Disillusionment Predicts Depression in Newly Married Couples

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Abstract

The present study examines whether marital disillusionment prospectively predicts individuals' depressive symptoms or whether the reverse is true, in a regional U.S. newlywed sample surveyed twice roughly 2.5 years apart. Even using extensive control variables, wives' Phase-1 disillusionment predicted their own Phase-2 depressive symptoms (an actor effect); an analogous pathway did not occur in husbands. No findings in the reverse direction emerged. Further three longitudinal partner-effects in the expected direction emerged, as wives' P1 disillusionment predicted husbands' P2 depression and P2 disillusionment, and husbands' P1 disillusionment predicted wives' P2 depression. Further, modest support was found for spouses' interpersonal dynamics (specifically, wives' satisfaction with time spent together with their husband) accounting for some of the association between wives' disillusionment and depressive symptoms. The findings extend existing literature by showing that both actor- and partner-effects of disillusionment temporally precede individuals' depressive symptoms. The discussion examines theoretical and practical implications for disillusionment research.

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Considerable research has examined the temporal sequencing between the quality of individuals' marital/romantic relationship and their psychological health/distress (e.g., depression). Within the same person (i.e., actor effects; Kenny, Kashy, & Cook, 2006) and with at least two waves of data, associations between relationship quality and psychological health are potentially bidirectional (relationship quality affecting psychological health, and psychological health affecting relationship quality). However, reviews of this literature show that effects are stronger from relationship quality to psychological health/distress than from psychological health to relationship quality. Proulx, Helms, and Buehler (2007) demonstrated this pattern via a significant longitudinal meta-analytic contrast (see also Braithwaite & Holt-Lunstad, 2017; Goldfarb & Trudel, 2019). The purpose of the present study is to extend this literature in two ways, by introducing romantic/marital disillusionment (Niehuis, Lee, Reifman, Swenson, & Hunsaker, 2011) as a relationship-quality variable and examining cross-partner effects between newlywed spouses' disillusionment and depressive symptoms over time.

Models of Relationship Quality and Psychological Health Pathways

Central to probing mutual associations between marital quality and psychological health are existing conceptual models of these interconnections. Scholars typically cite two conceptual models of marital/relationship quality and psychological health (Braithwaite & Holt-Lunstad, 2017; Goldfarb & Trudel, 2019; Proulx et al., 2007). One is the stress-generation model (Davila, Bradbury, Cohan, & Tochluk, 1997), in which partners' strained interactions create an "ongoing cycle that perpetuates both depressive symptoms and marital dissatisfaction" (Proulx et al., p. 578). Here, strained interactions are a common cause of both relationship quality and psychological health/distress. The other framework is the marital-discord model (Beach,

Sandeen, & O’Leary, 1990), in which marital tension deprives each spouse of the other’s social support/dyadic coping, escalates hostility, etc., which can increase spouses’ likelihood of depressive symptoms (see Braithwaite & Holt-Lunstad for further description of these models). In this case, relationship quality leads to (or at least precedes) psychological health. Although these two models differ in their proposed sequencing of variables, their common focus on strained dynamics is noteworthy. The marital-discord perspective, in fact, implies a mediational sequence in which (a) marital problems lead to (b) diminished social support, dyadic coping, and satisfaction with companionship/time spent together, which, in turn, increases (c) spouses’ depressive symptoms. As elaborated further below, the present study tests for such mediation.

Disillusionment Research and Theory

To study potential associations with depressive symptoms, researchers have operationalized marital/relationship quality using concepts such as satisfaction, love, and conflict (Proulx et al., 2007), but not romantic disillusionment. The latter is defined as

“an extreme version of disappointment [that] captures individuals’ perception that their relationship has changed for the worse. Disillusionment ... carries feelings of regret, hopelessness, capitulation, and an inability to see what can be done to turn things around and fix the relationship. It stems from the belief that one’s partner and/or relationship are no longer living up to (sometimes overly lofty) expectations (Niehuis, Lee, Reifman, Swenson, & Hunsaker, 2011)” (Niehuis, Reifman, Al-Khalil et al., 2019, p. 210).

The roots of what scholars today term the *disillusionment model* go at least as far back as Waller (1937), who writes of a cycle of mutual romantic idealization between early-stage romantic partners in which emotions overtake objective evaluations of the partner. Huston,

Caughlin, Smith, and George (2001) note that such idealized impressions are maintained both by partners' motivated perceptions (Kunda, 1990) and impression management. Huston et al. (2001) draw the key nexus between idealization and disillusionment, contending that "Illusions about one's partner may be more difficult to maintain after the wedding, because increased interdependence makes character management more challenging" (p. 238). A negative trajectory can then take hold, according to Huston et al., including diminished love and affection, increased distress, and possible divorce (p. 238).

Niehuis et al. (2011) refined the disillusionment model further, noting that Huston and colleagues' (2001) version does not specify possible triggering behaviors for disillusionment. Niehuis and colleagues (2011) draw upon other scholars' work to help fill the behavioral gaps in Huston et al.'s (2001) overview. Examples of this gap-filling work included that of Kayser (1993; Kayser & Rao, 2006), who argued that one or both partners' conduct of a controlling, irresponsible, and/or uncaring/unsupportive nature could produce or exacerbate disillusionment, and that of Buehlman, Gottman, and Katz (1992), who raised the issue of partners giving up on the relationship amidst disillusionment.

Conceptually, disillusionment goes beyond the current evaluation of one's partner and/or relationship at a given moment in time (central to satisfaction). It instead is "a temporal construct reflecting the perception of change over time" (Niehuis, Reifman, Al-Khalil et al., 2019, p. 210). Indeed, these perceptions may even threaten one's core beliefs about the nature of relationships (Maher, Igou, & Van Tilburg, 2018), such as that partners should be faithful to each other (see also Niehuis, Reifman, & Oldham, 2019). Maher, Igou, and Van Tilburg (2019) noted that central aspects of disillusionment (from their prototype analyses of laypersons' nominations of disillusioning examples from different life domains) match the core features of romantic/marital

disillusionment (i.e., disappointment, expectancy violation, confusion, and hopelessness) as conceptualized and measured by Niehuis and colleagues, thus demonstrating multi-method convergence.

Disillusionment is distinct not only conceptually but also empirically from other relationship constructs such as (dis)satisfaction (an evaluation of one's partner at a given moment), disappointment (the outcome of one's expectation or decision is worse than expected or hoped for), regret (feeling one made the wrong choice or engaged in the wrong behavior and wishing one had chosen or behaved differently), and (lack of) commitment (a decision to continue the relationship) (e.g., Niehuis, Reifman, Al-Khalil et al., 2019; Niehuis, Reifman, & Lee, 2015). Niehuis and colleagues have conducted a number of studies showing disillusionment to be correlated with, but also distinct from, other relationship-quality constructs. For instance, Niehuis et al. (2015) showed, in a national dataset of married and cohabiting couples, that disillusionment predicted participants' self-rated break-up likelihood, controlling for relationship satisfaction, commitment, and duration. Niehuis, Reifman, Al-Khalil et al. (2019) used functional Magnetic Resonance Imaging (fMRI) data to differentiate romantic disillusionment from dissatisfaction and regret. They found that:

“Compared to dissatisfying events, disillusioning ones showed greater activity in regions pertaining to evaluation, reflection, and reconciling of conflicting information ... [and] compared to regret-inducing events, disillusioning events showed greater activation in areas thought pertinent to detail processes and decision making. ... Regret-inducing events activated regions suggesting the planning and thoughts of how one could have acted differently” (p. 209).

Disillusionment is a very important but overlooked variable. As disillusionment theoretically encompasses giving up on one's relationship, and hopelessness has long been considered a potent predictor of depression (Abramson, Metalsky, & Alloy, 1989), marital disillusionment presents a theoretically compelling case, especially in newlywed couples, for a relationship-quality measure that should predict individual partners' depressive symptoms. Whereas dissatisfaction and regret may spur efforts by the partners to repair the relationship, the "hopelessness and recrimination resulting from disillusionment ... typically result in long-lasting emotional distancing, isolation, and eventual relationship breakup" (Niehuis et al., 2019, p. 210). Thus, when spouses physically distance themselves by spending less time together, they may well intensify one or both partners' feelings of depression, a proposition the present study investigates. Accordingly, the present study examines longitudinal associations over a roughly 2.5-year interval between marital disillusionment and depressive symptoms in newlywed couples.

Partner Effects

Interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) suggests – beyond within-person actor effects – the additional avenue of examining partner effects, such as how one dyad member's relationship quality affects the other partner's psychological health. According to Wickham and Knee (2012), interdependence theory addresses "...*how* people engage, interact, and influence one another" (p. 384). Such mutual influence is indeed a major part of Family Systems Theory (Becvar & Becvar, 2018). Figure 1 illustrates potential bidirectional actor and partner effects between relationship quality (operationalized in the present study as marital disillusionment; Niehuis et al., 2011) and psychological health (operationalized as depressive symptoms), in heterosexual married couples.

Outside the general, meta-theory perspective of interdependence theory (Wickham & Knee, 2012), other theory and research support the possible emergence of partner effects. Coyne's (1976) interpersonal theory of depression, as reviewed by Hames, Hagan, and Joiner (2013), posits that a focal actor's relatively mild depression and increasingly frequent reassurance-seeking might come to irritate close associates, with the latter's show of irritation then serving to exacerbate the actor's depression. Further, literature suggests that married and other romantic partners are good at detecting a broad range of each other's emotions (Clark, Von Culin, Clark-Polner, & Lemay, 2017), which would appear to be a prerequisite for one partner to be influenced by the other's affective states. Beyond the specific mechanism of reassurance seeking is the broader notion of *depressive contagion*, namely that depressive symptoms can spread between romantic or other partners for a variety of reasons. Joiner and Katz (1999) documented associations between partners' depressive symptoms in a meta-analysis and suggested several mechanisms that may account for their findings. These included individuals with relatively high depressive symptoms and/or their partners making blame-oriented and other maladaptive attributions, modeling of depressive emotions and behaviors, or engaging in non-supportive, withdrawing social interactions. (For additional theoretical discussion, see Rehman, Gollan, & Mortimer, 2008.)

Despite these arguments for examining partner effects between relationship quality and psychological health, relatively few studies have actually done so. A large study from the German Pairfam project, using a complex variant of latent growth modeling, found negatively signed partner effects from men's relationship satisfaction to women's depressive symptoms, women's relationship satisfaction to men's depressive symptoms, men's depressive symptoms to women's relationship satisfaction, and women's depressive symptoms to men's relationship

satisfaction (Morgan, Durtschi, & Kimmes, 2017). A two-year longitudinal study of English midlife and older married adults by Whisman and Uebelacker (2009) found some partner effects (men's depressive symptoms to women's marital discord, and women's depressive symptoms to men's marital discord) that were similar to those of Morgan et al., as well as some cross-partner associations on the same construct (e.g., men's discord to women's discord and vice-versa). However, many of Whisman and Uebelacker's effect sizes were very small.

Other studies examined predictive associations in only one direction (i.e., marital quality to psychological health or psychological health to marital quality) but not bidirectionally. Beach, Katz, Kim, and Brody's (2003) one-year longitudinal study found significant negative paths both from wives' marital adjustment to husbands' later depressive symptoms and from husbands' marital adjustment to wives' later depressive symptoms (i.e., paths to later marital adjustment were not tested). Another study with psychiatric symptoms as the only longitudinal dependent variable found that husbands' depressive symptoms positively predicted their wives' later depressive symptoms, but there were no cross-partner associations from marital discord to later depressive symptoms (Whisman, Robustelli, & Labrecque, 2018). Finally, a study focusing on psychological well-being variables (depression and anxiety symptoms) as predictors of marital satisfaction and using a follow-up interval varying from six months to one year found only that husbands' initial anxiety was associated with lower wives' marital satisfaction over time (Rehman, Evraire, Karimiha, & Goodnight, 2015).

Overall, partner effects between relationship quality and psychological health do sometimes emerge, but not consistently, and only some of the published studies have included bidirectional paths between relationship quality and psychological health. Goldfarb and Trudel

(2019) strongly recommend further study of cross-spouse effects and depression contagion to fully flesh out interpersonal processes of depression within marriage.

Hypotheses

Based on prior findings on relationship quality and psychological health, and recent theorizing on disillusionment, several hypotheses emerge. First, the combination of two meta-analytic findings – stronger associations in the direction from relationship quality to psychological health/distress than the reverse, and the particular strength of negatively (vs. positively) valenced relationship constructs in predicting psychological distress (Proulx et al., 2007) – suggests that greater marital disillusionment would predict, as an actor effect, stronger depressive symptoms over time (*Hypothesis 1*). Although some may question whether there is sufficient variation in relationship quality in early marriages, a review by Proulx, Ermer, and Kanter (2017) suggests roughly 10-20% of couples can be classified as having low-quality relationships, with others experiencing moderate or high quality. (Most of the samples reviewed by Proulx and colleagues [2017] appeared to consist of early-stage marriages, either with newlyweds as participants or couples recruited at the birth of a first or later child.) All of the present analyses control for variables that may be associated with disillusionment and depressive symptoms, specifically marital satisfaction, love, and conflict (Niehuis, Reifman, Feng, & Huston, 2016), ensuring the rigor of the hypothesis tests.

Second, although the literature shows paths from personal psychological health/distress (i.e., depressive symptoms in this study) to relationship distress (here disillusionment) to be relatively weak, one would still expect positive actor effects for them, to the extent they are significant (*Hypothesis 2*). Overall and Hammond's (2013) finding that individuals relatively high in depressive symptoms showed directional (mean-level) bias in underestimating their

partners' commitment and overestimating the extent of their partners' negative behavior provides a possible mechanism in support of Hypothesis 2.

Third, *Hypothesis 3* specifies that positive partner effects will emerge over time for all combinations of the two focal variables (husbands' disillusionment to wives' disillusionment, husbands' disillusionment to wives' depression, wives' depression to husbands' depression, etc.). Finally, in line with the marital-discord (i.e., loss of social support/dyadic coping; Beach et al., 1990) and stress-generation (i.e., strained interpersonal dynamics; Davila et al., 1997) models, the author proposes that constructs such as dyadic coping/support and satisfaction with how the couple spends time together will account for some of the actor effects between disillusionment and depressive symptoms (*Hypothesis 4*). Figure 2 provides an example model to test the extent to which an interpersonal variable (satisfaction with time spent together) accounts for variance in an outcome (actor depressive symptoms) and weakens the previous predictive association (from actor disillusionment).

Methods

Sample

This study was part of a larger, funded project studying predominantly heterosexual, Hispanic and Anglo newlywed couples and their progression of commitment to marriage. At Phase 1, participants resided in a small-medium university town in the southwest of the U.S. The study protocol required couples to be in their first marriage. The study was longitudinal, with the two assessment phases an average of 2.5 years apart for retained couples. A total of 186 couples entered the study, but the current analyses are limited to the 117 couples who were present at both phases (for some analyses, *N* ranges from 113-115 due to missing data for certain variables). With the present two-phase sample size of 115 couples, the study has .80 power to

detect as significant ($p < .05$, two-tailed) correlations of approximately .25 (UCSF Clinical & Translational Science Institute, 2019).

Out of the original 186 couples, the racial-ethnic composition was 90 Hispanic-Hispanic (48%), 61 White-White (33%), 14 White-Hispanic (8%), and the rest with participants from other racial-ethnic groups. Husbands' average age was 26.3 years ($SD = 6.6$, range = 19-64), whereas wives' was 25.4 years ($SD = 7.1$, range = 18-75).¹ Among the 117 couples who remained in the study for both waves, 48 were Hispanic-Hispanic (41%), 45 were White-White (38%), 11 were White-Hispanic (9%), and the rest included individuals from other groups. Hispanic-Hispanic couples comprised 61% of Phase-2 non-returning couples (vs. all other racial-ethnic configurations combined), but only 41% of returning couples ($\chi^2 [1 \text{ df}, N = 186] = 6.84$, $p < .01$). Attrition analyses on the main quantitative variables at Phase 1 showed that husbands who returned and those who dropped out for Phase 2 did not differ on either disillusionment (respective means of 1.22 and 1.33) or depressive symptoms (1.58 and 1.61). However, wives who dropped out reported higher average disillusionment ($M = 1.34$) and depressive symptoms ($M = 1.79$) at Phase 1 than their returning counterparts (disillusionment $M = 1.09$, depressive symptom $M = 1.61$; for disillusionment, $t [71.6] = 2.22$, $p = .029$; for depressive symptoms, $t [113.9] = 2.62$, $p = .01$).

Procedure

Upon approval by the home university's Institutional Review Board, the research team identified and recruited potential participants primarily via review of public records of recent marriage-license applicants (so the researchers could send recruitment letters). Although the primary interest was in Hispanic couples, an understudied group, and White couples, all racial-ethnic groups were accepted into the study. As marriage licenses did not contain information on

race/ethnicity, extra emphasis was placed on contacting participants with Hispanic-sounding names (Himmelfarb, Loar, & Mott, 1983) to ensure a substantial representation of this group in the sample. Recruitment also occurred through local magazine/newspaper advertisements, Craigslist ads, distribution of flyers at public events and at stores selling wedding-related products (e.g., bridal stores), and announcements on a university e-mail bulletin. To increase the participation of Hispanic couples, events and publications directed toward Hispanics were targeted. Newlyweds identified from courthouse records were sent a letter briefly detailing the study and asking them to contact the lab if they were interested in participating.

Those who contacted the researchers (either in response to a letter or to advertisements) were questioned regarding study eligibility requirements (at least 18 years of age, married six months or less, ability to speak and comprehend English, and, as noted, both partners being in their first marriage). Qualified couples were told that they would receive two surveys in the mail, which each person was instructed to complete independently of their partner. They were also instructed to contact the lab once they had completed the surveys to schedule a face-to-face semi-structured interview (at which time they would return the surveys). During this interview, courtship data (e.g., how well partners knew each other prior to dating; when partners began dating one another; whether, when, and for how long couples cohabited; their wedding date) were collected. After the interview, partners completed a second set of surveys in the lab, independently of one another. Compensation was \$100 per couple at Phase 1. Couples who had participated at Phase 1 were contacted (if possible) to participate in Phase 2. Partners in divorced couples were invited to complete exit surveys (which are not included in the present study). The research team attempted to locate couples who had moved between phases via Google searches, Facebook, and online “people-searcher” services. Phase-2 participants were given the choice of

having a survey mailed to them, completing the survey in the lab, or completing it online.

Compensation at Phase 2 was \$50 per couple.

Measures

Disillusionment. Participants completed the Marital Disillusionment Scale (Niehuis & Bartell, 2006; Niehuis, 2007; Niehuis et al., 2015). This measure contains 16 items, such as “Marriage is not as enjoyable as I had expected it to be,” and “My marriage is no longer as important to me as it used to be” (responses on a scale from 1 = *Strongly disagree* to 7 = *Strongly agree*). For husbands and wives at each phase, alpha reliability was consistently high (.94-.97).

Depressive symptoms. The survey contained 10 items (e.g., “I felt depressed,” “My sleep was restless”) from the Center for Epidemiologic Studies Depression scale to measure depressive symptoms in the past week (Radloff, 1977). Responses were on a scale from 1 = *Rarely or none of the time (less than 1 day)* to 4 = *All of the time (5-7 days)*. Gender- and phase-specific alphas ranged from .71-.79, except for husbands at Phase 1 (.61).

Couple/relationship control variables. The survey included three measures from Phase 1 to help rule out that the disillusionment scale was confounded with (dis)satisfaction, conflict, or (low) love.

Satisfaction. For satisfaction, the survey included the Marital Opinion Questionnaire (MOQ; Huston, McHale, & Crouter, 1986). Participants rated how they experienced their relationship using 11 pairs of binary antonyms (e.g., *miserable* vs. *enjoyable*), with a score of 1 closest to one adjective and a score of 7 closest to the other. After reversal of necessary items, higher scores represented greater relationship satisfaction. Alphas were consistently high (.89 for men and .91 for women).² Christopher, Umemura, Mann, Jacobvitz, and Hazen-Swann (2015)

report on the MOQ's high convergent validity and other psychometric properties from the literature.

Conflict. The survey contained the conflict subscale from Braiker and Kelley's (1979) Relationship Questionnaire, which has five items, such as "*How often do you feel angry or resentful toward your partner?*" and "*How often do you and your partner argue with one another?*" Items on this instrument are scored from 1 = *Not at all* to 9 = *A great deal/extremely/very much*. Alphas were .75 for husbands and .70 for wives.

Love. Finally, the survey also contained the love subscale of the Relationship Questionnaire (Braiker & Kelley, 1979). The love scale has 10 items, such as "*To what extent do you love your partner?*" and "*To what extent do you have a sense of 'belonging' with your partner?*" and is also scored from 1 to 9, with higher scores indicating greater love. Alpha reliabilities for it were .71 for husbands and .69 for wives.

Interpersonal dynamics. The survey contained three different sets of measures of interpersonal dynamics between spouses, used in testing for possible mediation of the potential effects of disillusionment.

Dyadic coping/social support. One set of measures consisted of the dyadic-coping subscales of providing advice, relief, and understanding to the spouse, and conveying that one was on the partner's side (from Phase 1; Bodenmann, 2000; Kramer, Ceschi, Van der Linden, & Bodenmann, 2005). The behaviors assessed are similar to acts of social support. For each type of dyadic coping, one spouse's report of receiving the support (e.g., "*My partner communicates understanding to me*") was averaged with the other spouse's report of delivering the same kind of support ("*I communicate understanding to my partner*"). Response options range from 0 = *never* to 2 = *always*.

Satisfaction with time spent together. Finally, to tap into possible distancing between spouses, analyses included the item, “*How satisfied have you been with your marriage with regard to the time the two of you spend together?*” (1 = *Very dissatisfied* to 3 = *Very satisfied*) from Phase 2.

Results

Descriptive Information and Correlations

Table 1 presents means, standard deviations, and correlations of the study variables for husbands and wives, along with cross-partner correlations on the same variable (e.g., the correlation of husbands’ and wives’ P1 disillusionment). Participants appeared to be in healthy relationships on average (i.e., low disillusionment and conflict, high satisfaction and love) and low in depressive symptoms. Disillusionment exhibited moderate-large correlations in the expected direction with the relationship-quality control variables (i.e., positive with conflict, negative with satisfaction and love).

Regression Tests of Main Hypotheses

Because both partners participated, an Actor-Partner Interdependence Model (APIM; Kenny et al., 2006) was used. The data set was organized in paired format (i.e., each line of data representing one couple and including both husbands’ and wives’ data), thus maintaining independence between each line of data. Hierarchical multiple regression was used, as it is one possible way of analyzing APIM models (Kenny, 2013) and offers the benefit of readily displaying the incremental variance with the addition of predictor blocks. A separate analysis was conducted for each of the four dependent variables (Phase-2 men’s depressive symptoms, women’s depressive symptoms, men’s disillusionment, and women’s disillusionment).

Preliminary APIM models were tested using online software (Stas, Kenny, Mayer, & Loeys, 2018) to verify gender as a distinguishing variable (i.e., that constrained identical solutions for husbands and wives would have to be rejected). These preliminary models included two Phase-2 outcome variables at a time (e.g., husbands' and wives' depressive symptoms), two main Phase-1 predictors (e.g., husbands' and wives' disillusionment) and Phase-1 covariates for earlier levels of the outcomes; additional control variables were omitted at this stage to keep the analyses manageable. For both directions of effect, disillusionment to depressive symptoms and depressive symptoms to disillusionment, results showed the gender-based indistinguishable (constrained) models to fit significantly worse than their corresponding distinguishable (unconstrained) models.

As shown in Table 1, Block 1 included demographic controls; length of dating before marriage, proportion of the couple's premarital relationship during which they cohabited (as simple cohabitation duration would have been confounded with length of dating), and partners' education.³ Husbands' and wives' education was each associated with dropping out of the study at Phase 2 (returnees averaged nearly 5, whereas non-returnees averaged between 3.5-4, where 3 = *associate's degree*, 4 = *technical education*, and 5 = *some college*). Therefore, education served as an auxiliary variable to control for possible underlying variables predisposing couples toward attrition (Graham, 2009). There was only one significant demographic finding, namely that women with greater educational attainment reported lower P2 depression (standardized $\beta = -.18$, 95% Confidence Interval [CI] = $-.35$ - $[-.01]$, $p = .04$). This finding is nevertheless important, as attrition effects had emerged for wives' depressive symptoms.

Block 2 consisted of couple/relationship control variables to help rule out that any effects of disillusionment were due to content overlap with other common relationship constructs and

significant predictors of psychological health/distress in prior research studies (see above). These couple/relationship variables (and all predictors throughout the analyses) came from Phase 1. Higher love reported by husbands was associated with lower P2 husbands' depressive symptoms ($\beta = -.28$, CI = $-.52$ - $-.04$), $p = .02$) and lower P2 wives' disillusionment ($\beta = -.30$, CI = $-.54$ - $-.06$), $p = .02$). Higher love reported by wives was positively associated with their later disillusionment ($\beta = .24$, CI = $.06$ -. $.42$, $p = .01$) (see Niehuis et al., 2016, for a similar finding). The greater the conflict wives reported, the greater their later depressive symptoms ($\beta = .25$, CI = $.06$ -. $.44$, $p = .01$) and disillusionment ($\beta = .20$, CI = $.01$ -. $.39$, $p = .04$). Relationship satisfaction showed no significant associations with the outcome variables.

Block 3 contained the stability paths (i.e., the same variable, reported by the same person, from P1 to P2), a stringent way to demonstrate other variables' *independent* contributions to the outcomes. All were significant, ranging in magnitude from men's disillusionment stability ($\beta = .24$, CI = $.01$ -. $.47$, $p = .04$) to women's disillusionment stability ($\beta = .58$, CI = $.41$ -. $.75$, $p < .001$).

Block 4 contained the actor effects of primary interest, namely those between disillusionment and depression over time. Consistent with Hypothesis 1, P1 wives' disillusionment predicted their P2 depression ($\beta = .25$, CI = $.08$ -. $.42$, $p = .01$). However, the analogous path from husbands' disillusionment to husbands' depression was nonsignificant. Husbands' and wives' actor effects from P1 depression to P2 disillusionment were also nonsignificant, failing to support Hypothesis 2.

Finally, Block 5 contained longitudinal partner effects between disillusionment and depressive symptoms. Three were significant in the expected direction, supporting Hypothesis 3. Wives' disillusionment predicted husbands' later depressive symptoms ($\beta = .31$, CI = $.13$ -. $.49$, $p = .001$) and disillusionment ($\beta = .29$, CI = $.10$ -. $.48$, $p = .003$). In addition, husbands'

disillusionment predicted wives' later depression ($\beta = .22$, $CI = .01-.43$, $p = .04$). One finding emerged in an unexpected direction, with wives' greater depressive symptoms linked to less disillusionment in husbands ($\beta = -.20$, $CI = -.38-[-.02]$, $p = .04$).⁴

Supplemental Mediation Analyses

Among the significant findings, one constituted an actor effect in which the relationship-quality variable predicted the psychological health/distress variable. Specifically, women's disillusionment predicted their later depressive symptoms, with a magnitude of $\beta = .25$. To pursue ideas generated from the aforementioned stress-generation (Davila et al., 1997) and marital-discord (Beach et al., 1990) models, follow-up analyses examined whether subsets of the interaction-dynamics variables (entered as a sixth block) could weaken the women's disillusionment-depressive symptom association, thus accounting for some of the variance in it. When the sixth block consisted only of the four dyadic-coping variables involving support from husbands to wives, none was significant. When the sixth block contained only the wives' P2 satisfaction with time spent with their husband, this variable strongly predicted wives' later depressive symptoms ($\beta = -.30$, $CI = -.46-[-.14]$, $p < .001$). In addition, the coefficient for wives' disillusionment dropped to $\beta = .18$, although this pathway was still significant ($CI = .01-.35$, $p = .04$). This reduction nonetheless suggests that dissatisfaction with the quality or quantity of time spent with their husbands partially accounts for wives' pathway from initial disillusionment to later depressive symptoms (because the study did not have three phases, a fully sequential mediation model cannot be tested).⁵

Discussion

The findings extend the literature on linkages between relationship quality and psychological health/distress in three ways. First, for wives, the results add marital

disillusionment to the list of relationship-quality measures (e.g., satisfaction, love, conflict) that have successfully predicted individual psychological health/distress. Proulx and colleagues' (2007) meta-analysis had previously found women to show stronger associations than did men between marital quality and psychological health/distress in cross-sectional, but not longitudinal studies. The present study extended their findings. Further, considering the extensive controls used in the regression analyses, disillusionment is a very potent predictor of individual psychological health/distress. Indeed, controlling for satisfaction, conflict, and love lent confidence to the *unique* role disillusionment plays in depressive symptoms.

Second, the APIM analyses showed that, not only within the same person (i.e., actor effects), but across partners, relationship quality (in this case, disillusionment) temporally preceded individual psychological health/distress (i.e., depressive symptoms). Indeed, this pathway was significant both from husbands to wives and vice-versa. In addition, wives' disillusionment carried over to their husbands' disillusionment over time. These findings support the tenets of interdependence theory and the interpersonal model of depression.

Third, reduction in the magnitude of wives' disillusionment-to-depressive symptoms association by inclusion of wives' satisfaction with time spent with their husband provides modest support for stress-generation and marital-discord mechanisms (i.e., that dissatisfaction with time spent together contributes to wives' depressive symptoms). However, because the study lacked a third phase, it cannot distinguish whether satisfaction about time spent together mediates between disillusionment and depression or is a common cause of them. It is also possible that depression leads to social isolation from one's spouse.

Couples' emotions and behaviors are interactive and interdependent, as seen in the present partner-effects findings and as social and clinical psychologists have written about for

decades (see Hames, Hagan, & Joiner, 2013; Huston & Robins, 1982; Wickham & Knee, 2012, for overviews). However, there is renewed interest in what Sels, Ceulemans, and Kuppens (2018) refer to as *interpersonal emotion dynamics*. Sels et al. propose a four-fold taxonomy for studying such dynamics. Several of their concepts are relevant to the present study, such as *emotional covariation* (i.e., how two partners' emotional states remain in or out of synchronization over stretches of time), *emotional influencing* (i.e., how one partner's emotions impact the other's), and *emotional inertia* (i.e., the couples system getting locked in a particular emotional state). Sels and colleagues' framework provides rich ideas for following up on the present study in a way that identifies more specific processes affecting spouses' marital disillusionment, depressive symptoms, and other behavioral and emotional processes. For example, a couple experiencing emotional inertia may become locked in a pattern of one spouse's disillusionment feeding the other's depression. Future research could then seek therapeutic techniques to remove couples from this pattern or search for moderator variables to distinguish couples who give up the pattern vs. remain stuck in it.

The present findings of actor and partner effects from earlier disillusionment to later depressive symptoms also enrich basic research and theory on disillusionment. Results were consistent with the notion that hopelessness is a part of both depression and disillusionment, as the latter two variables were associated in multiple findings. The dominant temporal direction was from relationship quality (disillusionment) to psychological distress/well-being (depression), which is consistent with larger patterns in the literature. Findings also supported the timing aspect that disillusionment should emerge as a potent predictive force within the first few years of marriage, when for some couples, idealization and infatuation shift to the day-to-day reality of life together. The strong stability paths for P1 to P2 disillusionment within the same person –

especially in wives – also suggest that, once it appears, disillusionment likely is difficult to overcome. Research in a couples’ therapy context into how to combat disillusionment would be of great potential benefit.

The present study had many strengths, such as its dyadic data (whereas most prior studies included only female samples; Goldfarb & Trudel, 2019), longitudinal design, and relatively representative sample of Hispanic couples (in the U.S. region studied). Like all research, however, the study had limitations, as well. These include the reliance on self-report measurement and inability to discern fine-grained processes that would have required additional assessment phases with shorter intervals. On the other hand, the present study’s longer-term design contributes to discussion in the field of an optimal time-lag to study longitudinal associations between marital quality and individual psychological health/distress. Although no “correct” lag has been identified, discussions typically focus on 12-18 months (Beach et al., 2003; Fincham, Beach, Harold, & Osborne, 1997; Goldfarb & Trudel, 2019). The present results, based on a 2.5-year lag, suggest that the optimal interval may be longer than 12-18 months.

The present study also has implications for couple therapists. First, to prevent or mitigate romantic disillusionment, therapists can help romantic partners make their assumptions, expectations, and meanings of marriage transparent, so partners will be forewarned of behaviors that would likely dash each other’s expectations and bring on disillusionment. Second, therapeutic approaches aimed at helping partners deal with disillusionment in order to treat the depressive symptoms, and vice versa, would be helpful. Often, disillusionment stems from major transgressions committed by partners (Niehuis et al., 2019), which likely would require helping couples deal with the transgression (e.g., cheating) by getting them to forgive one another and themselves. To the extent couples’ disillusionment and depression were associated with partners’

disengagement from each other, attempts to re-engage the couple (Callaci, Pélouquin, Barry, & Tremblay, in press) may be fruitful. Future clinical research could help determine the long-term effectiveness of such approaches. It must also be acknowledged that not all couples will necessarily want to repair their relationship in therapy (Doherty, Harris, & Wilde, 2015).

In conclusion, this study contributed in substantial ways to the literature examining relationship quality, interpersonal dynamics, and psychological health/distress by demonstrating that marital disillusionment, a highly important but overlooked concept, uniquely predicts depressive symptoms 2.5 years later, controlling for satisfaction, love, and conflict. In addition, the findings extend existing literature by showing that both actor- and partner-effects of disillusionment temporally precede individuals' depressive symptoms. These findings have implications both for future research and for practice.

References

- Abramson, L. Y., Metalsky, G. I., & Alloy, L. B. (1989). Hopelessness depression: A theory-based subtype of depression. *Psychological Review*, 96, 358-372. doi: 10.1037/0033-295X.96.2.358
- Beach, S. R. H., Katz, J., Kim, S., & Brody, G. H. (2003). Prospective effects of marital satisfaction on depressive symptoms in established marriages: A dyadic model. *Journal of Social and Personal Relationships*, 20, 355–371.
- Beach, S. R. H., Sandeen, E. E., & O’Leary, K. D. (1990). *Depression in marriage: A model for etiology and treatment*. New York, NY: Guilford Press.
- Becvar, D. S., & Becvar, R. J. (2018). *Systems theory and family therapy: A primer* (3rd ed.). Lanham, MD: Hamilton Books.
- Bodenmann, G. (2000). *Stress and coping bei Paaren [Stress and coping in couples]*. Göttingen: Hogrefe.
- Braiker, H., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social exchange in developing relationships* (pp. 135-168). San Diego, CA: Academic Press.
- Braithwaite, S., & Holt-Lunstad, J. (2017). Romantic relationships and mental health. *Current Opinion in Psychology*, 13, 120-125. doi: 10.1016/j.copsyc.2016.04.001
- Buehlman, K. T., Gottman, J. M., & Katz, L. F. (1992). How a couple views their past predicts their future: Predicting divorce from an oral history interview. *Journal of Family Psychology*, 5, 295-318. doi: 10.1037/0893-3200.5.3-4.295

- Callaci, M., Péloquin, K., Barry, R. A., & Tremblay, N. (in press). A dyadic analysis of attachment insecurities and romantic disengagement among couples seeking relationship therapy. *Journal of Marital and Family Therapy*. doi: 10.1111/jmft.12422
- Christopher, C., Umemura, T., Mann, T., Jacobvitz, D. B. & Hazen-Swann, N. L. (2015). Marital quality over the transition to parenthood as a predictor of coparenting. *Journal of Child and Family Studies*, 24, 3636-3651. doi: 10.1007/s10826-015-0172-0.
- Clark, M. S., Von Culin, K. R., Clark-Polner, E., & Lemay Jr., E. P. (2017). Accuracy and projection in perceptions of partners' recent emotional experiences: Both minds matter. *Emotion*, 17, 196–207. doi: 10.1037/emo0000173
- Davila, J., Bradbury, T. N., Cohan, C. L., & Tochluk, S. (1997). Marital functioning and depressive symptoms: Evidence for a stress generation model. *Journal of Personality and Social Psychology*, 73, 849-861. doi: 10.1037/0022-3514.73.4.849
- Doherty, W., Harris, S., & Wilde, J. (2015). Discernment counseling for “mixed-agenda” couples. *Journal of Marital and Family Therapy*, 42, 246-255. doi: 10.1111/jmft.12132.
- Fincham, F. D., Beach, S. R. H., Harold, G. T., & Osborne, L. N. (1997). Marital satisfaction and depression: Different causal relationships for men and women? *Psychological Science*, 8, 351-357. doi: 10.1111/j.1467-9280.1997.tb00424.x
- Goldfarb, M. R., & Trudel, G. (2019). Marital quality and depression: A review. *Marriage & Family Review*, 55, 737-763. doi: 10.1080/01494929.2019.1610136
- Graham, J. W., (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, 60, 549-576. doi: 10.1146/annurev.psych.58.110405.085530.

- Hames, J. L., Hagan, C. R., & Joiner, T. E. (2013). Interpersonal processes in depression. In T. D. Cannon & T. Widiger (Eds.), *Annual review of clinical psychology* (Vol. 9, pp. 355-377). Palo Alto, CA: Annual Reviews. doi: 10.1146/annurev-clinpsy-050212-185553
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford.
- Himmelfarb, H., Loar, M., & Mott, S. H. (1983). Sampling by ethnic surnames: The case of American Jews. *Public Opinion Quarterly*, 47, 247-260. doi: 10.1086/268783
- Huston, T. L., Caughlin, J. P., Smith, S. E., & George, L. J. (2001). The connubial crucible: Newlywed years as predictors of marital delight, distress, and divorce. *Journal of Personality and Social Psychology*, 80, 237-252. doi: 10.1037/0022-3514.80.2.237
- Huston, T. L., McHale, S. M., & Crouter, A. C. (1986). When the honeymoon's over: Changes in the marriage. In R. Gilmour & S. Duck (Eds.), *The emerging field of personal relationships* (pp. 109–132). Hillsdale, NJ: Erlbaum.
- Huston, T. L., Niehuis, S., & Smith, S. E. (2000). Courtship and the newlywed years: What they tell us about the future of a marriage. *Revista de Psicología Social y Personalidad*, 16(2), 155-178.
- Huston, T. L., & Robins, E. (1982). Conceptual and methodological issues in studying close relationships. *Journal of Marriage and the Family*, 44, 901-925. doi: 10.2307/351454
- Joel, S., Eastwick, P. W.,..., & Wolf, S. (2020). Machine learning uncovers the most robust predictors of relationship quality across 43 longitudinal couples studies. *Proceedings of the National Academy of Sciences of the U.S.A.*

- Joiner, T. E., Jr., & Katz, J. (1999). Contagion of depressive symptoms and mood: Meta-analytic review and explanations from cognitive, behavioral, and interpersonal viewpoints. *Clinical Psychology, Science and Practice*, 6, 149–164. doi:
- Kayser, K. (1993). *When love dies: The process of marital disaffection*. New York, NY: Guilford Press.
- Kayser, K., & Rao, S. S. (2006). Process of disaffection in relationship breakdown. In M. A. Fine & J. H. Harvey (Eds.), *Handbook of divorce and relationship dissolution* (pp. 201 – 221). Mahwah, NJ: Erlbaum.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley-Interscience.
- Kenny, D. A. (2013, March 26). *Actor-Partner Interdependence Model or APIM* [PowerPoint tutorial]. Retrieved from <http://davidakenny.net/webinars/powerpoints/Dyad/Standard/APIM.ppt>
- Kenny, D. A., Kashy, D. A., & Cook, W. (2006). *Dyadic data analysis*. New York, NY: Guilford.
- Kramer, U., Ceschi, G., Van der Linden, M., & Bodenmann, G. (2005). Individual and dyadic coping strategies in the aftermath of a traumatic experience. *Swiss Journal of Psychology*, 64, 241-248. doi: 10.1024/1421-0185.64.4.241
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108, 480-498. doi: 10.1037/0033-2909.108.3.480
- Lee, K.-H., Swenson, A., & Niehuis, S. (2010). His or her parents? Perceived parental approval of romantic relationships among college students and their partners. *Interpersona: An International Journal on Personal Relationships*, 4(2), 213-236. doi: 10.5964/ijpr.v4i2.50

- Maher, P. J., Igou, E. R., & Van Tilburg, W. A. P. (2018). Brexit, Trump, and the polarizing effect of disillusionment. *Social Psychological and Personality Science*, 9, 205-213. doi: 10.1177/1948550617750737
- Maher, P. J., Igou, E. R., & Van Tilburg, W. A. P. (2019 – Online first). Disillusionment: A prototype analysis. *Cognition and Emotion*. doi: 10.1080/02699931.2019.1705764
- Morgan, P. C., Durtschi, J. A., & Kimmes, J. G. (2017). Sexual and relationship satisfaction associated with shifts in dyadic trajectories of depressive symptoms in German couples across four years. *Journal of Marital and Family Therapy*, 44, 655–670. doi: 10.1111/jmft.12302
- Niehuis, S. (2006). Organization of partner knowledge, its effect on passion, and the mediating effect of idealization. *North American Journal of Psychology*, 8, 33-46.
- Niehuis, S. (2007). Convergent and discriminant validity of the Marital Disillusionment Scale. *Psychological Reports*, 100, 203-207. doi: 10.2466/PR.100.1.203-207
- Niehuis, S., & Bartell, D. (2006). The Marital Disillusionment Scale: Development and psychometric properties. *North American Journal of Psychology*, 8, 69-84.
- Niehuis, S., Huston, T. L., & Rosenband, R. (2006). From courtship to marriage: A new developmental model and methodological critique. *Journal of Family Communication*, 6, 23-47. doi: 10.1207/s15327698jfc0601_3
- Niehuis, S., Lee, K.-H., Reifman, A., Swenson, A., & Hunsaker, S. (2011). Idealization and disillusionment in intimate relationships: A review of theory, method, and research. *Journal of Family Theory & Review*, 3, 273-302. doi: 10.1111/j.1756-2589.2011.00100.x
- Niehuis, S., Reifman, A., Al-Khalil, K., Oldham, C. R., Fang, D., O'Boyle, M., & Davis, T. H. (2019). Functional magnetic resonance imaging activation in response to prompts of

romantically disillusioning events. *Personal Relationships*, 26, 209-231. doi:
10.1111/pere.12272

Niehuis, S., Reifman, A., Feng, D., & Huston, T. L. (2016). Courtship progression rate and declines in expressed affection early in marriage. *Journal of Family Issues*, 37, 1074-1100. doi: 10.1177/0192513X14540159

Niehuis, S., Reifman, A. S., Fischer, J. L., & Lee, K.-H. (2016). Do episodic self- and partner-uncertainty mediate the association between attachment orientations and emotional responses to relationship-threatening events in dating couples? *Cognition and Emotion*, 30, 1232-1245. doi: 10.1080/02699931.2015.1050999

Niehuis, S., Reifman, A., & Lee, K.-H. (2015). Disillusionment in cohabiting and married couples: A national study. *Journal of Family Issues*, 36, 951-973. doi:
10.1177/0192513X13498594

Niehuis, S., Reifman, A., & Oldham, C. R. (2019). Effects of relationship transgressions on idealization of and disillusionment with one's romantic partner: A three-wave longitudinal study. *Personal Relationships*, 26, 466–489. doi: 10.1111/pere.12287

Niehuis, S., Reifman, A., Weiser, D., Punyanunt-Carter, N., Flora, J., Arias, V. S., & Oldham, C. R. (2020). Guilty pleasure? Communicating sexually explicit content on dating-apps and disillusionment with app usage. *Human Communication Research*, 46, 563–593. doi:
10.1093/hcr/hqz013

Niehuis, S., Skogrand, L., & Huston, T. L. (2006). When marriages die: Premarital and early marital precursors to divorce. *The Forum for Family and Consumer Issues*, 11(1), 1-7.

- Overall, N. C., & Hammond, M. D. (2013). Biased and accurate: Depressive symptoms and daily perceptions within intimate relationships. *Personality and Social Psychology Bulletin*, 39, 636-650. doi: 10.1177/0146167213480188
- Proulx, C. M., Ermer, A. E., & Kanter, J. B. (2017). Group-based trajectory modeling of marital quality: A critical review. *Journal of Family Theory & Review*, 9, 307–327.
doi:10.1111/jftr.12201
- Proulx, C. M., Helms, H. M., & Buehler, C. (2007). Marital quality and personal well-being: A meta-analysis. *Journal of Marriage and Family*, 69, 576-593. doi: 10.1111/j.1741-3737.2007.00393.x
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385-401.
- Rehman, U. S., Evraire, L. E., Karimiha, G., & Goodnight, J. A. (2015). Actor-partner effects and the differential roles of depression and anxiety in intimate relationships: A cross-sectional and longitudinal analysis. *Journal of Clinical Psychology*, 71, 715–724. doi: 10.1002/jclp.22162
- Rehman, U. S., Gollan, J., & Mortimer, A. R. (2008). The marital context of depression: Research, limitations, and new directions. *Clinical Psychology Review*, 28, 179-198.
doi:10.1016/j.cpr.2007.04.007
- Reifman, A., & Niehuis, S. (2018). Over- and under-perceiving social support from one's partner and relationship quality over time. *Marriage and Family Review*, 54(8), 793-805. doi: 10.1080/01494929.2018.1501632

- Reifman, A., Ursua-Benitez, M., Niehuis, S., Willis-Grossmann, E., & Thacker, M. (2020). #HappyAnniversary: Gender and age differences in spouses' and partners' Twitter greetings. *Interpersona: An International Journal on Personal Relationships*, 14, 54-68.
- Sels, L., Ceulemans, E., & Kuppens, P. (2018). A general framework for capturing interpersonal emotion dynamics: Associations with psychological and relational adjustment. In A. K. Randall & D. Schoebi (Eds.), *Interpersonal emotion dynamics in close relationships* (pp. 27-46). Cambridge, UK: Cambridge University Press. doi:10.1017/9781316822944.004
- Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, 22, 1359-1366. doi: 10.1177/0956797611417632
- Stas, L., Kenny, D. A., Mayer, A., & Loey, T. (2018). Giving dyadic data analysis away: A user-friendly app for actor-partner interdependence models. *Personal Relationships*, 25, 103-119. doi: 10.1111/pere.12230
- Thibaut, J. W. & Kelley, H. H. (1959). *The social psychology of groups*. New York, NY: Wiley.
- UCSF Clinical & Translational Science Institute. (2019, June). *Sample size calculators for designing clinical research*. Retrieved from <http://www.sample-size.net/correlation-sample-size/>
- U.S. Census Bureau (2012, December). *ACS 5-year summary file user's guide: Supplement for DataFerrett*. Retrieved from http://dataferrett.census.gov/acs/ACS_5yrsf_UserGuide.pdf
- U.S. Census Bureau (2019). *Current Population Survey (CPS) Table Creator*. Retrieved from <https://www.census.gov/cps/data/cpstablecreator.html>
- Waller, W. (1937). The rating and dating complex. *American Sociological Review*, 2, 727 – 734. doi: 10.2307/2083825

- Whisman, M. A., Robustelli, B. L., & Labrecque, L. T. (2018). Specificity of the association between marital discord and longitudinal changes in symptoms of depression and generalized anxiety disorder in The Irish Longitudinal Study on Ageing. *Family Process*, 57, 649-661. doi: 10.1111/famp.12351
- Whisman, M. A., & Uebelacker, L. A. (2009). Prospective associations between marital discord and depressive symptoms in middle-aged and older adults. *Psychology and Aging*, 24, 184-189. doi: 10.1037/a0014759
- Wickham, R. E., & Knee, C. R. (2012). Interdependence theory and the Actor-Partner Interdependence Model: Where theory and method converge. *Personality and Social Psychology Review*, 16, 375-393. doi: 10.1177/1088868312447897
- Wood, W. I., Oldham, C. R., Reifman, A., & Niehuis, S. (2017). Accuracy and bias in newlywed spouses' perceptions of each other's personalities. *Personal Relationships*, 24, 886–901. doi: 10.1111/pere.12219

Table 1. Descriptives and Correlations of Major Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	<u>Mean</u>	<u>SD</u>
1. P1 Disillusionment	(.36***)	.52***	.26***	.36***	-.11	-.01	.09	-.30***	.43***	-.57***	1.18	.59
2. P2 Disillusionment	.38***	(.62***)	.07	.52***	.07	.03	-.05	-.09	.32***	-.09	1.48	.95
3. P1 Depression	.24***	.20*	(.12)	.46***	-.14	-.05	-.01	-.26***	.33***	-.24***	1.68	.43
4. P2 Depression	.21*	.49***	.51***	(.16)	-.11	.08	-.03	-.17	.24**	-.22*	1.72	.49
5. P1 Education	.07	.10	-.03	.14	(.60***)	-.19*	-.28***	.10	.03	.07	4.47	1.80
6. Rel. Length (mo.)	-.08	-.01	.15*	.07	-.23**	(1.00***)	.34***	.09	.03	.01	47.26	41.66
7. Cohab. Proportion	-.09	-.05	.09	.09	-.30***	.34***	(1.00***)	.03	.00	-.04	.43	.36
8. P1 Satisfaction	-.47***	-.31***	-.20**	-.20*	.08	-.08	-.10	(.16*)	-.22**	.36***	6.17	.98
9. P1 Conflict	.43***	.35***	.21**	.24**	.01	-.01	-.00	-.39***	(.47***)	-.35***	3.51	1.35
10. P1 Love	-.68***	-.33***	-.25***	-.33***	-.07	.02	-.02	.57***	-.46***	(.38***)	8.35	.61
Possible Range	1-7	1-7	1-4	1-4	1-8	---	0-1.0	1-7	1-9	1-9	---	---
Mean	1.26	1.66	1.59	1.65	4.38	47.26	.43	5.92	3.41	8.21	---	---
SD	.58	1.09	.36	.46	1.87	41.66	.36	.85	1.43	.70	---	---

Note: P1 = Phase 1, P2 = Phase 2; P1: $N=183-186$, P2: $N=113-117$; for education, 1 = some high school, whereas 8 = Ph.D./M.D.; * $p < .05$, ** $p < .01$, *** $p \leq .001$. Men's correlations and descriptives appear below the diagonal, women's correlations and descriptives appear above the diagonal, and cross-partner correlations appear on the diagonal in parentheses.

Table 2. Regression Results (Standardized) for Disillusionment and Depression Actor and Partner Effects

	DV: P2 Husbands' Depressive Symptoms		DV: P2 Wives' Depressive Symptoms		DV: P2 Husbands' Disillusionment		DV: P2 Wives' Disillusionment	
Predictors	ΔR^2	B	ΔR^2	β	ΔR^2	β	ΔR^2	β
<i>Block 1: Demographics</i>	.04	---	.02	---	.01	---	.01	---
Education	---	.16 (H)	---	-.18* (W)	---	.01 (H)	---	-.07 (W)
Months Dated (Couple Avg.)	---	.05	---	.05	---	-.08	---	-.04
%Time Cohab. (Couple Avg.)	---	.08	---	.05	---	.03	---	.03
<i>Block 2: Couple Controls</i>	.12*	---	.21***	---	.19***	---	.15**	---
P1 Satisfaction	---	.18 (H)	---	.14 (H)	---	-.01 (H)	---	.20 (H)
	---	-.01 (W)	---	-.02 (W)	---	-.06 (W)	---	-.08 (W)
P1 Love	---	-.28* (H)	---	-.16 (H)	---	-.16 (H)	---	-.30* (H)
	---	.11 (W)	---	.04 (W)	---	.13 (W)	---	.24* (W)
P1 Conflict	---	.09 (H)	---	-.10 (H)	---	.12 (H)	---	.06 (H)
	---	.04 (W)	---	.25* (W)	---	.14 (W)	---	.20* (W)
<i>Block 3: Stability Paths</i>	.17***	---	.11***	---	.03*	---	.24***	---
P1 Actor Depressive Sympt.	---	.47*** (H)	---	.33*** (W)	---	---	---	---
P1 Actor Disillusionment	---	---	---	---	---	.24* (H)	---	.58*** (W)
<i>Block 4: Other Actor Effects</i>	.01	---	.05**	---	.00	---	.02	---
P1 Actor Disillusionment	---	-.14 (H)	---	.25** (W)	---	---	---	---
P1 Actor Depressive Sympt.	---	---	---	---	---	-.01 (H)	---	-.14 (W)
<i>Block 5: Partner Effects</i>	.08**	---	.03	---	.09**	---	.00	---
P1 Partner Depressive Sympt.	---	-.11 (W)	---	-.02 (H)	---	-.20* (W)	---	-.03 (H)
P1 Partner Disillusionment	---	.31*** (W)	---	.22* (H)	---	.29** (W)	---	.08 (H)
<i>Overall R²</i>	.41 [^]	---	.41 [^]	---	.32	---	.42	---

Note. Coefficients are with all variables in the final model (i.e., all five blocks included). (H) or (W) within the table signifies who the predictor variable is from. [^]For dependent variable, there is a slight discrepancy between overall R^2 and sum of blocks' ΔR^2 , due to rounding. * $p < .05$, ** $p < .01$, *** $p \leq .001$.

Figure 1. Path model of actor (solid lines) and partner (dotted lines) effects between romantic disillusionment and depressive symptoms over time.

Figure 2. Marital Discord Model as applied to variables in the present study, using the example of satisfaction regarding time spent with partner posited as mediator between the actor's disillusionment and his/her later depressive symptoms (P = Phase).

Endnotes

¹Research team members secured the participation of nearly 90% of the Latinx couples through marriage licenses, increasing the possibility of the Hispanic subsample being representative of larger populations. Based on availability of population data, team members compared the Hispanic subsample to reference groups from the Census Bureau's American Community Survey (ACS). Aggregate ACS data from 2010-2014 were used through the Bureau's online "Data Ferrett" tool (U.S. Census Bureau, 2012). Because research participation may skew toward highly educated persons (Niehuis et al., 2015), we focused on education. Specifically, we compared the educational distribution (less than a high-school diploma; high-school diploma or General Educational Development [GED] credential; some college, including an associate's degree and technical school; bachelor's degree; and advanced degrees) of the Hispanic subsample to that of Hispanics in the state of Texas (narrowed to 25-29 year-olds married in the past year). Out of 10 comparisons between the sample and the ACS Texas data (five educational levels in Hispanic men and women), five were within +/- 5 percentage points of each other (and a sixth was within 5.4 percentage points). For example, 9.8% of Hispanic men in the sample had a bachelor's degree, whereas 10.7% of Hispanic men in Texas (matched roughly on age and marriage timing) did. Even though white participants were not recruited as extensively via marriage-licenses, we wanted an idea of the similarity or difference between the white subsample and whites in the ACS Texas data. For whites, one comparison was within +/- 5 percentage points and another was within 5.3%. A detailed table of comparisons is available from the author. The research team also compared participants in the present project to 2010-2014 Census-based figures for Texas on percent working full-time (comparisons were narrowed to married persons, age 25-34, which is how the U. S. Census Bureau's [2019] new Current

Population Survey [CPS] Table Creator organizes its information). There was an especially close match for Hispanic women, with the present study identifying 41.5% of them as working full-time and the Census figures for Texas listing 37.8%. For Hispanic men, the present study (72.6%) underestimated full-time workers relative to the Census data (91.6%). However, as expected, the difference for Hispanic men was smaller than that for White men (present study: 48.6% working full-time; Census: 90.5% working full-time). The percentages working full-time for White women were 33.4% in the present study and 56.2% in the Census data.

²The variables included in the present study are part of a larger dataset, containing one or more measures of each of approximately 45 major constructs (e.g., demographics, personality, marital quality, attachment, parenting alliance, financial strain, mental and physical health). With particular regard to marital satisfaction, the author and PI has, in principle, four measures (Kansas Marital Satisfaction scale, Revised Dyadic Adjustment scale, a domain-specific measure of relationship satisfaction, and Marital Opinion Questionnaire). Only the last of these four measures was used here, based on an a priori decision stemming from the author's judgment that it is the strongest conceptually and empirically among the satisfaction measures.

³There were no significant differences between Hispanic and White men or Hispanic and White women on either of the Phase-2 outcomes (disillusionment or depressive symptoms). Hence, race-ethnicity was not used as a control variable in the regression analyses.

⁴As noted, the major regression analyses (Table 2) were conducted using couples present at both phases of the study ($N = 117$ or slightly lower due to missing data). However, the software used for verifying that the dyads could be treated as distinguishable on gender (Stas et al., 2018) included options for both listwise deletion (excluding couples with missing data) and

Full Information Maximum Likelihood (FIML; which maintains the full sample, in this case consisting of 186 couples). The author tried both options. Comparison of each pair of corresponding coefficients in the listwise-deletion and FIML analyses for distinguishable dyads showed highly similar solutions. In most cases, a given coefficient differed only at two places behind the decimal in the listwise-deletion and FIML solutions, suggesting the results would have been similar whether the full sample of 186 couples or only the 117 couples present at both waves had been analyzed.

⁵The indirect effect from women's P1 disillusionment to their P2 satisfaction with time spent with their husbands to their P2 depressive symptoms (with women's P1 depressive symptoms as a covariate) was analyzed using the PROCESS version 3.4 SPSS macro associated with Hayes (2017). The indirect effect was significant (standardized $\beta = .08$, CI = .0082-.1662).