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African Americans' Relationship Quality and Depressive Symptoms: A longitudinal investigation of the Marital Discord Model

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Abstract

The current study was designed to examine the complex bidirectional associations between relationship quality and depressive symptoms among African American couples. Informed by the Marital Discord Model, particular attention was devoted to understanding the unique associations of positive and negative dimensions of relationship functioning with depressive symptoms over time, the timeframes over which these effects occur, and the model's applicability for African American couples. 174 African American couples (N = 348 individuals) provided information on depressive symptoms, relationship satisfaction, ineffective arguing, and partner support four times over a 25-month period. Hypotheses were tested using random-intercept cross-lagged panel models to separate between- and within-person effects. Results indicated that between-person associations with depressive symptoms were significant for relationship satisfaction (negative association) and ineffective arguing (positive association), but not partner support. Within-person concurrent effects were also significant with depressive symptoms and each of the relationship processes under investigation. Within-person eight-month lagged effects were only significant for partner support and depressive symptoms (negative association); these effects were significant in both directions, but stronger from support to depressive symptoms than from depressive symptoms to support. Study findings provide increased conceptual and analytic precision for understanding the association between couples' relationship quality and African Americans' mental health, including malleable relationship factors that can be targeted in family-focused interventions to promote individual and couple well-being.

Keywords

African American couples; depressive symptoms; Marital Discord Model; random intercept cross-lagged panel model; relationship functioning

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A broad and compelling literature has established robust connections between relationship quality and depressive symptoms among couples in committed relationships (Beach, 2014). In the context of this empirical body of research, there has also been considerable attention to potential causal connections between relationship processes and depression and the causal ordering of variables (e.g., Beach et al., 2003; Beach & O'Leary, 1993). For the past decade, it has been common to accept three likely causal sources of covariation: (a) that relational distress precedes and causes depression (Whisman et al., 2021); (b) that depression precedes and causes relational distress, either through erosion of support over time (Coyne, 1976; Davila et al., 2003) or through increased negative behaviors such as complaining, clinging, or withdrawing (e.g., Cohen et al., 2010); and/or (c) that "third variables" such as personality traits, contextual processes, earlier adverse experiences in development, or other vulnerabilities may influence both depression and marital discord (e.g., Davila, 2008). These models all predict concurrent associations between relationship satisfaction and depressive symptoms, but suggest different patterns of lagged associations that, in turn, raise different implications for optimal preventive intervention strategies.

The current study sought to build on this work and better understand concurrent and prospective between- and within-person associations for relationship functioning and depressive symptoms among a sample of African American couples who were predominantly living with low incomes. To provide a robust examination of these associations and test heretofore unaddressed distinctions between supportive vs. conflictual relationship processes, we investigated global relationship satisfaction, ineffective arguing, and partner support. Specifically, from a sample of 348 African American adults (174 couples) assessed four times over 25 months, we examined (1) the between-person association between depressive symptoms and relationship functioning, (2) within-person concurrent associations between depressive symptoms and relationship functioning, and (3) within-person eight month cross-lagged associations between depressive symptoms and relationship functioning.

The Marital Discord Model

The Marital Discord Model proposed by Beach and colleagues (1991) offers a broad organizing framework for understanding the associations between couple functioning and depressive symptoms (Beach, 2014). Developed to guide the use of marital therapy with clients reporting depressive symptoms, the model posits bidirectional associations between relationship functioning and depressive symptoms. Consistent with this theorizing, ample evidence now exists for bidirectional associations between these constructs, such that relationship quality predicts changes in depressive symptoms and depressive symptoms predict changes in relationship quality (Davila et al., 2003; Kouros & Cummings, 2011; Morgan et al., 2018; Whisman et al., 2021).

Despite its history and centrality in the literature, limited research has examined the tenets of this model with respect to African American couples. Applying this model within the context of African American couple relationships is of interest for multiple reasons. First, given the harsh racial and economic environment confronted by many African American couples (Bryant et al., 2010), identifying within-individual processes that can promote

mental health is important—particularly relationship processes that may prove malleable to intervention. As multiple studies have observed, African American couples encounter a distinct set of contextual stressors that have meaningful implications for relationship quality (Bryant et al., 2010; Lavner et al., 2018; McNeil Smith et al., 2019; McNeil Smith & Landor, 2018). Without minimizing the relevance of these external factors, for purposes of this study, particular attention is devoted to better understanding internal dynamics of individual and couple functioning in order to identify factors that are less entrenched and able to be targeted in family-focused preventive interventions. Second, as Hollist and colleagues (Hollist et al., 2007) observe in their study investigating the Marital Discord Model within a Latino sample, replication of conceptual models across ethnicities is essential to verify model generalizability (Thomas et al., 2019). Third, the limited existing research involving this model with African American couples contains mixed findings. For instance, using Actor-Partner Interdependence Modeling, Jenkins and colleagues (Jenkins et al., 2020) found that African Americans' depressive symptoms were negatively associated with their own and their partner's marital satisfaction one year later; effects from marital satisfaction to depressive symptoms, however, were found to be non-significant. Thomas et al. (2019), in contrast, found concurrent, but few prospective, associations between relationship quality and depressive symptoms in traditional cross-lagged panel modeling in a different sample of African American couples. As a final observation, both of these studies focused on general relationship satisfaction/quality, aligning with the broader literature involving this model.

Although the preponderance of research with this model has focused on relationship satisfaction and depressive symptoms, the Marital Discord Model highlights two processes, or aspects, of romantic relationships thought to be particularly salient for individuals with depressive symptoms: (1) a decrease in positive support and connection and (2) an increase in their non-productive arguing and hostility in intimate relationships. Although both of these processes are hypothesized to be reflected in indices of global relationship satisfaction or adjustment, surprisingly little research to date has directly examined the association of each of these key specific processes with depressive symptoms; this lack of research is evident among research with African American couples as well as among the broader population. An exception is Priest and colleagues (Priest et al., 2020), who tested the Biobehavioral Family Model among a sample of African American adults in romantic relationships and found that general family support, but not family conflict or partner-specific support or conflict, was associated with concurrent mental-emotional health. As such, there is some evidence that these relationship processes may demonstrate different concurrent associations with general mental-emotional health for African Americans. Apart from this single cross-sectional study, the degree to which partner support and hostility demonstrate differential effects—concurrent or prospective—on individuals' depressive symptoms largely remains unanswered empirically.

More generally, as Fincham and Rogge (2010) note, understanding the effects of specific domains, or processes, within relationships is important as constraining the assessment of relationship quality to a single, global dimension (i.e., relationship satisfaction) can obscure important phenomena and oversimplify theories. As one empirical example, Rogge and colleagues (2013) examined change in relationship quality over three years among

174 predominantly Caucasian couples in different conditions in a randomized controlled trial. Results indicated no group differences when relationship satisfaction was used to assess global relationship quality, but unique patterns when examining positive (e.g., emotional support) and negative (e.g., aggression) relationship functioning separately. This study underscores the need to examine patterns of association between specific positive and negative aspects of relationship functioning and depressive symptoms in addition to examination of global satisfaction. Consistent with the Marital Discord Model, the current study investigates two relationship processes deemed salient for individuals with depressive symptoms – namely partner support and ineffective arguing. We also consider associations between depressive symptoms and relationship satisfaction as a means to (a) connect current findings with prior research (which has predominantly focused on this relationship outcome), and (b) illustrate the degree to which findings involving relationship processes highlighted by the Marital Discord Model (i.e., partner support and ineffective arguing) are similar to findings involving depressive symptoms and relationship satisfaction. In addition, this study will address potential differences in relationship processes that demonstrate concurrent, or immediate, associations with depressive symptoms and those with lagged associations. Consistent with prior research, we expect that conflict may exert more rapid effects than support (Beach et al., 1991; Choi & Marks, 2008).

Between- and Within-Person Associations Between Relationship Functioning and Depressive Symptoms

Most studies examining the association between relationship functioning and depressive symptoms have focused on between-person, or *inter*individual, effects. Between-person effects identify differences across individuals and represent the dominant approach of prior research (Braithwaite & Holt-Lunstad, 2017; Whisman, 2001). Applied to the current study, between-person associations would indicate whether adults who report higher relationship quality report lower levels of depressive symptoms than those reporting lower relationship quality. As previously noted, this type of association can be influenced by third variables that tend to lead to covariation at all points in time (Meuwly & Davila, 2019). Factors contributing to this confounding can include personal response style, shared developmental influences, attachment styles, possible shared biological influences, and shared impact by external circumstances. In addition, some between-person effects may also capture the residue of repeated vicious cycles leading depression and relationship functioning to be increasingly connected overtime.

Within-person, or *intra*individual, effects address how functioning changes relative to one's own average. As such, within-person effects are not subject to concerns about potential third variable influences because each person serves as their own control. Like between-person effects, within-person effects can be examined concurrently as well as prospectively (i.e., lagged). Within-person concurrent effects speak to whether individuals report more depressive symptoms at times when they report lower relationship quality than they typically do (and vice versa). Prior research by Davila and colleagues with a sample of predominantly Caucasian newlywed couples (Davila et al., 2003) is illustrative, finding that fluctuations in depressive symptoms negatively covaried with fluctuations in relationship satisfaction

(also see Karney, 2001; Kouros et al., 2008). The second type of within-person effect – within-person *lagged* effects – has garnered particular attention in its ability to address issues of directionality and causality that have long been of interest in this area of research. To date, however, prior research examining within-person lagged effects is quite mixed, with findings indicating that (a) relationship adjustment predicted subsequent anxiety (but not depression) and depressive symptoms predicted subsequent relationship adjustment with one month lags (Whisman et al., 2011); (b) marital satisfaction predicted subsequent changes in depressive symptoms, but depressive symptoms did not predict changes in marital satisfaction using three-month lags (Vento & Cobb, 2011); and (c) null findings for relationship functioning and depressive symptoms with one-week lags (Whitton et al., 2008). Although informative, conclusions from these within-person studies are difficult to summarize not only due to their inconsistent results, but also differing time lags. Moreover, all studies focused on global assessments of relationship quality, thus precluding the ability to consider the unique effects of positive and negative relationship processes highlighted by the Marital Discord Model. The current study sought to provide increased clarity to this area by examining within-person lagged effects for: (a) three indicators of relationship quality (i.e., satisfaction, conflict, support) to depressive symptoms, or whether adults report increases in depressive symptoms following periods when they reported poorer relationship quality than they typically did, and (b) depressive symptoms to indicators of relationship quality, or whether adults report improvements in relationship quality following periods when they reported lower depressive symptoms than they typically did.

Current Study

In summary, the current study was designed to address gaps in the literature and provide a rigorous conceptual and analytic test of within and between person associations concurrently and across time between three domains of relationship functioning (global relationship satisfaction, partner support, ineffective arguing) and depressive symptoms. To do so, we applied the Random Intercept Cross-Lagged Panel Model (RI-CLPM) to four waves of data with eight-month lags from 174 African American couples in established romantic relationships. The RI-CLPM builds upon the traditional Cross-Lagged Panel Model (Campbell, 1963) by examining concurrent and lagged effects between two variables, with the added benefit of disentangling between- and within-person processes (Berry & Willoughby, 2017; Hamaker et al., 2015; Orth et al., 2020). Doing so is important because failing to adequately distinguish between- and within-person variance can result in effects that do not differentiate what may be very different underlying change processes, making results more difficult to interpret (Berry & Willoughby, 2017; Hamaker et al., 2015). Applied to the current study, the RI-CLPM permits the examination of three different associations—between-person, within-person concurrent, and within-person lagged—with respect to how different dimensions of relationship quality (i.e., relationship satisfaction, partner support, and ineffective arguing) are related to depressive symptoms and vice versa. Based on prior research and theorizing, we test the following hypotheses:

1. Relationship satisfaction and partner support will demonstrate negative between-person associations with depressive symptoms, and ineffective arguing will demonstrate a positive between-person association with depressive symptoms.

2. Relationship satisfaction and partner support will demonstrate negative within-person concurrent associations with depressive symptoms, and ineffective arguing will demonstrate a positive within-person concurrent association with depressive symptoms.

We also tested within-person cross-lagged associations between the three domains of relationship quality and depressive symptoms. We did not advance any specific hypotheses with respect to these lagged associations given the inconsistency of prior research testing within-person lagged effects, and the paucity of prior research examining such effects after controlling for stable between-person differences. We did expect, however, that relationship satisfaction, partner support, and ineffective arguing would not demonstrate identical patterns of within-person lagged effects despite being significantly correlated with each other and with global satisfaction.

Method

In this section, we report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study.

Participants

Participants were 174 African American couples assigned to the control condition of a randomized trial of a family-centered prevention program. Only control couples were included in the current analyses given observed effects of the intervention on treatment couples' relationship functioning over time (Barton et al., 2018). Thus, the current sample of 174 couples was drawn from an original sample of 346 couples, of whom 172 were excluded due to being in the treatment condition.

All participants lived in small towns and communities in Georgia where poverty rates are among the highest in the nation and unemployment rates are above the national average (DeNavas-Walt & Proctor, 2014). Of this sample of 174 couples, 60% were married; the mean length of marriage was 9.97 years (range 0 – 56). Unmarried couples had been living together for an average of 6.14 years (range 0.25 – 24).[1] Approximately one-quarter of participants had been previously married. Mean age was 38.17 years (SD = 9.01; range 22 – 84), and median education level was high school or GED (ranging from less than grade 9 to a doctorate or professional degree). The majority of participants reported full-time or part-time employment (66%, with 52% being full-time). The incomes of 52% of the families were below 100% of the poverty line, and incomes of 68% of the families were below 150% of the poverty line. All couples were mixed-gender and had at least one pre- or early adolescent youth residing in the home. The number of children residing in the home ranged from 1 to 8, with a median of 3.

[1]For descriptive purposes, analyses comparing married and non-married individuals indicated that married individuals were older and more likely to be employed on average; married and non-married individuals did not differ in number of children in the home.

Procedures

Couples were recruited by mail and phone from lists provided by local schools and using flyers and advertisements posted in their communities. Those who responded were screened for eligibility. To be eligible, couples had to be in a relationship for 2 years or more, living together, and coparenting an African American youth in the targeted age range for at least 1 year. In addition, couples had to be willing to spend 6 weeks engaged in a family-centered prevention program and not be planning to move out of the study area during that period. At Wave 1 (W1), project staff visited couples' homes, explained the study in more detail, and obtained informed consent from adult participants. Families were randomly assigned to the control or treatment condition following the completion of W1 measures. After the Wave 1 assessment and randomization, couples in the control condition were mailed a book and accompanying workbook focused on relationship enrichment. Families were then visited for Wave 2 (W2), Wave 3 (W3), and Wave 4 (W4) assessments at an average of 9.4, 17.0, and 24.5 months after W1, respectively. Concerning retention, 298 individuals (86%) provided information at Wave 2, 309 individuals (89%) at Wave 3, and 308 individuals (89%) at Wave 4. At Wave 4, 17 couples reported being divorced (n = 8) or not married and now separated (n = 9).

Participants completed the assessments using audio computer-assisted self-interview software installed on laptop computers. Adults were compensated with a $50 check at each wave of data collection. All procedures were approved by the institutional review board of the sponsoring institution (study title: *redacted*; IRB approval number: *redacted*). Additional recruitment and implementation procedures for the larger study are provided in detail elsewhere (Barton et al., 2018).

Measures

Depressive Symptoms—Individuals' depressive symptoms were measured using 20 items from the Center for Epidemiological Studies Depression (CES-D) scale (Radloff, 1977), a commonly used measure in community samples for gauging individuals' mental health. Sample items include "In the past week, how often did you feel depressed?" and "In the past week, how often did you think your life was a failure?" Response options ranged from 0 (*Rarely or none of the time [0-1 day]*) to 3 (*Most or all of the time [6-7 days]*). Items were summed such that higher scores indicated more depressive symptoms. Across all four waves, the Cronbach's alphas ranged from .82 to .86. The percentage of individuals who reported depressive symptoms that were above the traditional cut-off criteria for depression (≥ 16) were 26.6%, 27.4%, 26.7%, and 25.7% at W1, W2, W3, and W4, respectively.

Relationship Satisfaction—Relationship satisfaction was measured using an adaptation of the Quality of Marriage Index (Norton, 1983). This six-item scale measures global perceptions of relationship satisfaction using a scale ranging from 1 (*strongly disagree* [questions 1-5] and *very unhappy* [question 6]) to 5 (*strongly agree* [questions 1-5] and *perfectly happy* [question 6]). Adaptations were made to items that referred to marriage specifically and instead focused more on relationships broadly. An example of an adapted sample item is: "[Partner name] and I have a good relationship." Items were summed

such that higher scores indicated higher relationship satisfaction. Across all four waves, the Cronbach's alphas ranged from .89 to .96.

Ineffective Arguing—Individuals' reports of ineffective arguing were measured using the Ineffective Arguing Inventory (IAI; Kurdek, 1994). The IAI is designed to assess how couples argue and resolve conflicts (e.g., "Our arguments seem to end in frustrating stalemates") and was assessed along a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were summed such that higher scores indicated more ineffective arguing. Across all four waves, the Cronbach's alphas ranged from .80 to .83.

Perceived Partner Support—Perceived partner support was measured using items from the Spouse Specific Social Support Scale (Culp & Beach, 1998). The five-item subscale asks respondents to report perceived emotional support, indicating the extent to which they agree (1 = *almost never*; 5 = *almost always*) with items such as "I feel intimate with [partner name]", "[partner name] is someone I can confide in", and "I can tell [partner name] about both good things and bad things that happen to me." Accordingly, it is not a measure of received support. Items were summed such that higher scores indicated higher perceived partner support. Across all four waves, the Cronbach's alphas ranged from .84 to .91.

Analytic Plan

Analyses were conducted using a random intercept-cross lagged panel model (Hamaker et al., 2015) within a structural equation modeling framework using Mplus version 8.3 (Muthén & Muthén, 2017). As there were no gender-specific hypotheses, analyses were executed at the individual level, with individuals nested within dyads (using the 'cluster' command in Mplus) to account for the interdependence between partners. Sex was included as a control variable in all analyses.[2]

Using procedures outlined by Hamaker (2018), we tested two series of models. The first series of models estimated an unconstrained RI-CLPM for each of three associations: relationship satisfaction and depressive symptoms (Model 1), ineffective arguing and depressive symptoms (Model 2), and partner support and depressive symptoms (Model 3). For the second series of models, we imposed equality constraints on the stability and lagged parameters over time and examined whether doing so worsened model fit. Wald tests were also used to compare any significant cross-lagged effects. Overall model fit was evaluated with commonly used global fit indices: the chi-square test (χ^2), the root mean square error of approximation (RMSEA), the comparative fit index (CFI), and standardized root mean square residual (SRMR). A non-significant chi-square, values greater than .95 for CFI, and values smaller than .06 and .08 for RMSEA and SRMR suggest good model fit, and a CFI greater than .90 and RMSEA and SRMR smaller than .10 suggest acceptable model fit (Little & Card, 2013). Individuals were nested within couples and analyses used the MLR estimator. Chi-square difference testing was conducted using the difference test scaling correction factor (Satorra, 2000).

[2]We attempted to run a model that would allow us to test for sex differences in the pathways under examination. However, these RI-CLPMs did not converge for any of the three relationship process variables and their respective associations with depressive symptoms. Models testing partner effects were also not examined given similar model complexity and convergence concerns.

Missing data (8.9%) were handled using Full Information Maximum Likelihood (FIML), which computes model parameters with all available information in the variance/covariance matrix. Little's MCAR test indicated that our data were not missing completely at random (Chi-Square = 71.95, df = .52, $p < .05$). Follow-up analyses indicated women were more likely to provide data at follow-up waves than men; as noted previously, participant sex was already planned to be included as a control variable in all analyses. Respondents and non-respondents did not differ on W1 levels of any of the main relationship and individual variables of interest.

Because dyadic data are potentially identifiable, data are not available publically but are available upon request to the corresponding author. Analytic code is also available upon request. This study was not preregistered.

Results

Preliminary Analyses

Supplemental Table 1 presents descriptive statistics and correlations among study variables. Bivariate associations were significant and in the expected directions. Cross-sectional correlations among the various forms of relationship functioning under investigation across the four waves ranged in absolute value from .53 (between ineffective arguing and partner support at Wave 1) to .80 (between relationship satisfaction and partner support at Wave 3).[3] Given these preliminary findings, we proceeded with analyses testing our series of more complex models.

Our first set of models tested unconstrained RI-CLPMs. These models examined the association between relationship satisfaction and depressive symptoms (Model 1), ineffective arguing and depressive symptoms (Model 2), and partner support and depressive symptoms (Model 3). As shown in Supplemental Table 2, each of the unconstrained RI-CLPMs demonstrated good fit.

We next constrained the cross-lagged paths and the stability paths to be equal across waves in each model. For Model 1 and Model 3 (relationship satisfaction ↔ depressive symptoms and partner support ↔ depressive symptoms, respectively), the constraint of equal lagged and equal cross-lags across waves did not worsen model fit (Test statistic = 10.10, $p = .26$ and Test statistic = 5.19, $p = .73$, respectively). As such, the more parsimonious constrained models were retained. For ineffective arguing, the constrained model did not fit the data as well as the unconstrained model (Test statistic = 21.87, $p < .01$). For this model (Model 2), inspection of parameter estimates in the unconstrained RI-CLPM indicated that the stability paths for ineffective arguing (e.g., W1 ineffective arguing → W2 ineffective arguing) demonstrated more variability across waves than the other sets of constrained paths. We then ran an alternative constrained RI-CLPM that freed this parameter constraint, but retained the remaining constraints consistent with the prior model. This alternative constrained model did not worsen model fit (Test statistic = 8.26, $p = .22$) and was retained as the final

[3]To note, correlations among relationship functioning variables were negative between relationship satisfaction and ineffective arguing and between partner support and ineffective arguing, and positive between relationship satisfaction and partner support.

model. The final RI-CLPMs are summarized in Figures 1-3 and described in detail below. To illustrate more clearly areas of consistency and inconsistency across results, these results are organized by type of effect (e.g., between-person associations, within-person concurrent associations) rather than summarizing each RI-CLPM separately.

Between-Person Associations

At the between-person level, results indicated a significant negative between-person association for marital satisfaction and depressive symptoms (see Figure 1). Hence, participants who averaged higher levels of marital satisfaction across the study reported lower levels of depressive symptoms than participants averaging lower levels of marital satisfaction. For ineffective arguing and depressive symptoms, a significant positive between-person association was observed (see Figure 2), indicating that participants who averaged higher levels of ineffective arguing across the study reported higher levels of depressive symptoms than participants averaging lower levels of ineffective arguing. Conversely, the between-person association for partner support and depressive symptoms was not significant (see Figure 3). Thus, participants with average higher levels of partner support across the study did not report higher, or lower, levels of depressive symptoms than participants averaging lower levels of partner support. Thus, Hypothesis 1 was supported for relationship satisfaction and ineffective arguing, but not partner support.

Within-Person Concurrent Associations

At the within-person level, concurrent associations were significant at all four waves for depressive symptoms and ineffective arguing (Figure 2) and for depressive symptoms and partner support (Figure 3), and at three of the four waves for depressive symptoms and relationship satisfaction (Figure 1). Effects were in a similar direction as the between-person associations: at times when participants reported experiencing lower relationship satisfaction, higher ineffective arguing, or lower partner support than they typically did, they also reported higher depressive symptoms than usual. Thus, Hypothesis 2 was supported.

Within-Person Cross-Lagged Associations

To examine prospective effects across an approximately 8-month lag, we proceeded to examine the within-person cross-lagged associations in each of the models. Results indicated that for relationship satisfaction ↔ depressive symptoms (Model 1) and ineffective arguing ↔ depressive symptoms (Model 2), no significant within-person cross-lagged effects were observed in either direction. These results indicate that for a given individual: (a) experiencing an increase or decrease in relationship satisfaction or ineffective arguing relative to their own norm did not predict changes in depressive symptoms over the next eight months, and (b) experiencing higher or lower depressive symptoms than usual did not predict changes in relationship satisfaction or ineffective arguing over the next eight months.

In contrast, significant bidirectional negative associations were observed for within- person cross-lagged effects for partner support ↔ depressive symptoms (Model 3). This finding indicates that after experiencing higher-than-typical levels of perceived partner support (relative to their own average), participants reported significant decreases in depressive symptoms over the next eight months. Additionally, after reporting higher-than-typical levels

of depressive symptoms (relative to their own average), participants reported decreases in perceived partner support over the subsequent eight months. Importantly, a Wald test indicated that the significant within-person cross-lagged path from partner support to depressive symptoms was significantly stronger than the significant path from depressive symptoms to partner support (Test statistic = 18.21, $p < .01$).

Discussion

In the current study, we employed novel analytic tools to test key propositions of the Marital Discord Model in a sample of African American couples. The Marital Discord Model of Depression has guided research on depressive symptoms within a couple context for three decades (Beach et al., 1991), but key questions about generalizability across ethnic and racial groups, as well as questions about the distinguishability of support and conflict processes, remain. The current study permitted us to examine, at both between- and within-person levels, the concurrent and prospective associations between depressive symptoms and three distinct relationship processes in a sample of African American couples. Results from the study enhance our understanding of the ways in which specific relationship processes do, and do not, demonstrate associations with depressive symptoms over time, thereby helping to address inconsistencies in prior longitudinal research on this topic (Vento & Cobb, 2011; Whisman et al., 2011; Whitton et al., 2008).

Since its original conceptualization, the Marital Discord Model (Beach et al., 1991) has emphasized the clinical salience of both support- and conflict-related processes for individuals' depressive symptoms. Current results lend support for the relevance of both of these specific processes (albeit in different ways), advancing prior research that has tended to focus on bidirectional effects between global relationship satisfaction and depressive symptoms (Whisman et al., 2021) and furthering calls for a more nuanced conceptualization of relationship quality in relationship research (Fincham & Rogge, 2010). In addition to providing one of the strongest empirical validations to date of the Marital Discord Model for African American couples, results also demonstrate that African Americans' depressive symptoms are clearly shaped by relationship processes, particularly partner support. These findings suggest a pertinent (and malleable) target for efforts to promote African Americans' mental health in light of the heightened racial and economic stressors that African American couples experience (Bryant et al., 2010) and add to the growing literature on the benefit of partner support for African Americans' mental as well as physical health (Beach et al., 2019; McNeil Smith et al., 2019).

In surveying the specific findings from this study, between-person associations with depressive symptoms were significant for satisfaction and ineffective arguing in a manner that was consistent with our first hypothesis and prior research (Whisman, 2001). Additionally, within-person concurrent associations were significant in all models, such that global satisfaction, arguing, and support all reliably covaried with depressive symptoms in ways that were consistent with our second hypothesis and prior research (Davila et al., 2003; Karney, 2001; Kurdek, 1998). The significant and similar within-person concurrent associations with depressive symptoms for all three relationship variables suggest a relatively rapid, and general, mechanism linking perturbations in relationship functioning

with perturbations in depressive symptoms. These within-person findings are also notable as they suggest significant fluctuations in these constructs that cannot be accounted for by "third variables" such as individual characteristics or contextual factors. Although we are unable to assess causal direction of effects for contemporaneous associations, we acknowledge that causal associations may be occurring over relatively brief intervals to give rise to these within-person concurrent associations. Accordingly, further examination with all three relationship constructs using shorter time frames appear warranted (Smith et al., 2012; Whitton et al., 2008). As a final point of consideration, within-person, concurrent associations suggest the possibility of these short-term effects accumulating, or aggregating, over time, contributing to the robust between-person associations that were observed. This possibility also deserves further attention in future research.

Current findings also indicate that within-person changes in partner support (but not hostility or satisfaction) predicted subsequent within-person changes in depressive symptoms over an eight-month time period and within-person changes in depressive symptoms predicted subsequent within-person changes in partner support (but not hostility or satisfaction). Our comparison of the relative magnitude of these cross-lagged within-person effects indicated that the effect was stronger from support to depression than from depression to support. Hence, this result aligns with prior research indicating "the causal arrow flows more strongly from relationships to mental health than vice versa" (Braithwaite & Holt-Lunstad, 2017, p. 120; also see Whisman et al., 2021). That the most potent source of lagged bidirectional associations involved positive aspects of the relationship – specifically factors associated with partner support – is consistent with other research among African Americans, including prior research that has emphasized the positive association between family-based social support and lower levels of depressive symptoms (Chatters et al., 2015) and mental-emotional health (Priest et al., 2020). Similarly, research on stress resilience has indicated a role for support in African American relationships that goes beyond the effect of relationship satisfaction or conflict (Barton et al., 2018). More generally, results from the current study align with calls from various scholars on the need to shift empirical focus away from negative relationship processes and devote increased attention to the unique effects of positive relationship processes, such as partner support, gratitude, and commitment (Barton et al., 2015; Fincham & Rogge, 2010). It is possible that positive, rather than negative, aspects of relationship functioning may be particularly salient for couples encountering a high number of external stressors. Past research with African American couples, for instance, highlights the effect that stressors such as financial strain can have on declines in perceived partner warmth over time (Barton & Bryant, 2016).

Various aspects of the nature of the sample also merit consideration. First, all couples in the sample were African American, and the majority were living with low incomes. Given the range of significant external challenges (e.g., economic strain, racial discrimination) facing these couples, it may be that perceived support from one's partner becomes particularly relevant for promoting mental health among this population (McNeil et al., 2014); future research with other populations is needed to examine the degree to which partner support continues to exhibit the pattern of findings observed in this study. Second, couples were recruited as part of a randomized control trial for a family-centered intervention requiring participation from both partners. As other research has shown, couples that enroll in

basic (Barton, Lavner, Stanley, et al., 2020) and applied (Barton, Hatch, et al., 2020) research studies that require dyadic participation likely possess higher levels of relationship functioning at baseline, with individuals in more distressed relationships excluded as a result of one partner's non-participation. Third, and related to the preceding point, these couples were also willing to participate in a program to strengthen their couple and family relationships, which may differ from couples without such interest. That said, this difference is likely to have more of an effect on mean levels of study variables rather than the nature of associations that are of primary focus in the current study. Prior research also highlights substantial heterogeneity in levels and trajectories of relationship functioning among help-seeking couples assigned to control condition (Barton et al., 2021), which this study was also able to leverage.

The strong connection between depressive symptoms and various facets of relationship functioning highlighted by these findings convey important practical implications. From a prevention perspective, these findings highlight the utility of both selective and universal approaches. Selective prevention, targeting couples and individuals with heightened levels of personal and relational distress, is supported by the between-person findings, in which individuals with greater relationship distress reported more depressive symptoms than individuals with less relationship distress, suggesting that they are at elevated risk. Universal prevention efforts are supported on the basis of within-person effects in which changes in relationship functioning coincide with changes in depressive symptoms within individuals. In addition, these findings suggest that support may be particularly important as a target of family-focused clinical and preventive interventions to alleviate or prevent depressive symptoms. Consistent with this conjecture, recent findings from randomized trials involving couple relationship education that focused, in part, on partner support have demonstrated positive direct and/or indirect effects on participants' mental health (Barton, Lavner, & Beach, 2020; Roddy et al., 2020).

As these and related findings illustrate, better understanding optimal lag times for observing associations over time remains a key question for relationship research. Previous within-person studies involving lag times of one week, one month, three months, eight months, and twelve months were identified and reviewed, resulting in some inconsistency in observed patterns of results across the existing literature. This inconsistency suggests the need for increased attention regarding the time course over which relationship processes are expected to unfold and exert their influence on mental and physical health symptoms. In particular, when considering prospective effects on depressive symptoms, it will be important to clarify for which relationship processes we should expect shorter-term or rapid causal effects, those for which we should anticipate longer or delayed effects, and those that might result in accumulating effects over time.

Despite the various strengths of the study, certain limitations merit consideration. First, our sample was composed of a community sample of African American couples with mean levels of depressive symptoms below the traditional cut-off criteria for depression (< 16) on the CES-D scale. Although useful for understanding these associations among community samples, the ability to generalize to clinical depression is unknown. Nevertheless, subsyndromal depressive symptoms significantly predict both future depression and

relationship functioning (Davila et al., 2003), suggesting that they are still meaningful. Second, all measures were self-report, precluding our ability to consider observed measures of hostility and partner support or clinicians' assessments of depressive symptoms. Third, all lag effects were based on 8-month intervals. As previously noted, more research is needed with follow-up assessments of varying lengths to more precisely determine how long effects persist over time. Fourth, model complexity and our sample size made it so that we were unable to test for sex differences or partner effects, both of which should be examined in future research. Lastly, although providing a strong test of a specific theoretical issue, we were unable to test more complex patterns of association that consider the possible role of societal stressors such as racial discrimination and financial strain on the bidirectional links between relationship functioning and depressive symptoms among African Americans. Although strong scholarship has recently appeared in this area (Jenkins et al., 2020; Priest et al., 2020), additional research remains warranted. These limitations notwithstanding, results from the study provide increased conceptual and analytic precision for understanding the association between couples' relationship quality and African Americans' mental health.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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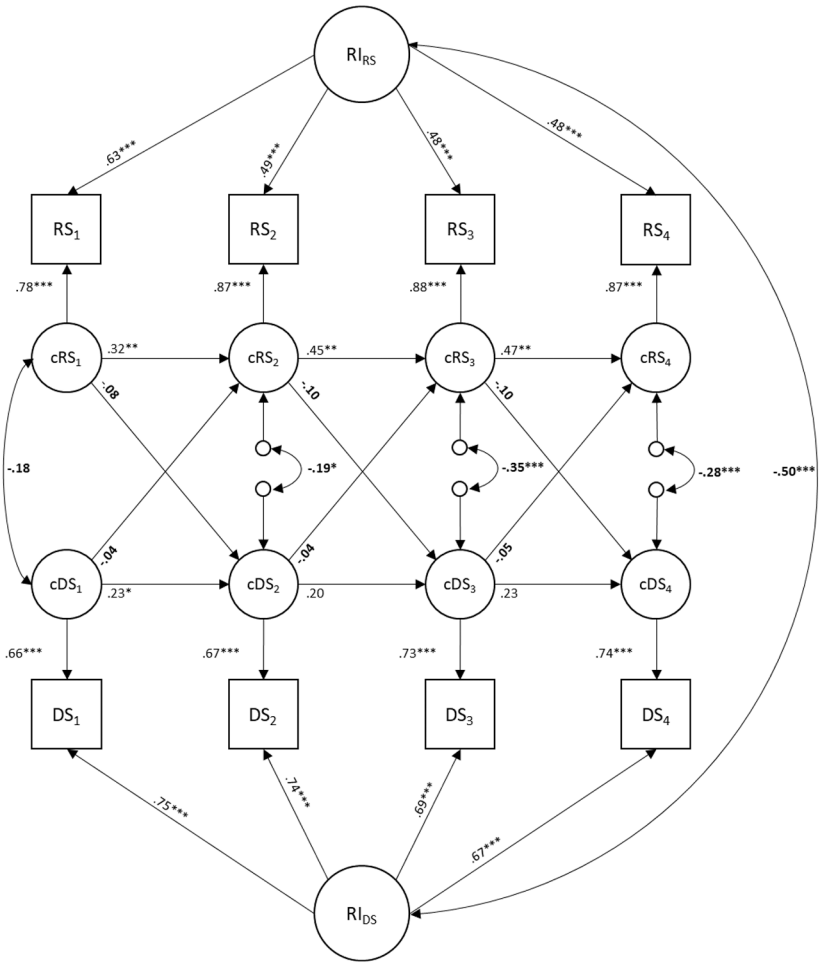

Figure 1.

Random intercept cross-lagged panel model (RI-CLPM) of the relationship between relationship satisfaction (RS) and depressive symptoms (DS) across four waves (denoted in subscripts), with ~8-month time lags between waves. Squares represent observed variables and circles represent latent variables. RI represents random intercepts and c represents within-person centered. All estimates are standardized. Sex was included as control variable (not shown). Parameters involving associations between RS and DS shown in bold typeface. $^{+}p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

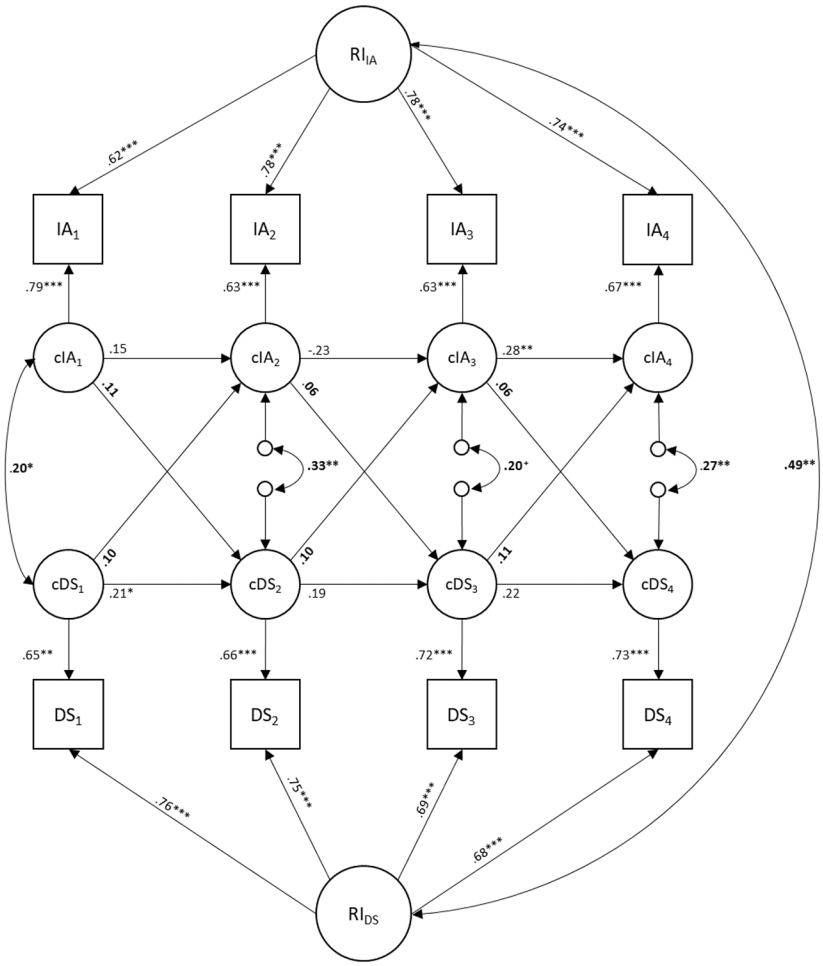

Figure 2.

Random intercept cross-lagged panel model (RI-CLPM) of the relationship between ineffective arguing (IA) and depressive symptoms (DS) across four waves (denoted in subscripts), with ~8-month time lags between waves. Squares represent observed variables and circles represent latent variables. RI represents random intercepts and c represents within-person centered. All estimates are standardized. Sex was included as control variable (not shown). Parameters involving associations between IA and DS shown in bold typeface. $^{+}p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.

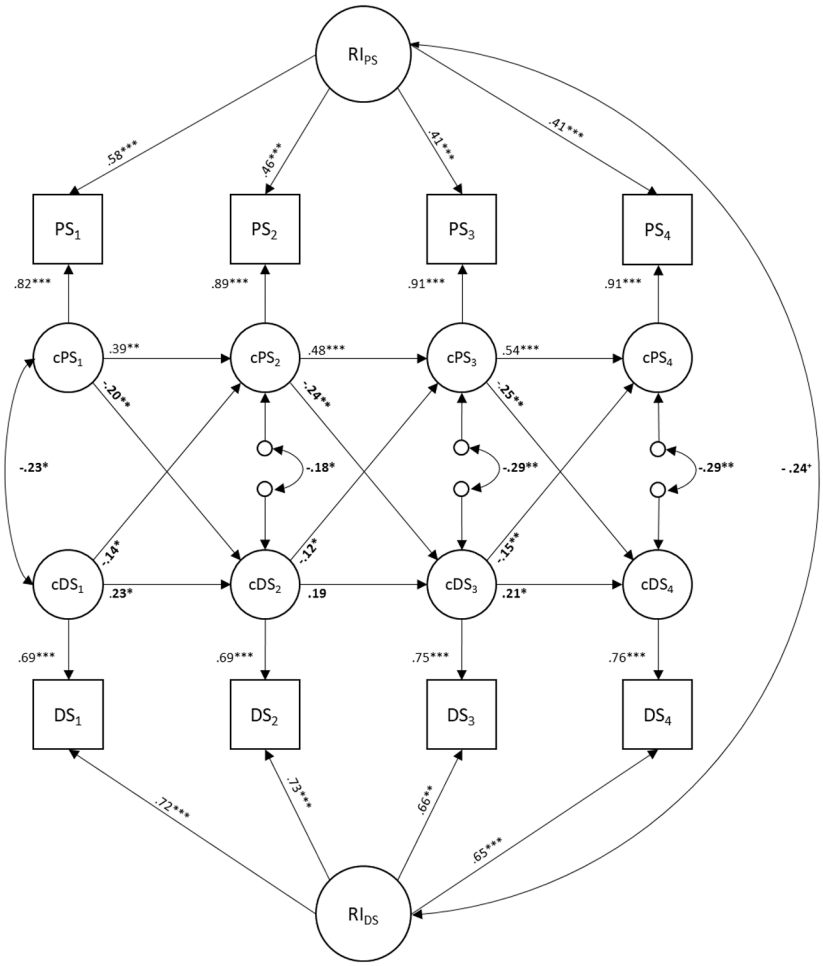

Figure 3.

Random intercept cross-lagged panel model (RI-CLPM) of the relationship between partner support (PS) and depressive symptoms (DS) across four waves (denoted in subscripts), with ~8-month time lags between waves. Squares represent observed variables and circles represent latent variables. RI represents random intercepts and c represents within-person centered. All estimates are standardized. Sex was included as control variable (not shown). Parameters involving associations between PS and DS shown in bold typeface.

$^{+}p < .10$. $*p < .05$. $**p < .01$. $***p < .001$.