio, R., Forsdike, K., & Hegarty, K. (2018). Women's experiences receiving

    support online for intimate partner violence: How does it compare to face-to-face support

    from a health professional? *Interacting with Computers*, *30*(5), 433–443.

    https://doi.org/10.1093/iwc/iwy019

Tarzia, L., Iyer, D., Thrower, E., & Hegarty, K. (2017). 'Technology doesn't judge you': Young

    Australian women's views on using the internet and smartphones to address intimate

    partner violence. *Journal of Technology in Human Services*, *35*(3), 199–218.

    https://doi.org/10.1080/15228835.2017.1350616

Tricco, A., Lillie, E., Zarin, W., O'Brien, K., Colquhoun, H., Levac, D., Moher, D., Peters, M.,

    Horsley, T., Weeks, L., Hempel, S., Akl, E., Chang, C., McGowan, J., Stewart, L.,

    Hartling, L., Aldcroft, A., Wilson, M., Garritty, C., … Straus, S. (2018). PRISMA

    extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of*

    Internal Medicine, 169(7), 467–473. https://doi.org/10.7326/M18-0850

World Health Organization. (2017). *Intimate partner and sexual violence against women: Fact sheet.* http://www.who.int/mediacentre/factsheets/fs239/en/

World Health Organization. (2020). *Addressing violence against children, women and older people during the COVID-19 pandemic: key actions, 17 June 2020.* https://www.who.int/publications/i/item/WHO-2019-nCoV-Violence_actions-2020.1

Young-Hauser, A. M., Eden, K. B., Wilson, D., & Koziol-Mclain, J. (2014). Intimate partner violence: modifying an internet-based safety decision aid to a New Zealand context. *Journal of Technology in Human Services*, *32*(4), 297–311. https://doi.org/10.1080/15228835.2014.967905

Zlotnick, C., Tzilos Wernette, G., Tzilos Wernette, G., Raker, C. A., & Raker, C. A. (2019). A randomized controlled trial of a computer-based brief intervention for victimized perinatal women seeking mental health treatment. *Archives of Women's Mental Health*, *22*(3), 315–325. https://doi.org/10.1007/s00737-018-0895-1

Appendix A:

Figure 1

PRISMA Flowchart of the Search Criteria and Screening Process
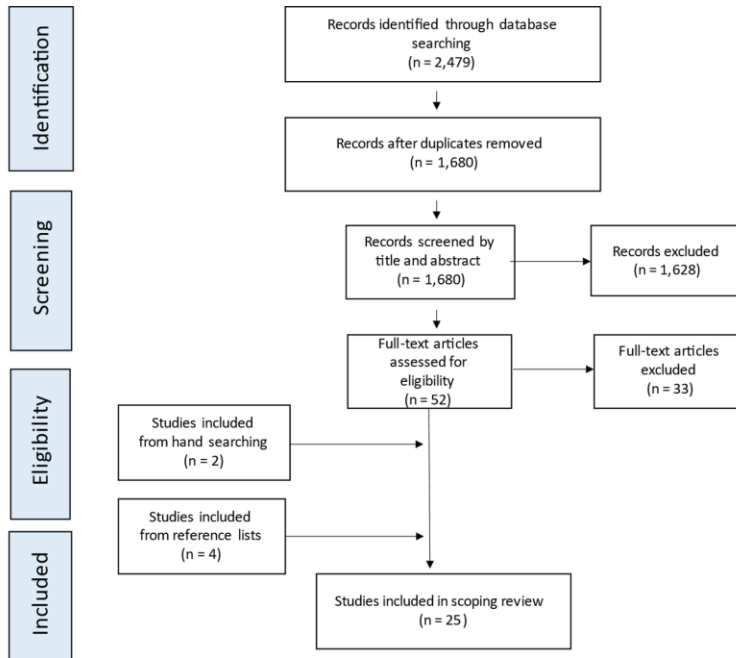
Note. PRISMA = Preferred Reporting Items for Systematic Reviews and Meta-Analyses

Appendix B:

Table 1

Description of Virtual IPV Interventions Empirical Literature (n = 25)

Authors	Date	Country	Lead Author Discipline	Aim	Design	Sample	Type of intervention	Focus of intervention
Bagwell-Gray et al.	2021	USA	Social Work	To adapt a web-based safety planning intervention for Native American women exposed to intimate partner violence (IPV)	Mixed-methods (sequential)	83	Safety decision aid (app; myPlan/ourCircle)	Safety
Bloom et al.	2014	USA	Nursing	To establish feasibility of an internet-based safety planning intervention for rural and urban pregnant women experiencing IPV	Quantitative (randomized controlled feasibility)	46	Safety decision aid (internet-based)	Safety
Bloom et al.	2016	USA	Nursing	To assess the effectiveness of a safety decision aid app for use with college-age women in same-sex IPV relationships and their friends	Qualitative (low-inference, participant-centered analytic method)	13	Safety decision aid (app)	Safety
Choo et al.	2014	USA	Medicine	To explore women's perspectives on the use of computerized screening and intervention for drug use and IPV	Qualitative	17	Drug use and IPV screening and intervention tool (internet-based)	Prevention and education
Choo et al.	2016	USA	Medicine	To assess the feasibility and acceptability of the BSAFER web-based intervention with women accessing emergency medicine and who indicated experiences of drug	Quantitative (acceptability and feasibility)	40	Drug use and IPV intervention tool (internet-based; BSAFER)	Treatment (motivational interviewing)

				use and IPV within the past 3 months				
Constantino et al.	2015	USA	Nursing	To assess the feasibility and effectiveness of Health, Education on Safety, and Legal Support and Resources in IPV Participant Preferred Intervention (HELPP) among survivors of IPV, and to compare the results of the online version with the in-person version	Mixed-methods (sequential transformative)	32	Health and safety education intervention (internet, email-based; Health, Education on Safety, and Legal support and Resources in IPV Participant Preferred - HELPP)	Prevention and education
Creech et al.	2021	USA	Psychology	To assess feasibility and satisfaction with the Safe and Healthy Experiences (SHE) intervention for women veterans disclosing sexual trauma in addition to additional health risks such as IPV, PTSD, and hazardous drinking	Quantitative (non-randomized trial)	20	Health and safety counselling (computer-based; Safe and Healthy Experiences - SHE)	Treatment (using motivational interviewing and psychoeducation)
Eden et al.	2015	USA	Medicine	To test the effectiveness of a safety decision aid with usual safety planning through a secure website for women experiencing IPV after one use; to evaluate the effectiveness of the aid in reducing decisional conflict after one use	Quantitative (randomized controlled trial)	708	Safety decision aid (internet-based; Internet Resource for Intervention and Safety - IRIS)	Safety
Fiorillo et al.	2017	USA	Psychology	To examine the acceptability, feasibility, and efficacy of a brief web-based acceptance and commitment therapy (ACT) intervention for the treatment of	Quantitative (open trial pilot study)	25	Brief acceptance and commitment therapy (ACT) intervention (internet-based)	Treatment

				trauma-related psychological difficulties for women with a history of interpersonal violence				
Ford-Gilboe et al.	2020	Canada	Nursing	To test the effectiveness of iCAN, an interactive, tailored, online safety and health intervention on mental health and safety outcomes of Canadian women experiencing IPV	Quantitative (randomized controlled trial)	462	Safety decision and health intervention (internet-based; iCAN Plan 4 Safety - iCAN)	Safety (and health/well-being)
Glass et al.	2010	USA	Nursing	To develop a web-based safety decision aid for survivors of IPV; and to evaluate the effectiveness of a web-based safety decision aid on women's decisional conflict related to IPV	Mixed-methods (pilot)	90	Safety decision aid (computer-based)	Safety
Glass et al.	2017	USA	Nursing	To compare safety and mental health outcomes of survivors of IPV in an online interactive and tailored web-based safety decision aid with a static IPV resource website	Quantitative (randomized controlled trial)	720	Safety decision aid (internet-based; Internet Resource for Intervention and Safety - IRIS)	Safety
Gloor & Meier	2020	Switzerland	Sociology	To examine the effectiveness/feasibility of an asynchronous counselling intervention for women experiencing IPV	Mixed-methods (pilot)	200	Asynchronous (written) counselling (internet-based)	Treatment
Gray et al.	2015	USA	Psychology	To evaluate the effectiveness of virtual counselling (teleconferencing) intervention with women living in a rural area of the United States and experienced IPV or rape as a	Quantitative (preliminary study)	28	psychological treatment intervention (videoconferencing-based)	Treatment

				means to reduce PTSD and depression				
Hassija & Gray	2011	USA	Psychology	To test the effectiveness and feasibility of providing evidence-based, trauma-focused treatment via videoconferencing to rural survivors of domestic violence and sexual assault	Quantitative (uncontrolled trial)	15	Psychological treatment intervention (videoconferencing-based)	Treatment
Hegarty et al.	2019	Australia	Medicine	To test the effectiveness of an interactive online safety decision aid in increasing self-efficacy and decreasing depressive symptoms in women with a history of IPV in comparison to a static IPV information website	Quantitative (two group pragmatic randomized controlled trial)	422	Safety decision aid (internet-based; I-DECIDE)	Safety
Koziol-McLain et al.	2018	New Zealand	Nursing	To test the effectiveness of the web-based safety decision aid - isafe, with New Zealand women who have had a recent or current experience of IPV	Quantitative (randomized controlled trial)	412	Safety decision aid (internet-based; isafe)	Safety
Lindsay et al.	2013	USA	Nursing	To explore the use of a prototype smart phone app that is a safety decision aid for female college-aged survivors of dating violence	Qualitative	38	Safety decision aid (smartphone app)	Safety
Nguyen-Feng et al.	2015	USA	Psychology	To test the effectiveness of a web-based present control (stress management) intervention to lower symptoms of stress and mental health among college students with and without a history of IPV; to examine present control and rumination as potential mediators of intervention efficacy	Quantitative (preliminary study)	500	Stress management intervention focused on present control (internet-based)	Treatment (using psychoeducation)

Nguyen-Feng et al.	2016	USA	Psychology	To evaluate the efficacy of two new versions of a web-based intervention that decreases distress among psychology students, 1/3 reporting an IPV history and considered at-risk	Quantitative (randomized controlled trial)	314	Stress management intervention focused on present control (internet-based)	Treatment (using psychoeducation)
Ragavan et al.	2020	USA	Medicine	To examine the development and formative evaluation of a trauma-informed, user-friendly smartphone-based mobile application app to address the unmet health needs and improve the well-being of mothers who have experienced IPV	Mixed-methods (formative evaluation)	24	Health and well-being focused intervention for mothers with a history of IPV (smartphone app; Thrive)	Prevention and education
Tarzia et al.	2017	Australia	Medicine	To explore the potential role that technology has in supporting IPV survivors and what factors may motivate or discourage women from using an IPV website or app	Qualitative	19	Safety decision aid (internet-based; I-DECIDE)	Safety
Tarzia et al.	2018	Australia	Medicine	To examine the experiences of women with a history of IPV in receiving support online compared with face-to-face	Qualitative	16	Safety decision aid (internet-based; I-DECIDE)	Safety
Young-Hauser et al.	2014	New Zealand	Sociology	To test a web-based IPV safety decision aid for effectiveness, satisfaction, aesthetics, and cultural appropriateness for use with women of New Zealand	Mixed-methods (feasibility study)	20	Safety decision aid (internet-based)	Safety
Zlotnick et al.	2019	USA	Psychiatry	To examine the feasibility, acceptability, and the preliminary efficacy of a brief, motivational computer-based intervention, SURE (Strength for U in	Quantitative (randomized controlled trial)	53	Brief motivational intervention (computer-based; Strength for U in Relationship	Treatment (using motivational

				Relationship Empowerment), for perinatal women with IPV experience seeking mental health treatment			Empowerment - SURE)	interviewin g)