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Computer-based prevention of intimate partner violence in marriage

Scott R. Braithwaite [a,*], Frank D. Fincham [b]

[a] Brigham Young University, Department of Psychology, 286 TLRB, Provo, UT 84602, USA
[b] Florida State University, Family Institute, Tallahassee, FL, USA

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ABSTRACT

Objective: Intimate partner violence (IPV) is a common, costly societal problem. Interventions designed to reduce IPV recidivism have had limited success but primary prevention efforts are likely to be more effective in reducing the occurrence of IPV. The purpose of this study was to examine the impact of a computer-based preventive intervention (ePREP) on IPV in a sample of married, community couples.
Method: We employed a randomized clinical trial design comparing ePREP to an active placebo control group. Using a community sample of 52 married couples (21% Black, 3% Asian, 65% White, 7% Latino, 4% Mixed/biracial) who had been married, on average, 4.3 years, we examined the impact ePREP on IPV as measured by self and partner reports of the Revised Conflict Tactics Scale. We assessed couples at baseline, six-weeks post-baseline, and one-year post-baseline. We used the Actor Partner Interdependence Model with treatment effects to analyze the obtained dyadic data.
Results: We found that ePREP reduced physical and psychological aggression among married couples (on average across informants, a 90% reduction in expected counts of physical aggression, and a 0.18 standard deviation reduction in psychological aggression) and that these gains were maintained at a 1-year follow-up assessment.
Conclusions: Interventions that can be delivered widely and at a low-cost will increase the likelihood of reaching those who will benefit most from receiving them. Implications for implementing flexible interventions and changing our approach to treatment delivery are discussed.

Approximately 36% of women and 29% of men in the United States have experienced physical forms of IPV (Black et al., 2011). Psychological aggression (e.g., verbal threats, belittling, etc.) by an intimate partner is even more common: 48% of women and 49% of men report experiencing it. Interventions designed to reduce IPV recidivism have had limited success (Babcock, Green, & Robie, 2004); primary prevention efforts are likely to be more effective in reducing IPV than waiting for it to occur and then trying to stop its recurrence. Further, interventions that can be delivered widely and at low-cost will increase the likelihood of reaching those who will benefit most from receiving them. The purpose of this randomized clinical trial (RCT) is to examine the impact of a flexible, computer-based, preventive intervention (ePREP) that has as one of its goals to reduce IPV. Using a community sample of married couples we examined the impact of ePREP on IPV with the goal of implementing it in a portfolio of prevention efforts as well as in efforts to extend the benefits of treatment given its ability to be broadly administered in a way that more costly, existing interventions cannot.

Review of relevant research

IPV is a costly societal problem

Although IPV is strongly associated with marital distress (Lawrence & Bradbury, 2001), much IPV occurs in the context of ordinary, nondistressed marriages. Estimates from population-based survey data—not treatment seeking samples—indicate that between 20% and 30% of couples have experienced physical forms of IPV (Black et al., 2011; Coker et al., 2002). Population based survey data inquiring about current marriages show that 15.2% of women and 20.3% of men report the occurrence of IPV (Afifi et al., 2009). These data indicate that husbands and wives perpetrate IPV at similar rates; despite this, some evidence suggests that women are more likely to be injured as a consequence of IPV, but the research is not unanimous on this issue (Archer, 2000; Capaldi & Owen, 2001). The vast majority of IPV that occurs in marriage has been termed *situational couple violence* and consists primarily of pushing, slapping, etc.; this is in contrast to the more severe

* Corresponding author. Tel.: +1 801 422 8583; fax: +1 801 422 0602.
E-mail address: srbraithwaite@byu.edu (S.R. Braithwaite).

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intimate terrorism which is much more harmful and typically accompanied with attempts to exert control over the partner (Johnson, 1995).

IPV within the context of marriage is associated with a number of poor outcomes. In addition to immediate physical and emotional suffering, IPV is associated with poorer physical and mental health. Women exposed to IPV have a 50%–70% increase in gynecological, central nervous system, and stress-related problems such as appetite loss, abdominal pain, and digestive problems (Campbell et al., 2002). But the effects of IPV are not limited to women. The occurrence of IPV is associated with poor health, depressive symptoms, substance use, developing a chronic disease, chronic mental illness and injury in both sexes (Coker et al., 2002). Another population-based study that used structured clinical interviews to determine diagnoses found that the experience of IPV was associated with a higher incidence of multiple psychiatric disorders in men and women (Afifi et al., 2009).

Psychological forms of IPV (e.g. intimidation, verbal abuse, etc.) are also associated with poor outcomes. In a sample of women surveyed in routine primary care settings, Coker, Smith, Bethea, and King (2000) showed that psychological IPV was uniquely associated with a host of stress related conditions such as chronic pain, stomach ulcers, frequent indigestion, diarrhea, and constipation as well as work-preventing disability, arthritis, and sexually transmitted infections. These data further showed that psychological IPV was *as* strongly associated with adverse health outcomes as physical IPV. Again, this effect is not unique to women—another population based study that included both men and women found that poor outcomes were *more* strongly associated with psychological IPV than with physical IPV (Coker et al., 2002).

IPV also affects children who witness it. Children who are exposed to IPV exhibit more aggression, delinquency, depression, anxiety, posttraumatic stress symptoms, sleep disturbance, and academic and cognitive problems (Margolin & Gordis, 2000). Regarding longer term outcomes, a large cohort study that controlled for a host of relevant family-of-origin and socioeconomic factors (including other forms of domestic violence) found that witnessing parental IPV as a child uniquely predicted higher incidences of depression, alcohol dependence, perpetration of IPV and perpetration of violence against children as an adult (Roustit et al., 2009). This study and others (Ehrensaft et al., 2003; Newcomb & Locke, 2001; Tschann et al., 2009) provide converging evidence that IPV tends to be transmitted intergenerationally, so the effects of IPV are not limited to the initial generation but tend to repeat in subsequent generations.

Existing interventions for IPV

The majority of interventions that attempt to reduce IPV have focused on preventing recidivism—that is, trying to prevent the recurrence of IPV after it has already occurred. A meta-analysis of treatments targeting males who perpetrate IPV (Babcock et al., 2004) showed that these interventions have a limited effect on recidivism compared to simply going through the process of being arrested and processed through the legal system—those who received an intervention were 5% less likely to offend again when compared to those who did not receive an intervention. Further, these interventions are almost exclusively delivered in groups to male perpetrators who have been referred after being arrested for perpetrating physical IPV. Given that IPV has physical and psychological effects on both males and females and the impact of psychological IPV can be as harmful as or worse than physical IPV, more broadly applicable interventions are needed. Moreover, IPV is a dyadic process and it can be argued that targeting only one partner is less likely to be as effective than targeting both partners (Moffitt, Robins, & Caspi, 2001). Indeed, in his review of couple based treatments for IPV, O'Leary (2008) provides evidence that couple interventions for IPV are at least as effective as individual interventions and that the couple format does not cause increased risk for harm relative to treatments that focus on one partner only.

Primary preventive interventions targeting relationship violence (as opposed to the tertiary interventions described in the previous paragraph) have focused almost exclusively on dating violence among adolescents, delivered in a group format in schools. A meta-analysis reviewing research on these interventions found positive changes in violence-related attitudes and knowledge about issues surrounding dating violence, but there was little evidence of changes in violent behavior (Wekerle & Wolfe, 1999). One school-based intervention study with a 2.5 year follow-up has since shown behavioral effects: 9.8% of students in control schools reported physical dating violence compared to 7.4% of students in schools that received the intervention, a 2.4% difference (Wolfe et al., 2009). But a major limitation of the research on these interventions is that they have relied exclusively on self-report, and socially desirable responding is a major threat to validity when asking for reports of IPV. Also, it is unclear—given the lack of longer-term follow-up—whether these effects translate into marriage and other long-term partnerships.

Research has frequently called for IPV preventive interventions for couples (e.g., (Holtzworth-Munroe et al., 1995; Wathen & MacMillan, 2003), but few have emerged. One program presented pilot data, but follow-up data has yet to be published (Holtzworth-Munroe et al., 1995). The only other study that speaks to this issue examined the PREP intervention (Markman, Stanley, & Blumberg, 2010). Although it was not designed explicitly to address IPV, Markman and colleagues found that PREP produced decreases in IPV, but the effect of the intervention waned by the 5-year follow-up (Markman, Renick, Floyd, Stanley, & Clements, 1993). These findings support the idea that interventions that teach conflict management, communication skills training and the generally seek to improve relationship skills (see Holtzworth-Munroe, 2000) may be optimal for targeting IPV.

ePREP

The ePREP intervention was designed with the goal of maximizing flexibility in order to broaden the reach of prevention efforts and extend the benefits of relationship education. Initially derived from the Prevention and Relationship Enhancement program (PREP, Markman et al., 2010) and designed as a general premarital intervention, ePREP has been shown to reliably decrease IPV in a series of RCTs. In an initial RCT examining students in college dating relationships (Braithwaite & Fincham, 2007), ePREP participants experienced improvements in, among other things, IPV relative to an active placebo condition at an eight-week follow-up. This effect for IPV was replicated and extended to a 10-month follow-up in a second study (Braithwaite & Fincham, 2009); this study further showed that the positive effect of ePREP on IPV was not significantly attenuated if partners ended their relationship and began another one. Although these two studies on ePREP were promising, both were conducted with only one partner in the dyad. In a subsequent RCT, Braithwaite and Fincham (2011) delivered ePREP to dating couples; when ePREP was delivered to couples the effects of the intervention were more immediate and robust than when the intervention was delivered to individuals. Each of these studies on ePREP has been done with premarital dating/cohabiting relationships. It remains to be seen whether ePREP can effectively prevent IPV in the context of established marriages.

The present study seeks to extend previous research on the impact of ePREP on IPV by examining its effect in a sample of married couples from the community. Although the vast majority