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## Readiness to Change as a Predictor of Treatment Engagement and Outcome for Partner Violent Men

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### Abstract

Resistance to change has been long recognized as a barrier to successful intervention for partner violent individuals. Using archival data from a community-based intimate partner violence (IPV) intervention program, the current study investigated readiness to change as a predictor of treatment engagement and outcome in cognitive behavioral therapy (CBT) for IPV, and examined whether court referral status, antisocial personality characteristics, and borderline personality characteristics moderate these associations. During program intake, male IPV perpetrators ( $N=195$ ) provided structured interview data on demographics and referral source, and self-report data on readiness to change, borderline personality traits, and antisocial personality traits. During group CBT, participants and their therapists completed measures of the working alliance, and the therapists completed ratings of compliance with behavior change homework assignments. Criminal recidivism data were gathered from public records for 2 years after scheduled completion of treatment. Readiness to change significantly predicted client ratings of the working alliance, but not therapist ratings of the working alliance, CBT homework compliance, or criminal recidivism. Court referral status moderated predictive associations between readiness to change and working alliance ratings, and borderline and antisocial characteristics moderated predictive associations between readiness to change and working alliance as well as criminal recidivism. Interestingly, readiness to change is a stronger predictor of positive treatment response for court- versus self-referred individuals and for those with either very low or very high levels of borderline and antisocial characteristics. Hence, strategies to enhance motivation to change may be particularly be important for IPV perpetrators with these characteristics.

### Keywords

readiness to change; personality disorder; domestic violence; batterers; predicting domestic violence; intervention/treatment; mental health; violence

Given the serious and detrimental consequences of intimate partner violence (IPV), treatment programs to help perpetrators reduce violent behavior toward their current or future partners are now widely available in North America (Cannon, Hamel, Buttell, &

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Ferreira, 2016; Price & Rosenbaum, 2009; Wagers, Pate, & Brinkley, 2017). However, there are a number of inherent challenges in working with this population. First, the vast majority are court-mandated to attend treatment, and many experience that process as coercive and unfair (Levesque, Velicer, Castle, & Greene, 2008). Second, angry and violent individuals in general tend to blame others for their aggressive actions making it difficult to engage in a self-reflective process of behavior change (Birkley & Eckhardt, 2015; Eckhardt, Samper, & Murphy, 2008; Kistenmacher & Weiss, 2008). Third, some offenders have long-standing characteristics, such as antisocial and borderline personality traits, which are associated with poor treatment engagement (Taft, Murphy, Musser, & Remington, 2004). Finally, some offenders have comorbid problems, such as substance use disorders, that may further complicate the change process (Ting, Jordan-Green, Murphy, & Pitts, 2009). It is therefore not surprising that low motivation to change and treatment noncompliance are serious problems that can affect the success of intervention programs for partner violent individuals (Daniels & Murphy, 1997; Eckhardt, Holtzworth-Munroe, Norlander, Sibley, & Cahill, 2008; Ganley, 1987; Scott & Wolfe, 2003). The current study examines readiness to change as a predictor of treatment engagement and outcome in this population, and factors that may moderate these relationships.

In an effort to better understand factors that may promote, or impede, motivation to change, scholars have applied the concept of “readiness to change” that emerged from research on the transtheoretical model (TTM) of intentional behavior change (Prochaska & DiClemente, 1983). The TTM describes how people modify a problematic behavior or acquire a positive behavior and identifies five stages of change (Prochaska & Velicer, 1997). During the precontemplation stage, the individual has no intention to change in the near future, and typically denies the need to change or the ability to change. During the contemplation stage, the individual thinks about changing and acknowledges a need for change, but has no immediate plan to accomplish change. During the preparation (or determination) stage, the individual develops a clear intention and plan to change. During the action stage, the individual takes active steps to accomplish change. Finally, in the maintenance stage, the individual has successfully changed and takes steps to prevent relapse. An individual with higher readiness to change is expected to demonstrate more attitudes and behaviors characteristic of later (action-oriented) stages of change and fewer attitudes and behaviors characteristic of earlier (pre-action) stages of change.

This model has been successfully applied to understand aspects of the change process in partner violent individuals. For example, endorsements of attitudes representing the various stages of change correspond in a predictable fashion with court- versus self-referral status, acknowledgment of abusive actions, assumption of personal responsibility for abusive behavior, and negative outcome expectancies for abuse (Begun et al., 2003; Meis, Murphy, & Winters, 2010). Surprisingly, however, research predicting treatment response from initial readiness to change has produced inconsistent findings. For example, contrasting groups of men who begin treatment with distinct stage of change profiles, some studies have found no meaningful differences in attendance and completion of IPV services (Alexander & Morris, 2008; Brodeur, Rondeau, Brochu, Lindsay, & Phelps, 2008; Scott, 2004) or criminal recidivism after IPV intervention (Eckhardt, Holtzworth-Munroe, et al., 2008). In contrast to these null findings, one investigation found that men who scored higher on a composite

measure of readiness to change had stronger working alliances, as rated by both client and therapist, during treatment (Taft et al., 2004), and another investigation showed that men in the contemplation and action stages, versus men in the precontemplation stage, displayed greater change during treatment in abusive behavior, conflict management, perspective taking, and emotional support skills (Scott & Wolfe, 2003), and another found that men who scored higher on precontemplation, but not other stage of change scales, had higher criminal recidivism after IPV treatment (Eckhardt, Holtzworth-Munroe, et al., 2008). These inconsistent findings suggest a need for more research to understand the conditions under which readiness to change may predict treatment engagement and outcome in this population.

Notably, other factors may interact with initial readiness to change to predict treatment response. One important consideration is personality problems. For instance, although psychopathic traits are inversely correlated with readiness to change (Taft et al., 2004), men categorized as generally violent/antisocial vary widely in stage of change profiles (Eckhardt, Holtzworth-Munroe, et al., 2008). Likewise, individuals categorized as borderline/dysphoric vary considerably in stage profiles, with a substantial number demonstrating high readiness to change. Nevertheless, individuals with these personality characteristics are at increased risk to engage in recidivist violence (Eckhardt, Holtzworth-Munroe, et al., 2008; Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2003). As a function of poor self-regulation, low impulse control, or manipulation (i.e., appearing to want to change), one might expect people with antisocial and borderline personality problems to respond poorly to treatment despite reporting high motivation to change. This speculation leads to the hypothesis that personality disorder characteristics will moderate the associations between readiness to change and treatment response, specifically that readiness will be a stronger predictor for those with lower levels of personality disorder characteristics.

Another factor that may alter predictive associations between readiness to change and treatment response is referral status, specifically whether the individual is self-referred or court-mandated to treatment. Given that court-mandated clients face externally imposed pressure to comply with treatment and end their violence, their reports of change-relevant motivations may be less predictive of treatment engagement and outcome than those of self-referred individuals.

The present study seeks to better understand readiness to change as it relates to treatment engagement and outcome for partner violent individuals. Whereas prior studies have focused primarily on treatment outcome, the current study also examines predictive associations with several measures of treatment engagement, including therapeutic alliance and client compliance with homework assignments provided in cognitive behavioral groups. In addition, the current study examines three factors hypothesized to moderate the associations between readiness to change and treatment response (engagement and outcome). We hypothesized the following:

**Hypothesis 1:** Higher motivation to change abusive behavior will predict higher levels of treatment engagement.

**Hypothesis 2:** Higher motivation to change will predict lower levels of postprogram recidivism (assessed through criminal justice data).

**Hypothesis 3:** These predictive associations will be different for individuals who are court-referred versus self-referred, and for individuals with high (vs. low) levels of antisocial personality characteristics and borderline personality characteristics.

## Method

### Participants

Participants included 195 men who attended treatment at HopeWorks of Howard County, Maryland, between April 2006 and January 2009. Of 222 intake cases seen during this time frame, 22 (9.9%) declined research consent, two (0.9%) were duplicate individuals assessed on multiple occasions, and three (1.4%) were deemed inappropriate for IPV intervention. In the final sample ( $N = 195$ ), 42.5% self-identified as non-Hispanic Caucasian, 42.0% as African American, 3.1% as Asian American, 7.8% as Hispanic, 1.6% as Native American, and 3.1% as another race or ethnicity. Participants on average were 36.83 years of age ( $SD = 11.34$ ) and had 13.28 years of formal education ( $SD = 2.87$ ). Approximately half (52.9%) were in a relationship with their victim, and the majority (76.2%) were court-ordered to attend treatment.

As is common in archival research, the number of participants available for different analyses varied as a function of treatment assignment and attendance. Of the 195 cases available for analysis (these can be considered an intent-to-treat sample), 21 did not complete the agency intake or dropped out before treatment assignment, four were referred to other partner violence programs, 38 were assigned to individual treatment, and 23 attended too few group sessions to have data on treatment engagement. Data on group treatment attendance were available for 131 cases, and data on treatment engagement variables during group sessions were available on 108 cases. Because we did not have access to victim reports, criminal outcome data were located instead for 193 cases.

### Measures

**Demographic information.**—Men reported their age, education, referral status, and relationship status during a structured intake interview.

**University of Rhode Island Change Assessment Scale (URICA).**—Readiness to change was measured using the URICA (McConaughy, DiClemente, Prochaska, & Velicer, 1989). This scale asks men to rate their agreement on a 5-point Likert-type scale with statements about their problem that are reflective of attitudes associated with the different stages of change: precontemplation (e.g., “I am not the problem, it doesn’t make sense for me to be here”), contemplation (e.g., “I have a problem and I really think I should work on it”), action (e.g., “I am finally doing some work on my problem”), and maintenance stages (e.g., “It worries me that I might slip back on a problem I already have, so I am here to seek help”). The instructions asked participants to rate the items based on “the problem for which you are here—namely, the domestic violence.” Using a similar instruction set with partner violent men, other researchers have found the URICA subscales to have adequate internal

consistency (Scott & Wolfe, 2003) and to predict differential response to specialized treatment focused on stages of change (Alexander, Morris, Tracy, & Frye, 2010). For the current study, men's subscale responses were summed and a readiness to change composite score was computed by subtracting the precontemplation score from the sum of the contemplation score and action scores. The maintenance score was not included in the readiness composite because prior research suggests that partner violent men's endorsement of maintenance items often reflects an unrealistic appraisal of having completed a change process by individuals who otherwise appear to be in early stages of change (e.g., Murphy et al., 2005; Murphy, Linehan, Reyner, Musser, & Taft, 2012). Coefficient alpha was .92 in the current sample.

**Personality Assessment Inventory (PAI).**—The PAI (Morey, 1991) was used to measure antisocial and borderline characteristics. The PAI contains 344 items assessing 11 mental health concerns. In the current study, only the Borderline and Antisocial subscales were used. Men were asked to indicate their responses to statements on a 4-point Likert-type scale (*false*, *slightly true*, *mainly true*, and *very true*). In prior studies, these scales have demonstrated high consistency (Gardner & Qualter, 2009) and good convergent validity with other indicators of personality disorder, including the Minnesota multi-phasic personality inventory (MMPI) and psychopathy checklist-revised (PCL-R) (Edens, Buffington-Vollum, Colwell, Johnson, & Johnson, 2002; Edens, Hart, Johnson, Johnson, & Olver, 2000; Kurtz, Morey, & Tomarken, 1993; Stein, Pinsker-Aspen, & Hilsenroth, 2007). In the current study, coefficient alpha was .80 for the Antisocial scale and .87 for the Borderline scale.

**Assignment Compliance Rating Scale (ACRS).**—Homework compliance was measured using the ACRS (Bryant, Simons, & Thase, 1999; Primakoff, Epstein, & Covi, 1986). Clients were assigned weekly homework to extend and apply change strategies from group, and asked to bring written forms documenting their efforts to the subsequent group session. For Sessions 2 through 20, one of the two group therapists used the ACRS to rate each client's weekly homework completion on a 6-point scale ranging from 1 ("The client did not attempt the homework assignment") to 6 ("The client did more of the homework assignment than was requested"). These ratings were averaged to create a homework compliance score, and participants who attended fewer than 10 of the 20 sessions were coded as missing. Previous studies have demonstrated high interrater reliability (Bryant et al., 1999) and high internal consistency across sessions in IPV treatment (Taft, Murphy, King, Musser, & DeDeyn, 2003). ACRS scores significantly predict reduction in depressive symptoms in cognitive therapy (Bryant et al., 1999) and lower levels of psychological and emotional abuse after group cognitive behavioral therapy (CBT; Taft et al., 2003). Coefficient alpha was .94 in the current sample.

**Working Alliance Inventory-Short (WAI-S).**—Working alliance was measured using the therapist and client versions of the WAI-S (Tracey & Kokotovic, 1989). The WAI-S is a 12-item scale that measures the extent to which the client and therapist share mutual treatment goals, have a shared understanding of the strategies to attain those goals, and have a warm and trusting therapeutic bond. Tracey and Kokotovic (1989) created the WAI-S from the full 36-item WAI (Horvath & Greenberg, 1986) by selecting the items that best

represented each of the three empirically identified factors. The WAI-S was administered at Sessions 4, 8, 12, and 16. Therapists and clients completed the WAI-S on the same treatment days. The client form requested separate ratings for each therapist, which were averaged to obtain the client alliance score at each session. Ratings provided by the two therapists regarding each client were likewise averaged at each session. WAI scores from Sessions 4 and 8 were then averaged to form early alliance scores for client and therapist reports, and ratings from Sessions 12 and 16 were averaged to form late alliance scores for client and therapist reports. Responses to each question were recorded on a 7-point scale ranging from *never* (1) to *always* (7) (total score range = 12-84), and the total working alliance score, defined as the sum of the 12 items after reverse-scoring the necessary items, was used for analysis. Previous studies have demonstrated that the WAI-S has high internal consistency (Tracey & Kokotovic, 1989) and good predictive validity with respect to completion of counseling center treatment (Tryon & Kane, 1993) and violence cessation in IPV treatment (Taft et al., 2003). In the current study, across four sessions, alpha ranged from .89 to .94 for client ratings of working alliance and from .97 to .98 for therapist ratings.

**Criminal recidivism.**—The Maryland Judiciary Case Search, a public search tool for criminal records, was used to determine whether there were any recurring legal system involvements over the span of 2 years after the scheduled completion of IPV services, defined as the period between 6 and 30 months after initial program intake (to provide an equivalent time frame for all cases, regardless of treatment completion). Information from clinical files, including name, place of residence, date of birth, date of initial arrest, and victim name, were used to identify criminal records. Criminal incidents were coded dichotomously (i.e., yes or no) and each arrest incident was placed into one of four mutually exclusive and hierarchical categories: (a) intimate partner abuse (IPA), which includes charges of assault, battery, sexual assault, stalking, or other crimes against an intimate partner; (b) general violence (GV), which includes charges of assault, battery, malicious destruction of property, or other violent crime against a person or persons who could not be identified as an intimate partner; (c) other protection order involvement (OPOI), which includes new civil orders of protection, peace orders, and violations of an existing protection or peace order in the absence of other criminal charges; and (d) other charges (which are not analyzed in the current investigation). If an incident could be placed into more than one category, favor was given to the higher ordered category in this following order: IPA, GV, and OPOI.

## Procedures

During the initial agency intake, individuals filled out self-report questionnaires that assess motivation to change, and borderline and antisocial personality characteristics. They also completed a structured interview that assessed their background characteristics and referral status. During the course of group CBT, participants and therapists rated the working alliance on a fixed schedule. If absent, participants were asked to complete the missed assessment at the subsequent group meeting. Criminal offense data on each case were gathered from a publicly available state database by trained undergraduate research assistants. Treatment was delivered in a 20-session, closed group format by two co-therapists who were clinical psychologists or graduate students in clinical psychology. The



intervention followed a structured CBT protocol that addressed motivation to change, anger and emotional self-regulation, and relationship skills to improve communication and problem solving, including active listening, emotion expression, assertiveness, and strategies for negotiation and compromise. Treatment sessions were 2 hours of unstructured group discussion as well as structured psychoeducation and behavior change activities.

## Data Analysis

First, intercorrelations among predictor variables and background characteristics were examined. Next, correlational analyses tested the significance of associations between the predictor variables and dependent variables using Pearson correlations for treatment engagement variables, and Spearman correlations for treatment outcome variables, which had highly nonnormal distributions. Finally, using Model 1 in PROCESS macro for SPSS (Hayes, 2012), linear regression (for treatment engagement) and logistic regression (for treatment outcome) were used to test moderator effects involving referral status, borderline characteristics, and antisocial characteristics. The assumptions for these regression analyses were not violated. The Johnson–Neyman technique in Process macro for SPSS (Hayes, 2012) was used to test simple effects. This technique identifies values of the moderator at which the effect of the predictor variable on the outcome variable transitions from nonsignificant to significant; each figure with this transition has a line that is denoted by the legend as the “transition point.”

## Results

Table 1 presents intercorrelations among background variables, readiness to change, and hypothesized moderators. Individuals who were self-referred had higher readiness to change ( $M = 42.81$ ,  $SD = 10.94$ ) than those who were court-mandated ( $M = 32.63$ ,  $SD = 13.91$ ). Interestingly, borderline characteristics were significantly and positively associated with readiness to change. Contrary to our hypothesis, antisocial characteristics were not negatively predictive of readiness to change, as this association was positive, albeit small and nonsignificant. Education was significantly and positively associated with readiness to change with a small magnitude effect. Individuals in a relationship with their victim reported higher readiness to change ( $M = 38.87$ ,  $SD = 11.97$ ) than those who were not ( $M = 33.01$ ,  $SD = 13.30$ ).

Table 2 presents bivariate correlations between predictors and treatment engagement variables as well as bivariate correlations between predictor variables and treatment outcome variables. As hypothesized, readiness to change showed significant positive associations with early and late client ratings of the working alliance in the moderate range of magnitude. Readiness to change was positively, but not significantly, associated with all other treatment engagement variables except group session attendance. Contrary to our hypothesis, higher readiness to change was related to lower group session attendance. Given that individuals who were court-ordered ( $M = 13.43$ ,  $SD = 6.91$ ) had significantly higher session attendance than those who were self-referred ( $M = 9.82$ ,  $SD = 8.33$ ), and given that court-ordered clients also had lower readiness to change, a follow-up analysis was conducted to determine whether referral status might account for the session attendance finding. This analysis

revealed that the association between readiness to change and session attendance was no longer significant after controlling for referral status (partial correlation =  $-.12$ ,  $p = .19$ ). Antisocial and borderline characteristics were significantly and inversely associated with homework compliance. Borderline characteristics were also significantly and inversely associated with early and late client working alliance. Contrary to our hypothesis, readiness to change was not significantly associated with treatment outcome. In fact, readiness was positively associated with the three forms of criminal recidivism, although not significantly. The personality disorder scales and referral source also had no significant predictive association with any of the criminal justice outcome variables.

Table 3 displays moderator (interaction) effects for referral status, borderline characteristics, and antisocial characteristics on the associations between readiness to change and treatment engagement. Significant moderator effects were found for referral status on early client alliance ratings, borderline characteristics on early therapist alliance ratings and late client alliance ratings, and antisocial characteristics on early therapist alliance. Figure 1 displays the moderating influence of referral status on the association between readiness to change and early client working alliance. For court-referred individuals, readiness to change has a positive, significant association with alliance, but for self-referred individuals, readiness to change has a negative, but nonsignificant association with alliance. Figure 2 displays the moderating effect of borderline characteristics on late client working alliance. As the level of borderline characteristics increases, the effect of readiness to change on late client working alliance becomes stronger in magnitude. When borderline characteristics are greater than  $0.79$  *SDs* below the mean, the estimated slopes of the regression lines are positive and significant. Figure 3 displays the moderating effect of borderline characteristics in the prediction of early therapist working alliance. Initially, as borderline characteristics increase, the effect of readiness to change on early therapist working alliance becomes weaker in magnitude, but at  $0.70$  *SDs* above the mean, the magnitude becomes stronger. When borderline characteristics are less than  $0.31$  *SDs* below the mean, the estimated slopes of the regression lines are positive and significant. Figure 4 displays the moderating effect for antisocial characteristics in the prediction of early therapist working alliance. Initially, as antisocial characteristics increase, the effect of readiness to change on early therapist working alliance becomes weaker in magnitude, but at  $0.40$  *SDs* above the mean, the magnitude becomes stronger. When antisocial characteristics are less than  $0.36$  *SDs* below the mean, the estimated slopes of the regression lines are positive and significant. In addition, when antisocial characteristics are greater than  $2.14$  *SDs* above the mean, the estimated slopes of the regression lines are negative and significant.

Table 4 presents moderator (interaction) effects for referral status, borderline characteristics, and antisocial characteristics on treatment outcome. Significant moderator effects were found for borderline characteristics on IPA and GV, and for antisocial characteristics on IPA and OPOI. Referral status did not significantly moderate the influence of readiness to change on treatment outcome. Figure 5 displays the moderating effect of borderline characteristics on IPA recidivism. Initially, as borderline characteristics increase, the effect of readiness to change on IPA recidivism becomes weaker in magnitude, but at  $0.35$  *SDs* above the mean, the magnitude becomes stronger. When borderline characteristics are less than  $0.64$  *SDs* below the mean, the estimated slopes of the regression lines are positive and significant. In



addition, when borderline characteristics are greater than 1.55 *SDs* above the mean, the estimated slopes of the regression lines are negative and significant. Figure 6 displays the moderating effect of antisocial characteristics on IPA recidivism. Initially, as antisocial characteristics increase, the effect of readiness to change on IPA recidivism becomes weaker in magnitude, but at 0.40 *SDs* above the mean, the magnitude becomes stronger. When antisocial characteristics are less than 0.75 *SDs* below the mean, the estimated slopes of the regression lines are positive and significant. In addition, when levels of antisocial characteristics are greater than 2.20 *SDs* above the mean, the estimated slopes of the regression lines are negative and significant. Finally, Figure 7 illustrates that as borderline characteristics increase, the effect of readiness to change on GV recidivism becomes weaker in magnitude. However, the Johnson–Neyman technique did not identify any transition point from nonsignificance to significance. Figure 8 displays the moderating effect of antisocial characteristics on OPOI recidivism. As antisocial characteristics increase, the effect of readiness to change on OPOI recidivism becomes weaker in magnitude, then at 0.66 *SDs* above the mean, the magnitude becomes stronger. When antisocial characteristics are less than 0.69 *SDs* below the mean, the estimated slopes of the regression lines are positive and significant.

## Discussion

This study examined whether partner violent men's treatment engagement and outcome can be predicted from their initial readiness to change, and whether these predictions are altered depending on their referral status (court-referred vs. self-referred) and levels of borderline and antisocial personality characteristics. The results for prediction of treatment engagement from initial readiness to change were mixed. As expected, readiness was positively predictive of client working alliance ratings. However, counter to expectations, readiness was inversely associated with session attendance. This latter finding appears to reflect the confounding influence of referral status, with court-referred clients having higher session attendance, but lower readiness to change, than self-referred clients. It is also possible that individuals who are highly motivated may become alienated by the early program focus on motivation to change, or by group peers who display initial resistance. This idea is consistent with the finding that IPV offenders who display high initial readiness to change have better outcomes in action-oriented treatment, whereas those with low initial readiness to change have better outcomes in treatment that focuses on enhancing motivation (Alexander et al., 2010).

Moreover, readiness to change was only significantly predictive of client working alliance. In contrast, Taft and colleagues (2004) found that readiness was equally predictive of both client and therapist ratings of the working alliance. This apparent difference may reflect sample variation and statistical power needed to detect a relatively small effect, as in the current study, readiness was positively, but not significantly, predictive of therapist alliance. However, it may also reflect the fact that Taft and colleagues (2004) used a measure of readiness to change that is more specifically focused on IPV counseling, whereas the current study used a general measure adapted from research on psychotherapy. Although it was not expected that readiness to change would be positively associated with borderline characteristics, Eckhardt, Holtzworth-Munroe, and colleagues (2008) similarly found that

borderline/dysphoric and generally violent/antisocial subtypes of partner violent men, in contrast to the family-only subtype, were more likely to report being in the action or maintenance stage at the outset of court-mandated treatment.

Previously, Taft and colleagues (2004), using different measures of these constructs, found that readiness to change mediated the predictive association between psychopathic traits and the working alliance. However, the basic conditions for demonstrating similar mediation would not have been met in the current investigation, as antisocial characteristics were not significantly associated with readiness to change or the working alliance. The current findings suggest that readiness to change has more complex implications for understanding treatment response, interacting with other key factors that may help to explain inconsistency in previous investigations of these predictive associations.

Readiness to change is particularly important in predicting client working alliance for individuals who are court-referred and for individuals with high levels of borderline characteristics. These findings run directly counter to initial expectations, and indicate that efforts to enhance readiness to change may be particularly important for individuals who possess background features normally associated with treatment resistance. With respect to borderline characteristics, this pattern was found for self-reported treatment alliance, but not for therapist-reported alliance. A possible explanation for this discrepancy is that the therapists may not be sensitive to variations in readiness to change for individuals with borderline characteristics, or may interpret signs of motivation as insincere or temporary.

Readiness to change was not significantly predictive of criminal recidivism. However, these associations varied as a function of pathological personality characteristics, with readiness predicting lower criminal recidivism for those with high levels of antisocial and borderline characteristics, but not for those with low levels of these traits. These results suggest that strategies for enhancing motivation to change may be particularly helpful for partner abusive men with personality disorders. This is consistent with previous findings that motivational treatment strategies have differential benefits for men with higher initial resistance to change (Alexander et al., 2010; Murphy et al., 2012). It remains unclear why, in the current study, individuals with low levels of personality disorder characteristics and high readiness to change had poor outcomes. A potential explanation is that these individuals may have a defensive response pattern or an unrealistic view of their change process. Prior studies have identified stage of change profiles labeled “unprepared action” or “false maintenance” (Eckhardt, Babcock, & Homack, 2004; Murphy et al., 2005), characterizing a group of partner violent men who report they have already accomplished change while displaying no evidence of having gone through a process of self-evaluation or problem identification.

Several limitations of the current study warrant consideration. First, predictive associations relied only on a pretreatment assessment of readiness to change. Given that motivation may vary across time, measures taken later during treatment may have different associations with postprogram recidivism, or dynamic processes may be more predictive of treatment response than initial motivation at treatment outset. Second, self-report measures of readiness to change and personality problems may have been influenced by response biases such as positive impression management. Nevertheless, the predominant way to measure motivation

to change is through self-report especially because early stages of change reflect cognitive processes, or states of mind, that others may not be able to identify accurately. Third, additional dimensions of readiness to change may be important to consider in future research. For example, motivation to seek help from a treatment provider may be a unique aspect of readiness to address intimate relationship problems (Tambling & Ketring, 2014). Fourth, many uncontrolled sources of variation are present in archival data from a community treatment sample. Notably, data on some aspects of group treatment engagement were not available for a sizable proportion of the initial sample due to dropout and assignment to other treatment modalities. This led to different number of participants for different analyses. In addition, victim partner reports of IPV recidivism were not available in this archival data set, requiring the use of criminal justice data to measure recidivism. Criminal justice data likely underestimated recidivist violence as many incidents do not come to the attention of the authorities. Relatively low rates of recidivism were observed, creating challenges in predicting uncommon events. Criminal justice information provides good coverage (i.e., little or no sample attrition), but produces high false negative rates in recidivism detection (i.e., many offenses go undetected by the authorities). To the extent possible, future studies should examine multiple indicators of treatment outcome, including victim partner reports of abuse. Fifth, many contextual and personal factors that were beyond the scope of the current study may influence readiness to change and response to IPV treatment. Examples include parental status and co-parenting concerns, involvement with child protective services, changes in relationship status (separating or re-uniting), and life complications (e.g., employment problems, residential instability). Finally, the data derive from a single group treatment program within a specific community agency, limiting generalization to other forms of treatment and sites. For example, the findings revolving working alliance could reflect common elements of treatment or treatment goals and tasks specific to CBT.

In the final analysis, the current results provide important new perspectives and raise interesting questions about the change process for partner violent men. The findings suggest that readiness to change should not be viewed as a unitary predictor, but should be considered in concert with other key factors that impact treatment engagement and outcome. The findings also raise questions about the dynamic nature of readiness to change and factors that influence it. For instance, to what extent does motivational readiness reflect characteristics of the abusive person, including long-standing problems with hostile mistrust, versus a state-like indicator of how the individual feels at the time of measurement? Future studies may test the relative predictive strength of trait-like indicators (compared with state-like indicators) to address this question. Under what conditions, using what types of interventions, and for whom, can motivation to change be enhanced to produce more favorable treatment outcomes? Mounting evidence indicates that change motivation is an essential consideration in successful efforts to end IPV. Consistent with our initial speculation, the predictive associations between readiness to change and treatment response (engagement and outcome) often vary as a function of personality disorder characteristics and court-mandated status. However, directly counter to our initial expectations, readiness to change is most predictive of treatment response for individuals whose personality style and treatment referrals typically present significant barriers to change.

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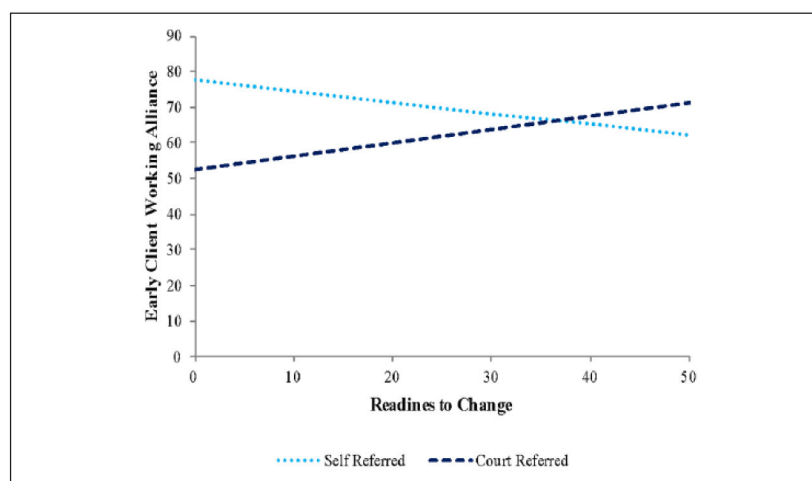
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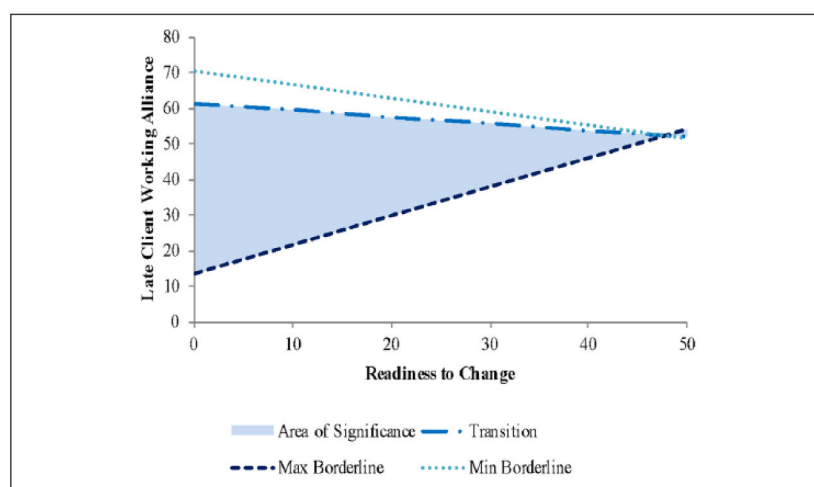
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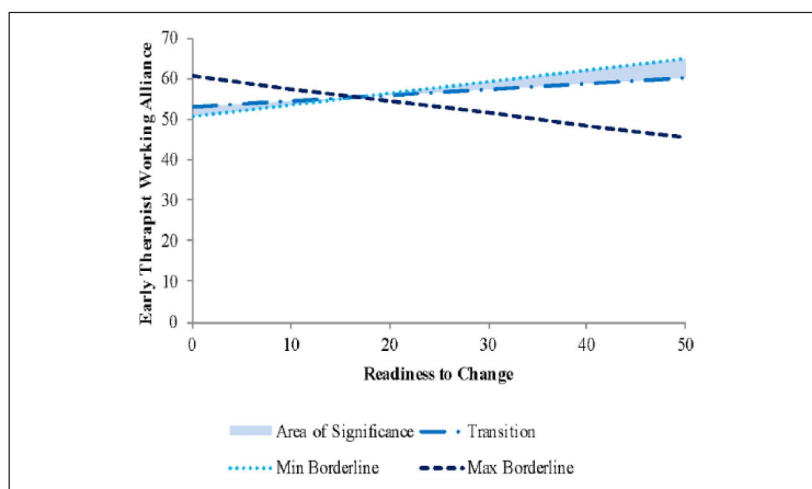




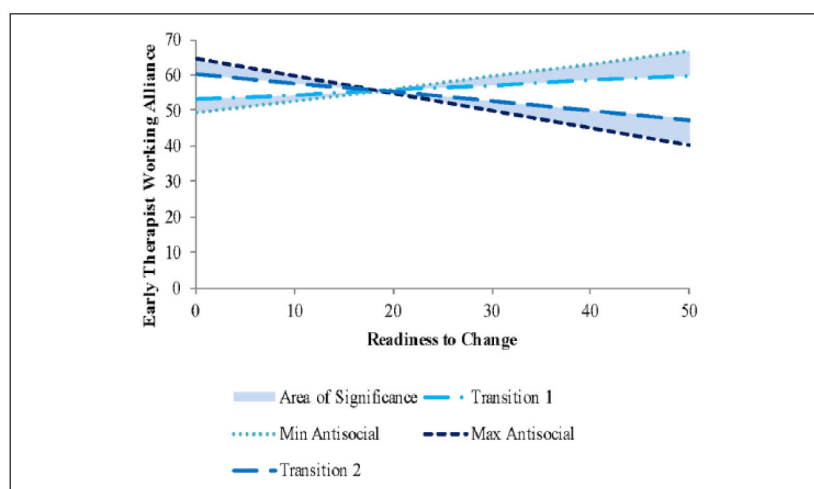
**Figure 1.**  
Moderating effect of referral status on early client working alliance.



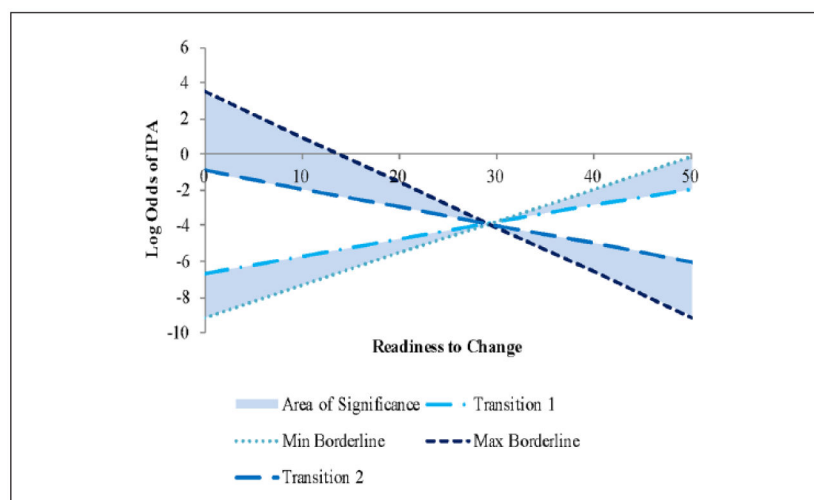
**Figure 2.**  
Moderating effect of borderline characteristics on late client working alliance.



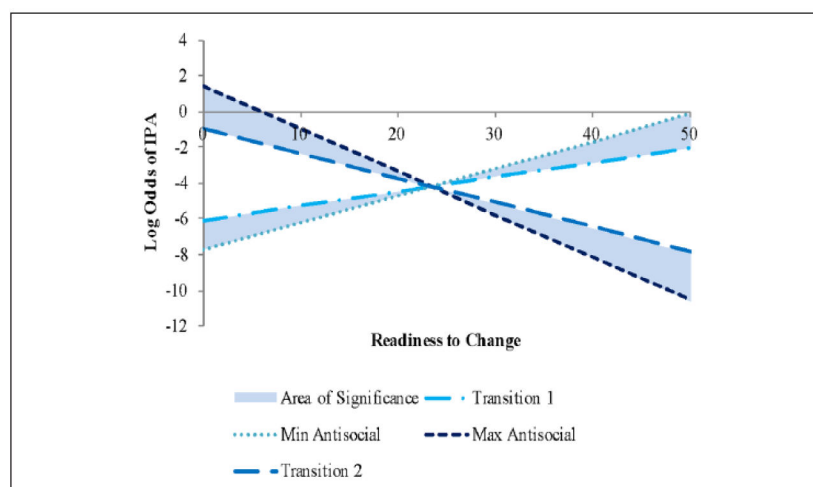
**Figure 3.**  
Moderating effect of borderline characteristics on early therapist working alliance.



**Figure 4.**  
Moderating effect of antisocial characteristics on early therapist working alliance.

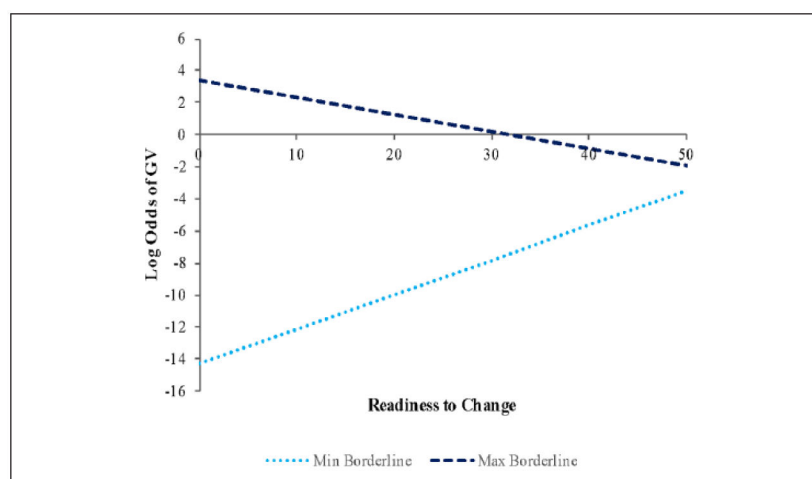


**Figure 5.**  
Moderating effect of borderline characteristics on intimate partner abuse.

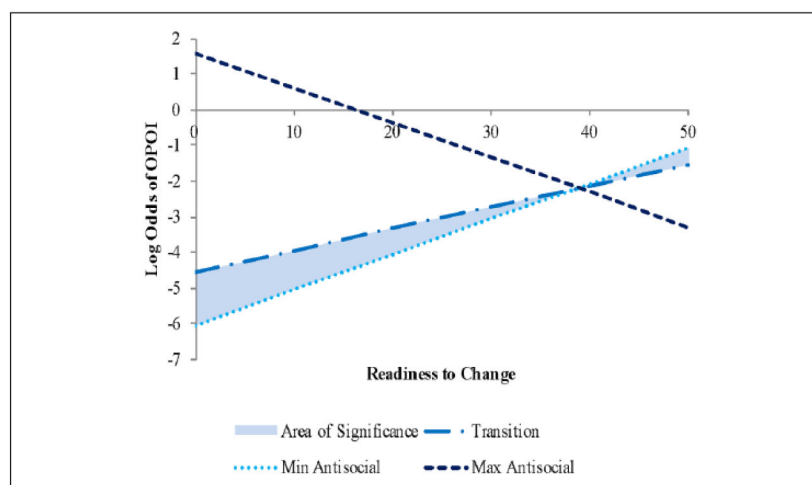


**Figure 6.**  
Moderating effect of antisocial characteristics on intimate partner abuse.





**Figure 7.**  
Moderating effect of borderline characteristics on general violence.



**Figure 8.**  
Moderating effect of antisocial characteristics on protection order violation.

**Table 1.**Intercorrelations Among Readiness to Change, Moderators, and Background Variables ( $N = 156-195$ ).

Variables	1	2	3	4	5	6
1. Readiness to change	—					
2. Borderline characteristics	.21 **	—				
3. Antisocial characteristics	.10	.67 ***	—			
4. Referral status	-.31 ***	-.15	-.02	—		
5. Age	-.08	-.32 ***	-.36 ***	-.05	—	
6. Education	.16 *	-.12	-.17 *	-.16 *	.26 ***	—
7. Relationship status	.23 **	.02	-.06	-.23 **	.14	.00

*Note.* Court referral status coded 0 = self-referred; 1 = court-ordered. Relationship status coded 0 = single; 1 = in a relationship with their identified victim.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ , two-tailed test.

**Table 2.**Correlations Between Independent Variables and Treatment Engagement and Outcome ( $N = 82-193$ ).

Variables	Number of Sessions Attended	Homework Compliance	Early Client Working Alliance	Late Client Working Alliance	Early Therapist Working Alliance	Late Therapist Working Alliance	IPA	GV	OPOI
Readiness to change	-.17 *	-.09	.30 **	.36 **	.11	.16	.08	.02	.06
Borderline characteristics	-.12	-.27 **	-.25 *	-.22 *	-.19	-.15	-.06	.11	.15 *
Antisocial characteristics	-.16	-.15	-.12	-.19	-.11	-.09	-.07	.09	.06
Referral status	.21 *	.08	.03	-.07	-.02	-.02	.06	-.10	-.09

Note. Court referral status coded 0 = self-referred; 1 = court-ordered. IPA = intimate partner abuse; GV = general violence; OPOI = other protection order involvement.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ , two-tailed test.

**Table 3.**

Moderator Effects for Referral Status, Borderline Characteristics, and Antisocial Characteristics on Treatment Engagement Variables.

Criterion	<i>b</i>	<i>R</i> <sup>2</sup>	<i>F</i> ( <i>df</i> <sub>1</sub> , <i>df</i> <sub>2</sub> )	<i>p</i>	95% CI for <i>b</i>
Moderator effects for referral status					
Number of sessions attended	−0.05	.00	0.12 (1, 117)	.73	[−0.32, 0.22]
Homework compliance	−0.06	.00	0.33 (1, 95)	.57	[−0.13, 0.02]
Early client working alliance	0.68**	.06	7.21 (1, 93)	.01	[0.18, 1.19]
Late client working alliance	0.88	.04	3.59 (1, 78)	.06	[−0.05, 1.80]
Early therapist working alliance	0.11	.00	0.233 (1, 96)	.63	[−0.33, 0.54]
Late therapist working alliance	0.01	.00	0.00 (1, 84)	.96	[−0.55, 0.58]
Moderator effects for borderline characteristics					
Number of sessions attended	0.00	.01	1.20 (1, 121)	.28	[−0.01, 0.00]
Homework compliance	0.00	.00	0.36 (1, 97)	.55	[0.00, 0.00]
Early client working alliance	0.00	.00	0.07 (1, 94)	.79	[−0.01, 0.02]
Late client working alliance	0.02**	.08	9.06 (1, 80)	.004	[0.01, 0.04]
Early therapist working alliance	−0.01*	.04	4.79 (1, 98)	.03	[−0.02, 0.00]
Late therapist working alliance	0.00	.00	0.28 (1, 85)	.60	[−0.01, 0.01]
Moderator effects for antisocial characteristics					
Number of sessions attended	0.00	.01	1.13 (1, 122)	.29	[−0.01, 0.00]
Homework compliance	0.00	.01	1.08 (1, 98)	.30	[0.00, 0.00]
Early client working alliance	0.00	.00	0.08 (1, 95)	.78	[−0.02, 0.01]
Late client working alliance	0.02	.03	3.41 (1, 81)	.07	[0.00, 0.03]
Early therapist working alliance	−0.02**	.08	9.03 (1, 99)	.003	[−0.03, −0.01]
Late therapist working alliance	0.01	.02	1.52 (1, 86)	.22	[−0.02, 0.00]

Note. CI = confidence interval.

\*  
*p* < .05.

\*\*  
*p* < .01.

\*\*\*  
*p* < .001.

**Table 4.**

Moderator Effects for Referral Status, Borderline Characteristics, and Antisocial Characteristics on Treatment Outcome Variables (Criminal Recidivism 2 Years Post-Treatment).

Criterion	Exp( <i>b</i> ) coefficient	Wald	<i>p</i> value	95% CI for Exp( <i>b</i> )	Cox and Snell <i>R</i> <sup>2</sup>
Moderator effects for referral status <sup>a</sup>					
IPA	0.83	0.98	.32	[0.57, 1.20]	.01
GV	1.03	0.11	.74	[0.87, 1.21]	.01
OPOI	0.94	1.22	.27	[0.84, 1.05]	.02
Moderator effects for borderline characteristics <sup>b</sup>					
IPA	0.99 <sup>**</sup>	9.60	.002	[0.99, 1.00]	.07
GV	0.99 <sup>*</sup>	3.98	.05	[0.99, 1.00]	.02
OPOI	0.99	1.22	.27	[0.99, 1.00]	.05
Moderator effects for antisocial characteristics <sup>c</sup>					
IPA	0.99 <sup>**</sup>	8.87	.003	[0.99, 1.00]	.07
GV	1.00	0.59	.44	[0.99, 1.00]	.05
OPOI	1.00 <sup>*</sup>	5.22	.02	[0.99, 1.00]	.03

Note. CI = confidence interval; IPA = intimate partner abuse; GV = general violence; OPOI = other protection order involvement.

<sup>a</sup>  
*n* = 166.

<sup>b</sup>  
*n* = 173.

<sup>c</sup>  
*n* = 172.

<sup>\*</sup>  
*p* < .05.

<sup>\*\*</sup>  
*p* < .01.

<sup>\*\*\*</sup>  
*p* < .001.