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## Stepfamily Relationship Quality and Stepchildren's Depression in Adolescence and Adulthood

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### Abstract

Before reaching adulthood, one-third of all youth in the United States will reside in a stepfamily household—a familial context marked by distinct challenges. Relatively few studies have explored family processes that promote youth adjustment in stepfamilies, and even fewer studies have examined these links across adolescence, emerging adulthood, and beyond. To address these gaps, we use a nationally representative sample of 758 adolescent stepchildren to examine the concurrent and long-term influence of mother-child, stepfather-child, nonresident father-child, and stepcouple relationship quality on stepchildren's depression across three stages of development: adolescence, emerging adulthood, and young adulthood. Results from longitudinal structural equation modeling indicate that higher quality mother-child and stepfather-child relationships are directly associated with reductions in depression during adolescence, and indirectly associated with reductions in depression during emerging and young adulthood via prior levels of depression; higher quality stepcouple relationships are directly associated with reductions in depression during emerging and young adulthood.

### Keywords

adolescence; stepfamily; family relations; parent-child relationships; couple relationships; depression

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The family is a central developmental context for all individuals, yet the landscape of the family in the United States has undergone significant shifts over the last several decades, including rises in the rates of divorce, remarriage, cohabitation, and non-marital childbearing (Amato 2010; Cherlin 2010; Sweeney, 2010). Consequently, stepfamilies have become commonplace. Stepfamilies are formed when an individual brings a child or children into a new committed relationship, often through marriage or cohabitation (Ganong & Coleman, 2004). Nearly one-third of all children will live in a married or cohabiting stepfamily

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household at some point before their eighteenth birthday (Bumpass, Raley, & Sweet, 1995; Pew Research Center, 2011). Of the 50.8 million children who lived with two parents in 2009, 5.3 million (10.4%) lived with a biological parent and a stepparent (4.1 million lived with a mother and stepfather; Kreider & Ellis, 2011).

Generally, stepfamily members experience a host of unique challenges not experienced by members of biological nuclear families (Papernow, 2013). As a result, the literature is replete with between-group comparisons of well-being indicators across family types, particularly between stepfamilies and biological nuclear families (Sweeney, 2010). Relatively few studies have explored processes of resilience by conducting within-group analyses that link certain stepfamily processes to variation in youth outcomes (Sweeney, 2010). Most studies are also limited to cross-sectional analyses of young children, overlooking the influence of earlier stepfamily experiences on youth during adolescence, emerging adulthood, and beyond—important and distinct stages of ongoing development (Arnett, 2000; Sawyer et al., 2012). The purpose of our study is to draw connections between the quality of mother-child, stepfather-child, nonresident father-child, and stepcouple relationships—hypothesized sources of stepfamily resilience (Coleman, Ganong, & Russell, 2013; Hetherington, Bridges, & Insabella, 1998)—and concurrent and long-term levels of depression among individuals who lived in a stepfamily during adolescence.

## Stepfamily Challenges

Although stepfamily formation is increasingly common, the pathways to and initiation of stepfamily life can be stressful (Coleman et al., 2013). Families experiencing structural changes also have few normative or legal guidelines with which to navigate changes successfully (Cherlin, 1978; Papernow, 2013). As a result, researchers and practitioners have noted the unique challenges that members of stepfamilies often face. These include co-parenting conflict, role and boundary ambiguity, communication difficulties, clashing family cultures, conflicting family expectations, and disruptions in parent-child relationships, among others challenges (Coleman et al., 2013; Ganong & Coleman, 2004; Jensen & Shafer, 2013; Jensen, Shafer, & Larson, 2014; Pace, Shafer, Jensen, & Larson, 2015; Papernow, 2013; Shafer, Jensen, Pace, & Larson, 2013; Thorsen & King, 2015). Children may find stepfamily life particularly stressful, as they generally wield less power and decision-making opportunities with respect to the timing and occurrence of family transitions.

## Family Structure, Relationships, and Adjustment

Many children in post-divorce families and stepfamilies fare well, although children in stepfamilies are twice as likely as children in biological nuclear families to fall outside normal ranges of adjustment (Bray & Berger, 1993; Hetherington et al., 1998). Specifically, children in stepfamilies tend to fare worse across indicators of academic achievement, substance use, internalizing problems, and externalizing problems (Jeynes, 2006; van Eeden-Moorefield & Pasley, 2013). Children who experience parental divorce, a common precursor to stepfamily formation, have also been shown to fare moderately worse than their counterparts in biological nuclear families across a number of well-being indicators (e.g., Amato, 2001).

This literature represents the historically ubiquitous deficit-comparison perspective (Coleman & Ganong, 1990; Coleman, Ganong, & Fine, 2000; Sweeney, 2010), by which non-nuclear families are compared to, and hypothesized to be worse off than, biological nuclear families. Consequently, many previously conducted studies have overlooked potential mediating processes that connect family structure and transitions to the well-being of family members. An understanding of these mediating processes can inform family education programs and interventions aimed at helping children in stepfamilies thrive. Thus, scholars have advocated a normative-adaptive perspective and encouraged researchers to focus on stepfamily strengths, resilience, adaptive family processes, and within-group variation (Coleman & Ganong, 1990; Sweeney, 2010). Consistent with family systems theory, adaptive family processes and sources of individual well-being can be found across numerous components of the family system in which the individual is embedded (Cox & Paley, 1997). Due to greater structural complexity, stepfamilies are generally made up of more dyadic components or subsystems than biological nuclear families, often including resident parent-child, stepparent-child, nonresident parent-child, and stepcouple relationships (not to mention coparental relationships or relationships between youth and their siblings/stepsiblings, and other extended kin).

Previous research has highlighted the capacity of dyadic relationships in stepfamilies to promote the well-being of youth. For example, adolescents in mother-stepfather families report lower levels of externalizing, internalizing, and academic problems when they feel close to a resident stepfather (King, 2006). Similarly, stepfamilies marked by constellations of close resident mother-child, nonresident father-child, and stepfather-child relationships promote the adjustment of adolescents, including reductions in depressive symptoms, concurrently and in emerging adulthood (Amato, King, & Thorsen, 2015). High-quality parent-child and stepparent-child relationships have also been linked to reductions in stepchildren's self-reported stress amid the transition to stepfamily life (Jensen, Shafer, & Holmes, 2015). A considerable amount of attention has been placed on the role of nonresident parents in shaping youth adjustment. Overall, research suggests that the quality of nonresident parent-child relationships can exert positive influence on youth outcomes, including greater academic performance and reductions in internalizing and externalizing problems (Amato & Gilbreth, 1999; White & Gilbreth, 2001). Although less emphasized in the stepfamily literature, emotional security theory (Cummings & Miller-Graff, 2015) and previous research has linked couple relationship quality with youth well-being generally and in the context of family transitions (Sobolewski & Amato, 2007); low-quality couple relationships have been linked to lower levels of children's concurrent and long-term well-being (Amato & Afifi, 2006; Cummings, Schermerhorn, Davies, Goeke-Morey, & Cummings, 2006). Couple relationships in stepfamilies can be challenged by associations with ex-partners, disagreements about parenting, stepparenting difficulties, and struggles to integrate the stepparent into existing family processes (Pace et al., 2015; Papernow, 2013; Shafer et al., 2013).

Family systems theory also posits that components of the family system are interrelated, such that dynamics in one subsystem can influence dynamics in another. With regard to stepfamilies, the literature largely supports this notion. For one, the quality of parent-child and stepparent-child relationships are often positively linked (Jensen & Howard, 2015; King

et al., 2014). Positive dynamics in the stepcouple relationship, such as agreement on parenting and infrequent arguing, can also promote greater stepparent-child closeness (Jensen & Shafer, 2013). The influence of nonresident parent-child relationships tends to be more heterogeneous. Some research shows that contact with a nonresident father does not influence the amount of closeness youth report having with a residential stepfather (Jensen & Shafer, 2013). Other studies show that close nonresident parent-child relationships can increase role and boundary ambiguity among stepfamily members and significantly shape the development of stepfamily relationships (Ganong, Coleman, & Jamison, 2011; Thorsen & King, 2015).

Taken together, research and theory suggest that high-quality dyadic relationships in stepfamilies are interrelated, can yield adjustment dividends for children, and underlie pathways of resilience; however, more research is needed in which stepcouple relationships are incorporated. Also, there exists a need for more longitudinal studies that assess the long-term influence of distinct stepfamily relationships on adolescent adjustment over time. As stepfamilies continue to increase in prevalence, continued efforts to identify factors that mitigate stepchildren's internalizing problems may be particularly valuable, as depressive symptoms can lead to or accompany other problems, such as disruption in academic and work performance, strain in a variety of relationships, substance use, and other comorbid mental and behavioral health concerns over time (American Psychiatric Association, 2013). The potential for these issues is especially salient during adolescence and emerging adulthood (Arnett, 2000, 2007a; Sawyer et al., 2012), and challenges at these stages can cascade into young adulthood.

## A Developmental View

*A life course perspective* frames human development as a dynamic and continuous trajectory, inextricably linked to relationships with others (Elder, 1998). This view is important when considering how family experiences influence individual well-being over time. Theorists and developmental scholars have noted distinct stages of individual development, each with normative tasks and distinguishing features. Adolescence, loosely defined as the period between ages 10 and 19 (World Health Organization, 2016), is a formative stage of development marked by notable brain plasticity, social and biological changes, and a continued sensitivity to proximal social determinants of health (Sawyer et al., 2012). Not surprisingly, family processes have been linked to adolescents' psychological well-being, and research has highlighted several pathways by which family processes can influence adolescent depression (Sheeber, Hops, & Davis, 2001). Sheeber and colleagues (2001) note the following mediational mechanisms: (a) levels of support and stress (i.e., family processes drive change in the amount of support and stress youth experience), (b) social interactional processes that confer upon youth learned behavior consistent with depression (i.e., family processes teach youth behaviors that induce or exacerbate depression), (c) youths' development of "depressogenic cognitive distortions" and inadequate development of problem-solving skills (i.e., family processes produce within youth distorted ways of thinking and fail to promote positive problem-solving capabilities), and (d) a limited repertoire of affect-regulation strategies (i.e., family processes fail to promote youths' acquisition of skills needed to effectively regulate emotions; p. 25). For

youth in stepfamilies, particularly salient are changes in support and stress resulting from common stepfamily processes.

Emerging adulthood, roughly the period between ages 18 and 25, is another formative stage of development along the life course in which individuals make sense of their past family experiences; explore self-identity; examine life possibilities surrounding work, love, and world-views; and pursue novel experiences unimpeded by parental monitoring (Arnett, 2000). Relationally precarious stepfamilies might be a context from which emerging adults anxiously launch, and to which they are hesitant to return—potentially stressful conditions. The absence of high-quality stepfamily relationships might also skew emerging adults' views about healthy family norms and deprive them of meaningful sources of emotional and relational support, thereby diminishing their psychological well-being (Kenny & Sirin, 2006; Pettit, Roberts, Lewinsohn, Seeley, & Yaroslavsky, 2011). Conversely, stepfamilies with consistently high-quality relationships might provide emerging adults with a solid emotional/psychological foundation and source of social support from which to comfortably engage in the common tasks associated with emerging adulthood, including the exploration of romantic relationships, pursuit of academic and work opportunities, and independent formation of values and world-views (e.g., Seiffge-Krenke, Oberbeck, & Vermulst, 2010; Shulman, Feldman, Blatt, Cohen, & Mahler, 2005; Shulman, Kalnitzki, & Shahar, 2009). Although many emerging adults experience improvements in psychological well-being, "... the variance of mental health functioning expands during emerging adulthood..." (Arnett, 2007b, p.25), making emerging adulthood an important site for the study of stepfamily influences on psychological well-being.

By the late twenties, many emerging adults transition successfully to young adulthood—a stage at which most individuals formally identify as an adult, settle into committed couple relationships, begin having children, and secure and maintain long-term employment (Arnett, 2000). At this stage life becomes increasingly stable and predictable, yet psychological health is not immune to early family experiences and relationships (Sadowski, Ugarte, Kolvin, Kaplan, & Barnes, 1999). Indeed, early life stress linked to family transitions can sensitize individuals to subsequent stress, increasing the probability of mental health concerns in adulthood when new challenges and role transitions arise (Heim, Plotsky, & Nemeroff, 2004). Moreover, as many young adults become parents and spouses/partners, past stepfamily relationships and experiences can provide scaffolding for framing role performance and expectations. The quality of that scaffolding could influence young adults' role behaviors as parents and partners, and the extent to which young adults internalize stress associated with new roles and family expectations.

Moreover, young adults often experience an increase in perceived family obligations, resulting in a felt-need to provide support to family-of-origin members (Fuligni & Perderson, 2002). Although this increase in obligation can be rewarding for many young adults, lower-quality relationships and experiences linked to stepfamily life during adolescence might produce reluctance, stress, and ambivalence among some young adults, with implications for their psychological well-being. Indeed, poor stepfamily relationships in adolescence, and poor future stepfamily relationships, might make one's stepfamily a poor source of support and high source of stress, even during young adulthood.

## Current Study

In summary, the family context is central to the development, well-being, and adjustment of youth (Center on the Developing Child at Harvard University, 2010). Changes in the landscape of U.S. family life have led to the emergence of a stepfamily era, making it increasingly important for researchers to identify factors that promote stepfamily resilience and stepchildren's positive adjustment across the life course. Past research and theory highlight the primacy of safe, stable, and nurturing family relationships in facilitating the adjustment of children, particularly in the face of adversity (such as challenges and stressors induced by family transitions; Centers for Disease Control and Prevention, 2014). A developmental perspective also highlights the importance of examining earlier stepfamily experiences on the psychological well-being of youth as they transition to emerging and young adulthood.

A review of the stepfamily literature indicates that notable progress has been made in terms of identifying family processes that promote stepchildren's adjustment; however, we note several extant gaps. First, many stepfamily studies focus on the well-being of young and pre-adolescent children, with only a few recent studies having focused on adolescent stepchildren (e.g., Amato et al., 2015; Jensen et al., 2015; King, 2006). Second, few stepfamily studies have incorporated longitudinal data associated with the adjustment of stepchildren over time. Third, stepcouple relationship quality has often been overlooked as a predictor of stepchildren's adjustment. To address these gaps, the purpose of our study is to examine the independent influence of four central stepfamily relationships—mother-child, stepfather-child, nonresident father-child, and stepcouple relationships—on stepchildren's depression in adolescence, emerging adulthood, and young adulthood.

Figure 1 displays our hypothesized model. Based on past research and theory we hypothesized that the quality of each relationship will be negatively associated with children's depression at some point in time. Consistent with the primacy-of-residence perspective, we also hypothesized that the quality of mother-child and stepfather-child relationships will exert the most concurrent influence (in adolescence) on children's depression, as parent-child relationships are more proximal to children than are parental relationships, especially when children are still residing at home. Lastly, we hypothesized that the quality of all stepfamily relationships will be positively correlated with one another. Our findings may further justify and inform the continuing development of stepfamily education programs and intervention strategies, with particular regard for adolescent development and well-being across the life course.

## Methods

### Data and Sample

Data came from the National Longitudinal Study of Adolescent to Adult Health (Add Health). We used information from in-home youth interviews and parent questionnaires at Wave I, as well as youth in-home interviews at Waves III (2001 to 2002;  $n = 15,197$ , ages 18 to 26), and IV (2008 to 2009;  $n = 15,701$ , ages 26–32). Respondents for in-home interviews at Wave I were randomly selected from a nationally representative in-school sampling frame



of adolescents—the initial source of data for the Add Health Study. In-home interviews with youth were conducted using laptop computers and included questions about youth health behaviors, peer relationships, family dynamics, and various well-being indicators. For sensitive questions, respondents used earphones to listen to pre-recorded questions and entered responses directly into the computer. For less sensitive questions, interviewers read the questions aloud and recorded respondents' answers. Interview duration ranged from one to two hours. In-home interviews with respondents at subsequent waves incorporated the same interview procedures. Parent data at Wave I were collected using interviewer-assisted, op-scanned questionnaires that were issued to resident mothers. Questionnaires included questions about parents' romantic relationships, household income, education, and employment.

A total of 20,745 adolescents in grades 7 through 12 during the 1994 to 1995 school year comprised the Wave 1 sample of nationally representative, in-home interview respondents. Because nearly 80% of all stepfamily households are mother-stepfather stepfamilies (Kreider & Ellis, 2011), the final analytical sample was limited to include only adolescents who reported living with their biological mother and a stepfather at Wave I. Also, adolescents retained for the analysis must have had a living biological father at Wave I and valid sampling weights to account for differential attrition over time and to produce nationally representative model estimates (Brownstein et al., 2011; Chen & Chantala, 2014). Unfortunately, we were unable to retain adolescents who labeled their stepfather as “mother's partner” or “mother's husband” because they were not asked about stepparent-child relationship quality—a key substantive construct. The final analytical sample included 758 participants (56% female, 65% White; mean age at Wave I = 15.55 years,  $SD = 1.69$  years). Nearly 76% of parents reported being married to the stepparent (as opposed to unmarried cohabitation or missing responses).

## Measures

**Dependent Variable.**—Eight items from the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977), collected distinctly at Waves I, III, and IV, were used to measure the three endogenous constructs representing *depression* in adolescence (Wave I), emerging adulthood (Wave III), young adulthood (Wave IV). The items asked respondents to indicate along a four-point scale (0 = never or rarely, 3 = most or all of time) how frequently they (a) felt bothered by things that don't usually bother them, (b) felt that they could shake off the blues, (c) felt that they were as good as other people, (d) had trouble keeping their mind on what they were doing, (e) felt depressed, (f) felt that they were too tired to do things, (g) enjoyed life, and (h) felt sad during the last week. The internal consistency reliability for these scales were .82, .81, and .82 in adolescence, emerging adulthood, and young adulthood, respectively.

**Independent Variables.**—Items from the Wave I in-home adolescent questionnaire were used to measure four latent exogenous constructs (see King, Thorsen, & Amato, 2014; King, Boyd, & Thorsen, 2015; and King, Amato, & Lindstrom, 2015 for similar measurement strategies; we use the term “exogenous” to refer to a variable that has no structural paths directed at it). First, *mother-child relationship quality* was measured with the following five

items ( $\alpha = .86$ ): “How close do you feel to your mother?” “How much do you think she cares about you?” “Most of the time, your mother is warm and loving toward you,” “You are satisfied with the way your mother and you communicate with each other,” “Overall, you are satisfied with your relationship with your mother.” All items were coded such that higher values indicated higher relationship quality. Response options ranged from 1 (“strongly disagree”/“not at all”) to 5 (“strongly agree”/“very much”). Second, *stepfather-child relationship quality* was measured with the same five items as the mother-child relationship quality construct, only items were worded to describe the stepfather-child relationship ( $\alpha = .90$ ). Third, *nonresident father-child relationship quality* ( $\alpha = .84$ ) was measured with three items. Two of the items asked adolescents to indicate how often in the last 12 months they stayed overnight with their biological father, and talked to him in person, on the phone, or received a letter from him. Response options ranged from 0 (“not at all”) to 5 (“more than once a week”). The third item asked adolescents to indicate how close they felt to their biological father, with response options ranging from 1 (“not close at all”) to 5 (“extremely close”). Higher values indicated a higher-quality relationship. Lastly, *stepcouple relationship quality* was measured with the following three observed indicators drawn from the in-home parent questionnaire: the degree of relational happiness (rating from 1 to 10), whether the couple has talked about separation in the past year (1 = “No,” 0 = “Yes”), and a measure of how infrequently the couple fights (1 = “fight a lot,” 4 = “not at all”; parental harmony). Although the internal consistency reliability for *stepcouple relationship quality* was marginal ( $\alpha = .56$ ), the three indicators loaded together well in the context of confirmatory factor analysis (all loadings above .70).

**Covariates.**—To more effectively capture the net influence of our substantive constructs, a number of Wave I socio-demographic covariates were included in analyses (Hetherington et al., 1998). *Adolescent race/ethnicity* was measured with dummy variables representing adolescents who identified as Black, Asian/other, or Hispanic. Those who identified as White comprised the reference group. *Adolescent gender* was dichotomous, such that a value of 1 represented “female,” and a value of 0 represented “male.” *Stepfamily duration* was a continuous item that measured in years the length of time the stepfather has resided in the household. *Mother’s educational attainment* was measured with dummy variables representing “less than high school,” “some college,” and “college graduate or more,” with “high school graduate/GED” as the reference group. *Household income* was a continuous measure in thousand-dollar units, and logged to adjust for positive skew.

To further partition the influence of stepfamily relationships from other family and household characteristics at Wave I, we also controlled for *family transition history* with a continuous variable that indicated the number of marriage or marriage-like relationships the mother reported having in the last 18 years, and a continuous variable for *household composition* (i.e., number of individuals living in the household). We considered controlling for whether or not the non-resident biological father was still living; however, preliminary bivariate analysis indicated that this covariate was not significantly associated with the outcome across all three waves. Table 1 displays weighted means and proportions of endogenous constructs, exogenous constructs, and covariates.



## Data Analysis

To assess associations between the quality of stepfamily relationships during adolescence, and depression in adolescence, emerging adulthood, and young adulthood, we employed structural equation modeling (SEM). As shown in Figure 1, mother-child relationship quality, stepfather-child relationship quality, nonresident father-child relationship quality, and stepcouple relationship quality (exogenous latent constructs) were hypothesized to influence depression at all three developmental stages (i.e., Waves I, III, and IV; endogenous latent constructs), while accounting for covariates. Exogenous latent constructs were also hypothesized to significantly correlate with one another (King et al., 2014, 2015). Consistent with an autoregressive modeling approach, depression at later developmental stages was regressed on depression at earlier stages. This approach maximized the benefits of longitudinal data by controlling for time-invariant unobserved factors that influence both stepfamily relationships and depression (i.e., “third variable” confound, Cole & Maxwell, 2003, p. 560).

Because the items that made up each substantive construct were ordinal, a mean- and variance-adjusted weighted least squares (WLSMV) estimator and a polychoric input correlation matrix were used (Bowen & Guo, 2012). Adolescents were nested within schools, so we also adjusted for school clustering in our analyses. Failure to adjust for data clustering leads to under-estimated standard errors, increasing the likelihood of Type I errors (Raudenbush & Bryk, 2002). Full Information Maximum Likelihood (FIML) was used to handle missing data. Indicators of acceptable model fit included Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values greater than .95, and a root mean square error of approximation (RMSEA) value less than .06 (with the upper bound of the 90% confidence interval less than .06; Bowen & Guo, 2012). All weighted and unweighted univariate and bivariate analyses were conducted in Stata 14.0. All multivariate analyses were conducted in Mplus 7.4 and appropriately weighted to yield nationally representative estimates.

Measurement invariance across waves was assumed for depression; thus, factor loadings (metric invariance) and item thresholds (scalar invariance) for each indicator were constrained to equality across measurement occasions (Bowen & Rain, 2015; Geiser, 2013). Constraining factor loadings and item thresholds did not significantly worsen model fit as indicated by changes in CFI values less than .01 (Cheung & Rensvold, 2002). Moreover, model fit remained acceptable and structural parameters were essentially unchanged (details relating to model building and testing are available upon request). Taken together, we were confident that the same latent endogenous construct was being measured at each developmental stage or measurement occasion. Consistent with best practice, we also specified error correlations between the same items across waves (Cole & Maxwell, 2003).

Prior to assessing the structural model, the measurement model was analyzed using a jigsaw piecewise technique (see Bollen, 2000) such that adequate model fit could be ascertained and problematic specifications, if any, could be easily identified. Preliminary calculations indicated that the measurement and structural models were individually and collectively over-identified, and thus had adequate information to produce and assess model parameters (Bowen & Guo, 2012). Based on sample size and degrees of freedom, the models also

yielded adequate power ( $> .80$ ) to minimize Type II error with respect to tests of model fit (MacCallum, Browne, & Sugawara, 1996).

## Results

### Bivariate Results

Table 2 displays unweighted construct means, standard deviations, and bivariate correlations (due to measurement differences between items, stepcouple relationship quality was not analyzed as a composite variable in descriptive analyses). Results indicated that depression in adolescence, emerging adulthood, and young adulthood were positively associated with one another ( $r = .27$  to  $.32$ ). Each item used to measure stepcouple relationship quality was positively associated with the others ( $r = .37$  to  $.49$ ). Stepfather-child relationship quality and mother-child relationship quality were positively associated ( $r = .51$ ). All three stepcouple relationship quality items were positively associated with stepfather-child relationship quality ( $r = .13$  to  $.26$ ). Two stepcouple relationship quality items (relationship happiness and parental harmony) were positively associated with mother-child relationship quality ( $r = .14$  and  $.11$ , respectively). Depression in adolescence was negatively associated with stepfather-child relationship quality ( $r = -.29$ ), mother-child relationship quality ( $r = -.33$ ), and relationship happiness ( $r = -.11$ ). Depression during emerging adulthood was negatively associated with stepfather-child relationship quality ( $r = -.16$ ), mother-child relationship quality ( $r = -.15$ ), nonresident father-child relationship quality ( $r = -.08$ ), and all three stepcouple relationship quality items ( $r = -.08$  to  $-.19$ ). Depression in young adulthood was also negatively associated with stepfather-child relationship quality ( $r = -.08$ ), mother-child relationship quality ( $r = -.08$ ), nonresident father-child relationship quality ( $r = .09$ ) and two stepcouple relationship quality items ( $r = -.10$  to  $-.13$ ).

### Measurement Model

Adequate model fit was retained with metric and scalar invariance specified across endogenous constructs, as well as with error correlations specified between the same items measured across all three developmental stages ( $\chi^2[757] = 1029.92$ ,  $p < .001$ ; CFI = 0.975; TLI = 0.974; RMSEA = 0.022, 90% CI = [0.018, 0.025]). All standardized factor loadings were significant at the  $p < .001$  level, and were valued at .47 and higher. Results associated with the final measurement model, including standardized factor loadings and inter-factor correlations, are available upon request.

### Structural Model

The final structural model yielded acceptable model fit ( $\chi^2[1188] = 1473.21$ ,  $p < .001$ ; CFI = 0.975; TLI = 0.974; RMSEA = 0.017, 90% CI = [0.013, 0.020]). Figure 2 displays results from the final model, including unstandardized and standardized path coefficients, R-squared values for endogenous constructs, and correlations between exogenous constructs. The model explained 20%, 22% and 31% of the variation in depression in adolescence, emerging adulthood, and young adulthood, respectively. The larger R-squared value for depression in young adulthood is likely due to it being regressed on depression at previous developmental stages.

Results indicated that mother-child relationship quality was positively associated with stepfather-child relationship quality ( $r = .63, p < .001$ ) and stepcouple relationship quality ( $r = .18, p < .01$ ); stepfather-child relationship quality and stepcouple relationship quality were also positively associated ( $r = .37, p < .001$ ). Thus, the quality of each residential stepfamily relationship was positively interconnected. Nonresident father-child relationship quality was not significantly associated with any of the other stepfamily relationships. Not surprisingly, results also indicated that prior levels of depression were positively associated with depression at subsequent developmental stages.

In terms of our key substantive findings, greater levels of mother-child relationship quality and stepfather-child relationship quality were both directly associated with decreases in depression in adolescence ( $\beta = -.17, p < .01$  and  $\beta = -.20, p < .001$ , respectively). A greater level of stepcouple relationship quality was associated with decreases in depression during emerging and young adulthood ( $\beta = -.17, p < .001$  and  $\beta = -.18, p < .01$ , respectively). Nonresident father-child relationship quality was not significantly associated with depression at any of the three developmental stages.

Table 3 displays standardized and unstandardized direct, total indirect, and specific indirect associations between constructs in the model. These results indicated that mother-child relationship quality was indirectly associated with depression in emerging and young adulthood via depression in adolescence. Stepfather-child relationship quality was indirectly associated with depression in emerging adulthood via depression in adolescence, and in young adulthood via a pathway of depression from adolescence through emerging adulthood. Stepcouple relationship quality, in addition to its direct association, was indirectly associated with depression in young adulthood via depression manifested in emerging adulthood. See Table 3 for more details.

With respect to covariates, results indicated female adolescents reported higher levels of depression than male adolescents at all three developmental stages ( $b = .32, .22, \text{ and } .20$ , respectively). Adolescents of mothers who completed some college compared to mothers who only completed high school reported lower levels of depression in adolescence ( $b = -.21$ ). Adolescents of mothers who completed college compared to mothers who only completed high school reported lower levels of depression in emerging adulthood ( $b = -.40$ ). Adolescents of mothers who did not finish high school compared to mothers who completed high school reported higher levels of depression in young adulthood ( $b = .31$ ).

## Discussion

Stepfamilies are one of the most common developmental contexts for youth in the United States, as approximately one-third of all children will reside in a stepfamily household before reaching adulthood. Due to unique challenges, youth in stepfamilies are twice as likely to experience adjustment problems as their counterparts in biological nuclear families (Hetherington et al., 1998). Thus, efforts to identify factors that facilitate youth adjustment and development in stepfamilies are warranted (Coleman et al., 2013). To address extant gaps in the literature, the purpose of this study was to examine the influence of four central stepfamily relationships on child depression during adolescence, emerging adulthood, and

young adulthood. Consistent with previous research and theory, our central hypothesis was that mother-child, stepfather-child, nonresident father-child, and stepcouple relationships would each be associated with child depression at some point during their life course. We also hypothesized that parent-child relationships would be the most influential during adolescence.

Our hypotheses received support, as we found that greater mother-child relationship quality is linked to reductions in child depression during the adolescent years. Youth often rely on a stable parent-child relationship as a source of support and to navigate stepfamily formation with greater comfort and confidence (Jensen & Shafer, 2013; Papernow, 2013). Unfortunately, there are a number of reasons why parent-child relationship quality may diminish during stepfamily formation. Parents' attempts to foster and nurture close bonds with their new romantic partners may be a leading cause. Indeed, parents may struggle to equally distribute their time, emotional energy, and resources across all existing and newly acquired family members. Efforts to strengthen the stepcouple bond often places parents in the precarious position of having to balance ties to children and their new partner (Papernow, 2013). Adolescents who perceive undesirable shifts in the quality of the parent-child relationship likely experience greater levels of stress in the context of stepfamily life (Jensen et al. 2015). The quality of the parent-child relationship also appears to have an indirect influence on depression in later developmental stages via depression manifested during adolescence. Taken together, adolescents in stepfamilies may garner both short- and long-term adjustment benefits from stable and nurturing relationships with their biological mothers.

Higher quality stepfather-child relationships also appear to reduce concurrent levels of depression among adolescents in stepfamilies. Mutually satisfying and high-quality stepparent-child relationships have been described as the keystone of stable, long-lasting stepfamilies (Hetherington & Kelly, 2002) and a key predictor of stepchild well-being (King, 2006). The sensitivity of children to the stepparent-child relationship may stem from the fact that children generally do not choose their stepparent. Moreover, the stepparent-child relationship may be particularly reactive to differences regarding family expectations, family norms, personalities, and other characteristics possessed by stepparents and children (Papernow, 2013). Consistent with family systems theory, the entrance of a stepparent into an existing family system can also disrupt family processes in ways that produce significant stress for children. Similar to the mother-child relationship, the quality of the stepparent-child relationship may exert influence on child depression in emerging and young adulthood via depression in adolescence. Mother-child and stepfather-child relationship quality being directly tied to depression in adolescence, and not in adulthood, may indicate the diminishing influence of earlier parent-child relationships, and the support they offer, as individuals transition to adulthood and begin forming new relationships.

Nonresident father-child relationship quality did not significantly influence child depression at any of the three developmental stages. This does not necessarily indicate that the nonresident father-child relationship is not important for youth psychological well-being. Instead, this might cohere with the primacy-of-resident perspective, indicating that

residential stepfamily relationships are more influential than nonresidential relationships in some contexts.

In terms of the parental relationship, we found that higher quality stepcouple relationships are linked to reductions in child depression in emerging and young adulthood; however, higher quality stepcouple relationships are not linked to concurrent levels of child depression in adolescence. The direct link between stepcouple relationship quality and child depression during emerging and young adulthood appears robust, as higher quality stepcouple relationships are associated with significant downward shifts in child depression even after controlling for levels of depression at earlier points in time (i.e., change in depression).

Related to our conjecture in previous sections, we present several possible explanations for this finding. First, adolescent stepchildren exposed to highly conflictual stepcouple relationships may experience reductions in their sense of emotional security (Cummings & Davies, 1994), leading stepchildren to experience vigilance, fear, and preoccupation with adult problems. This may result in a build-up of stress and internalizing problems that unfolds over time (Cummings et al., 2006). Second, lower quality stepcouple relationships, in addition to previous family transitions and instability, may influence stepchildren's attachment orientations, such that they begin to experience greater insecurity in adult romantic or peer relationships (Mikulincer & Shaver, 2007). Thus, the link between stepcouple relationship quality during adolescence and internalizing problems during later developmental stages may operate through mediating emotional-security processes and maladaptive relationship patterns. Third, some stepcouples with low levels of relationship quality may opt to remain intact, and "children with parents in conflicted marriages who do not divorce may be unable to escape from their parents' marital problems—even into adulthood" (Amato & Afifi, 2006, p. 222). Thus, stepcouple relationship quality in adolescence may foreshadow stepcouple relationship quality in subsequent years—a compounding process that influences youths' levels of internalizing problems as they transition to emerging and young adulthood. Fourth, stepcouple relationship quality during adolescence might be a proxy for eventual stepfamily dissolution, creating an additional family transition to which stepchildren may be reacting in the form of depression in emerging and young adulthood. Although it was beyond the scope of the current study to test each of these mediational pathways, we conducted a supplemental analysis of stepfamily dissolution as a hypothesized pathway. Results indicated that stepfamily dissolution by Wave II was not directly associated with depression during emerging or young adulthood, and was not a significant mediator between stepcouple relationship quality and depression. Thus, links between stepcouple relationship quality and depression in emerging and young adulthood might be explained better by one of the other three hypothesized mechanisms.

In the absence of stepcouple relationship quality measures following adolescence, stepcouple relationship quality in adolescence likely proxies for any of the four phenomena listed above, such that the effects of high-quality stepcouple relationships yield long-lasting adjustment benefits for stepchildren across the life course. Given the challenges often associated with stepfamily life and the lack of institutional stepfamily norms, high-quality stepfamily relationships provide key sources of resilience in adolescent life course pathways that involve family disruption and change.

Our findings also partially support our final hypothesis and are consistent with a family systems perspective. Mother-child, stepfather-child, and stepcouple relationships quality are all positively interrelated, such that gains in one relationship may promote gains in the others. The positive link between mother-child and stepfather-child relationships is particularly strong. The fact that nonresident father-child relationship quality was not significantly associated with other stepfamily relationships supports a primacy-of-residence perspective. In other words, residential stepfamily relationships might be more interrelated than inter-household relationships in our sample.

### Limitations and Implications

Our conclusions should be tempered by the limitations of our study. First, our analytical models were not constructed with a randomly selected subsample and confirmed with a validation sample (Bowen & Guo, 2012); however, our model was fully specified *a priori* and we did not use any modification indices to explore empirically driven model variations. Our analytical sample was also significantly reduced in order to retain participants with valid sampling weights (to produce nationally representative estimates). Although this may have reduced the statistical power of our models, we were still able to retain over 750 participants, and preliminary assessments indicated that our models were sufficiently powered to accurately assess model fit and estimate model parameters. Another limitation involves the way age-groups were partitioned across waves. Arnett (2000) notes that age is only a “rough indicator” of the transition to and from emerging adulthood (p. 477). Fortunately, age-groups at Waves III (18 to 26 years) and IV (26 to 32 years) appear to conform (at least loosely) to the proposed age-ranges extended by Arnett (2000). It is also important to consider that associations between certain constructs in our analytical model could be an artifact of single-informant bias. In particular, associations between child depression at Wave I and mother-child and stepfather-child relationship quality might be distorted or driven by the fact that responses linked to these constructs all come from the same respondent (i.e., the child). Further, the analytical sample necessarily excluded adolescents who labeled their stepfathers as their mother’s partner or husband (instead of as fathers) because these adolescents were not asked questions about their relationship with the stepfather. Ideally, information about the stepfather-child relationship would be available for these youth, particularly because youth using ambiguous labels for their stepfathers does not preclude the presence of a meaningful relationship (Thorsen & King, 2015).

Our findings have meaningful practical implications. Efforts to promote positive stepfamily relationships and adolescent adjustment should be nested within a family systems perspective. Rather than focusing on a child or relationship in isolation, a holistic approach to stepfamily intervention will more effectively promote positive relationships across stepfamily subsystems—conditions conducive to positive adolescent adjustment across the life course. Parent-child, stepparent-child, and stepcouple relationships should all be targeted in stepfamily education programs and interventions, as each of these relationships has the capacity to influence youths’ depression concurrently and over time. Fortunately, components of high-quality stepfamily relationships are relatively malleable (Fraser & Galinsky, 2010). Helping professionals should focus on developing and implementing program theory and intervention strategies associated with the creation of safe, stable, and



nurturing parent-child, stepparent-child, and stepcouple relationships (Centers for Disease Control and Prevention, 2014). Although our findings did not yield significant associations between nonresident father-child relationships and child depression, this relationship should also be considered in the context of stepfamily intervention (Papernow, 2013).

Our findings also clarify avenues for future empirical work. Previous research has shown how stepfamily dynamics can influence outcomes differently based on the gender of both children and adults in stepfamilies (Jensen & Howard, 2015). Thus, future analyses should explore connections between stepfamily relationships and indicators of well-being within father-stepmother families, stepfamilies headed by same-sex couples, and across stepchild gender. Multiple group comparison analysis may be a particularly suitable technique for the conduct of these analyses. Future studies should also examine socio-economic status as a moderator in the context of our analytical model. This approach would highlight the extent to which members of marginalized or disadvantaged groups are relatively more vulnerable to lower quality stepfamily relationships (Peters & Massey, 1983)—a meaningful consideration for informing interventions. Further, future research should aim to identify the mediating mechanisms that drive the link between stepcouple relationship quality during adolescence and depression during emerging and young adulthood. We presented a number of hypotheses above that could be empirically tested.

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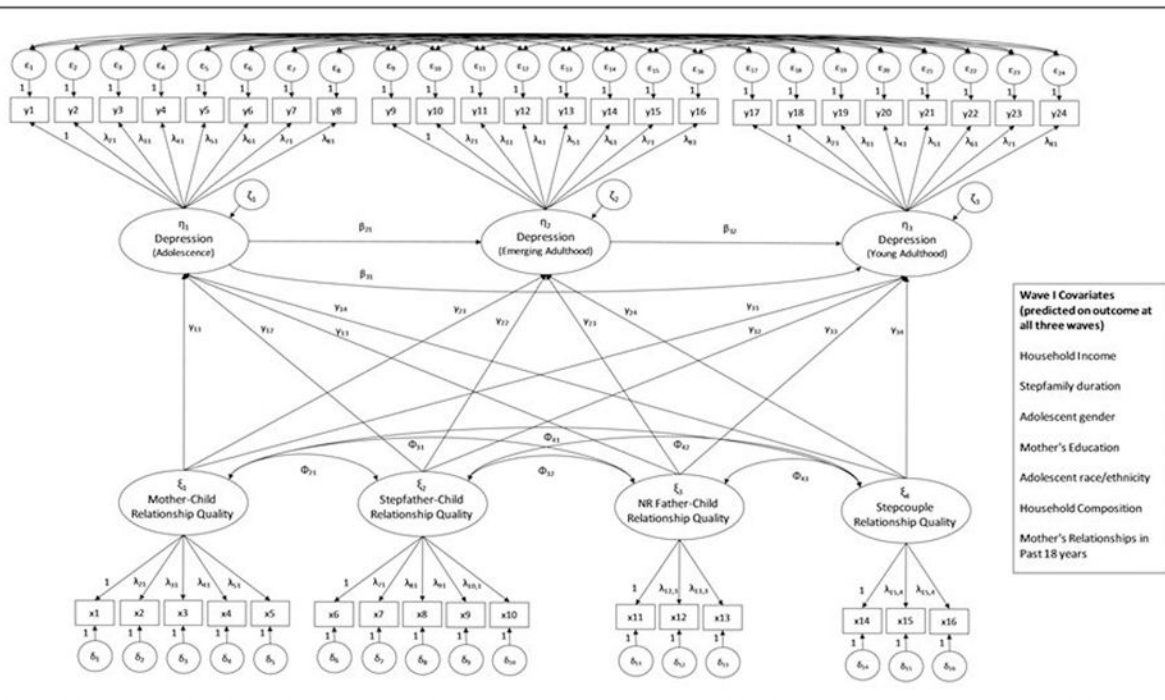
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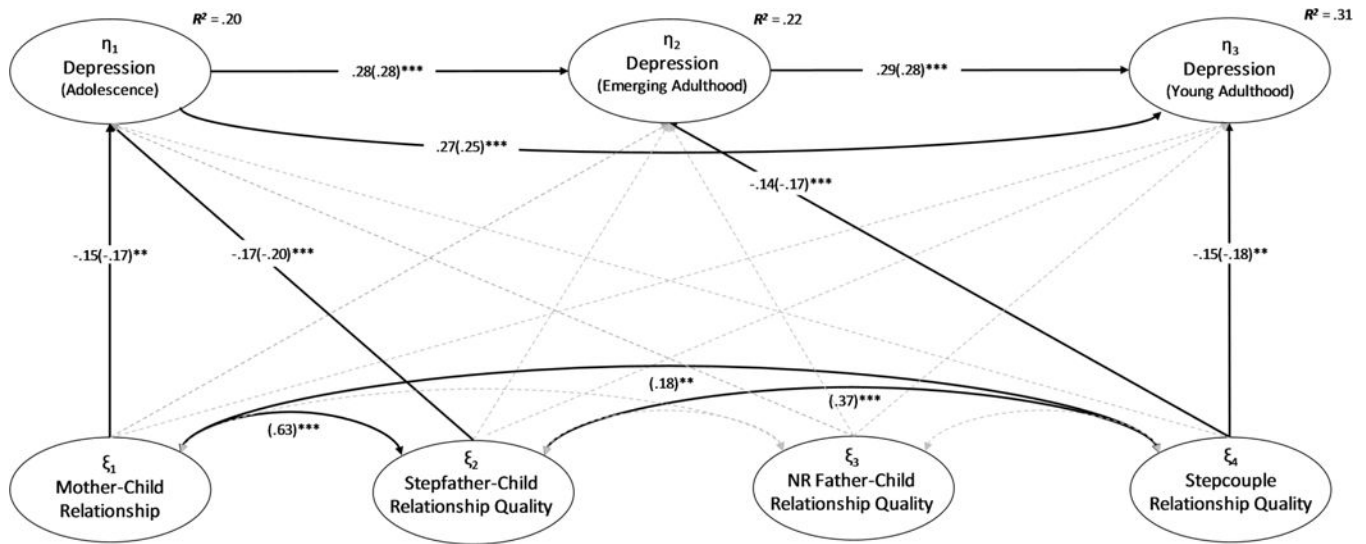
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**Figure 1.**  
Hypothesized Model

*Note:* NR = nonresident. Measures of stepfamily relationship quality came from Wave I data. To establish measurement invariance across time, factor loadings and thresholds for each observed indicator of depression were constrained to equality across each wave. Thus, factor loadings for endogenous variables use the same labels across the each wave. Error correlations are specified for the same item at each of the three waves.



**Figure 2.**

Final Structural Equation Model ( $N = 758$ )

*Note:* \*\*\* $p < .001$ . \*\* $p < .01$ . \* $p < .05$ . NR = nonresident. Measures of stepfamily relationship quality came from Wave I data. Final model fit indices:  $\chi^2(1188) = 1437.21$ ,  $p < .001$ ; CFI = 0.975; TLI = 0.974; RMSEA = 0.017, 90% CI = [0.013, 0.020]. The WLSMV estimator and a polychoric correlation input matrix were used to handle non-normally distributed, ordinal observed indicators. Standardized parameters are in parentheses. Dashed lines indicate non-significant paths at the  $p < .05$  level. Depression at each wave was regressed on the following Wave I covariates: household income, stepfamily duration, adolescent gender, mother’s educational attainment, adolescent racial/ethnic identity, household composition, and mother’s relationships in past 18 years. Measurement components were removed to improve visual clarity.



Table 1.

Weighted Sample and Study Variable Description (N = 758)

	Mean or Proportion	95% CI	Min.	Max.
<i>Endogenous Constructs</i>				
1 Depression (Wave I)	0.75	[0.69, 0.82]	0	3
2 Depression (Wave III)	0.53	[0.48, 0.59]	0	3
3 Depression (Wave IV)	0.67	[0.62, 0.72]	0	3
<i>Exogenous Constructs/Items (Wave I)</i>				
1 Mother-Child Relationship Quality	4.41	[4.33, 4.49]	1	5
2 Stepfather-Child Relationship Quality	3.77	[3.67, 3.87]	1	5
3 NR Father-Child Relationship Quality	2.24	[2.08, 2.40]	0.33	5
4 Stepcouple Relationship Quality				
Relationship Happiness	8.44	[8.25, 8.63]	1	10
Talked about Separation (1 = No)	0.83	[0.79, 0.87]	0	1
Parental Harmony	2.82	[2.73, 2.90]	1	4
<i>Covariates (Wave I)</i>				
1 Household Income (in thousands)	52.13	[46.38, 57.87]	0	750
2 Stepfamily Duration	6.56	[5.96, 7.16]	0	19
3 Adolescent is Female	0.52	[0.48, 0.57]		
4 Mother's Education				
Less than high school	0.11	[0.08, 0.14]		
High school graduate/GED	0.27	[0.23, 0.32]		
Some college	0.34	[0.29, 0.39]		
College graduate +	0.15	[0.11, 0.19]		
5 Adolescent Self-Reported Race				
Non-Hispanic White	0.76	[0.71, 0.82]		
Non-Hispanic Black	0.12	[0.09, 0.16]		
Non-Hispanic Asian/Other	0.03	[0.01, 0.05]		
Hispanic	0.08	[0.06, 0.12]		
6 Household composition	3.66	[3.51, 3.82]	2	13

	Mean or Proportion	95% CI	Min.	Max.
7	Mother's relationships in past 18 years	[2.01, 2.15]	0	6

Note: NR = nonresident. Stepcouple relationship quality items were not combined into a scale for this analysis due to poor internal consistency reliability resulting from disparate item scaling. Other construct items were combined into composite scales for this analysis.

**Table 2.** Unweighted Descriptive Statistics and Bivariate Correlations of Key Study Constructs

	Mean	SD	1	2	3	4	5	6	7	8
1 Depression (Wave I)	0.75	0.53								
2 Depression (Wave III)	0.56	0.50	0.27*							
3 Depression (Wave IV)	0.65	0.51	0.32*	0.33*						
4 Mother-Child Relationship Quality	4.39	0.97	-0.33*	-0.15*	-0.08*					
5 Stepfather-Child Relationship Quality	3.81	0.93	-0.29*	-0.16*	-0.08*	0.51*				
6 NR Father-Child Relationship Quality	2.18	1.42	-0.07	-0.08*	-0.09*	0.01	0.00			
Stepcouple Relationship Quality										
7 Relationship Happiness	8.52	1.60	-0.11*	-0.19*	-0.07	0.14*	0.26*	0.00		
8 Talked about Separation (1 = No)	0.83	0.38	-0.05	-0.08*	-0.10*	0.03	0.13*	0.01	0.49*	
9 Parental Harmony	2.84	0.75	-0.05	-0.15*	-0.13*	0.11*	0.21*	0.00	0.48*	0.37*

\* Note:  $p < .05$ . NR = nonresident. Stepcouple relationship quality items were not combined into a scale due to poor internal consistency reliability resulting from disparate item scaling. Other construct items were combined into composite scales for this analysis.

**Table 3.**

Decomposition Table of Direct and Indirect Associations

Constructs	Depression (Wave III)			Depression (Wave IV)			Pathway
	Direct	Total Indirect	Pathway	Direct	Total Indirect	Specific Indirect	
Mother-Child Relationship Quality	0.022 (0.025)	-0.041* (-0.046)	via Dep Wave I	0.036 (0.039)	-0.045* (-0.048)	-0.039** (-0.042)**	via Dep Wave I  via Dep Wave III
Stepfather-Child Relationship Quality	-0.030 (-0.036)	-0.047** (-0.057)	via Dep Wave I	0.070 (0.081)	-0.067* (-0.078)	-0.045* (-0.052)*	via Dep Wave I  via Dep Wave I and Wave III
NR Father-Child Relationship Quality	-0.044 (-0.051)	-0.005 (-0.006)	via Dep Wave I	-0.036 (-0.041)	-0.019 (-0.021)	-0.005 (-0.006)	via Dep Wave I  via Dep Wave I and Wave III
Stepcouple Relationship Quality	-0.144 (-0.174)	0.003 (-0.004)	via Dep Wave I	-0.153** (-0.177)**	-0.038 (-0.044)	0.003 (-0.003)	via Dep Wave I  via Dep Wave I and Wave III
Depression (Wave I)	0.284 (-0.278)	-	-	0.269*** (-0.254)***	0.082** (-0.077)**	0.082** (-0.077)**	via Dep Wave III
Depression (Wave III)	-	-	-	0.288***	-	-	-

Constructs	Depression (Wave III)			Depression (Wave IV)		
	Direct	Total Indirect	Pathway	Direct	Total Indirect	Specific Indirect
				(-0.277)		
						***

\*\*\* *Note:* *p* .001.

\*\* *p* .01.

\* *p* .05 . Dep = depression. Standardized coefficients are in parentheses. NR = nonresident.