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Workplace interventions for intimate partner violence: A systematic review

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Abstract

Workplace interventions represent important opportunities to increase awareness of and adherence to disease prevention and health promotion initiatives. However, research on workplace interventions for intimate partner violence (IPV) has not been systematically evaluated. This systematic review summarizes existing studies evaluating workplace interventions for IPV. PubMed, PsycINFO, Business Source Complete, Web of Science, and Social Services Abstracts were systematically searched for English-language studies published before November 2017. Six studies evaluating five interventions were included. Only one study used a randomized design, and only two studies measured whether outcomes were sustained over time. None of the interventions addressed perpetrators of IPV. Interventions focused on recognizing signs of abuse, responding to victims, and providing referrals to community-based resources. Methodological rigor of included studies varied, but all reported at least one intervention-related benefit. Findings included improved awareness of IPV, increased provision of information to victims, and greater willingness to intervene if an employee may be experiencing IPV. Although sparse, available evidence

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suggests there are potential benefits of workplace interventions for IPV. It is important for future interventions to focus on primary and secondary prevention of IPV and address perpetration, and for investigators to use rigorous study designs and measure whether effects are sustained.

Keywords

Intimate p	partner	violence;	domestic	violence;	workplace;	intervention;	training	

Introduction

Intimate partner violence (IPV) is a substantial global public health problem with adverse physical, mental, and societal consequences. IPV is defined as physical, sexual, or psychological aggression by a current or former intimate partner (Breiding, Basile, Smith, Black, & Mahendra, 2015). A 2010 review of global prevalence estimated that 30% of women age 15 years and older have experienced physical and/or sexual IPV during their lifetimes (Devries et al., 2013). Health consequences of IPV include depression, substance abuse, chronic pain, gastrointestinal issues, physical injuries, and suicide (Campbell, 2002; Sugg, 2015). Women are disproportionately the victims of IPV and experience more severe consequences, including serious physical injuries (Breiding et al., 2014).

The economic and workplace costs of IPV are staggering. In the United States, the population economic burden of IPV was recently estimated to be \$3.6 trillion over victims' lifetimes with a per-victim lifetime cost of over \$100,000 for female victims, including medical care and mental health services, lost productivity, and criminal justice costs (Peterson et al., 2018). Furthermore, employees experiencing IPV can also be affected in various ways. Work-related consequences include absenteeism from illness, injury, or mental health issues; reduced work hours and productivity from absence or difficulty concentrating; work interference by the perpetrator (e.g., affecting the employee's ability to get to or stay at work); resignations; and terminations (Alexander, 2011; Reeves & O'Leary-Kelly, 2007; Swanberg, Macke, & Logan, 2007; Swanberg, Logan, & Macke, 2006; Swanberg & Logan, 2005; Tolman & Wang, 2005). Workplace IPV can also occur directly in the form of harassment, stalking, or homicide (Swanberg & Logan, 2005; Tiesman, Gurka, Konda, Coben, & Amandus, 2012). The Centers for Disease Control and Prevention (CDC; 2003) estimated that eight million days of paid work were lost due to IPV against adult women in the U.S. each year, and the value of this lost productivity was nearly \$730 million. A 2007 study reported the mean annual workplace costs for an IPV victim was approximately \$2,400 for absenteeism, \$4,000 for workplace distraction, and \$80 for tardiness (Reeves & O'Leary-Kelly, 2007). Existing international estimates are also very high. For instance, the total cost of productivity losses associated with IPV in Australia is estimated to reach \$609 million by 2021 (National Council to Reduce Violence against Women and their Children, 2009), whereas in Canada employers lose nearly \$80 million per year as a direct result of IPV (Zhang, Hoddenbagh, McDonald, & Scrim, 2012).

IPV awareness is uncommon in workplaces, which has led to a lag in addressing the effects of IPV on employees and workplace productivity (Lindquist et al., 2010). In 2007, only 13%

of senior corporate executives agreed their companies should play a major role in addressing IPV (Corporate Alliance to End Partner Violence [CAEPV], 2007). However, workplaces are increasingly recognizing the considerable toll of IPV on employees and organizations. A 2012 survey from the Society for Human Resource Management (SHRM) shows that over 90% of organizations indicated that HR staff should be trained and approximately three fourths indicated that all employees should be trained on the impact of domestic violence, sexual violence, and stalking in the workplace (Maurer, 2013). IPV victims often disclose to their coworkers and supervisors and seek specific emotional and instrumental support at work (MacGregor, Wathen, Olszowy, Saxton, & MacQuarrie, 2016; Swanberg & Logan, 2005). Employees would benefit from information and training so that they are effectively able to respond to these disclosures (Kulkarni & Ross, 2016; MacGregor et al., 2016). In addition to employee training, workplaces can create specific IPV policies and protocols (e.g., flexible leave-time and employer assistance), account for privacy and confidentiality, and increase the availability of information and resources (Glass, Hanson, Laharnar, Anger, & Perrin, 2016).

Although there is currently no federal employment protection law for IPV in the U.S., individual states have been working to provide protections for IPV victims. Nearly all states have workplace antidiscrimination laws for crime victims; however, only four states have laws specifically for IPV victims (Laharnar, Perrin, Hanson, Anger, & Glass, 2015). Thirteen states have workplace awareness and safety policies for IPV, three require education and training on IPV policies and resources, and 15 states provide protected leave for IPV victims (Laharnar et al., 2015). However, implementation of these leave laws is particularly difficult primarily due to lack of awareness of the laws and lack of IPV support training for supervisors (Laharnar et al., 2015). In 2012, only 35% of workplaces had a formal workplace IPV policy, and only 20% offered formal training on IPV (Maurer, 2013).

Given that employment and workplace intervention can benefit employees and employers (Rothman, Hathaway, Stidsen, & de Vries, 2007; Swanberg & Logan, 2005), it is critical for workplaces to effectively support employees experiencing IPV. In addition, the empirical research on workplace IPV interventions has not been systematically reviewed. It is challenging for workplaces to examine the evidence for interventions and determine how to best address IPV with their employees. Therefore, the purpose of this systematic review was to synthesize the research on workplace interventions for IPV. Given the relatively limited literature, we a priori defined *workplace* broadly and did not limit this systematic review based on specific interventions or outcomes to provide a comprehensive summary. We sought to document the effectiveness of such interventions and identify strategies that workplaces can implement for employees experiencing IPV.

Methods

Relevant peer-reviewed original articles published before November 2017 were identified through searches of five electronic databases (PubMed, PsycInfo, Business Source Complete, Web of Science, and Social Services Abstracts). The last search was conducted on November 9, 2017. The full list of search terms can be found in Table S1. We also reviewed the reference lists of included articles to identify potentially relevant articles on

workplace IPV. To be included, studies had to evaluate an intervention for IPV in the workplace and be full-length papers published in English. Conference abstracts, case studies, gray literature, and editorials without original data were excluded.

One author (A.A.) conducted a title screen of all articles after removing duplicates from the initial search of the online databases. Abstracts of the selected studies were retrieved and read independently by two authors (A.A. and B.G.) to identify articles for full-text review. After excluding ineligible abstracts and removing duplicate articles, these two authors reviewed the full text of remaining articles. An article was excluded if (1) it was not an example of a workplace intervention for IPV, (2) it was not an example of primary data collection or analysis (e.g., reviews, abstracts, editorials), or (3) it was a dissertation or thesis. Data were extracted from the full-text published articles using a predesigned extraction sheet, capturing study characteristics and results. In addition, two authors independently completed a quality assessment for each included study using a Newcastle-Ottawa Scale adapted for cross-sectional studies by Herzog et al. (2013) (and the Cochrane Risk of Bias Tool for randomized controlled trials; Higgins et al., 2011) (results from this assessment are shown in Table S2).

Results

We identified a total of 5,136 titles through the electronic database search (1,665 from PubMed, 1,712 from PsycInfo, 268 from Business Source Complete, 1,147 from Web of Science, and 344 from Social Services Abstracts). Of these, 1,329 were duplicates. We reviewed the titles of the remaining 3,807 articles and excluded 3,616 articles based on the relevance of titles. The abstracts of the remaining 191 articles were read by two reviewers, and 18 were selected for full-text review after excluding ineligible abstracts (e.g., original research not focused on intervention, article type such as commentaries). We did not identify any additional articles by searching the reference lists of the included articles. Overall, six full-length papers met the inclusion criteria and were included in this review (Figure 1).

Study design and sample composition

Table 1 summarizes the six included articles. The sample size of each study ranges from 53 to 941 individuals (Glass, Bloom, Perrin, & Anger, 2010; Glass et al., 2016). The studies were published from 2001 to 2016. The percentage of study participants who were women ranged from <5% (Wagner, Yates, & Walcott, 2012) to 100% (Falk, Shepard, & Elliott, 2001). Only one study used a randomized design at the county level (Glass et al., 2016). All other studies were nonrandomized: two studies used pretest/posttest designs with a comparison group (Falk et al., 2001; Krishnan, Gambhir, Luecke, & Jagannathan, 2016), two had pretest/posttest designs with no comparison group (Glass et al., 2010; Navarro, Jasinski, & Wick, 2014), and one had a posttest design only with no comparison group (Wagner et al., 2012). Five of the studies were from the U.S. (Falk et al., 2001; Glass et al., 2010, 2016; Navarro et al., 2014; Wagner et al., 2012), whereas one study was conducted in India (Krishnan et al., 2016). Two studies focused exclusively on supervisors/managers (Glass et al., 2010, 2016), three studies enrolled employees and supervisors/managers

(Krishnan et al., 2016; Navarro et al., 2014; Wagner et al., 2012), and one study examined Employee Assistance Program (EAP) counselors (Falk et al., 2001).

Content and frequency of intervention

Common themes of the interventions included recognizing signs of abuse, responding to victims, and providing victims with resources. Four interventions were one-time trainings (Glass et al., 2010, 2016; Navarro et al., 2014; Wagner et al., 2012). Two studies evaluated the same computer-based training, Domestic Violence and the Workplace, which covers the impact of IPV, strategies used by abusers, costs to businesses, victim support, accountability, employment law, workplace IPV policy and community resources (Glass et al., 2010, 2016). Another training called Recognize, Respond, and Refer concentrated on recognizing signs of abuse, responding to disclosures, and providing resources (Navarro et al., 2014). Men and Women as Allies was a participatory training, which utilized role playing to teach ally behaviors and practice identifying appropriate strategies for intervening (Wagner et al., 2012).

An intervention program called Namagaagi Naave used a broader set of tools including information displays, flyers, and interactive methods (street plays, experience-sharing sessions, interactions with experts, and health camps) to cover four separate issues including gender and violence against women (Krishnan et al., 2016). One intervention included a screening and assessment protocol to identify IPV and make referrals to IPV resources and services (Falk et al., 2001).

Delivery of intervention & interventionist background

Two of the studies evaluated interactive computer-based trainings (Glass et al., 2010, 2016). The remaining interventions were delivered primarily in-person (Falk et al., 2001; Krishnan et al., 2016; Navarro et al., 2014; Wagner et al., 2012). Two interventions were implemented by trained external facilitators (Navarro et al., 2014; Wagner et al., 2012). Namagaagi Naave was implemented by core team members, chosen by senior management. These employees and management were seen as influential among peers and implemented the intervention with support from project staff and partner organizations (Krishnan et al., 2016). The screening and assessment protocol was implemented by EAP counselors (Falk et al., 2001).

Duration of intervention

The interventions tended to be brief; three of the trainings took between 1 to 2 hours to complete (Glass et al., 2010, 2016; Navarro et al., 2014). Because Namagaagi Naave had more intervention components, the program was implemented over 6 days (Krishnan et al., 2016). The screening and assessment protocol did not have a specified length of time; however, the screening involved two questions, the assessment involved 20 questions, and the intervention involved providing information (Falk et al., 2001). There was no specified duration for Men and Women as Allies (Wagner et al., 2012).

Outcomes

The studies investigated a variety of outcomes, including improvement in knowledge, willingness to intervene, and likelihood of providing information or resources (Table 1).

Nearly every study reported a significant increase in at least one outcome. Four of the studies measured outcomes directly after training or protocol implementation (Falk et al., 2001; Glass et al., 2010; Navarro et al., 2014; Wagner et al., 2012). Two studies measured whether the outcome was sustained over a longer period of time: one study at 12 months after initiation of the project (Krishnan et al., 2016), and another had 3-, 6-, and 12-month measurements after the training (Glass et al., 2016).

In their study of female clients of EAP counselors in a small city in the Upper Midwest (N= 287), Falk et al. (2001) reported that counselors identified significantly more clients experiencing IPV (6.6% preprotocol vs. 20.2% postprotocol, p<.001) and were significantly more likely to provide information about services (2.6% preprotocol vs. 7.9% postprotocol, p=.03) when the screening and assessment protocol was used compared to the baseline assessment. However, the protocol did not increase the percentage of clients experiencing IPV who received information about services or the percentage of clients directly referred to services (Falk et al., 2001).

Glass et al. (2010) reported a significant improvement in knowledge, as assessed by the Domestic Violence and the Workplace test, from pre- to postintervention (71.8% vs. 96.1%, p<.001) among small business (N= 22) and city supervisors (N= 31) in Gresham, Oregon. The authors also reported that the intervention was equally effective for small business and city supervisors (Glass et al., 2010).

In their study of employees at a private sector telecommunications company in New York City (N= 339, >95% men), Wagner et al. (2012) found that, as a result of the intervention, 97% of participants reported they would be more willing to talk with other men about their role in stopping violence against women, 99% would be more willing to take a leadership role to stop violence against women, 99% would be more willing to take a leadership role to stop bullying behavior and workplace violence, and 67% would change their response (positively) towards a union member or employee experiencing IPV. The authors did not report the response for these attitudes preintervention, hence there was no baseline comparison or control group. However, the authors noted that among participants who would not have done anything to help prior to the intervention, 70% said they would do something to help after the intervention training (Wagner et al., 2012).

Among employees and employers from various businesses in Florida (N= 157), Navarro et al. (2014) reported improved knowledge on several items related to recognizing IPV, though many participants were able to identify signs of IPV before the training (e.g., recognizing IPV can include using kids to manipulate (87.7% pretraining vs. 99.1% posttraining, p < .001), controlling money/economic decisions (83.8% pretraining vs. 96.4% posttraining, p < .001)). Participants reported increased willingness to intervene (13.6% pretraining vs. 27.1% posttraining, p < .05) after receiving the training, but there were only marginal changes in levels of comfort and competence in intervening. Participants' belief that their knowledge of IPV, its causes and prevention was good/excellent increased from 41.9% before the training to 94.3% after training (p < .001). Following training, the majority of individuals noted that the intervention improved their ability to refer/provide information on resources in the community (62% responded *very much*) (Navarro et al., 2014).

In their study of garment factory workers in Bengaluru, India (N= 835), Krishnan et al. (2016) found that the intervention group expressed more gender-equitable attitudes, were less likely to report IPV as acceptable, and were more knowledgeable about IPV support services compared to the control group after 12 months (p<.001). The authors also noted that the intervention was equally effective among men and women (Krishnan et al., 2016).

Glass et al. (2016) reported a significant improvement in knowledge related to IPV from preto postintervention (75.8% pretraining vs. 98.5% posttraining, p < .001) among supervisors in county government agencies in Oregon (N = 941). In addition, workplace climate towards IPV improved posttraining and was sustained over time (mean score: 10.9 at baseline vs. 14.6 at 12 months). The intervention also increased the likelihood that supervisors provided IPV leave information to employees (15.1% at baseline vs. 37.3% at 12 months). At the organization level, the intervention training led to increased workplace postings about the state's IPV leave law and more information seeking about IPV resources. The authors also reported that there was no evidence that providing participation incentives made the training more effective or that the training information spread throughout the organization to other supervisors (Glass et al., 2016).

Theoretical basis

Two studies discussed a theoretical basis for the interventions or evaluations (Krishnan et al., 2016; Navarro et al., 2014). Krishnan et al. (2016) reported that the evaluation for Namagaagi Naave was guided by social cognitive theory, leading to a hypothesis that the intervention would promote gender-equitable attitude and improvements in knowledge by raising awareness, increasing access to services, and building peer support for behavior change. Navarro et al. (2014) discussed IPV in a socioecological model, noting that understanding there are multiple causes of IPV at all levels of the social ecology which should be accounted for in creating effective interventions. However, the intervention components of Recognize, Respond, and Refer were not explicitly linked to this theoretical perspective. None of the other authors specified theoretical frameworks underpinning their research (Falk et al., 2001; Glass et al., 2010, 2016; Wagner et al., 2012).

Discussion

The aim of this systematic review was to assess the literature evaluating the effectiveness of workplace interventions for IPV. Although available evidence is sparse, there may be benefits to workplace interventions for IPV including increased knowledge of IPV and related policies, willingness to intervene, and provision of information and resources to IPV victims.

There is active public discussion about the role of workplaces in addressing violence, and many workplaces are now implementing programs to increase awareness, providing training for supervisors and employees, and creating or improving workplace policies on violence (CAEPV, 2018). However, these programs are not being systematically examined in the peer-reviewed literature. For example, the Corporate Alliance to End Partner Violence (CAEPV; 2018) is a nationally recognized nonprofit that has been working with employers since 1995 and is dedicated to reducing the costs and consequences of IPV at work.

Recently, the organization Futures Without Violence (2018) introduced a national resource hub called Workplaces Respond to Domestic and Sexual Violence: A National Resource Center ("Workplaces Respond") which includes referrals to resources, fact sheets, workplace training modules, and guides to help employers develop climate surveys to assess the specific needs of their employees. However, there are currently no peer-reviewed evaluations of these various strategies. Failure to systematically examine these programs may delay or prevent the widespread implementation of successful methods of addressing IPV in the workplace.

EAPs have often been suggested as important in addressing IPV; however, only one study included in our review evaluated such a program (Falk et al., 2001). EAPs can provide extensive services around IPV prevention and support including consultations on policy development and management/security staff, delivery of trainings and seminars, and the provision of educational and awareness-raising activities (Lindquist et al., 2010). A study of client satisfaction with EAP services to address IPV found women were satisfied overall with the comprehensive services provided; however, identifying victims and maintaining confidentiality is challenging (Pollack, McKay, et al., 2010). The study noted that women requested to be directly connected to desired services, rather than simply receiving the information to access services on their own (Pollack, McKay, et al., 2010). In contrast, three studies included in this review have provision of information and resources, instead of direct access to services, as a primary outcome of the intervention (Falk et al., 2001; Glass et al., 2016; Krishnan et al., 2016; Navarro et al., 2014). There are examples of interventions that impact IPV but are not specifically considered IPV interventions, which may be useful in creating effective workplace and organizational culture (Niolon et al., 2017). The United States Air Force Suicide Prevention Program was developed to reduce stigma and social norms that discourage help seeking among Air Force personnel. Through a combination of prevention initiatives to enhance training and education to promote help seeking, the program reduced moderate family violence by 30% and severe family violence by 54% in the years after the program launched (in addition to lower rates of suicide) (Knox, Litts, Talcott, Feig, & Caine, 2003). This model of creating a culture of help seeking and increasing referrals to relevant services may help to reduce IPV in the workplace. It is necessary for workplaces to determine best practices for directly connecting their employees to requested services.

The intervention studies included in our review generally focused on knowledge and resources as study outcomes; none of the studies examined changes in the incidence or frequency of IPV episodes as an outcome. Companies may view their roles as responding to employee disclosures and making appropriate referrals as opposed to playing a direct role in preventing violence. Furthermore, there was no discussion of IPV perpetration; workplaces seem to acknowledge that employees can be victims but not perpetrators of IPV. Given that perpetrators are less productive at work and may use workplace resources to perpetrate IPV, workplaces may benefit from addressing perpetration as well (Rothman & Perry, 2004). A previous study examining the role of EAPs in addressing IPV recommended that these programs address perpetrators by providing referrals to batterer intervention program, treatment for substance abuse, conflict, and anger management training (Pollack, Austin, & Grisso, 2010). It may be challenging, however, to implement programs to address

perpetration. Currently, EAPs do not have standardized approaches to address IPV and often rely on self-disclosure to identify perpetrators in the workplace (Walters et al., 2012).

There are additional barriers to implementing workplace interventions for IPV. Employers may lack knowledge in discussing IPV, have concerns over limited time to discuss and implement training programs, and lack evidence-based approaches to responding to IPV effectively within the workplace. Prevention strategies also require a willingness to invest resources in appropriate staff, training, and cultivating connections with local resources. However, our review identifies brief interventions that can be administered electronically (Glass et al., 2010, 2016; Navarro et al., 2014) and are effective in increasing knowledge about IPV in the workplace (Glass et al., 2010, 2016). One caveat may be that 1- to 2-hour trainings can help to increase knowledge and awareness but may be less effective in changing behavior, so workplaces may need to consider more robust prevention strategies (e.g., ongoing trainings).

The intervention studies reviewed here included diverse workplaces, supervisors and employees. Tailored and culturally appropriate workplace interventions may be needed given that the needs of individuals and companies can vary (Alexander, 2011; MacGregor et al., 2016; Samuel, Tudor, Weinstein, Moss, & Glass, 2011). For example, prior research has documented that disclosure and help seeking in the workplace was particularly complicated for Latina employees (Samuel et al., 2011) and that Black and Asian employees in a nursing setting were less likely than White employees to be aware of and use resources to address violence (Sabri et al., 2015). This study highlights the need for interventions that reflect the specific barriers and concerns of communities to be able to be accessible to employees of various backgrounds. Two of the included studies reported differential intervention effects by participant demographics. Krishnan et al. (2016) noted a participatory process helped to ensure that the content of the intervention was tailored to the specific workplace and cultural context of the employees. The authors reported that the intervention was equally effective for men and women participants (Krishnan et al., 2016). Glass et al. (2010) reported the computer-based training program was equally effective for small business and city supervisors. In addition to addressing employees' ethnic and cultural backgrounds, interventions should consider the gender of the supervisors/employees, supervisors' level of authority, the need for confidentiality, workplace size and type, and the specific barriers and workplace demands that supervisors and employees face in a particular workplace.

To help states and communities make use of the best available evidence for IPV prevention, the CDC has released a technical package that describes six strategies with examples of specific approaches for each (Niolon et al., 2017). One of the approaches is strengthening work–family supports to prevent IPV and its consequences (Niolon et al., 2017). Paid leave may be one of these critical supports. In addition to providing job security and flexibility, access to paid family leave has been found to be protective against IPV; women working during early pregnancy who qualified for paid family leave were less likely to experience IPV in the first year after birth compared to unemployed women (Gartland, Hemphill, Hegarty, & Brown, 2011). The U.S. is one of the only high-income countries without laws requiring employers to offer paid family leave to employees. Additionally, the U.S. does not have specific federal legislation to protect employment rights of IPV victims (Karin &

Shapiro, 2009) though policies such as the Family and Medical Leave Act and the Family Violence Option have been used to protect IPV victims (Swanberg, Ojha, & Macke, 2012). Most policies enacted in the U.S. related to employment protections for IPV victims have been at the state level (Swanberg et al., 2012). A 2012 study on state-level employment protection policies for IPV victims found that policies fell into three broad categories: (1) policies that offer work leave for IPV victims (e.g., allowing employees to take time off to seek counseling, participate in court proceeding, visit the doctor or establish a safety plan without fear of loss of employment or income), (2) policies reducing employment discrimination of IPV victims, and (3) policies that increase safety and awareness in the workplace (Swanberg et al., 2012). Significant variation in policies exists across states, and there are few mechanisms to ensure that employers are compliant with state regulations (Swanberg et al., 2012). States could consider how to enact and expand policies in all categories and ensure effective implementation. In addition, these policies require more robust evaluation to understand their impacts.

Our findings must be interpreted with caution given the limitations in the number, type, and quality of the individual studies included in this review. All studies relied on self-reported outcomes. In particular, the Wagner et al. (2012) study did not include baseline data, so it was not possible to assess how the intervention changed attitudes. Additionally, only one study used a randomized design (Glass et al., 2016). The existing studies are also conducted in small populations of mostly U.S. participants, so the results may not be generalizable to other regions or types of workplaces. Publication bias may also be a concern, and too few studies were included to meaningfully assess the impact of this bias. Given the heterogeneity of the limited number of interventions, we were not able to compare effectiveness of interventions or choose a single outcome as the focus. As the body of research grows, there may be an opportunity to empirically evaluate publication bias and conduct more comparative studies. Finally, given that attention to IPV in the workplace is an emerging topic (Futures Without Violence, 2018), there may be unpublished work or current interventions underway that are not captured by our literature review. Establishing a registry of interventions could be a useful step in providing reliable information on workplace efforts to address IPV and allowing workplaces to determine which programs may best meet their needs (Substance Abuse and Mental Health Services Administration, 2016). Similarly, there may be other effective interventions, such as civil protection orders, that are not specifically designed for the workplace but may be used or relevant in that context and could benefit from further research into the uses and effectiveness in workplaces specifically. Future work should also consider which interventions may be best suited for which types of workplaces and industries.

Conclusion

Improving organizational policies and workplace climate has been identified by the CDC as an effective approach for preventing IPV and its consequences (Niolon et al., 2017). This systematic review indicates that there may be benefits to workplace interventions for IPV in terms of increased knowledge and provision of information and resources, but strong evidence of effective interventions is limited. Continued rigorous research is needed to evaluate current workplace efforts and to understand how to implement effective

interventions around workplace IPV. It is important for future interventions to be theoretically motivated, use rigorous study designs, measure long-term effects of intervention programs, address perpetration of IPV, and focus on primary and secondary prevention of IPV. IPV is preventable but requires comprehensive and multifaceted solutions. Workplaces can play an important role in addressing IPV and creating a safe climate for employees to thrive.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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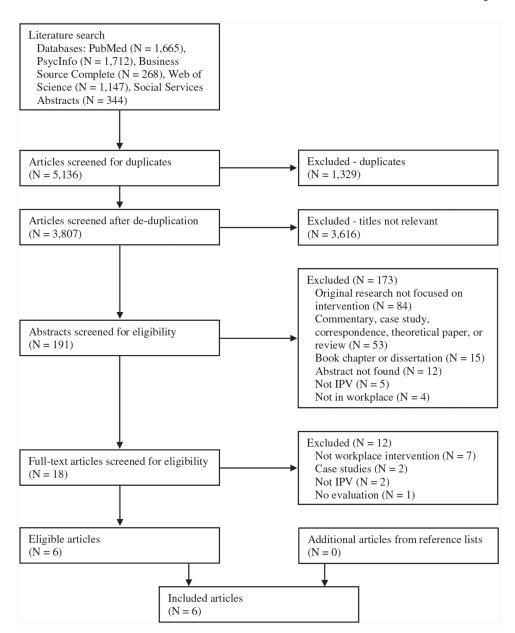


Figure 1. Flow chart of selection of eligible articles for systematic review.

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Table 1.

Summary of included studies evaluating workplace interventions for intimate partner violence (IPV).

Author (year)	Setting	Study Design	Sample	Intervention	Main findings
Falk et al. (2001)	Upper Midwest, USA	Pretest/posttest evaluation with nonequivalent comparison group	287 female clients of Employee Assistance Program counselors	Content: Screening and assessment protocol used by counselors included specific questions to screen for IPV, assessing danger with risk factors, and responding to identified abuse Delivery: 3-step protocol - screening (2 questions), assessment (20 questions), intervention (referral to services, passessment (20 questions), intervention (referral to services, providing information) Duration: Protocol piloted in 1996, implemented in 1997–1998	Measured at time of delivery Significantly increased percentage of clients identified as experiencing IPV; counselors significantly more likely to provide information about services
Glass et al. (2010)	Oregon, USA	One-group pretest/ positest evaluation	53 small business and city supervisors Mean age: 46.0 years 49% females	Content: Domestic Violence and the Workplace covers impact of IPV, strategies used by abusens, costs to businesses, victim support, accountability, employment law, workplace domestic violence policy, community resources to assist supervisors supervisors computer-based training (56 screens of information, 13 movie clips, 17 quiz questions) Duration: 60–75 minutes, self-paced	Measured at time of delivery Significant improvement in supervisor knowledge on domestic violence and the workplace test
Wagner et al. (2012)	New York, USA	One-group posttest only	339 union members and management employees at predominantly male private sector telecommunications company <5% females	Content: Men and Women As Allies is a two-part workshop; part 1 addresses gender roles and ally behaviors; part 2 has customized case studies for the workplace to establish a culture of preventing and resolving workplace violence Delivery: In-person interactive training facilitated by male/female teams Duration: Unknown length of training over 2 years	Measured at time of delivery Participants reported more willingness to talk with other men about men's role in stopping violence against women and to take leadership role to stop violence against women, bullying behavior and workplace violence; also reported they would change response towards employee experiencing DV
Navarro et al. (2014)	Florida, USA	One-group pretest/ posttest evaluation	157 employees and employers from various businesses (e.g., aviation, health, hospitality, office, social services) Mean age: 42 years 61.5% females	Content: Recognize, Respond, and Refer focused on recognizing signs of abuse, responding to disclosures, and providing victims with resources Delivery: In-person training Duration: 1–2 hour training implemented between August 2010 and 2011	Measured at time of delivery Improved knowledge in recognizing IPV, ability/willingness to respond to IPV and intervene, and knowledge in referring victims to community resources
Krishnan et al. (2016)	Bengaluru, India	Two-group pretest/ posttest evaluation, nonrandomized (one intervention factory, one delayed control factory)	835 garment factory workers Mean age: 28.7 years 73% females	Content: Namagaagi Naave consisted of 4 issue-based campaigns: gender and violence against women, alcoholism, sexual and reproductive health, and HIV/AIDS Delivery: Information displays (standees and posters), flyers, interactive methods (street plays, experi-ence-sharing sessions, one-on-one interactions with experts, health camps), and links to support services Duration: 10 months (each campaign lasted 6 days)	Measured at 12 months postinitiation Significant improvements in attitudes about gender equity, unacceptability of IPV, and awareness of IPV and alcohol- related support services
Glass et al. (2016)	Oregon, USA	Cluster randomized controlled trial (14 intervention counties, 13 delayed control counties)	941 supervisors in county government agencies Age: 52% over 50 years 55% females	Content: All supervisors received computer-based training on federal Family Medical Leave Act and brochure on Oregon's job protection IPV leave law; intervention supervisors also received interactive computer-based	Measured at 3, 6, and 12 months post- intervention Significant improvements in supervisor knowledge on IPV; improved workplace climate towards IPV significantly &

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Author (year)	Setting	Study Design	Sample	Intervention	Main findings
				Intimate Partner Violence and the Workplace (same as Glass	maintained over time (at 3, 6, 12 months);
				et al. 2010)	supervisors provided more IPV
				Delivery: Interactive computer-based training and brochure	information to employees & more IPV
				Duration: 60–75 minutes, self-paced	postings available in workplace

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