

Effects of Expected and Perceived Division of Childcare and Household Labor on Mother's Relationship Satisfaction during Their Transition to Parenthood

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Abstract

This study evaluated the effects of expected and perceived division of childcare and household labor on mothers' relationship satisfaction during their transition to parenthood. Mothers were administered a questionnaire during their third trimester of pregnancy and received a follow-up phone interview three months postpartum. During the second wave of data collection, all mothers in this study were at home with their child. Findings indicated that mothers with lower prenatal expectations about postnatal division of labor had greater relationship satisfaction three months postpartum. Additionally, mothers also had greater relationship satisfaction at three months postpartum when they reported receiving more help with childcare from their partner than they had expected during their pregnancy.

Keywords

Transition to Parenthood, Motherhood, Relationship Satisfaction, Division of Household Labor, Division of Child Care, Maternity Leave, Parental Leave

1. Introduction

The anticipation and arrival of a newborn child is often a happy, meaningful occasion for first-time parents (Myrskylä & Margolis, 2014; Nazarinia Roy, Schumm, & Britt, 2014). What some couples may not adequately anticipate—and some social policies, such as maternal leave, may help to ameliorate—are the potential challenges to the couple relationship related to becoming new parents. Although the literature on the

transition to parenthood has consistently found that this transition has a negative effect on most couples' relationship satisfaction and functioning (Elek & Hudson, 2003; Lawrence et al., 2007; Lawrence et al., 2008; O'Brien & Peyton, 2002; Schulz et al., 2006; Van Egeren, 2004), we sought to understand how maternal role expectations, among a population with access to maternity leave, influenced relationship satisfaction across this important life transition.

The transition to parenthood for couples has been a topic of interest for researchers since the mid-1950s (LeMasters, 1957; Nazarinia Roy, Schumm, & Britt, 2014). The decline in marital or relationship satisfaction across the transition to parenthood appears to be a result of a tendency for family roles to become traditional as husbands and wives become mothers and fathers, with wives assuming more of the traditional female household and childcare duties (Baxter et al., 2008; Biehle & Mickelson, 2012). Möller et al. (2008) found the relationship satisfaction of women to be influenced to a greater degree by division of household labor compared to men. These results make sense considering the mother is more likely to be responsible for laundry, cooking, and cleaning in addition to being the primary childcare provider (Van Egeren, 2004).

However, the idea that all couples'—particularly married couples—relationship satisfaction follows the same pattern across the transition to parenthood has been questioned (Cowan & Cowan, 2000; Shapiro et al., 2000). Researchers have identified different patterns of marital change across this transition with a small percentage of couples indicating stable and more positive marital relations after the birth of their first child (Belsky & Rovine, 1990; Salmela-Aro et al., 2006).

Prenatal expectation of perceived postnatal experiences has been identified as one influential factor across the transition to parenthood (Biehle & Mickelson, 2012; Lawrence et al., 2007; Pancer et al., 2000; Van Egeren, 2004). This study will evaluate how prenatal expectations of postnatal division of childcare and household labor and perceived postnatal divisions affect the relationship satisfaction of new Canadian mothers. We seek to extend the literature by evaluating how mothers' expectations and perceptions of their partners' actions impact their relationship satisfaction within the context of Canada's parental leave policy as it remains unclear how maternity and parental leave influence the divisions of childcare and household labor for new parents. In Canada, parents can combine their maternity benefits (maximum of 15 weeks) and their parental benefits (maximum of 35 weeks) and receive employment benefits for up to 50 weeks of benefits (Government of Canada, 2016).

1.1. Relationship Satisfaction

Couples who have children have reported both positive and negative changes in their relationship, with the latter experiences representing a greater percentage of couples (Doss et al., 2009). The transition to parenthood has been consistently associated with a decline in relationship satisfaction both in the United States (Elek & Hudson, 2003; Lawrence et al., 2007) and internationally, including China (Lu, 2006), Norway (Lorensen et al., 2004), Finland (Salmela-Aro et al., 2006), Sweden, (Möller et al., 2008), Netherlands

(Meijer & van den Wittenboer, 2007), and Denmark (Trillingsgaard et al., 2011). Individual characteristics specific to each spouse have been identified as significant to a couple's relationship satisfaction. For example, Levy-Shiff (1994) reported that husbands who view themselves as nurturing, caring and protecting experienced less of a decline in marital satisfaction than their counterparts. Interestingly, fathers who reported more involvement in childcare perceived their marriages more positively (Cox et al., 1999) and both mothers and fathers reported higher levels of marital satisfaction than their counterparts (Levy-Shiff, 1994). Yet previous literature also illustrates that the transition to parenthood shifts couples towards more traditional gender roles (Cowan & Cowan, 2000). In fact, traditional gender roles such as those seen in non-Western societies, with women staying home to care for a newborn while men work, have been found to produce less decline in marital satisfaction as compared to Western couples with non-traditional roles (Levy-Shiff, 1994). The outcome of this investigation leads to the question that if there are cross-cultural differences in how couples are affected by the transition to parenthood, based on the presence or absence of traditional roles, then what happens when traditional roles are manifested by federal policy that facilitates more opportunity for traditional roles after the birth of a child through parental leave? In an effort to address this question and further understand how the transition to parenthood impacts couple relationship satisfaction we focused on the division of household labor and childcare during the transition to parenthood among a population of Canadian couples who partook in a maternity leave program.

1.2. Postnatal Expectations of Spouse

The postnatal expectations held of one's partner represent another variable that may affect the mother's relationship satisfaction more drastically than that of her significant other (Belsky, 1985; Biehle & Mickelson, 2012). Ruble et al. (1988) conducted a study investigating the effects of violated expectations on wives' dissatisfaction with marital relationships, with respect to shared childcare and housekeeping tasks, during their postpartum period. Women in this study reported doing much more of the housework than their husbands. These researchers found that wives reported less positive feelings towards their spouse postpartum than they did during their pregnancy. Similarly negative effects of the division of household labor on relationship functioning were more recently found by Lawrence et al. (2007) and Möller et al. (2008).

Across the transition to parenthood women experience more negative expectation violations from their partners than do men and these violations account for greater variance in women's relationship satisfaction (Belsky, 1985; Biehle & Mickelson, 2012). Belsky (1985) reported that when couples were evaluated during their third trimester of pregnancy through their third postpartum month 14% of the variance in men's relationship satisfaction change could be accounted for by violated expectations, whereas these violations accounted for 30% of the variance in women's relationship satisfaction change. In general, it seems the arrival of a child affects a woman's life more so than it does a man's (Baxter et al., 2008; Lu, 2006; Möller et al., 2008; Pancer et al., 2000). Al-

though many couples expect equality when they have their first child (Cowan & Cowan, 2000), women typically assume primary responsibility for both childcare and household tasks (Van Egeren, 2004).

1.3. Symbolic Interactionist Theory

The addition of a first child into the dyadic couple relationship not only changes the family configuration into a triad, but also creates new roles. Applying the basic assumptions from symbolic interactionist theory, this study takes a structural view of roles and borrows from three middle range theories in order to observe how the transition to parenthood affects couples. The ease of transition in and out of roles can be defined as “the degree to which there is a freedom from difficulty in activating [...] a role and the availability of resources to begin [...] a role” (Burr et al., 1979: p. 84). According to Burr et al.’s (1979) role transition model there are several variables that affect the ease with which a transition into a new role is made. Role strain for example is such a variable and the greater the perceived difficulties in measuring up to the obligations and demands of a parental role felt by a mother, the less likely they are to have an easy transition into motherhood.

A second theoretical component considered in this study is quality of role enactment (Burr et al., 1979). This middle-range theory argues that the quality of spouse’s role enactment affects the other spouse’s satisfaction in a positive way. The more a partner is enacting their role according to their spouse’s expectations the happier the observing spouse feels. A third middle-range theory that is relevant to this current investigation is that of role strain (Burr et al., 1979). Role theory argues the greater the perceived consensus between spouses on the expectations of what makes a good parent reduces the likelihood of experiencing role strain. Therefore, vagueness or conflict in perceived expectations would result in an increase of role strain experienced by both parents.

The deduction of premises from the three middle range theories discussed gives a positive relationship between perceived consensus of role expectations and ease of transition into new roles. This produces a conceptual hypothesis that states that the greater perceived consensus between self and spouse in the expectation of a new role, the easier the transition into this new role. Increased ease of transition into a new role reduces negative change on the individual enacting that new role and lessens individual and relationship stress and tension. Assuming the ease of transition into parenthood is positively related to marital satisfaction, we can deduce a second conceptual hypothesis that perceived consensus in role expectations between spouses is positively related to marital satisfaction. If a wife’s expectations of her own and her partner’s new roles as parents are not close to her perceptions of what happen, then she is more likely to experience a decline in her marital quality.

1.4. Hypotheses

The purpose of this research was to explore the theoretical assumption that if a mother’s expectations of her partner are not fulfilled, she will experience a decline in rela-

tionship satisfaction despite the reduction in role strain afforded her by maternal leave to care for her child. The two hypotheses developed based on symbolic interaction theory are: 1) mothers' perceptions of unfulfilled division of childcare expectations are related to negative change in their relationship satisfaction; and 2) mothers' perceptions of unfulfilled division of household labor expectations are related to negative change in their relationship satisfaction. Hypotheses one and two are based on symbolic interaction framework and findings of past studies in which wives' unmet expectations affected their marital relationship (Belsky et al., 1983; Cowan & Cowan, 1988, 2000; Ruble et al., 1988).

2. Method

2.1. Participants

Over a span of 19-weeks, 68 mothers from a large metropolitan area in western Canada were recruited from 14 different prenatal classes to participate in this two-phase study. The only criteria for participation was that this be the mother's first full-term pregnancy and that she be residing in the same home as the child's father. Seven of the 68 mothers who had participated in Wave-1 did not participate in the Wave-2 requiring the removal of their Wave-1 data from the study. These seven mothers provided phone numbers that were no longer in service and therefore could not be contacted for Wave-2 data collection. The sample size was therefore reduced to 61 participating mothers after both waves of data were collected. All except one of the participating mothers were in their third trimester of pregnancy. The women in this study were not required to be legally married to their child's father; therefore fathers are referred to as the mothers' partners in the remainder of this text.

Mothers' ages ranged from 19 to 43 with a mean of 30 years ($SD = 5.01$) and their partners' ages ranged from 21 to 48 with a mean of 32 years ($SD = 6.02$). The length of time all couples lived together ranged from four months to 20 years (mean = 5.5 years). Of the mothers employed ($N = 53$) during the prenatal data collection 96% ($N = 51$) indicated that they would be taking parental leave. At three months postpartum 78.7% ($N = 48$) of mothers indicated that they were on parental leave (taking a total of 12 months off work), 18% ($N = 11$) had not been working or were planning on indefinitely staying home from work and 3% ($N = 2$) had still never taken parental leave. During this postpartum period the majority of mothers, 68% ($N = 42$), reported postponing entry back to the workforce for a year or longer, 18% ($N = 11$) reported staying home indefinitely and 13.1% ($N = 8$) reported entry back into the workforce in less than one year but had not yet done so. A recent meta-analysis indicates being younger parents or experiencing shorter relationship involvement as risk-factors for lower relationship satisfaction over the transition to parenthood (Mitnick et al., 2009), while a prospective study indicated that older first time mothers reported greater hardiness than younger first-time mothers and hardiness was predictive of a more adaptive transition to parenthood (McMahon et al., 2011). Given the large range in maternal and paternal age and length of time parents are in a relationship, we will control for all demographic variables.

2.2. Procedure

Women were recruited through prenatal classes at several locations throughout a major metropolitan area in western Canada. Because Canada's medical plan defrays the cost of these classes, attendance of primiparous mothers is high (60% - 90%). Women were informed that this was a longitudinal study that required them to provide a contact number and sign a consent form so they could be contacted three months postpartum. Initial data was collected with a short form pencil and paper questionnaire that was given out to all members of the prenatal class and those willing to participate were asked to return their questionnaires. The second wave of data was collected via telephone interviews three months after their indicated delivery dates.

2.3. Measures

Relationship satisfaction. Marital satisfaction is defined as a mother's subjective evaluation of the relationship she has with her partner. This study consisted primarily of married couples but due to the high number of cohabiting couples in the sample marital satisfaction is referred to as relationship satisfaction. This variable was evaluated at both Time 1, which was when the expecting couple was in their third trimester, and Time 2, which was the three-month postnatal period. Relationship satisfaction was evaluated at both data collection points using a slightly modified version of the **Norton (1983) Quality of Marriage Index (QMI)**, which is a self-reporting scale composed of 6-items (**Nazarinia & White, 2010**). The QMI asks couples to report the extent to which they agree or disagree with global statements regarding the quality of their marriage (e.g., "We have a good marriage"). The 6-items that comprise the QMI have had an intercorrelation of 0.76 and represent a unidimensional construct focusing on the evaluative aspects of marital satisfaction (**Fincham & Bradbury, 1987; Norton, 1983**).

A revised version of the QMI was administered in this study so that all items were responded to according to a 6-point Likert-type scale with 1 being *Strongly Disagree* and 6 being *Strongly Agree*, yielding total possible scores of 6 to 36. Item number 6 in the scale "The degree of happiness, everything considered, in your marriage." (**Norton, 1983: p. 147**) was modified to read, "All things considered, I would say my current relationship with my partner is" (**Nazarinia & White, 2010**). In this revised version of the QMI a change in wording of the questions was done in order to elicit a response that does not represent a degree; therefore the original 10-point response scale was modified to a 6-point response scale (1 = *Very Unhappy* to 6 = *Perfectly Happy*). The six items of the modified index showed high internal consistency (alphas > 0.90) and substantial test-retest reliability with a Pearson zero-order correlation of 0.65 across the two administrations (**Nazarinia & White, 2010**). The revised version was piloted to new mothers before the survey was administered and the revised version created less confusion for the pilot group than the original version. The QMI was also administered because it appears to be an appropriate measure of relationship satisfaction especially when measuring marital satisfaction across time (**Nazarinia, Schumm, & White, 2009**).

Division of Labor. The division of childcare and the division of household labor

were measured by administering the Cowan & Cowan's (1979; 1990) *Who Does What? Questionnaire*, a self-report questionnaire. This self-report questionnaire was established and has since been commonly administered in studies evaluating co-parenting among new parents and/or parents of young children (Black et al., 1999; Forehand et al., 2014; Tornello et al., 2015). *Division of Childcare* was measured using the 12-item childcare and child-rearing dimension found in Cowan and Cowan's (1979; 1990) *Who Does What? Questionnaire*, a self-report questionnaire. Two versions of the questionnaire were used; the first was the pregnancy version intended for use with mothers at Time 1 and the second was the six-month postnatal version, which was used at Time 2. In the prenatal questionnaire, mothers were only asked how they would "like it to be" when they are parents of a young child (birth to three months). In the postpartum questionnaire, mothers were asked to respond to the 12-items twice, once pertaining to "how it is now" and then in terms of "how [they] would like it to be." Mothers were asked to give their perception of how they would like the division of childcare to be and how they perceive it to be on a 9-point scale (1 = *I do it all*, 5 = *we both do it equally* and 9 = *he does it all*). The 12 items include statements such as "feeding the baby," "playing with baby" and "doing the baby's laundry." The Cronbach's Alpha for the 12 items targeting childcare and child rearing ideal is 0.98 (Cowan & Cowan, 1979, 1990).

Division of household labor. The division of household labor was measured using the 12-item household and family task dimension found in Cowan & Cowan's (1979, 1990) *Who Does What? Questionnaire*. Although there are currently seven versions of the *Who Does What? Questionnaire*, the 12 household and family task items are identical throughout. In order to target the actual division of household labor, mothers were asked to respond to the 12 items according to "how it is now" at both Time 1 and Time 2. Mothers were asked to give their perception of actual division of household labor on a 9-point scale, where 1 = *I do it all*, 5 = *we both do it equally* and 9 = *he does it all*. The 12 items include statements such as who is responsible for "planning and preparing meals", "taking out the garbage" and "looking after the car." The Cronbach's Alpha for the 12 items targeting the household and family task now is 0.93 (Cowan & Cowan, 1990).

Division of household labor expectations. Division of household labor expectations were measured using the same household and family task dimension discussed previously, however, questions were posed differently in order to target mothers' expectations; mothers were asked how they would like it to be. At Time 1 mothers were asked "how [they] would like it to be once they are the parents of a young infant (birth to three months)." At Time 2 mothers were asked "how would you like it to be." The Cronbach's Alpha for the 12 items targeting the household and family ideal is 0.97 (Cowan & Cowan, 1990). This measure yielded possible scores of 9 to 108, lower scores indicating that mothers do the majority of housework.

2.4. Statistical Analysis

Hypotheses were tested using bivariate correlation procedures and regression analyses.

Correlations were considered significant at a $p \leq 0.05$ level. Prior to hypothesis testing, a correlation matrix was run computing Pearson's correlation coefficients for all the main variables. In addition, a correlation matrix was run computing Pearson's correlation coefficients for all control variables and the dependent, independent and moderating variables, in order to highlight the fact that there is no statistically significant correlation between the dependent variable and any of the control variables. Taking into consideration the fact that control variables identified do not have a significant relationship to the dependent variable and those variables used to compute our dependent variable, control variables were not entered into any regression models.

3. Results

3.1. Analysis

Description statistics on both mothers and their partners were analyzed and are illustrated in **Table 1**. In order to capture change in relationship satisfaction of first time mothers we computed difference scores of relationship satisfaction from Time 1 and Time 2. Difference scores are frequently used to assess variables such as unfulfilled

Table 1. Descriptive statistics of first time mothers' and partners' demographic variables (N = 61).

Variable	Coding Scheme	Mother		Partner	
		Mean (SD/Range)	n %	Mean (SD/Range)	n %
Relationship type	Married		52 85.2	-	
	Common-law/cohabiting		9 14.8		
Race	Caucasian		50 82		52 85
	East Indian		2 3.3		3 4.9
	Asian		2 3.3		2 3.3
	Hispanic		2 3.3		0 0
	Other		5 8.2		4 6.5
Education (Highest Grade Completed)	High school		3 4.9		15 24.6
	Some college		9 14.8		10 16.4
	Post-secondary certificate		15 24.6		9 14.8
	Two-year college degree		3 4.9		6 9.8
	Four-year college degree		27 44.3		14 23
	Masters degree/Post Bac. certification		3 4.9		6 9.8
	Post Masters Degree		1 1.6		1 1.6
Employment	Full-time		46 75.4		
	Part-time		7 11.5		
	No employment		8 13.1		
Age	Years	30 (5.01/24)		32 (6.02/27)	
Relationship length	Years	5.5 (3.7/19.6)		-	

expectations, comparing expected values with perceived actualized values. In this study change in relationship satisfaction was calculated by subtracting relationship satisfaction at Time 1 from relationship satisfaction at Time 2. Change in relationship satisfaction was then assessed by the predictor variables—first, using Time 1 variables alone, and then, by adding Time 2 variables.

3.2. Relationship Satisfaction

Time 1: Relationship satisfaction. During the first wave (QMI-1) of data collection the internal consistency of the QMI scale as measured by the Cronbach alpha coefficient was 0.92. Scores had a range of 2.5 with a minimum score of 3.5 and a maximum score of 6.0. The mean, median, and mode were 5.6, 5.83, and 6, respectively with a standard deviation of 0.51. Skewness was significant at -1.70 with a standard error of 0.31. This scale was constructed from an attitudinal measure, the QMI, and skewness is common in such attitudinal measures. The Kurtosis was also significant at 3.51 with a standard error of 0.60.

Time 2: Relationship satisfaction. During the second wave (QMI-2) of data collection the internal consistency of the QMI scale as measured by the Cronbach alpha coefficient was 0.91. Scores had a range of 2.67 with a minimum score of 3.33 and a maximum score of 6.0. The mean, median, and mode are 5.47, 5.67, and 5.83, respectively with a standard deviation of 0.55. Skewness was significant at -2.06 with a standard error of 0.31. The Kurtosis was also significant at 5.12 with a standard error of 0.60.

3.3. Division of Childcare

In order to create a reliable and unidimensional index of childcare three items were removed from this 12-item scale, and analysis continued with a 9-item scale (see **Table 2**). Removing the three items resulted in 61 cases with no missing data. The Cronbach alpha scores increased for both the expected and actual division of childcare scales. The three items removed from the scale included: deciding on baby's feeding schedule, feeding baby and arranging for babysitters and childcare. This data was collected during phone call conversations and many mothers stated that being on maternity leave

Table 2. The 12 childcare task items from Cowan & Cowan (1979) "who does what? questionnaire".

1. Deciding about the baby's feeding schedule**
2. Feeding the baby**
3. Changing the baby's diapers; dressing the baby
4. Bathing the baby
5. Deciding whether to respond to the baby's cries
6. Responding to the baby's crying in the middle of the night
7. Taking the baby out: walking, driving, visiting, etc.
8. Choosing toys for the baby
9. Playing with the baby
10. Doing the baby's laundry
11. Dealing with the doctor regarding the baby's health
12. Arranging for baby sitters or child care**

**Item removed from the scale.

gave them more opportunity for certain tasks and they did not expect their partner to pertain in “share” in these tasks. For example, given the young age of the infants, many mothers were breastfeeding on demand and had not yet arranged feeding schedules per se nor did their partners assist much during feeds. Most couples had also not arranged for any babysitters or childcare again because their infants were young and as first time parents many of the mothers did not feel comfortable leaving their infants with anyone other than the partner or family members.

3.4. Division of Household Labor

Again, in order to improve the reliability and create a unidimensional index, 5-items were removed from this 12-item scale, and analysis continued with a 7-item scale (see **Table 3**). Once the 5-items were removed from this scale and the data from these items dropped from the study further analysis indicates an increase in alpha scores of both the actual and expected measures of division of household labor. These dropped items included: meal planning and prepping, paying bills, household income, family and friend relations and yard work. Three participants had missing data at Time 1 and four participants had missing data at Time 2. The tasks missing a response were that of “repairs around the home” and “looking after the car.” In order not to lose data, mean scores on the original 12 task items were calculated for each of these participants and that mean was used to replace the missing data.

Descriptions of the key variables are illustrated in **Table 4**. On average most mothers show a decline in their relationship satisfaction across the transition to parenthood. Both perceived division of childcare and division of household labor expectations have a higher mean during the prenatal period at Time 1, than mothers’ reports of how they would like the division of these tasks to be once they physically have their child at home at Time 2. Mothers report that they are doing more of the actual childcare at Time 2 with a mean of 3.06.

Bivariate correlations were run for all variables. A correlation matrix is illustrated in **Table 5**. The significant correlations between the change in relationship satisfaction

Table 3. The 12 household task items from Cowan & Cowan (1979, 1990) “who does what? questionnaire”.

1. Planning and preparing meals**
2. Cleaning up after meals
3. Repairs around the home
4. House cleaning
5. Taking out the garbage
6. Buying groceries, household needs
7. Paying bills**
8. Laundry: washing, folding, ironing
9. Writing letters/making calls to family and friends**
10. Looking after the car
11. Providing income for our family**
12. Caring for plants, garden, yard**

**Item removed from the scale.

Table 4. Descriptive statistics of relationship satisfaction, division of childcare and household labor at both Time 1 and Time 2.

Variables	<i>M</i>	<i>SD</i>	<i>N</i>
Time 1			
Relationship satisfaction	5.59	0.51	61
Division of childcare expectation	4.52	0.48	61
Actual division of household labor	5.21	1.09	61
Division of household labor expectation	5.73	0.97	61
Time 2			
Relationship satisfaction	5.47	0.55	61
Actual division of childcare	3.06	0.89	61
Would like division of childcare to be	4.07	0.74	61
Actual division of household labor	4.81	1.31	61
Would like division of household labor to be	5.64	1.01	61

Table 5. Pearson's correlations coefficients for relationship satisfaction and all division of childcare and household labor variables at Time 1 and Time 2.

Variables	1	2	3	4	5	6	7	8	9
Time 1									
1. Relationship satisfaction	-								
2. Division of childcare expectation	-0.03	-							
3. Actual division of household labor	0.11	0.05	-						
4. Division of household labor expectation	-0.12	0.22	0.67**	-					
Time 2									
5. Relationship satisfaction	0.65**	-0.04	0.03	-0.27*	-				
6. Actual division of childcare	0.15	0.17	0.31*	0.11	0.45**	-			
7. Would like division of childcare to be	0.06	0.45**	0.23	0.26*	0.20	0.63**	-		
8. Actual division of household labor	-0.02	0.03	0.70**	0.51**	0.10	0.56**	0.40**	-	
9. Would like division of household labor to be	-0.12	0.11	0.53**	0.44**	-0.06	0.36**	0.34**	0.72**	-

* $p \leq 0.05$, two-tailed. ** $p < 0.01$, two-tailed.

and expectation fulfillment of both division of childcare and household labor warrant further exploration of our hypotheses. To determine how much of the variance in the criterion variable can be attributed to each of the predictor variables a two-model regression analysis was conducted. There was a moderately strong correlation of 0.65 between QMI-1 and QMI-2.

Table 6, a three-model regression analysis was run to identify the variables that predicted change in relationship satisfaction. Given the time sequenced nature of this data, evaluating the change in relationship satisfaction over time, it is only logical that we apply hierarchical regression analysis to elicit direct effects. Hierarchical regression

Table 6. Standardized regression coefficients for the effects of actual and expected division of childcare and household labor on relationship satisfaction at Time 1 and Time 2.

	Model 1	Model 2	Model 3
Time 1			
Relationship satisfaction		0.59**	0.56**
Division of childcare expectation	0.03	0.04	-0.02
Actual division of labor	0.35*	0.19	0.01
Division of labor expectation	-0.36*	-0.34*	-0.25+
Time 2			
Would like division of childcare			-0.01
Actual division of childcare			0.38**
Would like division of household labor to be			-0.07
Actual division of household labor			0.07
R squared	0.079	0.480**	0.611**
Adjusted R squared	0.031	0.443**	0.551**

* $p \leq 0.05$, two-tailed. ** $p < 0.01$, two-tailed. + $p \leq 0.06$, two-tailed.

allows for predictor variables to be added in sequence to determine the total direct effect and, by subtraction, the indirect effect of all predictor variables (Cohen et al., 2003). Model 1 accounted for relatively little variance (3%) in Time 1 relationship satisfaction, and the amount of variance was not statistically significant. Model 2, however, was significant and accounted for 44% of the variance in Time 2 relationship satisfaction. Notably, division of labor expectations is negatively associated with relationship satisfaction ($\beta = -0.34$, $p \leq 0.01$) and continues to predict Time 2 relationship satisfaction directly, even after controlling for Time 1 relationship satisfaction and any indirect effects of those expectations operating through Time 1 relationship satisfaction. Model 3 was significant and accounted for 55% of the variance in Time 2 relationship satisfaction, actual division of childcare at Time 2 is positively associated with relationship satisfaction ($\beta = 0.38$, $p \leq 0.01$). Our results suggested that having lower expectations of future division of labor after having a child and the perceived contributions of the partner to childcare after the birth predicted positive change in relationship satisfaction after the transition to parenthood.

Although we found direct effects as stated previously, there were no significant interaction effects between change in marital satisfaction levels and the actual and expected reports of both division of childcare and household labor. Thus we concluded that actual division of childcare experienced three months postpartum is more of a factor on the couple's marital satisfaction than the mother's prenatal expectation for the divisions of childcare and household labor. Therefore, both hypothesis 1 and 2 above could not be supported with this data. In order to elicit any other possible relationships, a one-way ANOVA was run with relationship satisfaction at Time 2 and a median split of Time 1 division of household labor expectations and a met/unmet split for Time 2 per-

ceived division of household labor. Time 1 division of household labor expectations was recoded so that scores above the median of 5.71 were coded as “High” and those below were coded as “Low”. All scores falling on the median were coded as “High”. Time 2 perceived division of household labor was recoded so that each individual participant was evaluated and those who had Time 2 perceived division of labor scores above their Time 1 expected scores were categorized as “High”, and those who had Time 2 scores below their Time 1 scores were categorized as “Low”. All scores that were equal at Times 1 and 2 were categorized as “High”. Our findings suggest that the mean of time 2 relationship satisfaction does not appear to have much of a difference between high and low expectations when the perceived division of household labor is higher than the median. However when the perceived division of labor is lower than the median there appears to be a greater difference in the Time 2 relationship satisfaction scores. In order to further elaborate on the findings from this data and illustrate the importance of father participation, **Table 7** illustrated the percentage of mothers who report no change or positive change in their relationship satisfaction at Time 2 based on expectations and perceptions of actual behavior.

4. Discussion

We found a direct effect between Time 2 relationship satisfaction reports and mother’s prenatal division of household labor expectation and perceived performed division of childcare. As women make a transition to motherhood, they invariably find themselves taking on more division of childcare and household labor tasks, as found in this and previous investigations (Baxter et al., 2008; Feeney et al., 2001; Nomaguchi & Milkie, 2003). And while mothers’ violated division of labor expectations have been linked to declines in relationship satisfaction across (Ruble et al., 1988), our findings suggest that the greatest positive impact in relationship satisfaction is seen when mothers’ expectations are exceeded not so much when they are unfulfilled. Perhaps this lends itself to the notion that high expectations should not be set for one’s partner so that he can in fact exceed the expectation, resulting in more relationship satisfaction. This finding is similar to that of McNulty & Karney (2004), who found newlyweds with the most realistic relationship expectations fared better post-honeymoon compared to couples with more unrealistic expectations.

We found a positive relationship between perceived division of childcare and mothers’

Table 7. Percentage of women with an increase or no change in relationship satisfaction based on expectation and actual division of household labor.

Time 1 Division of Household Labor Expectation	Time 2 Actual Division of Household Labor	Time 2 Relationship Satisfaction (N)
Did expect husband to help	Husband did help	54% same or higher (04)
	Husband didn’t help	32% same or higher (11)
Didn’t expect husband to help	Husband did help	100% same or higher (07)
	Husband didn’t help	50% same or higher (06)

reports of relationship satisfaction; such that the more partners participated in child-care the higher the mothers reported relationship satisfaction. These findings confirm previous reports that the caregiving behaviors of fathers and the amount of time they spend playing with their infant is a positive predictor of both mothers' and fathers' relationship satisfaction (Biehle & Mickelson, 2012; Tremblay & Pierce, 2011) and fathers' co-parenting experiences (Van Egeren, 2004).

Mothers' reports of expected division of household labor during pregnancy were similar to their expectations reported at postpartum. These findings suggest that mothers' three-month postpartum expectations of fathers' involvement in the division of household labor did not significantly change from reports made in their third trimester of pregnancy. The small change in mothers' expectations of division of household labor that was observed was for a more egalitarian division in labor. Cowan & Cowan (2000) reported that some mothers in their study expected a more egalitarian division of labor after their children were born than they experienced in their relationship before they became pregnant. The expectation for future egalitarian division of household labor seems to only set mothers up to have greater violations of their expectations, as the birth of a child triggers more traditional role-taking by parents (Cowan & Cowan; Van Egeren, 2004).

Mothers in this study were on parental leave and stayed home with their child full-time as reported above. In general mothers report actually doing a majority of the childcare and household tasks after the birth of their child. According to this data, not only are the majority of mothers having their division of household labor expectations violated, but they are actually doing more of the household labor once their child is three months of age. These results are consistent with Feeney et al. (2001) and Baxter et al. (2008) who also found that mothers were spending more time on division of household labor tasks after their children were brought home. Additionally, Feeney et al. (2001) found that the more time mothers spent on household and childcare tasks the less time they had to spend with their husbands, which could lead to possible resentment from their husbands that could color their relationship.

Limitations

We are aware that this study has several limitations including: a limited sample size, a non-random sample, and a self-selection bias among the participants. There are no couples in this study that have not experienced the transition to parenthood and therefore the different relationship satisfaction reports could be based on natural passage of time. However, in support of the argument that children affect a couple's relationship, Doss et al. (2009) conducted an eight year study in which they found that couples who had children had a more sudden decline in their relationship satisfaction following the birth of their first child which persisted through the study, as compared to couples who had not yet had children who showed a more gradual decline in their relationship satisfaction. Although this is a small sample, we believe that these couples are unique in that they are dual earner couples in which the mother has taken maternity leave for an

extended period of time to embark on a traditional gender role as a stay at home mother. It is for this reason that we believe our findings are important and shed some important light on the fact that even when women assume traditional gender roles, father involvement is an important factor in the couple's relationship satisfaction. Our small sample also allowed us to evaluate the data in greater detail as we conducted further analyses to determine how unmet and exceeded expectations of fathers impact new mothers relationship satisfaction.

5. Conclusion

Our findings suggest that even when social policy eliminates some stress on new parents by allowing one parent, in this case, to stay home, mothers still vary in expectations for partner assistance in caring for their child and sharing household labor. When new mothers' expectations for help were met, whether the fathers helped or not, roughly half were equally or more satisfied with their post-natal couple relationship. In line with previous work (Cowan & Cowan, 2000), when new mothers' expectations go unfulfilled, their relationship satisfaction is differentially impacted. When partners are expected to help and fail to live up to that expectation, 68% of new mothers report being less satisfied with their relationship, leaving 32% equally or more satisfied. On the one hand, there may be a demand effect at work based on heightened expectations for couples who attend prenatal classes together. New mothers may expect their co-educational prenatal partners to successfully meet their pregnancy related expectations. Unfulfilled expectations by educated partners may be particularly harmful for the relationship satisfaction of new mothers, as prenatally educated partners may be expected to more skillfully meet new mothers' expectations. This speculation remains to be tested with a comparison group that does not attend prenatal education classes.

On the other hand, it appears as though the willing self-sacrifice of a partner can positively impact mothers' relationship satisfaction: when new mothers received unexpected help from partners, 100% maintained or improved their relationship satisfaction during the transition to parenthood (Cowan & Cowan, 2000).

What does it all mean? Despite Canada's generous leave policy for new parents, recent time-use data show that women in the United States and Canada spend virtually equal amounts of time per day caring for household members (44 minutes for Canada; 41 for the U.S.; Levtov, van der Gaag, Greene, Kaufman, & Barker, 2015). Canadian men invest time in caring for household members at a rate that is indistinguishable from men from the United States, though still at half the rate of their female counterparts (21 and 19 minutes respectively; 2015). To some extent it appears as though the marital satisfaction of new mothers, even those who enjoyed extensive periods of maternal leave, is dependent on the participation of their partners. In fact, fathers' participation in childcare results in higher reports of mothers' relationship satisfaction regardless of her expectations being fulfilled. These findings are in line with a recent world-wide report on fatherhood that indicated father involvement to be beneficial for mothers and children across a host of family life domains (Levtov et al., 2015). Father

participation may be especially impactful in countries like the US, where leave policies for both parents are limited.

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