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Patterns of Marital Relationship Change across the Transition from One Child to Two

Brenda L. Volling
University of Michigan-Ann Arbor, volling@umich.edu

Wonjung Oh
Texas Tech University, wonjung.oh@ttu.edu

Richard Gonzalez
University of Michigan - Ann Arbor, gonzo@umich.edu

Patty X. Kuo
University of Nebraska-Lincoln, pkuo2@unl.edu

Tianyi Yu
University of Georgia, yutianyi@uga.edu

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Brenda L. Volling,
University of Michigan

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University of Michigan

Tianyi Yu
University of Georgia

Abstract

Patterns of marital change after the birth of a second child were explored in a sample of 229 married couples, starting in pregnancy, and at 1, 4, 8 and 12 months postpartum. Five trajectory patterns that reflected sudden, persistent decline (i.e., crisis), sudden, short-term decline (i.e., adjustment and adaptation), sudden, short-term gain (i.e., honeymoon effect), linear change, and no change were examined with dyadic, longitudinal data for husbands and wives. Six distinct latent classes emerged using growth mixture modeling: (a) *wife decreasing positivity-husband honeymoon* (44%), (b) *wife increasing conflict-husband adjustment and adaptation* (34.5%), (c) *wife honeymoon-discrepant spouse positivity* (7.4%), (d) *wife adjustment and adaptation* (6.9%), (e) *couple honeymoon with discrepant positivity and negativity* (5.2%) and (f) *husband adjustment and adaptation* (1.7%). Classes were distinguished by individual vulnerabilities (i.e., depression, personality), stresses associated with the transition (i.e., unplanned pregnancy), and adaptive processes (i.e., marital communication, social support). Marital communication, parental depression, and social support emerged as important targets for intervention that can assist parents planning to have additional children.

Keywords

family stress; marital adjustment; second-child; siblings; transition to parenthood

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Normative transitions are common experiences across the family life cycle, and the transition to parenthood is clearly one that requires considerable adjustment and adaptation as partners become parents (Cowan & Cowan, 2000). Significant declines in marital satisfaction have been noted after the birth of a first child (Mitnick, Heyman & Smith Slep, 2009) and there is significant variation in marital change trajectories reflecting decline, growth and continuity (Belsky & Rovine; 1990; Don & Mickelson, 2014; Doss, Rhodes,

Stanley, & Markman, 2009). No study has examined variation in marital trajectories after the birth of a second child, even though marital quality continues to decline with the birth of each additional child (Twenge, Campbell, & Foster, 2003). Several studies have examined differences in marital quality for primiparous and multiparous couples, with some finding greater declines in marital satisfaction and relationship quality for multiparous couples (Belsky, Spanier, & Rovine, 1983; Krieg, 2007; Lindblom et al., 2014), whereas others report equivalent declines across the two groups (O'Brien & Peyton, 2002; Wilkinson 1995). The current study offered a unique opportunity to examine variation in marital relationship change after the birth of a second child using a longitudinal research design that started in the last trimester of pregnancy and followed couples throughout the year following the birth of their second child (1, 4, 8, and 12 months postpartum). Our main goal was to examine husbands' and wives' reports of marital change after the second birth in an effort to explore *dyadic patterns* of marital relationship functioning. In addition, we examined various indicators of individual and family functioning before the birth that would predict these patterns to identify targets of intervention that could assist parents making the transition from one child to two.

Defining Longitudinal Trajectory Patterns

The longitudinal research on marital change across the transition to parenthood finds declines in marital quality, on average, but there is also considerable variation among couples (e.g., Belsky & Rovine, 1990; Cox, Paley, Burchinal & Payne, 1999; Holmes, Sasaki, & Hazen, 2013; O'Brien & Peyton, 2002). According to theories of family stress and resilience (e.g., DeHaan, Hawley & Deal, 2002; Patterson, 2002), the stresses associated with the birth of a child may bring about change, but resilient families will adjust and adapt successfully to prevent a family crisis, which is evident when the family is unable to return to levels of pre-birth functioning. This perspective on family resilience requires a longitudinal design with assessments before, during, and after the stressful event that allows for an examination of increases and decreases in family functioning over time. Different longitudinal patterns describing sudden change with short-term adjustment and adaptation (resilience) versus sudden, persistent change over time (crisis) are critical to understand because they distinguish which couples are having the most difficulty adjusting to the birth of a second child. In the current study, we tested five patterns of marital change that took into consideration the different ways in which couples could adjust and adapt to the birth of a second child. These patterns are depicted in Figure 1.

Two patterns have been found previously in studies of the transition to parenthood: *no-change* (i.e., flat slope) or a pattern of *linear change*, either a gradual or sudden decrease or increase (Belsky & Rovine, 1990; Belsky & Hsieh, 1998). A third pattern describing *sudden and persistent change* (Doss et al., 2009), or what we refer to as the crisis model, reflects a pattern of sudden decline that persists over the year following the birth and indicates that couples are unable to adjust and return to pre-birth levels (see Figure 1). Two additional patterns have rarely been examined. The first is a pattern of short-term *adjustment and adaptation*, in which couples experience a sudden decline in marital functioning in the month immediately following the birth (adjustment), followed by a period of adaptation, whereby marital quality returns to pre-birth levels. The second pattern is a honeymoon effect

in which there is a sudden improvement after the birth followed by a return to pre-birth levels when the "honeymoon" has ended (e.g., Miller & Sollie, 1980; Wallace & Gotlib, 1990).

To capture variation in marital change, person-focused, group-based trajectory analyses have been conducted to examine different *patterns* of marital relationship change that classified spouses showing similar trajectories (e.g., linear decline, no change) into groups (e.g., Belsky & Rovine, 1990; Belsky & Hsieh, 1998; Don & Mikelson, 2014). In most instances, data for husbands and wives were analyzed separately. Because of the interdependence of married spouses, marital data need to be analyzed at a dyadic, not individual, level of analysis (Kenney, Kashy, & Cook, 2006). The current study takes a dyadic approach in identifying patterns of marital change for husbands and wives.

Marital trajectories may be similar or discrepant for husbands and wives after the birth of an infant. For instance, Cowan and colleagues (1985) found that wives' marital satisfaction, on average, declined suddenly following the first birth, whereas husbands' decline was more gradual in the 18 months following the birth, even though both were equally dissatisfied by 18 months. Other studies find that marital changes were similar for husbands and wives when using dyadic, *within-couple* analyses using latent growth curves where husbands' and wives' slopes and intercepts were often correlated (e.g., Cox, Paley, Burchinal & Payne, 1999; Holmes, Sasaki, & Hazen, 2013; Karney & Bradbury, 1997; O'Brien & Peyton, 2002). One of the central goals of this research was to identify couples where husbands and wives showed similar relationship change trajectories from couples with discrepant marital trajectories. Our first hypothesis was that different subgroups of couples would emerge, some in which the husbands' and wives' marital change trajectories would be similar and others in which they would differ.

Positive and Negative Relationship Dimensions

In most studies, a single global assessment, usually marital satisfaction, is used to assess marital relationship change when, in fact, marital quality may best be represented by both positive and negative dimensions (Fincham & Linfield, 1997; Mattson, Paldino, & Johnson, 2007). Negative and positive dimensions change differently across the transition to parenthood for both husbands and wives (e.g., Belsky & Rovine, 1990; Don & Mickelson, 2014; Doss et al., 2009; Holmes et al., 2013), and this may also be the case for the transition after the second child. Knowing whether change is mostly an increase in negative marital quality (e.g., poor communication patterns) or declines in positive marital quality (e.g., decreased companionship) provides important information for designing couple-based interventions because different intervention approaches would be needed (Cowan & Cowan, 1995; Pinquart & Teubert, 2010).

Ideally, statistical modeling of marital relationship trajectories should take the interdependencies of partner, time and relationship dimension into consideration, yet doing so presents real challenges for researchers examining couple and family relations. A recent study by Lindblom and colleagues (2014) highlights the complexity of group-based analyses when multiple dimensions over multiple timepoints for multiple individuals were examined.

The resulting groups were much smaller in size than those identified when analyzing a single dimension for one individual separately. In a sample of 715 Finnish couples going through the transition to parenthood, they identified 11 family system typologies. The largest group of cohesive families represented 34% of the sample, yet there were also smaller groups that included 5% to 15% of families, and several even smaller groups with as few as 2% of families. We expected a similar situation in the current exploratory investigation examining positive and negative marital reports for husbands and wives over 5 time points, with several small classes (i.e., 2% to 5%), in addition to classes with a larger percentage of couples. These smaller classes are important to consider because their unique circumstances may represent some of the riskier family situations in need of intervention (see also Rutter, 1996).

Although a recent meta-analysis showed that marital relationship functioning continued to deteriorate after the birth of subsequent children (see Twenge et al. 2003), none of the studies examined the transition from one child to two, but compared primiparous and multiparous (2 or more children) couples. Only Krieg's (2007) study specifically examined marital change from pregnancy to 1-month after birth for first-time mothers and second-time mothers, and found that after controlling for the length of marriage, first-time mothers reported more positive and less negative marital relations than second-time mothers. The current research expands upon this prior work in three ways by: (1) including husbands' reports of marital quality; allowing (2) a dyadic examination of martial relationship change beyond (3) the first month (a period of adjustment) to include additional time points to test for adjustment *and* adaptation. Understanding marital relationship patterns takes on added significance for families having a second child because of the known negative effects of openly, unresolved marital conflicts for children's development (Gordis, Margolin, & John, 2001; Kouros, Cummings, & Davies, 2010). All families in the current study had a firstborn child at the time of the transition so any increases in marital conflict could be detrimental to the firstborn's well-being and contribute to adjustment difficulties once the infant was born (Volling, 2012).

Antecedents of Marital Relationship Change Patterns

Once patterns of marital relationship change were identified, our second goal was to understand what pre-birth indicators would distinguish the different marital change patterns. We relied on the Vulnerability-Stress-Adaptation (VSA) model (Karney & Bradbury, 1995) which underscores three areas for explaining variability in marital relationship change: (a) enduring vulnerabilities (e.g., intrapersonal characteristics); (b) the nature of the stressful event; and (c) adaptive processes (e.g., communication) the couple uses to cope with the stressful event. We focus on the vulnerabilities, stresses, and adaptive processes from the prenatal period because our goal was to identify at-risk families before the birth so that interventions could eventually be developed that targeted the most influential risk factors.

Enduring vulnerabilities

Enduring vulnerabilities, specifically depressed mood and personality traits, can increase the likelihood of marital dissatisfaction and decline. Maternal depression is one of the most frequent complications of pregnancy and birth (Flynn, 2010), with approximately 23% of

women and 10% of men reporting depressive symptoms in the postnatal period (Paulson & Bazemore, 2010). Depressed mothers and fathers have reported increased marital dissatisfaction and conflict, and less positive marital interactions, after the transition to parenthood (Bower, Jia, Schoppe-Sullivan, Mangelsdorf, & Brown, 2012; Cox et al., 1999; Holmes et al., 2013). No study has examined whether similar links exist during the transition to the second child, although enduring vulnerabilities should continue to place parents at-risk during other stressful life events. We hypothesized that mothers and fathers with higher depressive symptoms would have lower marital quality, and quite possibly more discrepant relationships should one spouse be depressed and the other not.

One personality characteristic that has been linked consistently with marital relationship functioning is neuroticism, which reflects an individual's tendency to respond negatively with more avoidance and withdrawal from unpleasant situations (e.g., marital conflict). Indeed, couples high on neuroticism are generally less satisfied with their marriages and have less satisfied partners (e.g., Belsky & Hsieh, 1998; Bower et al., 2012). Bower et al. (2012) reported that mothers' and fathers' neuroticism was related to their partners' reports of marital satisfaction during the pregnancy for first-time and non-first-time parents, but did not predict change trajectories following the birth.

Nature of the stressful event

The VSA model also claims that variability in marital change can be tied to the nature of the stressful event. The transition may differ depending on whether the pregnancy was planned, the length of the marriage, and the birth interval between the first and second children, with more strain on the marriage when the pregnancy is unplanned (Belsky & Rovine, 1990; Cox et al., 1999; Lawrence, Rothman, Cobb, Rothman, & Bradbury, 2008), when couples have been married fewer years (Belsky & Rovine, 1990; Doss et al., 2009; Mortenson, Torsheim, Melkevik, & Thuen, 2012) and when the spacing between children is small.

Parenting stress and how hassled the parents feel in caring for the firstborn may also play a role in how couples adjust after the birth of the second child. Given the well-established link between marital relations and parenting (Erel & Burman, 1995), pre-birth parenting stress may predict marital decline. Indeed, Ahlborg and colleagues (2009) found that parents who had a second child reported more strain from children's behavior than parents who had one child, and this was more so with mothers than fathers. Stewart (1990) also reported that dealing with the firstborn's behavior was the most common stress reported by second-time mothers.

The division of childcare also becomes more traditional after the transition to parenthood, with mothers performing more child care than fathers (e.g., Goldberg & Perry-Jenkins, 2004; Sanchez & Thompson, 1997). Mothers' violated role expectations and perceptions of unfairness with respect to the division of labor have been linked to marital dissatisfaction (Dew & Wilcox, 2011), and husbands performing more child care were less satisfied with their marriages than husbands in more traditional marriages (Belsky & Hsieh, 1998). Fathers' child care participation, however, particularly with the first child, after the second birth may help ease the adjustment for the first child, as well as child care demands on mothers, who are primarily responsible for the infants' care in the early months (Kreppner,

Paulson, &Schuetze, 1982; Stewart, 1990). Thus, we hypothesized that parenting stress and women's greater involvement in child care with the firstborn would be related to lower marital quality.

Adaptive processes

Adaptive processes such as marital communication patterns and familial social support can help parents cope with the stressful event and potentially prevent marital decline. In earlier studies, poor marital communication patterns prior to birth predicted larger declines in marital relationship quality after the birth (Cox et al., 1999; Doss et al., 2009, Shapiro, Gottman, & Carrére, 2000), whereas instrumental and emotional support from family members was related to women's parenting efficacy and emotional adjustment to new parenthood (e.g., Haslam, Pakenham, & Smith, 2006; Leahy-Warren, McCarthy, & Corcoran, 2011). We hypothesized that declines in marital relationship functioning would be mitigated when couples had more constructive communication skills, engaged in more positive marital interactions, and received more support from family and friends.

The Current Study

The current study used a person-centered approach to identify patterns of marital relationship change after the second birth for married, heterosexual couples starting in the last trimester of the second pregnancy and over the course of the year after the second child's birth. We included husbands' and wives' reports of both positive and negative marital relations simultaneously to identify dyadic patterns of adjustment and adaptation that could describe different change trajectories. Finally, in line with VSA theory, we examined individual vulnerabilities, the nature of the stress surrounding the transition, and adaptive processes that were associated with patterns of marital relationship change. All of these goals were designed to identify couples experiencing marital difficulties and the risk factors that predicted these difficulties so that successful couple-based interventions could be developed to assist these families.

Methods

Participants

Participants included 241 two-parent families consisting of fathers, mothers, and firstborn children (mean age = 31.12 months, *SD* = 10.12 at time of infant's birth) recruited for a longitudinal study examining change in children's adjustment and family relationships following the birth of a second child. The recruited sample was primarily European American (86.3% of fathers, 85.9% of mothers) with 13.7% of fathers and 14.1% of mothers representing other racial and ethnic groups. The length of marriage ranged from .58 – 20 years (*M* = 5.77, *SD* = 2.74). The majority of fathers (79.2%) and mothers (83.9%) earned a Bachelor's degree or higher, and the mode for annual household income was $60,000 – $99,999 (37.8%).

The study consisted of five longitudinal time-points, starting in the last trimester of the women's pregnancies with the second child and 1, 4, 8, and 12 months after the infant's birth. Data for the present report included self-reports of marital relationship functioning

obtained from both husbands and wives at each of the five time-points, pre-birth reports on family demographics, depressed mood, personality, marital satisfaction, the division of child care (with the first child), marital communication, parenting stress, and social support, as well as a pre-birth observational assessment of marital interaction.

Of the initial 241 families recruited, 203 families remained in the study and participated at the 12-month timepoint. Thirty-eight families had missing data at 12 months. One family had missing data because they could not schedule for the 12-month home visit within the required time period, the other 37 families dropped for a variety of reasons (e.g., no longer interested, moving from the area, not enough time). The 203 remaining families were not significantly different from the recruited sample on years of marriage, wives' or husbands' ages, and wives' or husbands' race/ethnicity. Remaining families had significantly higher incomes, χ^2 (3) = 13.94, $p < .01$, and both wives, χ^2 (2) = 7.90, $p < .05$, and husbands, χ^2 (3) = 10.82, $p < .05$, were better educated. Wives remaining in the study at 12 months had lower marital negativity scores prenatally, $t = 2.00$, $p < .05$, whereas remaining fathers did not differ significantly on any of the marital measures.

Positive and Negative Marital Relationship Quality

Husbands and wives completed the 25-item *Intimate Relations Questionnaire* (IRQ: Braiker and Kelley, 1979), which assesses: *love* ("To what extent do you have a sense of belonging to your spouse/partner?"), *ambivalence* ("How confused are you about your feelings toward your spouse/partner?"), *maintenance* ("How much do you and your spouse/partner talk about the quality of your relationship"), and *conflict* ("How often do you feel angry or resentful toward your partner?"). Items were rated on a 9-point scale ranging from 1 (*not at all/never*) to 9 (*very much/extremely*) and averaged for each scale. Internal consistency across the five time points ranged from .64 −.89 for wives ($M = .76$), and from .63 – .88 for husbands ($M = .75$). The sum of the maintenance and love subscales comprised the positive marital relations composite, $r = .48$ to .58 for wives, .40 to .53 for husbands; all $ps < .001$, whereas the negative marital relations composite was the sum of the conflict and ambivalence subscales, $r = .46$ to .56 for wives, .54 to .60 for husbands; all $ps < .001$. This measure has been used extensively in earlier studies of marital relationship change across the transition to parenthood, making it a perfect source for comparison (e.g., Belsky, Lang, & Rovine, 1985; Belsky & Rovine, 1990; Holmes et al., 2013; Krieg, 2007; MacDermid, Huston, & McHale, 1990).

Prenatal Antecedents: Enduring Vulnerabilities

Personality—Both husbands and wives completed the 12 items of the neuroticism subscale of the NEO Five-Factor Inventory-Short Form (Costa & McCrae, 1985). Couples were rated each statement (e.g., *neuroticism:* "I often feel tense and jittery," from 1 (*strongly disagree*) to 5 (*strongly agree*) and items were summed. The NEO-FFI has good reliability and validity (McCrae & Costa, 2004); internal consistency for neuroticism was .87 for wives and .85 for husbands.

Depressed mood—Husbands and wives also completed the Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Both spouses reported on the

frequency of 21 items, using a 0 to 3 scale, with 0 (*no depressive symptoms*) to 3 (*severe depressive symptoms*). The BDI is widely used and has well-documented concurrent and discriminant validity, with adequate internal consistency for the current study (α = .85 for wives, .79 for husbands)

Prenatal Antecedents: Nature of the Stressful Event

Division of childcare—We assessed division of child care for the firstborn using 11 items from the Child Care Checklist (Ehrenberg, Gearing-Small, Hunter & Small, 2001). During a joint-couple, prenatal interview, both spouses were asked to agree on who performed various childcare tasks (e.g., taking older child to the doctor, putting older child to sleep at night) on a scale from 1 (*almost always wife*), 2 (*usually wife), 3 (both equally*), 4 (*usually husband*), and 5 (*almost always husband*). Items were averaged (α = .73).

Parenting stress—Parenting stress was assessed with 14 items from the *Parenting Daily Hassles* scale (PDH: Crnic & Greenberg, 1990), which measured how hassled each parent felt when taking care of their firstborn child (e.g., "You continually have to clean up after your older child's messes"), using a 5-point scale, ranging from *1(no hassle*) to 5 (*huge hassle*). Mean scores across items were calculated for wives (α = .84) and husbands (α = . 83).

Length of marriage/interbirth interval/planned pregnancy—During a joint couple interview at the first prenatal home visit, spouses reported on the length of their marriage in years. The interbirth interval (in months) was calculated from the child's and the infant's birthdates. Spouses were also asked whether their second pregnancy was planned using five categories: (a) both parents wanted and planned for second child; (b) both parents wanted second child, but not right now; (c) neither parent had planned nor wanted second child; (d) wife wanted second child, but husband did not; (e) husband wanted second child, but wife did not. Because most couples reported that both parents wanted and planned for the second child (196 of 229, or 85.6%), we collapsed the remaining four categories to form an unplanned group (n = 33).

Prenatal Antecedents: Adaptive Processes

Marital satisfaction—Spouses also completed the 3-item Kansas Marital Satisfaction Scale (KMSS: Schumm et al., 1986) and rated each item from 1 (*not at all*) to 5 (*extremely*). The KMS has good concurrent and discriminant validity (Schumm et al., 1986). Mean scores were calculated across items for husbands (α = .92) and wives (α = .92).

Social support—During the prenatal couple interview, social support was measured using the 12-item parenting support scale (Bonds, Gondoli, Sturge-Apple, & Salem, 2002). Items were rated from 1 (*never*) to 5 (*quite often*), and averaged to assess the types of assistance that spouses find helpful from others (e.g., 'To what extent do you feel you have someone to talk to about things that worry you," α = .86 for wives and .86 for husbands).

Marital communication—Spouses' perceptions of dyadic communication were measured with a revised version of the Communication Patterns Questionnaire (Heavey, Larson,

Zumtobel, & Christensen, 1996). Spouses reported separately on how they typically dealt with disagreements surrounding the division of household labor and childcare, on a scale from 1 (*very unlikely*) to 9 (*very likely*). Items were summed to create composites *of constructive communication* (e.g., "When you disagree about childcare and household tasks, both of you try to discuss the problem", 3 items, α = .75 for husbands, α = .81 for wives) and *destructive communication* subscales (e.g., "When discussing disagreements about childcare or household tasks, both of you blame, accuse, and criticize each other", 4 items, α = .76 for husbands, .78 for wives).

Home observation of marital interaction—At the first prenatal home visit, husbands and wives were asked to engage in a 10-minute marital discussion in which they were instructed to discuss their day as would be typical for them (e.g., what they did that day, anything about which they were particularly excited or upset). We chose this discussion format over the standard problem-solving discussion because we did not want to provoke marital conflict during home observations with a child present. Discussions were videotaped and husbands' and wives' behaviors and affect were later coded by trained independent coders using the Interactional Dimensions Coding System (Kline et al., 2004). Each 10-minute interaction was broken down into three equal segments of three minutes and 20 seconds, and each segment was rated on a 9-point rating scale from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*) to assess *positive affect* - the positivity of facial expressions, tone of voice, and body language; *negative affect* - the negativity of facial expressions, tone of voice, and body language; *dominance* -control that one partner has over the other; *support validation* - positive listening and speaking skills that demonstrated support of the other partner; *conflict* - expressed struggle between two individuals; *withdrawal* - avoidance of the interaction; and *communication skills* - an individual's ability to convey thoughts and feelings in a clear, constructive manner. Means across segments were calculated for each code. Inter-rater reliability (intra-class correlations) ranged from .88 – .95 (*M* = .91) for wives and .78 – .92 (*M* = .88) for husbands. A composite score for positive interaction was created by summing positive affect, support validation and communication skills, α = .59 for wives and .70 for husbands, and for negative interaction by summing negative affect, dominance, conflict, and withdrawal, α = .71 for wives and .73 for husbands. Higher scores indicated more positive and more negative marital interaction.

Data Analysis Plan: Defining Marital Change using Linear and Nonlinear Models

To maintain a multi-dimensional, dyadic relationship perspective (Kenny, Kashy, & Cook, 2006), we first fit an unconditional latent growth curve model (LGCM) with four parallel processes (positive and negative for wives, positive and negative for husbands) to test the hypothesized linear and nonlinear growth trajectories, using particular orthogonal polynomial contrasts to determine the overall general pattern of change for the entire sample: the latent *linear* growth curve model (random intercept and linear slope), the *crisis* model (random intercept and linear slope; fixed overall quadratic effect over the 5 time points); the *adaptation and adjustment (AA*) and *honeymoon* models were both tested by including a random intercept and linear slope and a fixed effect local quadratic assessing deflection at one month postpartum relative to the prenatal and 4-month timepoints. Time was centered across all models at the prenatal timepoint. The paths from the latent linear

slope to the observed items were constrained to be 0, 1, 2.5, 4.5, and 6.5 to take into account the uneven intervals between the prenatal, 1-, 4- , 8- and 12-month timepoints, respectively. The paths from the AA effect to the observed items were constrained to be −1 (prenatal), 2.5 (1-month), −1 (4-months), 0 (8 months), and 0 (12 months) so that the contrast was orthogonal to the linear slope, which allowed us to test whether this effect was in addition to the linear pattern. The paths for the crisis model (overall quadratic effect) to the observed items were constrained to be the square of the linear contrast paths as is typically done in latent growth curve modeling. Models were estimated in *Mplus Version 6.0* (Muthén & Muthén, 1998–2010) using full-information maximum likelihood (FIML) estimation for missing data, resulting in 229 families for analyses (of the 241 families recruited, 10 excluded due to missing data across all time-points and 2 outliers).

Because the unconditional model indicated significant variance around the growth parameters (see below), we then used Growth Mixture Modeling (GMM) as a means of identifying person-centered, group-based trajectory patterns. In the final step, we conducted mixed model (spouse x class) ANOVAs, with spouse as a repeated factor to describe how each marital class differed on prenatal VSA indicators.

Results

We present results from the unconditional latent growth curve model (LGCM) with four parallel processes first and then move into the presentation of the growth mixture model (GMM). The fit indices for the unconditional LGCM follow: (1) Linear, χ^2 (166) = 300.17, $p < .001$, *CFI* = .960, *RMSEA* = .059; (2) Crisis, χ^2 (162) = 285.56, $p < .001$, *CFI* = .964, *RMSEA* = .058; (3) Adjustment and Adaptation (AA), χ^2 (162) = 270.61, $p < .001$, *CFI* = .968, *RMSEA* = .054. The growth parameters for husbands' and wives' marital positivity and negativity are shown in Table 1. The fixed effect for the linear slope of wives' marital negativity curve is significant indicating a linear increase in negativity after the birth of the second child, but the fixed effects for the linear slopes are nonsignificant for husbands' negativity, and both husbands' and wives' positivity, indicating no change. The random effects, however, indicate there is substantial variability around the intercepts and slopes. Comparing the theoretical models to the unconditional linear model reveals support for the adjustment and adaptation (AA) model. Chi-square tests indicated that the unconditional crisis model, $\Delta\chi^2(4) = 14.61$, p <01, and the unconditional AA model, $\Delta\chi^2$ (4) = 29.55, p <001, were better fitting models than the unconditional linear model; and the unconditional AA model was a better fitting model than the unconditional crisis model (crisis model AIC = 14362.976 vs. unconditional AA model, AIC=4348,036). Thus, the unconditional AA model was chosen as our final model to be used in the Growth Mixture Modeling that followed, as based on the recommendations of Muthén and Muthén (2000).

The fixed effects of the GMM (i.e., intercept, linear slope, and AA contrast) were freely estimated for each class and the random variance of growth parameters (i.e., intercept, linear slope) were constrained to be equal across classes. The residual variances were estimated freely for each time point, but were constrained to be equal across classes. The intercepts and linear slopes were allowed to correlate across the four parallel processes. When estimating the full-information maximum likelihood (FIML) mixture models, we increased

the random start values as needed to ensure a global maximum solution (see Nylund, Asparouhov, & Muthén, 2007). GMMs were run until the model solutions were replicated with different starting values (range of random start values was 100–1700) in order to avoid a local maximum likelihood solution and ensure a global optimum. Marital negativity scores were reverse-coded to ease convergence of the GMM (Kline, 2010), but for ease of interpretability, the marital negativity scores were plotted in Figure 2 using their original scaling. We followed standard GMM modeling procedures and evaluated models with different numbers of latent classes to determine which model provided the best fit to the data. We estimated fit indices for 1- (unconditional model) to 8-class-solution models, and used recommended standards by Masyn (2013) for class enumeration.

Because models with different numbers of classes were not nested, a model comparison was conducted using a set of fit indices, including the Bayesian Information Criterion (*BIC*; Schwartz, 1978), the sample size adjusted *BIC* (*SABIC*; Sclove, 1987), and the Akaike Information Criterion (*AIC*; Akaike, 1987); lower scores represent better fitting models. To further guide model selection, we also used the Lo-Mendell-Rubin (*LMR*) likelihood ratio test of model fit and the entropy measure, which refers to the average classification accuracy in assigning individuals to classes; values range from zero to 1, with higher scores reflecting better accuracy in classification of class membership.

Based on fit indices, the six-class solution was considered the best fitting model because it had a lower AIC and SABIC, AIC = 14218.00, SABIC = 14253.16, than the 5 class, AIC = 14230.07, SABIC = 14261.80, and 7 class models, AIC = 14239. 73, SABIC = 14278.32, and higher entropy (.844) than the 7-class model (.787). The estimated growth curves and observed means for husbands' and wives' marital negativity and positivity for the six classes are shown in Figure 2. Table 2 presents estimates and standard errors for the fixed effects for each class, which also assists in interpretation of the changes observed within each class (a table of random effects is available upon request). Fixed effects estimates are raw coefficients so in the present model can be interpreted as the change in the dependent variable for a one month change in time. For example, the significant −.092 linear slope for mother's positivity in Class 1 is interpreted as a drop of .09 in the positivity score per month. In this way the raw score coefficients serve as the effect size estimates. Due to the exploratory nature of the analyses, each class was labeled in line with the overall change patterns describing husbands and wives, and whether trajectories were similar or discrepant across spouses.

Trajectory Classes of Marital Relationship Change

The largest class (C1) was denoted as the *wife decreasing positivity-husband honeymoon* (44.1%, n = 101). As shown in Table 2 and Figure 2, both husbands and wives in C1 marriages reported high levels of marital positivity at the prenatal time point (see intercepts in Table 2). Although there was a relatively small, but significant linear decline in wives' marital positivity over time (see slope in Table 2), there was no change in husbands' marital positivity throughout the first year after the birth of the second child. Husbands and wives both reported low levels of marital negativity at the prenatal time-point; the linear effects were not significantly different from 0. Husbands showed a honeymoon effect; a small,

significant *decrease* in marital negativity from the prenatal to 1-month timepoints, followed by an increase from 1 to 4 months, with no change throughout the last half of the year.

The second class (C2) was labeled *wife increasing negativity-husband adjustment and adaptation* (34.5%, $n = 79$). This class was characterized by husbands who showed a significant adjustment and adaptation effect for marital positivity and wives who showed a significant linear increase in marital negativity (see Table 2). These couples appeared to have a more difficult transition than C1 couples due to the fact wives reported increasing marital negativity and their husbands showed a significant AA effect; an immediate, but short-lived, decline in positive marital relations following the birth, with adaptation and a return to pre-birth levels of positive marital relations again by 4 months (see also Figure 2).

In the third class (C3) of couples (7.4%, $n = 17$), wives showed an initial "honeymoon effect" in that there was a decrease in marital negativity from prenatal to 1 month, followed by an increase in negativity from 1 to 4 months, and a linear increase throughout the year. Husbands reported a significant linear increase over time on marital positivity. Unlike C1 and C2 couples, there was a greater discrepancy in positivity between husbands and wives in C3 couples, with wives reporting more marital positivity than husbands (Wald $Z = 2.49$, $p < .05$). We labeled these couples *wife honeymoon-discrepant marital positivity*.

A fourth class (C4, 6.9%, $n = 16$) differed from other classes in that the transition seemed to affect the wives more than the husbands. Although husbands and wives reported similarly high levels of marital positivity and similarly low levels of negativity prior to the birth, wives experienced a severe adjustment period (sudden and dramatic increase in marital negativity and concurrent decrease in marital positivity from pre-birth to 1 month), but recovered (i.e., adapted) by 4 months, as well as a significant linear increase in positivity thereafter. In contrast, husbands' reports of marital positivity and marital negativity were unchanged throughout the first year after the birth. We labeled this class the w*ife adjustment and adaptation* class.

For the fifth class (C5, 5.2%, $n = 12$) wives had very low levels of marital positivity and very high levels of marital negativity before the birth (see Figure 2 and intercepts in Table 2). Wives reported significant improvement in marital positivity, and declines in marital negativity, over the year following birth, but still reported lower levels of marital positivity at 12 months in comparison to the other classes. Husbands, by contrast, showed moderate levels of positivity with a significant decrease in positivity over time. Although wives reported improvement over time in positive marital relations, their husbands actually reported declines in marital positivity over this same period. There was also a honeymoon effect for both husbands' and wives' negativity, in which marital negativity declined from prenatal to 1 month, only to increase again at 4 months. For wives, this increase was followed by a linear decline in marital negativity throughout the remaining year, yet their levels of negativity at 12 months were still relatively high. Husbands' negativity remained unchanged from 4 months to the end of the year with the highest level of negativity at 12 months than any other class. Husbands and wives in this class also reported discrepant experiences, with husbands reporting more positive and less negative experiences than their wives. We labeled this class *couple honeymoon-discrepant marital negativity and positivity*,

The sixth and smallest class (C6, 1.7%, $n = 4$) was unique in that it was clear that the transition was experienced by the husbands differently than the wives, given the significant adjustment and adaptation response for husbands' marital positivity and negativity. Husbands experienced a significant decrease in marital positivity and increase in negativity after the birth but recovered by 4 months, followed by an increase in marital positivity and decrease in marital negativity across the remainder of the year. Wives in these marriages reported significant linear increases in both marital positivity and marital negativity. We labeled this class *husband adjustment and adaptation*.

Prenatal Antecedents of Marital Relationship Change

Preliminary analyses examining demographics such as household income, husbands' and wives' ages, and husbands' and wives' education revealed no significant differences by class. Chi-square analyses also revealed no class differences on firstborn gender. In an effort to determine whether there were meaningful differences across the marital classes prior to the birth that might help account for the different patterns, we examined prenatal indicators of enduring vulnerabilities of the couple (e.g., personality, depressed mood), the nature of the stressful event (e.g., marriage length, interbirth interval, division of childcare, planned pregnancy, parenting stress), and adaptive processes (e,g., marital satisfaction, marital communication and interaction, social support). Although we expected that the two classes with discrepant positive and negative marital experiences (C3 and C5) would evince greater husband-wife differences in their enduring vulnerabilities and would, overall, be lower on adaptive marital processes, we advanced no specific hypotheses about how each of the classes may differ with respect to prenatal antecedents given the exploratory nature of the current study and the fact that no prior study has examined marital change across the year following the transition from one child to two. Given that we do not advance predictions about potential antecedent predictors we focus on comparing means across classes for each variable as a way to describe how the classes differed.

In these analyses, we dropped the smallest C6 class with only 4 families from consideration in statistical testing and conducted 2 (spouse) x 5 (class) mixed model ANOVAs with spouse as a repeated factor, and our prenatal measures as dependent variables, in an effort to provide a description of the couples in each class. We acknowledge the differences in sample size across classes and the possibility of increased probability of Type I errors of these post-hoc comparisons; all remaining classes, however, constituted greater than 5% of the sample, in line with Lindblom et al.'s (2014) decision to retain classes larger than 4%. In the ANOVA testing, we used Tukey post-hoc tests to reduce risk of Type I error due to multiple testing when comparing means across classes.

Enduring vulnerabilities—With respect to enduring vulnerabilities, there were significant spouse main effects for neuroticism, $F(1, 216) = 16.13$, $p < .001$, $\eta_p^2 = .07$, and depressed mood, $F(1, 215) = 40.23$, $p < .001$, $\eta_p^2 = .16$. In general, wives reported more neuroticism and greater depressed mood than their husbands. Significant main effects for class were found for neuroticism and depressed mood (see Table 3). Tukey's post-hoc comparisons (all p's < .05) revealed that C1 couples (*wife decreasing positivity-husband honeymoon*) had significantly lower neuroticism scores than C5 couples (*couple*

honeymoon-discrepant positivity and negativity). C5 couples also had significantly higher depressive symptoms than spouses in all other classes. Spouses in Classes 1 and 2 (*wife increasing negativity-husband adjustment and adaptation*) had the lowest depressive symptoms, whereas C3 couples (*wife honeymoon-discrepant positivity*) had significantly more depressive symptoms than the C1 couples, but not as high as C5 couples.

The main effect for depression was qualified further by a spouse x class interaction, $F(1, 215) = 2.75$, $p < .05$, $\eta_p^2 = .05$. Means in Table 3 reveal that wives in C5 (*couple honeymoon-discrepant positivity and negativity*) reported greater depressed mood than all other husbands and wives, with wives in C3 (*wife honeymoon-discrepant positivity*) reporting moderately high levels of depressed mood. C3 husbands also reported the highest depressed mood than all other husbands. Wives in C1 (*wife decreasing positivity-husband honeymoon*) reported less depressed mood than wives in other classes.

Nature of the stressful event—Table 3 indicates that there was a significant main effect of class for the length of the marriage, with C4 couples (*wife adjustment and adaptation*) married longer than C3 (*wife honeymoon-discrepant positivity*), and a significant spouse effect for parenting stress, $F(1, 220) = 8.93$, $p < .01$ $\eta_p^2 = .04$, with wives reporting more stress than their husbands. Interbirth interval, parenting stress, and the division of child care did not differ across classes. The chi-square for pregnancy planning approached significance, $\chi^2 (5) = 9.53$, $p = 07$. A greater percentage (35%) of the second pregnancies were unplanned for couples in Class 3 (*wife honeymoon-discrepant positivity*) and Class 5 (*couple honeymoon-discrepant negativity and positivity*. 25%) compared to Classes 1 (*wife decreasing positivity-husband honeymoon:* 10%), 2 (*wife increasing negativity-husband adjustment and adaptation:* 15%) and 4 (*wife adjustment and adaptation:* 12.5%).

Adaptive processes—There were significant main effects of class for social support, marital satisfaction, destructive marital communication, and positive and negative observed interaction (see Table 3). In general, couples in discrepant marriages (C3 and C5) used more destructive communication patterns when settling child care disagreements than the other three classes. Further C5 (*couple honeymoon-discrepant negativity and positivity*) couples reported less social support than C1 (*wife decreasing positivity-husband honeymoon*) couples, and C3 couples (*wife honeymoon-discrepant positivity*) engaged in significantly less positive and more negative marital discussions than C1 couples. Wives also reported significantly more social support, $F(1, 220) = 9.57$, $p < 01$ $\eta_p^2 = .40$, and less marital satisfaction, $F(1, 215) = 27.64$, $p < .001$ $\eta_p^2 = .11$, than their husbands.

These findings were qualified further by significant spouse x class interactions for social support, $F(4, 220) = 2.97$, $p < .05$ $\eta_p^2 = .05$, marital satisfaction, $F(4, 215) = 9.20$, $p < .001$, $\eta_p^2 = .15$, and destructive communication, $F(4, 214) = 5.16$, $p < .01$, $\eta_p^2 = .09$. Follow-up contrasts (all p's $< .05$) revealed that both C5 (*couple honeymoon-discrepant negativity and positivity*) wives and husbands reported less social support than C1 (*wife decreasing positivity-husband honeymoon*) and C2 (*wife increasing negativity-husband adjustment and adaptation*) wives and husbands (see Table 3). C1 wives also reported more social support than C3 (*wife honeymoon-discrepant positivity*) wives (see Table 2). Additionally, C1

husbands reported more social support than C4 husbands (*wife adjustment and adaptation*). Within C1, C2 and C4 couples, wives reported more social support than their husbands.

C5 wives engaged in more destructive communication than all other wives, although C3 wives also used more destructive communication than C1 and C2 wives. C5 husbands used more destructive communication than C1 husbands, and C3 husbands used more destructive communication than C1, C2, and C4 husbands. As for within-couple differences, C2 husbands used more destructive communication than their wives, but C5 wives were more destructive in their communications than their husbands.

As for marital satisfaction, C1 couples (w*ife decreasing positivity-husband honeymoon*) reported significantly higher marital satisfaction than all other couples, and C5 couples (*couple honeymoon-discrepant negativity and positivity*) reported significantly lower marital satisfaction than all other couples before the birth, with C5 wives reporting the lowest marital satisfaction than all others. C5 husbands reported lower marital satisfaction than other husbands. Husbands and wives within Classes 1, 2, and 3 had similar scores and were mutually satisfied, even though couples in Class 1 were more satisfied than couples in Class 2, who, in turn, were more satisfied than couples in Class 3. Wives and husbands had more discrepant marital satisfaction scores in Class 5.

Discussion

The transition to parenthood is a stressful life event for many couples. Theories of family stress and resilience indicate that a stressful life event can turn into a family crisis if families are unable to adjust and adapt over time. The main goal of the current study was to examine dyadic patterns of marital relationship change after the birth of a second child using relationship-centered, trajectory-based analyses. One of the strengths of this work was the direct testing of several potential change trajectories that would explain whether a marriage was in crisis (i.e., sudden and persistent change), or whether couples experienced an initial adjustment period followed shortly afterward by a period of adaptation. In general, married couples going through the transition from one child to two children experienced a period of adjustment shortly after the birth (1 month), but adapted by 4 months, when their reports of marital quality returned to pre-birth levels.

Similar to earlier group-based analyses looking at marital trajectories after the birth of a first child, we found evidence for six different couple-level patterns of marital relationship change, indicating that husbands (*his*) and wives (*her*) do have different marital experiences after the birth of a second infant, although some couples have more discrepant marital experiences than others. We acknowledge that these patterns may be unique to the period following the second birth, and may not generalize to and describe marital change during other developmental transitions. In contrast to first-time parents, couples expecting a second child must contend with the care of two young children and organize their child care responsibilities accordingly. The division of child care did not, however, differ across the classes. The division of child care may not be as critical for the transition with the second child because spouses have already negotiated child care roles after the first child and so

there are no surprises or violated expectations with the more traditional division of labor that often accompanies the birth of the first child.

Our results indicated that it was the manner in which couples communicated when there were disagreements about the division of child care that differentiated the marital classes, not who was doing what and how much. Specifically, discrepant couples with vastly different perspectives on the positive and negative quality of their marriages (C5 and C3), were more likely to use destructive marital communication (blaming, yelling, and threats) to try and settle disagreements than couples sharing similar perspectives on marital quality. Further, C3 couples (*wife honeymoon-discrepant marital positivity*) engaged in more negative and less positive marital interaction during observed pre-birth marital discussions than C1 couples.

The majority of our couples (C1) reported high positive marital relations and low negative marital relations over the year following the birth, with only a slight decrease in marital positivity for wives and evidence of a honeymoon effect for husbands. Thus, the vast majority of couples had little difficulty managing the transition to the second child. Other couples did have more difficulties, underscoring the degree of individual differences within couples undergoing the transition from one to two children. C2 couples, for instance, were similarly high on marital positivity and low on marital negativity initially as the C1 couples, but there were more disruptive changes in their marriages with a steady increase in wives' negativity over time and evidence of an initial decline in husbands' positivity shortly after birth, with evidence of adaptation by 4 months. C4 (*wives adjustment and adaptation*) couples represented only 7% of the sample but there appeared to be more marital stress for wives after the birth than their husbands given that there was an initial decline in marital positivity and an increase in marital negativity 1 month after the birth. There was also a very small group (C6: *husband adjustment and adaptation*) in which husbands displayed a decline in their marital positivity and an increase in marital negativity after the birth, while there was little change for wives. Even though the transition period from one child to two may stress marital relations for some families, it is important to note that there was no evidence that the birth of a second child gave rise to a family crisis, with a pattern of sudden and persistent decline in marital relations over time. Indeed, our findings suggest that in most cases the marital relationship was resilient and spouses adapted shortly after the transition.

For two of the marital classes, however, the transition was quite difficult. C5 couples started off with a rocky transition having lower levels of marital positivity and higher levels of negativity than all other couples even before the birth. C5 wives actually reported higher negativity than positivity scores, which was a very rare occurrence in the current sample. Furthermore, C5 husbands and wives had very discrepant perspectives, with husbands reporting more positive and less negative marital relations than their wives. Wives in these couples were very high on neuroticism and depression which may also explain, in part, their negative evaluations of their marriage. These couples also reported the lowest marital satisfaction before birth. Despite the accumulation of significant pre-birth risk factors (i.e., neuroticism, maternal depression, marital dissatisfaction), which could be seen as a "pile-up of stressors" (McCubbin & Patterson, 1983) that should set the C5 couples up for a marital

crisis once the infant was born, these marriages actually improved over time with wives reporting more positivity and less negativity by 12 months. Yet, even with improvement, these marriages were still higher on marital negativity and lower on marital positivity one year after the birth than other marriages. Regardless, early indications of maternal depression paired with marital dissatisfaction before the birth may be enough to warrant further concern about martial well-being, and recommendations for couple-based interventions for these couples.

C3 and C5 couples were further distinguished from other classes by the clear discrepancies in husbands' and wives' reports of positive and negative marital quality. These couples were more likely to report the second pregnancy was unplanned, which could be one reason for the discrepancies. C3 husbands were clearly less positive about their marriages than their wives initially and this remained the case over the year. C3 and C5 couples also used more destructive communication than other couples when dealing with child care disagreements. C3 and C5 wives experienced a honeymoon effect with reported declines in marital negativity shortly after birth, but this honeymoon did not last long and by 4 months, wives were once again reporting higher levels of negativity that appeared to escalate over time, which may be due to the greater use of destructive communication by these couples.

The present study focused on patterns of marital change during the transition from one child to two. Although there is some evidence that multiparous couples with two or more children have lower marital functioning than first-time parents, this study was the first to examine longitudinal dyadic change patterns in marital relationships for an entire year after the second infant's birth. Although couples already had one child, our results indicated that parenting stress, the division of child care, and the age of the firstborn did not explain the different marital patterns. Instead, it was indicators of adaptive marital processes (e.g., marital interaction, destructive communication, and social support) and enduring vulnerabilities of spouses (i.e., personality, depression) that discriminated among the different marital patterns. Most couples manage the transition just fine with either little decline or short-term adjustment difficulties indicating that universal prevention focused on marital decline is probably not needed for couples expecting their second child. Some couples, however, may benefit from couple-based interventions that focus on strengthening patterns of constructive marital communication, particularly around childrearing responsibilities. Further, maternal depression and a lack of social support with parenting responsibilities in the prenatal period may be signs of future problems that bode poorly for the marriage and for the two young children in the family.

There were several unique methodological strengths to the current work that serve as recommendations for future research. First, we examined both positive and negative dimensions of marital relationship quality simultaneously by including the perspectives of both husbands and wives. Second, we had repeated assessments across five time points in the course of a year to capture complex patterns of marital change with the arrival of the second child. One of the innovations of our modeling strategy was the inclusion of an orthogonal, polynomial contrast that allowed us to test specifically for evidence of both a honeymoon effect and an adjustment and adaptation (AA) effect, along with an orthogonal quadratic polynomial to ascertain whether families underwent a crisis of a sustained period

of decline. The results clearly indicated that the AA was the best fitting model for our data. The timing of our assessments proved critical for uncovering both the honeymoon effect and the adjustment and adaptation effect because without the 1-month assessment, we would have "missed" changes that occurred shortly after the birth. By 6 months, when many transition to parenthood studies make their first, post-birth contact, families had already adapted to the transition.

Limitations

Despite the many strengths of this research, there are also several limitations. The study was designed specifically to examine the role of fathers in supporting the firstborns' adjustment after the sibling's birth, so included married, heterosexual couples with biological fathers. Couples were also predominantly white and middle-class. There is a clear need to develop further studies using more diverse samples of families (e.g., single-parent; adoptive, same-sex couples) from different socioeconomic and ethnic backgrounds (Volling, 2012). Relationship dynamics and the transition to a second birth may be very different in these family arrangements.

As with many person-centered analysis strategies, GMM is an exploratory analytic tool that allows the identification of couples sharing similar trajectories in a sample. Several of the resulting classes were quite small (n = 4), which we anticipated might be the case when trying to model dyadic, multi-dimensional, longitudinal trajectories. These small classes included the discrepant couples who in most cases were at higher risk of experiencing difficulties, as well as couples showing pronounced adjustment and adaptation responses. Even though few in number, it is these couples who may be most in need of couple-based interventions to strengthen marital communication; they should not be dismissed purely for statistical reasons. We believe larger samples and further replications will demonstrate that these smaller classes exist in larger numbers than we were able to uncover here.

Further, most parents had wanted and planned the second pregnancies so the patterns of change found here may not reflect patterns found in samples where pregnancies are unintended or unwanted (Barber & East, 2011). We must also acknowledge that our results for marital change for second-time parents may be due, in part, to selection effects as couples with distressed marriages may have decided not to have a second child or may have separated after the birth of the first child. Couples in the current study were married, on average, for nearly 6 years, and it is estimated that approximately 20% of couples in the U.S. divorce or separate within 5 years of their first marriages (Blaisure & Geasler, 2006). Further, couples having a second child are often different from couples deciding to have only one child. For instance, Dyrdal and Lucas (2013) recently reported that parents having a second child were happier than parents having one child even before the birth of their first child. More satisfied spouses were also more likely to have children earlier in their marriage (Lawrence et al., 2008; Shapiro et al., 2000). Thus, studies using samples with different background characteristics and family structure may or may not find similar patterns as those described here. Clearly, there is a need for more research examining the transition after the birth of a second child.

Some may argue that we had no matched control group of first-time parents to determine whether any noted declines were due to the transition or to normative, developmental changes in marital functioning. Our goal was to understand heterogeneity in the transition from one child to two, not to make comparisons across first- and second-time parents. Besides, it is unlikely one could find a matched control group of one-child families because families choosing to have one child differ notably from families choosing to have two children, particularly with respect to women's career aspirations and employment (Knox & Wilson, 1978). The strategic timing of our assessments, specifically the 1-month timepoint, revealed significant changes after the transition, even if short-lived, that cannot be easily explained as a normative developmental progression of marital functioning. The first contact with our families, however, occurred during the last trimester of pregnancy, which is standard practice in transition to parenthood studies. Yet, one could argue that the transition may have been well underway by this time, perhaps from the moment the couple knew the wife was pregnant. This possibility may be even more pronounced with the birth of the second child when parents spend a considerable amount of time during the pregnancy preparing the firstborn and themselves for the infant's birth and the task of caring for two young children (Richardson, 1983).

The transition to parenthood marks a significant developmental milestone for many adults. Researchers have spent decades examining whether the birth of an infant spells ruin for the marriage. Perhaps the question is not whether marriages have been compromised with the birth of a child, but how adults make the transition from partners to parents as part of the adult life course. In a 22-year longitudinal study of 3,672 German men and women, Drydal and Lucas (2013) found an increase in life satisfaction (i.e., happiness) for husbands and wives in pregnancy and the year after birth, with mothers more satisfied than fathers, suggesting that parenting brings joy to families even if marital satisfaction declines. In addition, Ahlborg et al., (2009) reported that 79% of parents in their sample either had a second child or were pregnant with the second child by the time the firstborn was 4 years old, underscoring that couples continue to have children beyond the first child despite declines in marital satisfaction.

The birth of the first child marks the beginning of parenthood, but certainly not the end. Few studies consider a life course developmental perspective when examining marital change after the birth of an infant. The current study was our attempt at doing so by focusing on patterns of marital change for couples having their second child. As expected, there was significant heterogeneity in marital change patterns, which often differed for husbands and wives. Although there was evidence of marital disruption for some couples, most couples appeared to manage the transition and adapt to changes. Even when there was significant change, it was often short-lived, attesting to family resilience rather than crisis in the face of change.

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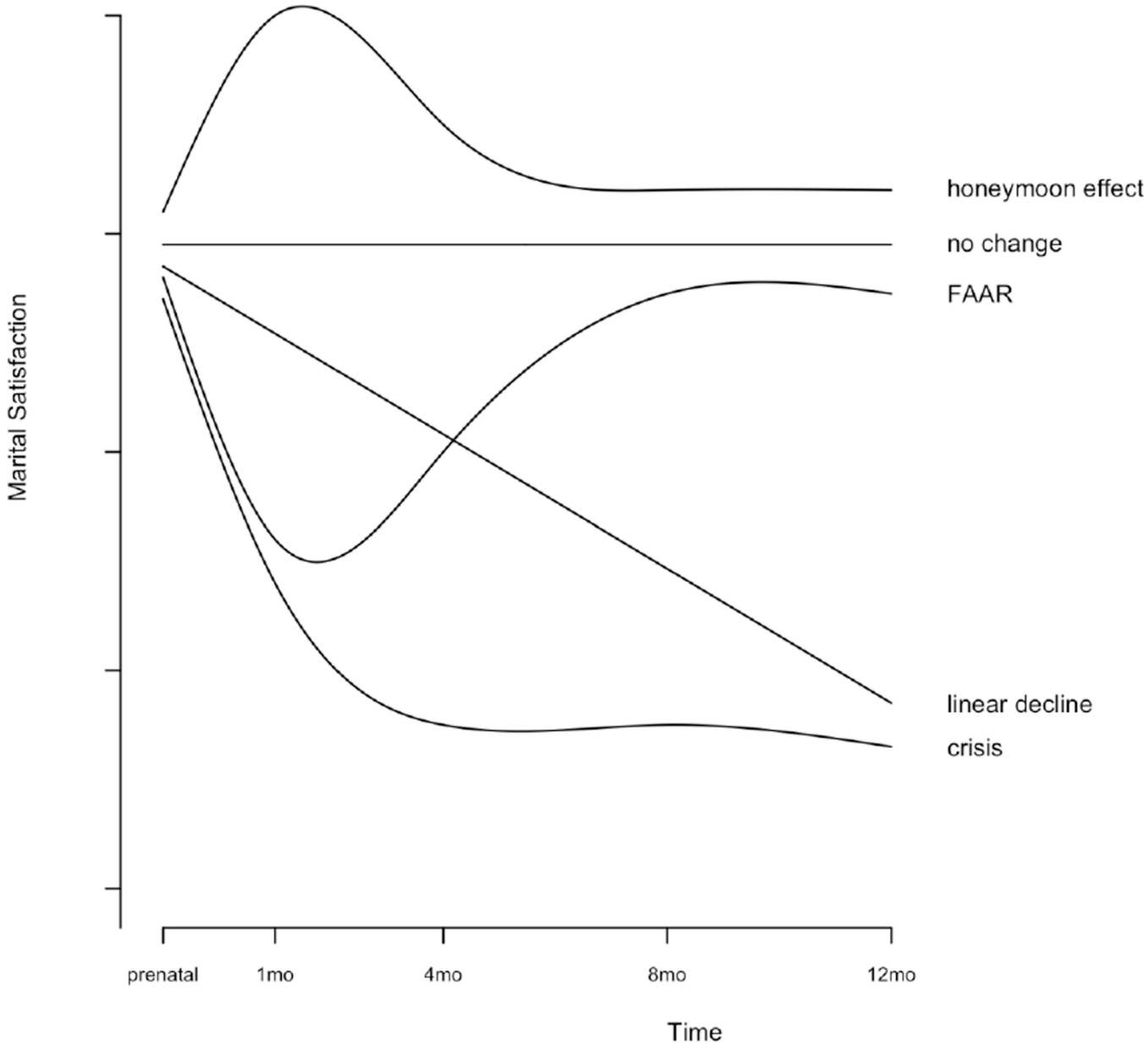

Figure 1.
Hypothesized Patterns Describing Different Patterns of Change over the Family Transition

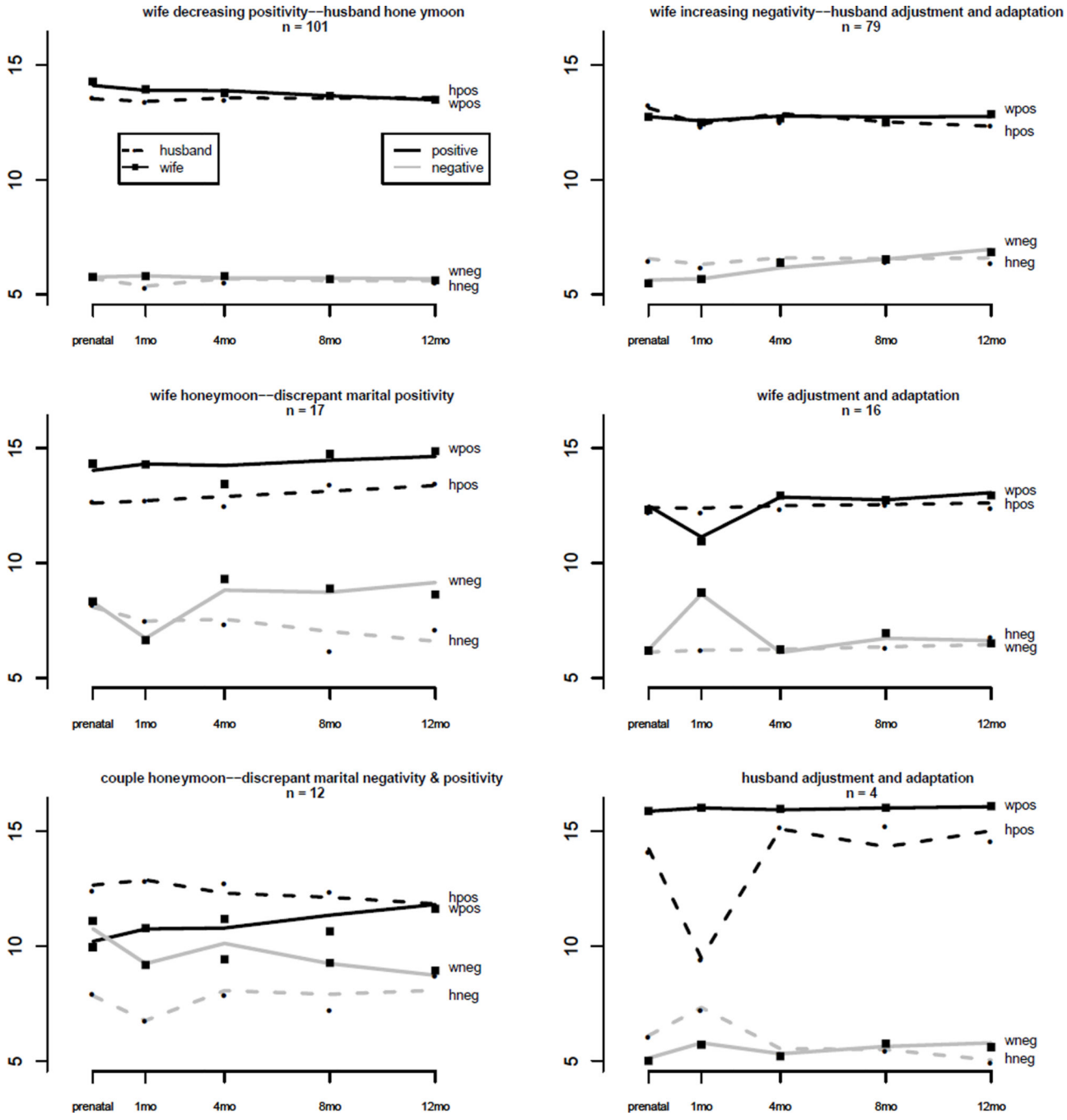

Figure 2.

Estimated Mean Trajectories of GMM 6-class Solution for Marital Positivity (Black) and Negativity (Grey) for Wives (Solid Lines) and Husbands (Dashed Lines) with Observed Means

Table 1

Growth Parameter Estimations of the Unconditional Latent Growth Curve Model with Four Parallel Processes

	Growth Parameters of Marital Positivity						Growth Parameters of Marital Negativity					
	Intercept		Linear Slope		AA		Intercept		Linear Slope		AA	
Wife												
Mean (*SE*)	13.302***	(.12)	−.007	(.02)	.056*	(.02)	6.223***	(.13)	.061***	(.02)	.014	(.03)
Variance (*SE*)	2.863***	(.32)	.019**	(.01)	0	-	3.111***	(.35)	.018*	(.01)	0	-
Husband												
Mean (*SE*)	13.109***	(.12)	−.014	(.02)	.092***	(.03)	6.248***	(.13)	−.007	(.02)	.086**	(.03)
Variance (*SE*)	2.589***	(.29)	.017**	(.01)	0	-	3.390***	(.38)	.020**	(.01)	0	-

Note: AA = Adjustment and Adaptation testing deflection of 1 month from prenatal and 4 months. Random variance for the AA effect was constrained to 0.

Table 2

The 6-class Solution of GMM: Fixed Effects Parameter Estimates and (Standard Errors) for Fixed Effects (N = 229).

	Class 1 *n* = 101 (44.1%)		Class 2 *n* = 79 (34.5%)		Class 3 *n* = 17 (7.4%)		Class 4 *n* = 16 (6.9%)		Class 5 *n* = 12 (5.2%)		Class 6 *n* = 4 (1.7%)	
	Wife	**Husband**	**Wife**	**Husband**	**Wife**	**Husband**	**Wife**	**Husband**	**Wife**	**Husband**	**Wife**	**Husband**
Marital Positivity												
Intercept	14.075 ***	13.489***	12.694***	12.959***	14.086***	12.598***	12.051***	12.391***	10.292***	12.761***	15.907***	12.781***
	(.131)	(.240)	(.322)	(.517)	(.437)	(.685)	(.625)	(.812)	(.734)	(.420)	(.481)	(.514)
Slope	−.092 **	.014	.010	−.097	.085	.118*	.155*	.034	.234**	−.141*	.025*	.344***
	(.035)	(.036)	(.035)	(.082)	(.054)	(.058)	(.066)	(.057)	(.079)	(.069)	(.011)	(.089)
AA[a]	.034	.037	.056	.172***	−.056	.002	.431**	.016	−.090	−.104	−.034	1.460***
	(.038)	(.031)	(.049)	(.047)	(.088)	(.099)	(.139)	(.089)	(.079)	(.056)	(.079)	(.224)
Marital Negativity[b]												
Intercept	13.219*	13.395***	13.413***	12.517***	11.221***	11.140***	12.075***	12.876***	8.604***	11.493***	13.711***	12.489***
	(.197)	(.339)	(.288)	(.502)	(1.321)	(1.195)	(.525)	(.719)	(.505)	(.605)	(.036)	(.449)
Slope	.015	.001	−.213***	−.017	−.210*	.211	.047	−.049	.257**	−.087	−.075**	.227***
	(.027)	(.036)	(.031)	(.063)	(.102)	(.218)	(.086)	(.102)	(.082)	(.067)	(.022)	(.025)
AA[b]	.020	−.096*	−.047	−.074	−.509***	−.112	.704***	.010	−.362**	−.335*	.168	.415***
	(.035)	(.048)	(.085)	(.075)	(.115)	(.112)	(.099)	(.088)	(.115)	(.145)	(.240)	(.118)

Note:

* $p < .05$,

** $p < .01$,

*** $p < .001$.

C1 = *wife decreasing positivity/husband honeymoon*, C2 = *wife increasing negativity-husband adjustment and adaptation*, C3 = *wife honeymoon-discrepant marital positivity*, C4 = *wife adjustment and adaptation*, C5= *couple honeymoon with discrepant marital negativity and positivity*, C6= *husband adjustment and adaptation*.

[a] A positive AA value for marital positivity means that positivity initially declined from prenatal to 1 month and then increased (adjustment and adaptation), whereas a negative value indicates that there was an initial increase in positivity from prenatal to 1 month, with a subsequent decline (i.e., honeymoon effect).

[b] Marital negativity scores were reverse-coded in the GMM so a negative slope in the table indicates an increase in negativity. A positive AA value for marital negativity means negativity increased from prenatal to 1 month then declined by 4 months (adjustment and adaptation), and a negative AA value indicates that negativity initially declined from prenatal to 1 month and then increased by 4 months (i.e., honeymoon effect).

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Table 3

Means and Standard Deviations of Prenatal Antecedents by Trajectory Classes and Spouse (Husband/Wife) with Significant Contrasts

		Class						
		C1	**C2**	**C3**	**C4**	**C5**	***F***	η_p^2
Enduring Vulnerabilities		M(SD)	M(SD)	M(SD)	M(SD)	M(SD)		
Depression	Husband	5.20_{a}(.47)	6.13(.53)	8.31_{b}(1.16)	6.81(1.16)	7.25(1.34)		
	Wife	7.74_{a}(.52)	8.90_{ab}(.58)	11.63_{b}(1.28)	8.88_{ab}(1.28)	16.08_{d}(1.48)		
	Class	6.47_{a}(.37)	7.51(.42)	9.97_{b}(.93)	7.84(.93)	11.67_{c}(1.07)	7.55	.12
Neuroticism	Husband	27.28(.73)	28.73(.83)	29.06(1.83)	29.69(1.83)	29.25(2.11)		
	Wife	30.60(.75)	30.73(.86)	32.50(1.88)	31.44(1.88)	38.67(2.17)		
	Class	28.94_{a}(.53)	29.73(.60)	30.78(1.33)	30.56(1.33)	33.96_{b}(1.53)	2.69	.05
Stressful Event								
Marriage Length	Class	5.77(.26)	6.08(.30)	4.23_{a}(.64)	6.94_{b}(.66)	4.94(.76)	2.69	.05
Interbirth Interval	Class	30.95(1.02)	32.57(1.19)	28.53(2.64)	30.44(2.56)	30.67(2.95)	N.S.	
Division of Childcare	Class	2.32(.05)	2.33(.06)	2.45(.12)	2.40(.13)	2.33(.15)	N.S.	
Parenting Stress	Husband	2.20(.05)	2.21(.06)	2.22(.12)	2.29(.12)	2.36(.14)		
	Wife	2.31(.05)	2.38(.06)	2.23(.13)	2.34(.13)	2.48(.15)		
	Class	2.26(.05)	2.30(.05)	2.23(.12)	2.31(.12)	2.42(.14)	N.S.	
Adaptive Processes								
Social Support	Husband	3.43_{a}(.07)	3.34_{ab}(.08)	3.23(.18)	2.97_{b}(.18)	2.79_{c}(.21)		
	Wife	3.51_{a}(.07)	3.48_{a}(.08)	3.10_{b}(.17)	3.28(.18)	2.95_{b}(.21)		
	Class	3.47_{a}(.07)	3.41(.08)	3.16(.17)	3.13(.18)	2.87_{b}(.20)	2.99	.05
Marital Satisfaction	Husband	4.53_{a}(.07)	4.29_{b}(.08)	3.85_{c}(.17)	4.15_{bc}(.17)	3.58_{c}(.20)		
	Wife	4.50_{a}(.07)	4.22_{b}(.07)	3.81_{c}(.16)	3.81_{c}(.16)	2.33_{d}(.19)		
	Class	4.52_{a}(.06)	4.25_{b}(.07)	3.83_{b}(.14)	3.98_{b}(.14)	2.96_{c}(.17)	23.48	.30
Constructive Communication	Husband	20.51(.42)	19.78(.48)	18.44(1.04)	18.44(1.04)	17.83(1.21)		
	Wife	20.64(.47)	19.40(.53)	20.50(1.17)	19.31(1.17)	15.00(1.35)		
	Class	20.57_{a}(.37)	19.59_{a}(.42)	19.47(.92)	18.88(.92)	16.42_{b}(1.06)	4.02	.07
Destructive Communication	Husband	8.28_{a}(.51)	9.58_{ac}(.58)	14.31_{bc}(1.27)	9.3_{ac}(1.27)	11.58_{c}(1.47)		
	Wife	7.94_{a}(.44)	8.40_{a}(.50)	11.88_{b}(1.10)	10.19_{ab}(1.10)	16.83_{d}(1.27)		

		Class						
		C1	**C2**	**C3**	**C4**	**C5**	***F***	η_p^2
Positive Marital Interaction	Class	8.12_a(.41)	8.99_a(.46)	13.09_b(1.01)	9.75_a(1.01)	14.21_b(1.16)	10.31	.16
	Husband	16.90(.27)	16.07(.31)	15.20(.66)	15.98(.68)	15.69(.79)		
	Wife	16.99(.23)	16.90(.27)	15.22(.57)	16.73(.58)	16.25(.68)		
Negative Marital Interaction	Class	16.95_a(.21)	16.49(.23)	15.21_b(.50)	16.35(.51)	15.97(.59)	3.05	.05
	Husband	6.06(.27)	6.54(.30)	7.16(.65)	7.69(.67)	6.97(.77)		
	Wife	6.19(.27)	6.78(.31)	8.65(.66)	6.75(.68)	7.53(.78)		
	Class	6.12_a(.22)	6.66(.26)	7.90^b(.55)	7.22(.56)	7.25(.65)	3.11	.05

Note. C1 = *wife decreasing positivity-husband honeymoon*, C2 = *wife increasing negativity-husband adjustment and adaptation*, C3 = *wife honeymoon-discrepant marital positivity*, C4 = *wife adjustment and adaptation*, C5= *couple honeymoon discrepant marital negativity and positivity*, C6= *husband adjustment and adaptation*. F values only reported if $p < .05$. Means designated with different subscripts are significantly different from each other based on post-hoc Tukey comparisons ($p \leq .05$).

*{ Designates significant within-couple gender differences

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