

Social problem solving strategies and posttraumatic stress disorder in the aftermath of intimate partner violence[☆]



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ABSTRACT

Social factors are often associated with the development or maintenance of posttraumatic stress disorder (PTSD) in the aftermath of interpersonal traumas. However, social problem solving strategies have received little attention. The current study explored the role of social problem solving styles (i.e., rational approaches, impulsive/careless strategies, or avoidance strategies) as intermediary variables between abuse exposure and PTSD severity among intimate partner violence survivors. Avoidance problem solving served as an intermediating variable for the relationship between three types of abuse and PTSD severity. Rational and impulsive/careless strategies were not associated with abuse exposure. These findings extend the current understanding of social problem solving among interpersonal trauma survivors and are consistent with more general avoidance coping research. Future research might examine whether avoidance problem solving tends to evolve in the aftermath of trauma or whether it represents a longstanding risk factor for PTSD development.

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1. Introduction

Social factors are often central to risk and recovery models of Posttraumatic Stress Disorder (PTSD; Charuvastra & Cloitre, 2008). For instance, individuals exposed to interpersonal traumas (i.e., those involving the actions of another person) are at a greater risk of developing PTSD than those who have experienced other traumas (Frans, Rimmö, Åberg, & Fredrikson, 2005; Kessler, McGonagle, Zhao, & Nelson, 1994; Kessler et al., 2005; Kessler & Merikangas, 2004). However, this elevated risk is not always apparent immediately after the trauma, but instead can become salient months later (Shalev & Freedman, 2005), perhaps indicating unique social processes. For example, notable social factors in the development and maintenance of PTSD include social support (e.g., Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003), attachment styles (e.g., Scott & Babcock, 2010; Woodward et al., 2013),

unsupportive or negative social responses (Andrews, Brewin, & Rose, 2003), interpersonal conflicts (Zoellner, Foa, & Brigidi, 1999), and dysfunctional cognitions about the self and the world (e.g., Beck et al., 2013). Another interpersonal factor that may be important to post-trauma adjustment is social problem solving.

1.1. Social problem solving

Social problem solving refers to strategies employed to solve problems in everyday life and can be characterized as adaptive or maladaptive (D'Zurilla, Nezu, & Maydeu-Olivares, 1996). Adaptive problem solving, also known as rational problem solving, entails a systematic approach to problems such as defining the problem, generating solutions, and evaluating the outcome. On the other hand, maladaptive problem solving can include impulsive or careless styles that involve making a hurried decision without consideration of alternatives or avoidance of problem solving via procrastination, inaction, or waiting for someone else to solve the problem. Problem solving is not only important for psychological adjustment during stressful events (e.g., Bell & D'Zurilla, 2009), but is also salient among individuals who have endured extreme stressors (i.e., trauma survivors). For example, empirical reports document that individuals with PTSD including combat veterans (Nezu & Carnevale, 1987) and mixed trauma samples (Sutherland

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& Bryant, 2008) utilize more maladaptive social problem solving. Notably, similar conclusions can be drawn from the broader coping literature. That is, lesser use of adaptive problem solving strategies (i.e., engagement or active problem coping) and greater use maladaptive problem solving strategies (i.e., disengagement, avoidance, or passive coping) are associated with greater PTSD symptom severity (e.g., Arias & Pape, 1999; Dirkzwager, Bramsen, & van der Ploeg, 2003; Solomon, Mikulincer, & Flum, 1988; Stein et al., 2005).

Problem solving has been assessed using a wide array of measures, some of which are not grounded psychometrically (D'Zurilla & Maydeu-Olivares, 1995). This limitation has curtailed our understanding of the potential role that social problem solving plays following trauma exposure. The Social Problem-Solving Inventory (SPSI; D'Zurilla & Nezu, 1990) has emerged as a popular self-report measure of problem orientation and problem solving skills. A subsequent revision of the scale, the SPSI-revised (SPSI-R) focuses the measure based on examination of factor structure and cross-validation with multiple samples (Maydeu-Olivares & D'Zurilla, 1996). As such, the SPSI-R is empirically grounded, with several examinations of its psychometric properties (Yetter & Foutch, 2014; Wakeling, 2007). The SPSI-R has two dimensions: (1) problem orientation, which refers to one's motivation and attitudes towards problem solving, operationalized as positive versus negative problem orientation, and (2) specific problem solving styles, reflecting how individuals actually attempt to solve problems, operationalized as rational, impulsive/careless, and avoidant.

1.2. Problem solving and trauma

Given the salience of social processes in post-trauma recovery, it is possible that social problem solving strategies play an intermediary role in the relationship between trauma exposure and PTSD. With the exceptions noted above (i.e., Nezu & Carnevale, 1987; Sutherland & Bryant, 2008), PTSD has been examined more extensively in the general problem solving literature than the social problem solving literature. Regarding general problem solving strategies, one study to date has noted that that problem avoidance is negatively associated with all three DSM-IV PTSD symptom clusters (i.e., re-experiencing, avoidance/numbing, and arousal; Ullman, Townsend, Filipas, & Starzynski, 2007). Although preliminary, this report suggests that additional work is warranted, particularly among interpersonal trauma populations such as intimate partner violence (IPV) survivors. As noted, social processes are particularly notable among survivors of interpersonal trauma (Charuvastra & Cloitre, 2008). Some research has demonstrated general problem avoidance coping among abuse survivors (e.g., Leitenberg, Gibson, & Novy, 2004; Swan & Snow, 2003) and found that women who were exposed to greater levels of intimate partner abuse also report greater general problem avoidance coping (Sullivan, Meese, Swan, Mazure, & Snow, 2005). Not only is general problem avoidance coping associated with PTSD severity among IPV survivors (Street, Gibson, & Holohan, 2005), this form of coping following an abusive relationship was found to predict IPV-related PTSD one year later (Krause, Kaltman, Goodman, & Dutton, 2008). Although no previous research has examined the role of social forms of problem solving, one might imagine that social problem solving would be especially relevant in the aftermath of an interpersonal trauma such as IPV.

The experience of IPV is heterogeneous, however, and different forms of abuse may result in different post-trauma reactions. For example, physical abuse is uniquely associated with PTSD even after controlling for other forms of abuse (Babcock, Roseman, Green, & Ross, 2008). Similarly, findings consistently demonstrate a strong relationship between psychological abuse and PTSD regardless of the presence or absence of other forms of abuse (e.g.,

Mechanic, Weaver, & Resick, 2008; Street & Arias, 2001). Furthermore, Bennice, Resick, Mechanic, and Astin (2003) noted the unique contribution of sexual abuse to PTSD severity. As such, specific forms of abuse (i.e., physical, sexual, and psychological) may uniquely relate to the survivor's social and interpersonal reactions.

1.3. Aims and hypotheses

The aim of the current study was to examine the role of three social problem-solving styles (rational, impulsive/careless, and avoidant) as intermediary variables in the relationship between different forms of IPV (physical, sexual, and psychological) and PTSD severity. To our knowledge, no previous research has addressed this topic. It was hypothesized that avoidance social problem solving would play an intermediary role in the association between physical and sexual abuse and PTSD, based on the literature on more general avoidant coping styles. Psychological abuse has not been examined previously, as it is associated with avoidance social problem solving; therefore, this analysis was exploratory. In addition, rational and impulsive/careless problem solving styles have received little attention in the PTSD literature and these analyses were regarded as exploratory as well.

2. Method

2.1. Participants

The sample included women who had experienced IPV and were seeking mental health assessment and possible treatment from a university-based research clinic. Participants were recruited from churches, advocacy centers, health fairs, community centers, and local college campuses. Women qualified for inclusion in the study sample if they met Criterion A for PTSD as defined by the DSM-IV (American Psychiatric Association, 2000; see IPV interview below). Exclusion criteria included psychotic symptoms ($n=7$), evidence of cognitive impairment ($n=8$), inconsistent reporting ($n=3$), or incomplete data ($n=74$). The final sample of this study included 105 women.

The average age of the participants was 36.94 years ($SD=12.68$ years). The majority of the participants were Caucasian (50.5%) and African American (39.0%). Educational levels ranged from high school to completed graduate training, with the majority (45.7%) reporting some college education. Table 1 includes further descriptive information.

2.2. Measures

2.2.1. IPV interview

A semi-structured interview was used to determine whether a participant's IPV satisfied Criteria A1 and A2 of the DSM-IV definition of PTSD. Criterion A was assessed by inquiring whether the survivor reported experiencing, witnessing, or being confronted with an event that could impose threat of death, serious injury, or threat to physical integrity to oneself or others (A1) that was accompanied by feelings of intense fear, helplessness, or horror (A2) (American Psychiatric Association, 2000). Developed by the last author, this interview consists of a series of questions about physical, sexual, and emotional abuse that may have been experienced from romantic partners as well as specific queries about emotional responses experienced during abuse. Emotional responses were made on a Likert scale ranging from *not at all* (0) to *extreme* (100). Consistent with previous research (Beck et al., 2004), a rating of 50 or above was used to determine whether or not Criterion A2 was met.

Table 1
Description of the sample.

| | N | % |
|---|----|------|
| Type of abuse experienced (provoked by partner) | | |
| Physical, sexual, and psychological abuse | 58 | 55.2 |
| Physical and psychological abuse | 39 | 37.1 |
| Sexual and psychological abuse | 3 | 2.9 |
| Physical and sexual abuse | 1 | 1.0 |
| Emotional abuse only | 2 | 1.9 |
| Sexual abuse only | 1 | 1.0 |
| Physical abuse only | 1 | 1.0 |
| Race | | |
| Caucasian | 53 | 50.5 |
| African American | 41 | 39.0 |
| Hispanic | 2 | 1.9 |
| Asian | 2 | 1.9 |
| African | 1 | 1.0 |
| Bi-racial | 5 | 4.8 |
| Did not respond | 1 | 1.0 |
| Educational background | | |
| Elementary | 2 | 1.9 |
| High school | 12 | 11.4 |
| Some college | 48 | 45.7 |
| 2-year degree | 7 | 6.7 |
| 4-year degree | 13 | 12.4 |
| Some graduate | 8 | 7.6 |
| Graduate degree | 15 | 14.3 |
| Reported annual household income | | |
| Below \$10,000 | 19 | 18.1 |
| \$10,000 to \$20,000 | 26 | 24.8 |
| \$20,000 to \$30,000 | 13 | 12.4 |
| \$30,000 to \$50,000 | 14 | 13.3 |
| Over \$50,000 | 19 | 18.1 |
| Declined to respond | 14 | 13.3 |

2.2.2. Revised conflict tactic scales (CTS-2)

Physical and sexual abuse during the participants' worst abusive relationship were measured using the revised conflict tactic scales (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS-2 is a widely used 78-item questionnaire that asks participants if, during the past year, they experienced various situations in a romantic relationship that are considered abuse (i.e., "I had a sprain, bruise, or small cut because of a fight with my partner") as well as those that are not (i.e., "my partner showed care for me even though we disagreed"). Each experience is scored on a Likert-type scale ranging from *this has never happened* (0) to *more than 20 times in the past year* (6). To measure violence that occurred previous to the 1-year time frame, the CTS-2 provides a secondary rating of *not in the past year, but it did happen before* (7). For the purposes of this study, these items were scored as a zero for never experienced and one for ever experienced and then summed together for the two subscales: physical and sexual. Straus et al. (1996) found preliminary internal consistencies of the CTS-2 ranged from .79 to .95. Since the original study, evidence of reliability and validity has been noted across a number of studies (for reviews see Straus, 2012; Straus & Douglas, 2004). Internal consistency of the CTS-2 in the present sample was high for both physical abuse ($\alpha = .85$) and sexual abuse ($\alpha = .81$).

2.2.3. Psychological maltreatment of women inventory-short form (PMWI-SF)

To assess psychological abuse, the psychological maltreatment of women inventory-short form (PMWI-SF; Tolman, 1999) was used instead of the CTS-2 psychological abuse subscale. The PMWI-SF is a 14-item scale that asks participants to indicate how often psychological abuse occurred within their worst relationship. The PMWI is a more sensitive measure of psychological abuse relative to the CTS-2 psychological abuse subscale. Specifically, the PMWI has two subscales: dominance and isolation (e.g., "My partner monitored my time and made me account for my whereabouts") and

verbal abuse (e.g., "My partner called me names"). Ratings were made on a scale from *never* (1) to *very frequently* (5), with "not applicable" as a potential response. The dominance/isolation subscale and the verbal/emotional subscale have each demonstrated good internal consistency in previous research ($\alpha = .88$ and $.92$, respectively), which was found with the current sample as well ($\alpha = .89$ and $.94$, respectively).

2.2.4. Social problem-solving inventory-revised (SPSI-R)

Social problem-solving was measured using the 45-item social problem-solving inventory-revised, which contains 5 subscales. For the purposes of this study the three social problem-solving strategies subscales were used: rational, impulsive/careless, and avoidant (SPSI-R; D'Zurilla et al., 1996). The rational subscale contains items such as "when I am attempting to solve a problem, I try to be creative and think of new or original solutions," whereas the impulsive subscale contains items such as "when I am attempting to solve a problem, I act on the first idea that occurs to me" and the avoidant subscale contains items such as "I want to see if a problem will resolve itself first, before trying to solve it myself" and "I spend more time avoiding my problems than solving them." Ratings for this questionnaire are based on a Likert scale ranging from *not at all true of me* (0) to *extremely true of me* (4). Higher scores on the avoidance subscale reflect greater levels of avoidance coping. D'Zurilla et al. (1996) reported evidence that the SPSI-R is a reliable instrument (range .68 to .91). Consistent with previous research, the rational, impulsive, and avoidant subscales each demonstrated good internal consistency ($\alpha = .87$, $.88$, and $.85$, respectively).

2.2.5. Clinician administered PTSD scale (CAPS)

The clinician administered PTSD Scale (CAPS; Blake et al., 1990) was administered to assess IPV-related PTSD. The CAPS is a widely used semi-structured clinical interview assessing each of the 17 symptoms of PTSD as defined in the DSM-IV. Interviewers rate both the frequency of symptoms from 0 (the symptom does not occur) to 4 (the symptom occurs nearly every day) and the intensity of symptoms from 0 (not distressing) to 4 (extremely distressing). The total CAPS score is computed by adding frequency and intensity ratings for each symptom and summing these values, which reflects the overall severity of PTSD; possible scores range from 0 to 136. Numerous studies have provided evidence of reliability and validity for this assessment (for reviews, see Orsillo, 2001; Weathers, Keane, & Davidson, 2001).

All interviews were videotaped and 35% of the total sample was randomly selected for review by a second rater. Inter-rater agreement in the current sample was high (ICC = .95). Discrepancies were resolved by consensus.

2.3. Procedure

Following provision of informed consent, participants were administered the IPV interview and the CAPS by a clinical psychologist or an advanced graduate student. Participants then completed a packet of questionnaires, which included the SPSI-R, CTS-2, and PMWI. Once the assessment was complete, participants were given feedback on the results of their assessment and provided with referrals to mental health services in the community if appropriate. The Institutional Review Board approved all procedures.

2.4. Data analytic procedures

Following guidelines provided by Tabachnick and Fidell (2007), data were first examined for skew, kurtosis, and outliers. The CTS-2 physical abuse and the PMWI dominance/isolation subscale were significantly negatively skewed and transformed using the square root function. The PMWI verbal abuse subscale was

Table 2
Descriptive statistics and correlations.

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | M | SD |
|-------------------------|-------|-------|-------|-------|-------|--------|-------|-------|-------|
| 1. CAPS | | | | | | | | 27.89 | 21.47 |
| 2. CTS-2 physical | .30** | | | | | | | 7.80 | 3.03 |
| 3. CTS-2 sexual | .23* | .45** | | | | | | 3.37 | 2.32 |
| 4. Domination/isolation | .11 | .32** | .26* | | | | | 24.62 | 9.15 |
| 5. Verbal/emotional | .21* | .36** | .27** | .76** | | | | 28.12 | 8.94 |
| 6. SPSI-R rational | -.07 | -.16 | -.08 | -.10 | -.16 | | | 44.87 | 17.16 |
| 7. SPSI-R impulsive | .20* | .11 | .11 | .04 | .13 | -.48** | | 10.53 | 8.03 |
| 8. SPSI-R avoidance | .29** | .28** | .34** | .21* | .26** | -.45** | .61** | 10.18 | 6.64 |

Note. CAPS = clinician administered PTSD scale; CTS-2 = conflict tactic scale 2; SPSI-R = social problem-solving inventory revised.

* $p < .05$.

** $p < .01$.

also significantly negatively skewed and was corrected using the logarithm transformation. The SPSI-R avoidance social problem solving strategy subscale was significantly positively skewed and was transformed using the square root function. All analyses were conducted with the transformed variables but for the ease of interpretation, means and standard deviations are reported in raw form and signs affected by inverse transformations were changed to reflect the accurate relationship. Descriptive statistics and correlations are included in Table 2.

Separate analyses were performed examining the intermediary role of each social problem solving strategy for the association between each form of IPV and PTSD. Given the current state of the research literature, this approach allows for examination of exploratory hypotheses separately from hypotheses that are grounded in available literature. Following the guidelines by Baron and Kenny (1986), regression models were first utilized to establish whether there was a relationship between the predictors (i.e., abuse exposure) and the outcome variable (i.e., PTSD severity). After this relationship was established, a second step was to demonstrate a relationship between the predictor (abuse exposure) and the intermediary variable (social problem solving style). Next, the relationship between the intermediary variable (social problem solving style) and the outcome variable (PTSD severity) was examined; this relationship was then further tested by controlling for the effects of the predictor variable (i.e., abuse). Follow up tests of the indirect path were conducted using the Sobel (1982) test.

3. Results

As can be seen in Table 2, analyses revealed that rational and impulsive/careless social problem solving styles were not significantly associated with any form of abuse exposure (i.e., physical, sexual, verbal/emotional, dominance/isolation; all $ps > .05$). Because a significant relationship between the predictor and intermediary variable is necessary for the model, no additional analyses were performed for rational or impulsive/careless social problem solving. Therefore, analyses were conducted examining the intermediary role of avoidance social problem solving only.

3.1. Physical abuse

A regression model revealed a significant direct effect for physical abuse and PTSD such that higher levels of physical abuse exposure were associated with more severe PTSD, $B = 9.80$, $\beta = .30$, $p = .002$. Physical abuse also was significantly associated with avoidance problem solving, $B = .47$, $\beta = .28$, $p = .004$. As well, avoidance problem solving was significantly associated with PTSD, $B = 5.68$, $\beta = .29$, $p = .003$. When controlling for physical abuse, avoidance problem solving remained a significantly predictor of PTSD, $B = 7.76$, $\beta = .24$, $p = .02$; in addition, the direct effect of physical abuse on

PTSD, controlling for avoidance problem solving also remained statistically significant, $B = 4.39$, $\beta = .23$, $p = .02$. The Sobel test revealed a statistically significant indirect effect, $z = 2.14$, $p = .03$ (see Fig. 1a), suggesting that avoidance problem solving partially intermediated the relationship between physical abuse and PTSD.

3.2. Sexual abuse

A regression model revealed a significant direct effect for sexual abuse and PTSD such that higher levels of sexual abuse exposure were associated with more severe PTSD, $B = 2.08$, $\beta = .23$, $p = .02$. Sexual abuse also showed a significant association with avoidance problem solving, $B = .16$, $\beta = .34$, $p < .001$. Avoidance problem solving was significantly associated with PTSD, $B = 5.68$, $\beta = .29$, $p = .003$. When controlling for sexual abuse, avoidance problem solving remained a significantly predictor of PTSD, $B = 4.51$, $\beta = .24$, $p = .02$; whereas the direct effect of sexual abuse on PTSD, controlling for avoidance problem solving was no longer statistically significant,

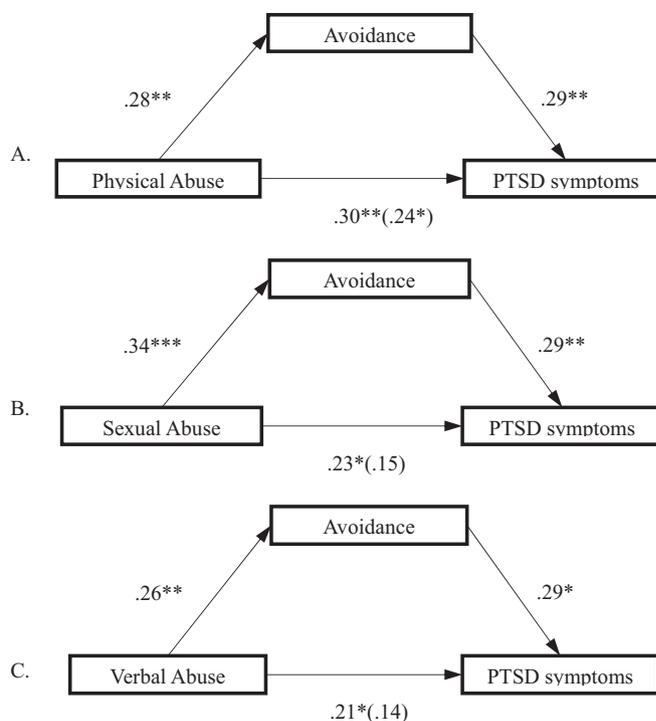


Fig. 1. Standardized regression coefficients for the relationship between verbal abuse and PTSD as mediated by social problem avoidance coping. The standardized regression coefficient between abuse and PTSD controlling for avoidance coping is shown in parentheses. * $p < .05$. ** $p < .01$.

$B = 1.36$, $\beta = .15$, $p = .1$. The Sobel test revealed a statistically significant indirect effect, $z = 2.36$, $p = .02$ (see Fig. 1b). This pattern of results suggests that avoidance problem solving fully intermediated the relationship between sexual abuse and PTSD.

3.3. Dominance/isolation

A regression model testing the direct effect of dominance/isolation on PTSD failed to reach statistical significance, $B = 1.68$, $\beta = .11$, $p = .3$.

3.4. Verbal/emotional

A regression model revealed a significant direct effect for verbal/emotional abuse and PTSD such that higher levels of verbal/emotional abuse exposure were associated with more severe PTSD, $B = 8.82$, $\beta = .21$, $p = .03$. Verbal/emotional abuse also was significantly associated with avoidance problem solving, $B = .56$, $\beta = .26$, $p = .008$. Avoidance problem solving was significantly associated with PTSD, $B = 5.68$, $\beta = .29$, $p = .003$. When controlling for verbal/emotional abuse, avoidance problem solving remained a significant predictor of PTSD, $B = 5.25$, $\beta = .27$, $p = .007$; whereas the direct effect of verbal/emotional abuse on PTSD, controlling for avoidance problem solving was no longer statistically significant, $B = 5.90$, $\beta = .14$, $p = .2$. The Sobel test revealed a statistically significant indirect effect, $z = 2.03$, $p = .04$ (see Fig. 1c). This pattern of results suggests that avoidance problem solving fully intermediated the relationship between verbal abuse and PTSD.

4. Discussion

The current study explored the role of social problem solving styles as an intermediary variable in the association between different forms of IPV and PTSD. Although rational and impulsive/careless social problem solving were not significantly associated with abuse exposure, avoidance problem solving was found to serve as an intermediary factor between physical, sexual, and verbal/emotional abuse and PTSD. Specifically, the relationship between physical abuse exposure and PTSD severity was partially intermediated by avoidance problem solving. Additionally, avoidance problem solving also fully intermediated the relationship between sexual abuse exposure, as well as verbal/emotional abuse and PTSD severity. Domination/isolation abuse was not reliably associated with PTSD severity.

These findings indicate the importance of avoidance problem solving for PTSD in the aftermath of IPV. This is consistent with research examining more general avoidant coping styles among IPV (e.g., Arias & Pape, 1999; Krause et al., 2008; Street et al., 2005) and childhood abuse survivors (e.g., Leitenberg et al., 2004; Sullivan et al., 2005). For example, in a sample of IPV survivors in shelters, Krause et al. (2008) found that general avoidance coping such as wishful-thinking, denial, and disengagement were predictive of PTSD symptoms severity a year later. Additionally, the current study expanded on earlier findings by demonstrating the intermediary relationship of avoidance problem solving between different types of abuse exposure and PTSD. These findings suggest that avoidance in the aftermath of trauma (in this case, IPV) may serve as a coping mechanism that eventually becomes dysfunctional and exacerbates PTSD symptoms.

Interestingly, avoidance problem solving appeared to uniquely account for the abuse-PTSD relationship, as rational and impulsive problem solving strategies were not significantly associated with physical, sexual, or emotional abuse IPV. Although recent discussion of resiliency suggests that rational social problem solving could buffer against the lingering effects of specific forms of IPV

(e.g., Zoellner & Feeny, 2014), the current report did not support this speculation. In thinking about social processes that impact psychological adjustment following interpersonal trauma, it is notable that many identified processes represent factors that appear to increase risk for PTSD rather than facilitate resilience (e.g., negative social responses, interpersonal conflict, high levels of attachment dependency). Ideally, continued work on interpersonal processes following the experience of trauma can begin to identify social processes that facilitate resilience.

The current report suggests that generalized patterns of avoidance should be examined for their contribution to impairment among individuals with PTSD symptoms. Although PTSD contains a cluster of avoidance symptoms, the current data suggest that other forms of avoidance are salient following trauma and may maintain PTSD proper. In the current report, we were careful to rely on a measure of social problem solving that has psychometric support, including evidence of its construct validation. The current results imply that avoidance of efforts to address every-day problems is associated with higher levels of PTSD. It would seem useful to examine other aspects of generalized avoidance for their association with PTSD, in an effort to delineate the sphere of influence that avoidance may play in the lives of patients with PTSD.

Moreover, future studies might explore the development, interpersonal dynamics, and coping resources associated with social problem solving styles among IPV survivors. For instance, future work might examine whether avoidance problem solving is a survival strategy developed during the abusive relationship (as more active forms of coping may be met with immediate abusive responses from the partner) or if it represents a longstanding problem solving approach. Additionally, future research should examine other interpersonal factors as they relate to avoidance problem solving in the aftermath of interpersonal trauma. For example, there might be interplay between avoidance problem solving and negative social reactions, interpersonal conflicts, or social cognitions. Furthermore, future research might examine the role of avoidance problem solving as it relates to help seeking including assistance from agencies and mental health providers in the aftermath of IPV.

4.1. Limitations

As is true of all research, the current study has a number of limitations. Given the relatively small sample size of 105 participants (Fritz & MacKinnon, 2007), future replication of these results may be needed. In addition, the current study utilized cross-sectional data. Although there is some evidence in the IPV literature that general problem avoidance precedes PTSD symptoms a year later (Krause et al., 2008), the current data did not allow for a test of true mediation involving time precedence. In addition, the sample was limited to help-seeking female IPV survivors and may not generalize to females who are not seeking help, male IPV survivors, or other trauma populations. Nevertheless, the current study may be helpful for future efforts to serve interpersonal trauma survivors. For example, treatments for PTSD sometimes include problem solving skill components (e.g., Ford, Steinberg, & Zhang, 2011). The current findings lend some conceptual support for this approach to intervention. Further work is needed to determine if social problem solving skill development is, in fact, an effective mechanism of these treatments.

5. Conclusions

In sum, social problem solving styles, specifically avoidance problem solving, appears to explain some the association between IPV trauma exposure (physical, sexual, and verbal abuse) and

PTSD severity. These findings are consistent with the broader literature examining avoidance coping. However, to our knowledge, this study is the first to examine social problem solving as an intermediary variable between trauma exposure and PTSD in an interpersonal trauma population. Further work in this area might illuminate potential points of intervention for interpersonal trauma survivors suffering from PTSD.

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