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Correlates of Readiness to Change in Victims of Intimate Partner Violence

Nicole L. Johnson and

Department of Psychology, University of Akron

Dawn M. Johnson

Department of Psychology, University of Akron

Abstract

Intimate partner violence (IPV) is a social problem associated with significant morbidity; however, victims don't always utilize treatment and resources. One's readiness to change may be one variable impacting their pursuit of treatment and other resources. The current study investigated correlates of readiness to change, and readiness to change's impact on treatment utilization. Data was collected from 223 women residing in battered women's shelters. Correlational analyses find that generally victims with more psychopathology and distress, as well as more social support, were more ready to change. PTSD symptoms, overall distress, and social support were the strongest predictors of readiness to change. Finally, victims higher in readiness to change were more likely to seek mental health treatment and other IPV-related services.

Keywords

PTSD; social support; treatment seeking; stages of change

Intimate partner violence (IPV) is a significant problem in the United States with a reported 1 in 3 women experiencing IPV in their lifetime (Centers for Disease Control and Prevention [CDC], 2011). IPV has been linked to a number of health problems (Deykin et al., 2001), and in the psychological realm, IPV has been linked to the development of post-traumatic stress disorder (PTSD), depression, and substance use dependence (SUD; Coker et al., 2002). Due to these common experiences, mental health treatment is important for victims of IPV; however, victims may not always seek the treatment they need (Johnson & Zlotnick, 2007). A victim's stage of change, or readiness to change, may be one variable impacting their pursuit of treatment and other pertinent resources.

Readiness to Change

The concept of readiness to change was devised from Prochaska, DiClemente, and Norcross' (1992) Stages of Change Model which proposes that individuals pass through a series of phases before any long standing change is achieved. Prochaska and colleagues identified five stages: precontemplation, contemplation, preparation, action, and maintenance. Precontemplation is characterized by a lack of awareness of a problem. Individuals may have no desire to change or they may feel that they are not capable of changing (Prochaska & Norcross, 2001). In contemplation, individuals tend to acknowledge that they have a problem, but are not yet committed to overcoming said problem.

Preparation, is sometimes referred to as the decision making stage; at this point individuals have decided to, or begun to, make small changes. Next, is the action stage, this is the time when change is most noticeable. While in this stage individuals are actively altering their behavior. The final stage is referred to as the maintenance stage. The main purpose of this stage is to prevent relapse, which is common throughout the process of change.

Prochaska and colleagues (1992) suggest that one's level of readiness to change will impact their progress in treatment as well as their likelihood of seeking treatment and other resources. Traditionally, readiness to change has been investigated in populations seeking treatment for addiction (i.e., substance use, smoking cessation, and eating behavior). In these populations, readiness to change has been examined as a predictor of treatment outcome and retention. Consistently, readiness to change has been positively related to treatment outcome, with higher readiness to change at the beginning of treatment leading to more improvement at the resolution of treatment (DiClemente & Prochaska, 1998; Project MATCH Research Group, 1997; Wolk & Devlin, 2001). Also, matching treatment to one's stage of change has been investigated in addiction populations, with research demonstrating that matching to stage of change leads to improved treatment outcome. Additionally, research has demonstrated that those with higher levels of readiness to change tend to attend treatment more regularly, and have lower dropout rates than those with lower levels of readiness to change (Project MATCH Research Group, 1997). While research demonstrates that people in treatment do better when they have higher levels of readiness to change; research has yet to investigate whether people with higher levels of readiness to change are more likely to utilize treatment and other resources.

A handful of studies have also investigated factors that may influence an individual's readiness to change. To date, research has primarily focused on depression's impact on readiness to change (Blume, Schmalings, & Marlat, 2001; Smith & Tran, 2007; Vik, Culbertson, & Sellers, 2000). Researchers have found that those with higher levels of depression are more ready to change their substance use behavior (Blume et al., 2001; Smith & Tran, 2007; Vik et al., 2000). Smith and Tran (2007) were the first to investigate the influence of anxiety on readiness to change and found anxiety to be a stronger predictor than depression on level of readiness to change. This finding highlights the importance of examining anxiety and other mental health variables in addiction populations as well as other populations where readiness may be an important factor.

Readiness to Change and IPV

Although the majority of research on readiness to change has been conducted with addiction populations; recently the construct of readiness to change has been applied to a variety of different populations including individuals with severe mental illness (DiClemente, Nidecker, & Bellack, 2008), couples in treatment (Schneider, 2003), youth with mental health problems (Cocozza & Skowrya, 2000), and victims (Edwards et al., 2006) and perpetrators of IPV (Babcock, Canady, Senior, & Eckhardt, 2005). To date, three studies have assessed readiness to change in victims of IPV using standardized measures of readiness to change (Alexander, Tracey, Radek, & Koverola, 2009; Bliss, Ogley-Oliver, Jackson, Sharp, & Kaslow, 2008; Edwards et al., 2006). Alexander et al. (2009) found that women's experience of violence was not related to their stage of change.

Research also found that victims of IPV who were experiencing more psychiatric symptoms and distress were more ready to change (higher symptoms of PTSD, increased violence severity, and increased substance use; Bliss et al., 2008; higher symptoms of PTSD, and depression; Edwards et al., 2006). Although these findings add to the literature, the populations of these studies were very narrow. For example, Bliss et al. (2008) and Edwards

et al. (2006) solely focused on treatment seeking African American women. While this is an important population to examine due to the high prevalence of IPV in African American women (Bliss et al., 2008; Edwards et al., 2006), IPV is experienced in high rates by women of all races. Therefore, research with a broader range of victims is warranted.

In addition to symptom severity, social support has been examined as a factor impacting readiness to change in victims of IPV. However, current literature on social support's role in predicting readiness to change in victims of IPV has again been inconsistent (Alexander et al., 2009; Bliss et al., 2008). Alexander et al. (2009) found satisfaction with social support to be associated with lower stages of change in victims of IPV; whereas, Bliss et al. (2008) found no relationship between perceived social support and readiness for change. Alexander et al. (2009) argued that social support could be a motivator, or resource, to help women leave their abusive partner and achieve safety; however, it could also be a deterrent to change. Social support may decrease women's likelihood of change if their supports encourage them to stay with their abuser. Due to the strong base of literature demonstrating the positive role of social support for victims of IPV (Taylor, 2003; Waldrop & Resick, 2004) and the inconsistent results, it is important to further investigation the role of social support on readiness to change in victims of IPV.

Treatment Utilization and IPV

Because a majority of the literature on readiness to change is in treatment seeking populations, little is known about whether readiness to change is actually related to treatment or resource utilization. In research comparing victims of IPV to non-victims, it appears that victims utilize treatment more frequently than non-victims (Bergman & Brismar, 1991; Deykin et al., 2001; Rivara et al., 2007). On the other hand, research examining treatment utilization in victims of IPV found the majority of IPV victims do not utilize mental health resources, in spite of the presence of significant psychopathology (Johnson & Zlotnick, 2007). Thus, research investigating factors related to treatment and resource utilization in IPV victims is sorely needed.

Current Study

While literature on the stages of change model has been expanding, its application to victims of IPV has only been minimally investigated. The current research has two aims with the first aim being to investigate what factors influence a victim of IPV's readiness to change. The current study extends the literature by investigating a wide range of factors (i.e., violence, PTSD, depression, SUD, and overall distress) that may influence readiness to change in a diverse sample of women residing in battered women's shelters. Consistent with previous literature (Alexander et al., 2009; Bliss et al., 2008; Edwards et al., 2006), a validated measure of readiness to change will be used to examine these questions. Based on previous literature (Bliss et al., 2008; Edwards et al., 2006), we predict that victims of IPV with more distress and severe symptoms (violence, PTSD, depression, SUD, overall distress) will report more readiness to change. Further, social support has been purposed as a correlate of readiness to change in victims of IPV (Alexander et al., 2009; Bliss et al., 2008); however, results of research on the relationship between readiness to change and social support is inconclusive. Consistent with the hypotheses of previous literature (Alexander et al., 2009; Bliss et al., 2008), we predict that victims of IPV with more frequent social support will be more ready to change than those with less frequent social support.

Our second research aim is to investigate the effect of one's readiness to change on their utilization of mental health and other IPV-related resources, a relationship that has yet to be explored in IPV or other populations. Given the research demonstrating the positive impact of readiness to change on treatment outcome (DiClemente & Prochaska, 1998; Project

MATCH Research Group, 1997; Wolk & Devlin, 2001), we predict that individuals higher on readiness to change will be more likely to utilize mental health treatment and IPV-related resources.

Method

Participants

Data was collected from 228 residents of battered women's shelters. On average, women were in a shelter for two and half weeks prior to being assessed ($M = 17.25$, $SD = 15.23$). Due to missing data on integral study variables, five women were not included in subsequent analyses. Of the remaining 223 participants, ages ranged from 18-64 with a mean age of 35. The majority of the women were African American (48.4%) or White (41.7%) and the remaining were of another ethnicity (9.7%). The majority (75.8%) of women had at least one child, with a mean of 2.41. Most women were unemployed (74%) and many (59.6%) received government assistance. Additional demographic information can be found in Table 1.

Procedure

Participants were recruited from two battered women's shelters within the same shelter system in the Midwest between 2003 and 2007. Residents of the shelters were invited to complete an interview if their responses to the Conflict Tactics Scale 2 (CTS2; Straus, Hamby, McCoy, & Sugarman, 1996; see below) were indicative of an incident of abuse by an intimate partner in the month prior to shelter admission. All interviews were conducted in a private room in the shelter. Prior to recruitment all procedures were approved by the Institutional Review Board (IRB) and all participants signed an informed consent document. Interviewers were trained graduate students under the supervision of a licensed psychologist. Sullivan and Cain's (2004) safety procedures were followed in order to assure the safety of both interviewers and participants.

Measures

Readiness for change—The University of Rhode Island Change Assessment-Long Form (URICA; McConaughy, Prochaska, & Velicer, 1983) was used to assess the stages of change model in the current sample. The URICA is 32-item self-report questionnaire rated on a 5-point Likert scale (1 - *strongly disagree* to 5 - *strongly agree*). The scale is separated into four subscales: precontemplation (e.g., "As far as I'm concerned, I don't have any problems that need changing), contemplation (e.g., "I think I might be ready for some self-improvement"), action (e.g., "I am doing something about the problems that have been bothering me"), and maintenance (e.g., "It worries me that I might slip back on a problem I have already changed, so I am here to seek help). The contemplation, action, and maintenance subscales are then summed and the precontemplation subscale is subtracted from this summation resulting in an overall readiness for change score (possible range = -16 to 112). Internal consistency has been established for the URICA with reports ranging from .64 to .84 (Edwards et al., 2006). In our sample, the Cronbach's alpha was .74.

Violence severity—The Revised Conflict Tactics Scale (CTS2; Straus et al., 1996) is a 78-item self-report measure that assesses frequency of IPV. The CTS2 was used to assess the frequency of IPV in the month prior to entering the shelter. Frequencies of violent behaviors were rated on a 7-point Likert scale (0 - *this never happened before* to 6 - *more than 20 times in the past month*). Sample questions include "My partner threw something at me that could hurt" and "My partner called me fat or ugly." Violence severity was calculated by summing the number of types of abusive behaviors reported (Regan, Bartholomew, Kwong, Trinke, & Henderson, 2006). Discriminant validity was established

for the CTS2 by comparing theoretically unrelated subscales, the sexual coercion, and the injury scales to the negotiation scale (r^2 's < .05; Straus et al., 1996). Reliability has also been established for the CTS2 with alphas ranging from .79 to .95 (Straus et al., 1996). Excellent reliability was established for the current sample ($\alpha = .91$).

PTSD severity—The Clinician Administered PTSD Scale (CAPS; Blake et al., 1995) was used to assess severity of IPV-related PTSD. The CAPS is a 30-item semi-structured clinical interview used to assess the diagnostic criteria of PTSD over the past week. Frequency was assessed on a 5-point Likert scale (0 - *never* to 4 - *almost every day*). Symptom intensity was rated on a 5-point Likert scale as well, ranging from *absent* (0) to *extreme* (4). PTSD severity was calculated by summing the frequency and intensity score associated with re-experiencing (“Have you ever had unwanted memories of an event?”), avoidance (“Have there been times when you felt emotionally numb?”), and arousal (“Have you had any problems falling or staying asleep?”) criteria. Higher scores demonstrate greater symptom severity. The CAPS has demonstrated good internal reliability with α 's ranging from .73 to .85 (Blake et al., 1995). Concurrent validity has also been established with other empirically validated measures of PTSD. Inter-rater reliability was established using 21 randomly selected interviews in the current study ($\kappa = .83$). Finally, excellent reliability was also obtained ($\alpha = .96$).

Depression severity—The Beck Depression Inventory (BDI; Beck, Steer, & Garbin 1988) was used to assess depression symptom severity. The BDI is a 21-item self-report assessment measuring depressive symptoms over the past week. Items are rated on a 4-point Likert scale from 0 (e.g., I do not feel sad) to 3 (e.g., I am so sad or unhappy that I can't stand it). The BDI was summed resulting in an overall depression severity score ranging from 0 to 60. Internal consistency has been established for the BDI with scores ranging from .73 to .92 (Beck et al., 1988). Various forms of validity including criterion, content, and discriminant have also been established for the BDI. The current sample demonstrated a Cronbach's alpha of .88.

Substance use dependence—Current Substance Dependence was assessed using the Substance Use module of the Structured Clinical Interview for the *DSM-IV* Axis I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1997). The SCID-I assesses the seven diagnostic criteria for substance dependence in accordance with the *DSM-IV-TR* (American Psychiatric Association, 2000). Interviewers rate each item on a 3-point Likert scale (1 - *absent or false* to 3 - *threshold or true*). Participants were diagnosed with SUD if they were assigned a 3 for at least three items on the SCID-I. Participants were scored 0 for no SUD and 1 for SUD. Lobbetael, Leurgans, and Arntz (2011) found fair inter-rater reliability for alcohol dependence ($\alpha = .65$) and excellent inter-rate reliability for drug dependence ($\alpha = .77$). The SCID-I is a hallmark interview for assessing Axis I diagnoses and has established reliability and validity (Lobbetael et al., 2011).

Overall distress—The General Severity Index (GSI) of the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was given in order to assess participants' global distress associated with psychological symptoms over the past week. The BSI is 53-item self-report questionnaire that measures various domains of psychiatric distress (e.g., depression, anxiety, psychoticism). Items are scored on a 5-point Likert scale (0 - *not at all* to 4 - *extremely*). Sample questions include: “For the past week how often have you been suddenly scared for no reason?” and “In the past week how often have you been bothered by nervousness or shakiness?” Distress is calculated by combining the psychiatric symptoms endorsed, as well as their reported concern associated with these symptoms. Derogatis and Melisaratos (1983) assessed internal consistency for each of the symptom domains. Internal

consistency ranged from .71 to .85. Test re-test reliability was also determined, ranging from .68 to .91. The BSI also demonstrated validity for all domains (Derogatis & Melisaratos, 1983). Internal consistency of the GSI was excellent in the current sample ($\alpha = .97$).

Social support—To assess one's perceived frequency of social support from others, the Inventory of Socially Support Behaviors (ISSB; Barrera, Sandler, & Ramsay, 1981) was administered. The ISSB is a 40-item self-report questionnaire. Participants' responded using a 5-point Likert scale (1 - *not at all this month* to 5 - *about every day*) in regards to their perceived social support over the past month. Sample questions include: "Looked after a family member when you were away" and "Told you that you are OK just the way you are." The ISSB was summed resulting in scores ranging from 40 to 200. Barrera et al. (1981) established internal consistency for the ISSB ($\alpha = .93$). Excellent internal consistency was established for the current sample ($\alpha = .95$).

Mental health treatment utilization—One's involvement in mental health treatment in the past 6 months was measured using an interview adapted from the treatment utilization section of the Longitudinal Interval Follow-up Evaluation (LIFE; Keller et al., 1987). The LIFE has established high inter-rater reliability ranging from .70 to .90 (Keller et al., 1987). Participants responded yes or no to involvement in therapy, psychiatric hospitalization, and/or psychiatric medication. In the current study, participants were coded as receiving mental health treatment in the last 6 months if they responded yes to receiving psychiatric medication, psychiatric hospitalization, and/or mental health counseling.

Use of community resources—An individual's use of community resources was assessed with the Effectiveness in Obtaining Resources scale (EOR; Sullivan & Bybee, 1999). The EOR is a semi-structured interview that asks participants to indicate if they have used specific types of community resources since coming to a shelter as well as to rate their perceived effectiveness of their use of these resources. The EOR assesses resource use in 11 areas (i.e., housing, material goods and services, education, employment, health care, child care, transportation, social support, legal assistance, financial issues, and issues regarding children). For the purposes of this study, the number of types of resources individuals reported using on the EOR were summed to determine the number of community resources participants accessed since coming to a shelter.

Data Analyses—In order to address our first aim, correlates of readiness to change, Pearson correlational analyses were conducted to examine the relationship between violence, PTSD, depression severities, overall distress, frequency of social support, and readiness to change. A t-test was conducted to examine if readiness to change significantly differed between those with substance dependence and those without. A step-wise regression was employed to examine which variables were the strongest predictors of readiness to change in victims of IPV. To examine our second aim two separate analyses were run. An independent t-test was conducted examining mean differences on readiness to change between women involved in mental health treatment and women not involved. Finally, a Pearson correlational analysis was conducted to investigate the relationship between readiness to change and the number of community resources one used.

Results

Aim 1

Results of correlational analyses demonstrated significant positive relationships between readiness to change and violence severity, PTSD severity, depression severity, overall

distress, and perceived frequency of social support (see Table 2). Specifically, higher levels of violence, PTSD symptoms, depression symptoms, overall distress, and frequency of social support were associated with higher levels of readiness to change. The t-test comparing participants with current substance dependence to those with no history of substance dependence on readiness to change was significant, $t(221) = -2.54, p < .05$, with those with substance dependence ($M = 85.68, SD = 15.58$) scoring higher on readiness to change than those without substance dependence ($M = 78.22, SD = 12.82$). To determine the variables most strongly associated with readiness to change, all significant predictors were entered into a step-wise regression (i.e., violence severity, PTSD severity, depression severity, overall distress, frequency of social support, and substance dependence dummy coded) with level of readiness to change as the dependent variable. Three variables remained in the model (overall distress, frequency of social support, and severity of PTSD symptoms; see Table 3).

Aim 2

The t-test comparing those who reported receiving mental health treatment in the last 6 months with those who denied receiving mental health treatment in the last 6 months on levels of readiness to change was significant, $t(168.33) = -2.30, p < .05$, with those involved in treatment scoring higher on readiness to change ($M = 81.58, SD = 13.71$) than those not involved in treatment ($M = 77.34, SD = 12.77$). Finally results of correlational analyses demonstrated a significant positive relationship between readiness to change and extensiveness of community resources participants reported utilizing on the EOR (see results in Table 2).

Exploratory Analyses

Given our results that readiness to change is related to one's resource and treatment utilization as well as PTSD severity, global distress, and frequency of social support, a post hoc analysis was ran investigating whether an individual's level of readiness to change mediated the relationship between PTSD severity, global distress, and frequency of social support and treatment and resource utilization. The statistical significance of mediation was investigated with bootstrapping techniques, which under most conditions provides the most powerful method for obtaining confidence intervals for mediated effects, as the normality of the sampling distribution is not assumed, which is typical of other mediational analyses (Preacher & Hayes, 2008; Preacher, Rucker, & Hayes, 2007). Preacher and Hayes (2008) suggest that an indirect effect is considered significant if the 95% confidence interval does not include zero.

For treatment utilization, no significant mediated effects were found for PTSD symptom severity ($CI = -.0001, .0067$), frequency of social support ($CI = -.0003, .0042$), or overall distress ($CI = -.0628, .1955$). For resource utilization, significant mediation was found for overall distress ($CI = .0185, .2752$) suggesting that the relationship between overall distress and resource utilization can be partially explained by one's level of readiness to change. No significant mediated effects were found for PTSD symptom severity ($CI = -.0001, .0067$) or frequency of social support ($CI = -.0003, .0042$).

Discussion

The current study was the first, to our knowledge, to investigate the effect of readiness to change on treatment and resource utilization in victims of IPV. Overall, we found that victims of IPV who used mental health treatment (psychiatric medication, psychiatric hospitalization, and/or mental health counseling) in the past 6 months reported higher levels of readiness to change than those who did not use mental health treatment in the past 6

months. Additionally, individuals higher in readiness to change tended to use more community resources (e.g., legal, health care, social support).

In regards to correlates of readiness to change, we found that women reporting more distress (more violence severity, PTSD symptoms, depressive symptoms, overall distress, SUD) endorsed higher levels of readiness to change. Findings also demonstrate that frequency of social support may relate to increased readiness to change in victims of IPV. Moreover, PTSD symptoms, overall distress, and frequency of social support were found to be the strongest predictors of readiness to change in the current sample. Therefore, while all variables examined appear to influence readiness to change PTSD symptom severity, overall distress, and frequency of social support contribute to readiness to change above and beyond violence severity, depressive symptom severity, and SUD.

Finally, due to the significant relationships identified above, mediated models were investigated with readiness to change mediating the relationships between PTSD symptom severity, overall distress, and frequency of social support with treatment/resource utilization. Of these models readiness to change was found to partially explain the relationship between overall distress and IPV-related resource utilization. However, readiness to change did not explain the relationship between overall distress and mental health treatment utilization.

Our finding that increased distress is associated with increased readiness to change is consistent with Bliss et al. (2008) and Edwards et al. (2006). Previous literature has purposed a number of reasons for this relationship. First, literature has identified that stress can be a motivator for action (Bliss et al., 2008). Therefore, women experiencing more distress may be prompted to take steps to try to alleviate this distress, whereas victims experiencing less negative consequences associated with their abuse may be less driven to act. Second, women further through the change process may be more aware of the effects of abuse on their well-being due to self-reflection and acknowledgement of their abuse as a problem, resulting in increased distress (Edwards et al., 2006). Finally, taking action steps in order to further the change process can be overwhelming. Once women take steps to achieve safety they may feel frustrated or even a sense of hopelessness if these attempts are not immediately successful (Edwards et al., 2006). PTSD and psychiatric symptom severity may be the greatest contributors of readiness to change because they may greatly interfere with one's functioning due to their potentially intrusive nature (Bliss et al., 2008).

Our finding that more frequent social support was associated with more readiness to change has not been investigated in previous literature. However, previous literature has examined various forms of social support and has not supported a positive relationship between social support and readiness to change (Alexander et al., 2009; Bliss et al., 2008), although social support has been identified as a resilience factor for victims of IPV (Taylor, 2003; Waldrop & Resick, 2004). As previously stated, Bliss et al. (2008) found no relationship between readiness to change and perceived social support, where Alexander et al. (2009) found a negative relationship between social support satisfaction and readiness to change and no relationship with size of social support. Therefore, our study was the first to find a positive relationship between readiness to change and social support. In fact, frequency of social support was identified as one of the strongest predictors of readiness to change in the current sample. This discrepancy may be associated with who individuals are receiving support from. In abusive relationships, it is common for victims of IPV to be isolated from support systems, leaving their sole support to their abusers (Bliss et al., 2008). Thus, the relationship may be counteractive in regards to readiness to change (Alexander et al., 2009). However, if individuals have additional supports and frequent contact with those supports they may be encouraged to work towards change. Women may also report feeling less satisfied with supports that are encouraging them to leave a relationship they may be torn about leaving.

This may explain why women less satisfied with their social supports may be higher on readiness to change as found in Alexander et al.'s (2009) research. Future research should examine who individuals are receiving support from in order to further investigate this relationship.

In addition to correlates of readiness to change, the current study found a relationship between readiness to change and treatment and resource utilization. This demonstrates that readiness to change may be an important variable to target in order to increase victims' likelihood of seeking treatment and resources they may need to achieve stability and safety. Targeting one's readiness to change through strategies of motivational interviewing (Hettema, Steele, & Miller, 2005) may be one way to engage women in treatment and resource use. This may be especially important due to previous research demonstrating that victims of IPV do not seek the help they may need in order to establish safety (Johnson & Zlotnick, 2007).

Women higher on readiness to change are likely to have more insight into their current problems (Prochaska et al., 1992), which may encourage them to seek resources and treatment to help deal with identified problems. Also, once women recognize they have a problem they may be unsure what steps to take to maintain or begin change; therefore, they may contact IPV-related resources to identify how to proceed. Furthermore, because readiness to change has been linked to positive treatment outcomes (Project MATCH Research Group, 1997; Wolk & Devlin, 2001), increasing readiness to change is commonly a goal in treatment. Thus, readiness to change may not only increase seeking treatment, but involvement in treatment may increase readiness to change.

Our findings that readiness to change served as a mediator for overall distress and resource utilization was the first investigation of this question to our knowledge. Based on this finding, and the lack of mediation with other significant predictors (i.e., PTSD symptom severity, frequency of social support), it appears that overall distress, in particular, influences one's resource use by increasing one's level of readiness to change. Additionally, while overall distress appears to influence seeking help through readiness to change, it does not necessarily encourage seeking treatment. However, because women are seeking help they may be primed for treatment, and therefore, it may be a good opportunity to intervene. As previously stated, women with higher readiness to change tend to fare better in treatment (DiClemente & Prochaska, 1998; Project MATCH Research Group, 1997; Wolk & Devlin, 2001); thus, they may be more successful when encouraged to seek treatment through other resources.

In light of these findings, it is important to note some limitations of the current research. Women in the current study were recruited from battered women's shelters; therefore, although they were not necessarily treatment seeking in regards to mental health services, they were at least seeking help through a shelter. Therefore, it may be expected that women in a shelter would have higher levels of readiness to change due to the fact that they already left their partners and sought a source of help. Investigation into the mean of readiness to change demonstrates that the average score in the current sample was in the mid to high range ($M = 78.96$). However, the range of scores was 44 to 112, which demonstrates that not all women in the current sample were high on readiness to change. Future research should investigate the role of readiness to change on treatment and resource utilization in a sample of women not currently involved in a shelter or other services.

Second, the current study set out to explore readiness to change in a diverse sample of victims; however, the majority of women were African American or White (90.1%).

Therefore, investigation into the role of readiness to change on other ethnic minority groups is warranted (e.g. Hispanic, Asian).

Finally, due to the retrospective nature of our data cause and effect cannot be determined. All variables were assessed during the same time point; therefore, the direction of relationships cannot be established. It is unsure whether a victim's level of readiness to change motivated them to seek treatment, or whether treatment increased said victim's readiness to change. Additionally, it cannot be determined whether distress prompted victims' to action or if readiness to change increased victims' awareness of distress. Thus, future research should investigate these questions in a longitudinal sample where the path of these relationships can be determined.

Although not to dismiss these limitations, the current research also had a number of strengths. First, the current research used validated instruments to assess all constructs. Furthermore, interview assessments were used in addition to self-report surveys, whereas previous research has primarily limited its data collection to self-report instruments (Alexander et al., 2009; Edwards et al., 2006). Also, while further investigation with diverse samples is still warranted, the current study achieved a sample of participants from various racial backgrounds, which was absent in previous literature (Bliss et al., 2009; Edwards et al., 2006). Finally, the current sample examined a wide variety of variables that have been individually associated with readiness to change in victims of IPV and explored the relative strength of these relationships multi-variately.

In conclusion, increased distress, most notably PTSD symptom severity and overall distress, may be motivators for action in victims of IPV. Thus, women whom are experiencing more trauma-related symptoms and particular distress associated with those symptoms may be more likely to see their current situations as problematic, and thus, be more likely to work towards changing their situations. Furthermore, having frequent socially supportive experiences may help women recognize their situations as troublesome and therefore increase their readiness for change. In regards to treatment and resource utilization, readiness to change may be an encouraging factor for using mental health treatments. It may also spring women into action in regards to achieving protection orders and safety outside of a shelter. Finally, increasing readiness to change may be a way to encourage women who are highly distressed to pursue IPV-related resources. Therefore, readiness to change appears to be an important factor in helping victims of IPV achieve the tools they need to achieve safety; thus, use of motivational interviewing and other techniques to help women increase their levels of readiness to change may be worthwhile implementations in working with victims of IPV.

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Table 1

Demographic Characteristics of Participants (N = 223)

	<i>n</i>	%
Race		
Black	108	48.4%
White	93	41.7%
Other	22	9.7%
Ethnicity		
Hispanic or Latino	18	8.0%
Non-Hispanic or Latino	205	91.9%
Highest Education Level		
< High School	56	25.1%
Graduated from High School/GED	70	31.4%
Completed some college	77	34.5%
Completed college	19	8.5%
> College	1	.4%
Employment Status		
Full-time	29	13%
Part-time	35	15.7%
Unemployed	159	71.3%
Government Assistance		
Yes	133	59.6%
No	90	40.4%
Mental Health Treatment		
Treatment	85	38.1%
No Treatment	138	61.9%
Individual Therapy		
Therapy	41	18.4%
No Therapy	182	81.6%

Table 2

Pearson's Correlations Among Independent and Dependent Variables (N =223)

	M	SD	1	2	3	4	5	6	7
RTC	78.96	13.27	--						
CTS2	19.44	7.05	.13*	--					
CAPS	52.88	27.57	.26***	.28***	--				
BDI	21.73	21.73	.28**	.16*	.51***	--			
GSI	1.50	.82	.30***	.16*	.53***	.72***	--		
ISSB	90.64	29.51	.19**	-.11	-.03	-.12	-.02	--	
EOR	5.84	2.33	.14*	.13*	.12	-.03	.02	.22**	--

Note. RTC = readiness to change; CTS2 = violence severity; CAPS = PTSD symptom severity; BDI = depressive severity; GSI = overall distress; ISSB = frequency of social support; EOR = resource use.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

Summary of Stepwise Regression with Correlates of Readiness to Change(N =223)

Predictor(s)	Outcome	Adjusted R ²	ΔR^2	B	F	df
Step 1						
Overall Distress	RTC	.08	.09	4.78***	21.43***	1, 221
Step 2						
Overall Distress	RTC	.12	.04	4.86***	15.77***	2, 220
Social Support				.09**		
Step 3						
Overall Distress	RTC	.13	.02	3.55**	12.16***	3, 219
Social Support				.09**		
PTSD				.08*		

Note. RTC = Readiness to Change.

*
p<.05.**
p<.01.***
p<.001.