Relations among Prenatal Role Quality, Life Satisfaction, and Dual-Earner Parents' Postnatal Depression

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Abstract: None available.

Full Text: Headnote ABSTRACT: Relations between prenatal role quality and dual-earner parents' postnatal depression are rarely studied. We prospectively examined relations among prenatal role quality, life satisfaction, and dual-earner parents' depression after the birth of their first child. Ninety-nine couples provided data between 20 and 40 weeks gestation and 8 and 10 postnatal weeks. We tested two hypotheses: 1) Mothers' prenatal depression would increase postnatally compared with fathers' and 2) Greater prenatal work-family strain, role disparity and intensity, and less life satisfaction would relate to greater postnatal depression. Fathers' pre- to postnatal depression increased while mothers' decreased. Poorer role quality and less life satisfaction were associated with increased postnatal depression, after controlling for prenatal depression, age, and gender. KEY WORDS: dual-earners, depression, role quality, transition to parenting. INTRODUCTION Although the transition to parenthood is widely accepted as a happy time, changing roles and relationships also can be distressing (Glazier, Elgar, Goel, & Holzapfel, 2004). In Canada, 75% of families with children have dual-earner parents (Vanier Institute of the Family, 2004). When undertaking the transition to parenting some couples' abilities to meet role obligations are compromised. A consequence of increased demands can be increased negative affect, specifically postnatal depression (Affonso, 1992). Therefore, this study examined whether dual-earners' prenatal role quality (e.g., as a worker or partner) was associated with depression, after the birth of the parents' first child. The term postnatal depression tends to be used interchangeably with depressed mood, depressive symptoms, and distress (Goodman, 2004) and has been defined as symptoms of depression evident beyond 10 days postpartum that persist for up to 1 year (Terry, Mayocchi, &Hynes, 1996). For pregnant women and new mothers, prevalence of depression varies from 5% to more than 25% (Gavin et al., 2005). Paternal postnatal depression varies between 1% and 26% in community samples, and from 24% to 50% among men whose partners have experienced postnatal depression. Onset of paternal depression is later in the first year (usually after the first 3 months) than maternal depression and may be lower in severity (Goodman). Women who experience postnatal depression can place their infants at risk for developmental and social difficulties that persist into early childhood (Murray & Cooper, 1997) and for difficulties with later social and emotional competence (Marchand & Hock, 1998). In contrast, fathers have been viewed as sources of positive affect for infants and children who were placed at risk by maternal postnatal depression (Areias, Kumar, Barros, & Figueiredo, 1996a; Field, 1992). Relations between prenatal and postnatal depression and couple members' depression are complex. Several researchers have found significant direct associations between prenatal maternal depression and postnatal distress (e.g., Terry et al., 1996; Ross, Sellers, Gilbert Evans, & Romach, 2004). Moderate associations were also found for parents' prenatal and postnatal mental health, using the SF-36 mental health scale (Gjerdingen & Center, 2003). In other studies, where both couple members reported depression scores that constituted clinical "cases" on a depression measure (5% of sample), there was no statistically significant correlation between husbands' and wives' postnatal depression scores (Raskin, Richman, &Gaines, 1990). Researchers have found that fathers are more likely to be identified with postpartum depression at 6 weeks if their partners were also identified as depressed (Ballard, Davis, Cullen, Mohan, &Dean, 1994). Despite a mixed picture of relations for couple members' postnatal depression, prenatal depression is related to postnatal depression, depression in one couple member appears to affect the other member, and men appear to lag behind their partners in developing depression. The theoretical framework for

the present study is based on Goode's role strain theory, which takes a scarcity standpoint (Goode 1960). Goode held that individuals face role demands that are over-demanding and role pressures from other individuals which lead to role strain. Therefore, role quality is considered an antecedent to role strain (e.g., depression), or difficulty in meeting expected role demands (Goode). Scarcity theory was used to determine the relationship between role overload and depression for family caregivers of cognitively impaired elders (Edwards, Zarit, Stephens, & Townsend, 2002). One form of role overload, the number of roles occupied, was not associated with depression in this cross-sectional study; however, role overload at work (e.g., too much to do) accounted for a significant amount of variance in caregivers' depressive symptoms. In qualitative studies, dualearner parents reported that high role demands and lack of acceptability of those demands within paid work, parent, household, and individual domains preceded psychological distress (Hall, 1992). Different role demands have been found to predict depression in dual-earner parents. For example, dual-earner fathers' depression was associated with less iob satisfaction, whereas mothers' depression was associated with decreased iob. parental, and marital role satisfaction and parental and work commitments (Greenberger &O'Neil, 1993). Moreover, lack of attention to individual tasks, such as exercise and relaxation, has been linked to poor health outcomes for mothers (Walker & Best, 1991). Thus, we examined role quality as the quantity and quality of time and energy spent in paid work, family, and individual domains, and expected prenatal role quality to be associated with postnatal depression. Role conflict, an important dimension of role quality, involves simultaneous demands from the work and family domains that are not in themselves stressors, but are distressing because of an inability to satisfy expectations associated with both work and family roles (Greenhaus & Parasuraman, 1986). Role conflict captures competing demands between these domains or the extent to which there is spillover of strain from one domain to another (Greenhaus & Parasuraman); it has been linked to higher levels of depression in dual-earner mothers (Tiedje et al., 1990). In the present study, we expected that prenatal role conflict, a dimension of role quality, would be associated with dual-earners' postnatal depression. Role involvement, another dimension of role quality, includes time demands and responsibility for planning and scheduling activities (Baruch & Barnett, 1986); however, the effects of attitudes about such demands have only begun to be studied (Hall, 1992; Hall, 1993). Control over and acceptability of actual role behaviors have been found to be important dimensions of role quality (Piechowski, 1992) and for women with young children, control over role demands is associated with their well-being (Hall, 1987). The acceptability of role demands for dual-earner parents contributes to their well-being (Hall, 1992). Thus, we expected that greater prenatal role disparity in family, work, and individual domains and intensity of demands would predict greater postnatal depression for both mothers and fathers. In addition to role quality, researchers have posited that greater satisfaction with roles is predictive of greater well-being (Greenberger &O'Neil, 1993). Life satisfaction is a relatively stable trait, although it is not identical to personality because it can be affected by recent events (Diener, 1994). People with high life satisfaction will likely make positive appraisals of their circumstances, particularly their roles. To ensure that the effects of role quality on depression were not confounded with general satisfaction with life, in the present study, life satisfaction was considered as a broad indicator of role quality. Thus, we expected that greater prenatal life satisfaction, as well as greater role quality, would be associated with less postnatal depression, for both mothers and fathers. PURPOSE Because previous research has not simultaneously examined the relationship between role quality (associated with particular life domains) and life satisfaction, and postnatal depression for dualearner parents, the aim of the study was to determine the extent to which role quality and life satisfaction during pregnancy were associated with dualearners' levels of depression after the birth of their first child. The following hypotheses were tested: (a) prenatal depression will increase in the postnatal period for both fathers and mothers, but more so for mothers, and (b) greater prenatal workfamily strain, role disparity and intensity, and less prenatal life satisfaction will be associated with greater postnatal depression (after controlling for prenatal depression) for dual-earner parents. METHOD The study design was a longitudinal survey investigating dualearner parents' psychological states

over the transition to parenting. Questionnaires for the two data collection points were completed using an interview format. Sample Of the 115 couples who constituted a convenience sample for the larger study, 99 couples completed time 1 and 2 questionnaires. Eligibility criteria included being pregnant with the first child for this couple, able to read and understand English, currently involved in paid work, and intending to return to paid work within 1 year after the birth. Dual-earner couples were between 16 and 40 weeks gestation and recruited through prenatal classes, work sites, newsletters, newspapers, fitness centers, and ultrasound departments. A power calculation to detect a medium correlation of 0.30 at a power of .80 indicated a sample of 88 couple members was required. Data Collection An interviewer arranged prenatal meetings (between 16 and 40 weeks gestation) with 135 couples from a large western-Canadian city in their homes. During the first interview, the couples completed demographic questions, and questionnaires on their views about themselves and their roles. Interviewers conducted a second interview with similar measures at between 4 and 28 weeks postpartum. In both interviews, couples completed the questionnaires independently. Twenty couples withdrew from the study between recruitment and the first interview due to miscarriage, premature delivery, lack of time, and/or changes in family circumstances. Twelve couples withdrew between the first and second interview, because they moved, were no longer interested, had ill family members, had fathers lose their jobs, or dissolved their relationships. There were no statistically significant differences (all P values >.05) between participating couples who were retained (n = 103) and those who withdrew (n = 12) on time together, weeks of pregnancy, education years, work hours, income levels, or culture. Instruments Only the measures reported in the present study are described below. Background data on age, time together as a couple, number of children, weeks of pregnancy or age of their child post birth, education level and years, work status, work hours, income, culture, and whether the couple had a multiple birth were collected. Role intensity and disparity. The REQ assesses parents' intensity and responsibility (i.e., role intensity) and acceptability and control (i.e., role disparity) associated with particular tasks in the work, family, and individual domains (Hall, 1993). The 126-item REQ captures levels of role intensity (i.e., energy and time devoted to specific household and paid work tasks, as well as responsibility taken for specific tasks) and role disparity (i.e., acceptability of and control over energy and time devoted to tasks) in the paid worker, parent, household, and individual domains. Role intensity (RI) and role disparity (RD) are incorporated under each domain. For the prenatal assessment, only the paid work [21 items; 6(RI), 15 (RD)], spousal/ household [45 items; 26 (RI), 19 (RD)], and individual [18 items; 6(RI), 12 (RD)] domains were completed for RI and RD (total of 84 items). The reliability and validity of the REQ was supported in a study of dual-earner parents (Hall, 1993). Reviewing the initial 138 items, experts determined the items' validity in terms of the objectives for the measure and appropriate behaviors in the specified domains, by rating them from 1 to 100, with items scoring below 70 out of 100 removed (12 items). Cronbach's alphas were .89 on the intensity dimension (summed across the four subscales) and .90 on the disparity dimension (summed across the four subscales). Test-retest (over 3 to 6 weeks) reliability was .80 for intensity and .73 for disparity (Hall). For the intensity scales, participants circled the number that best reflected how much time/energy they devoted to behaviors and how much responsibility they took for them on a 5-item scale from 1 (not at all) to 5 (a great deal/very). An example of an intensity item is: The amount you do laundry. For the disparity scales, participants indicated the degree to which the activities they did were acceptable and controlled by them, on a 5-item scale fromI (not at all) to 5 (a great deal/very). An example of a disparity item is: The amount you participate in exercise activities, how acceptable is this to you? The summed item scores for the disparity (reverse scored) and intensity scales were also summed across the three subscales and range from 46 to 230 and 38 to 190, respectively, the higher the scores, the higher the role disparity and intensity. Role strain. An 8-item Work-Family Strains Scale (WFSS) was used as an indicator of levels of conflict associated with work and family responsibilities, that is, the intrusion of work and family roles on each other (Marshall and Barnett, 1993). Seven items are scored 1 (not at all true) to 4 (very true), and the 8th item 1 (never) to 4 (very often). Items are summed and divided by the number of items for a score that ranges from 1 to 4; higher scores indicate greater

role strain. The measure has demonstrated some validity for dual-earner parents, because, in previous studies, it correlated positively and significantly with hours employed, contribution to housework, job role quality, and occupational prestige (Marshall & Barnett). Satisfaction with life. The Satisfaction with Life Scale (SWLS) serves as an indicator of general life satisfaction based on a person's judgment about a standard they have set for themselves (Diener, Emmons, Larsen, & Griffin, 1985). Participants rated the 5-item scale from 1 (strongly disagree) to 7 (strongly agree). Summed scores ranged from 7 to 35, with higher scores indicating greater life satisfaction. Diener et al. provided evidence that the SWLS measure does not have a social desirability response set and demonstrated 2-month testretest correlations of .82. SWLS scores have been significantly negatively correlated with major depression (Meyer, Rumpf, Hapke, &John, 2004), and single group analyses have shown a one-factor measurement model for male and female groups (Atienza, Balaguer, & García-Merita, 2003). Depression. The Centre of Epidemiologic Studies Depression (CESD, Radloff, 1977) 20-item scale is used as an indicator of depressive symptoms in the general population. It is a reliable and valid selfreport measure with responses from O (rarely) to 3 (most of the time). The CES-D includes 16 negative statements (e.g., / had crying spells) and 4 positive statements (e.g., / felt happy) that are reverse-scored. The summed scores create a composite score. The CES-D cut-off score for clinical depression is greater than 16. The CES-D has been used in numerous studies with pregnant and postpartum women (Chung, McCollum, Elo, Lee, &Culhane, 2004; Glazier et al., 2004; Logsdon &Usui, 2001). Test-retest stability has been reported for 2 to 8 weeks (rs = .51 to .67, Radloff, 1977). Validity and Reliability In this study, Cronbach's alphas for the REQ were .86 for disparity, and .73 for intensity. The present sample precluded conducting factor analysis for the REQ, because between 5 and 10 subjects per item (420 to 840 in total) would have been necessary for a reliable factor analysis (Field, 2000). For the WFSS, the Cronbach's alpha was .80. For the SWLS, the Cronbach's alpha was .86. The Cronbach's alpha was .87 for the CES-D and pre- and postnatal depression scores were moderately correlated (r = .67). Because the interviewers were with couple members while they completed their questionnaires, the data were provided independently. Ethical Considerations The study protocol and consent forms were approved by the University of British Columbia Behavioral Ethics Review Board and by local ethics review committees in sites where participants were recruited. Informed consent was obtained at the first interview. The participants were assured that their health care would not be compromised in any way if they withdrew from the study and they could refuse to answer any of the questions. All couples who participated were entered in a draw for a small gift certificate for their baby. Data Analysis Data were analyzed using SPSS for Windows Version 10.0.1 (SPSS, 1999). Repeated measures ANOVA was used to determine whether mothers increased their prenatal to postnatal depression symptoms, compared with fathers. We used hierarchical multiple regression to determine if there was a significant linear relation between depressive symptoms, and the role quality and life satisfaction scales, after controlling for prenatal depression. The effects of gender and age were included because they have been associated with depressive levels (Glazier et al., 2004; Goodman, 2004). Missing data reduced the sample to 98 men and 91 women for data analysis. In two cases only one partner completed the questionnaire. Eight women and 1 man, who were not working at time 1, did not complete the work-family strain instrument or the items on the REQ about paid work, and 2 people did not complete the CES-D. RESULTS The first section of the results presents a sample description, including means for the measures. The second section describes the hypothesis testing. Sample Description Couple members ranged in age from 23 to 49 years (M = 33.1, SD = 4.9). Pregnancies were between 16 and 40 weeks gestation (Af = 34.9, SD = 4.3). Couples had been together from 6 months to 20 years (M = 58.4, SD = 36.0). For 97% of the sample, this was their first child in their home; however, 3% were involved with other children as noncustodial parents. Of the sample, 10% had some high school or had completed high school, 33% had some college or completed college, and 57% had a university or postgraduate degree. The women and men were similar in mean age (Ms = 32.4, 33.8, respectively) and years of education (Ms = 16.7, 17.0, respectively). Sixtyseven percent of the sample self-identified as Canadian, 1% as Aboriginal, 4% as Asian, 6% as Chinese, and

13% as European. The remaining 9% were American, Latin, Central American, and "other." Eighty-eight percent of the sample was working. Four percent had resigned their positions, reported being laid off, or taken vacation, 5% were on medical leave, and 18% had started their maternity/paternity leave. Work hours ranged from O to 65 per week (M = 37.5, SD = 15.0). The median family income level was \$60,000 to \$89,000 per annum and 20% had family incomes below \$60,000 per year. At time 2 (postnatal), multiple births had occurred to 3% of the families. The couples' children were between 4 and 28 weeks post birth (M = 10.2, SD = 3.99). The mean work hours dropped to 21.2 (SD = 22.6; range O to 90) for the sample; however, women reported working 3 to 53 hours of work per week, compared with the men, who reported working 6 to 90 hours per week. Forty-five percent of couple members were on parental leave, with 51% of parents reporting that they were not currently working. Only 6% of women were working versus 95% of the men; 85% of women were on maternity leave. The couples reported O to 58 home help hours per week (M = 5.8, SD = 9.9). Descriptive statistics for all variables, separately by mothers and fathers, are displayed in Table 1, and zero-order correlations, both prenatal and postnatal, are presented in Table 2. The means in the present study for role strain were equivalent for fathers and slightly lower (Ms = 1.8, 1.7, respectively) for mothers than those reported by Marshall and Barnett (1993) for 300 dualearner couples (Ms = 1.8, 1.9, respectively). The prenatal means for role intensity and disparity are not comparable with previous work undertaken on couples in the postnatal period. For depressive symptoms, the postnatal means were similar for fathers and mothers to community samples, but the mothers' prenatal means were higher than community means (Ms = 9.25, 7.94, respectively, Radloff, 1977). In the prenatal period, 30 mothers and 11 fathers were above the CESD cut-off for clinical depression (>16); whereas, in the postnatal period, 16 women and 21 men were above the cut-off.

	Darmer	arcints		
Fathers $(n = 98)$		Mothers $(n = 91)$		
М	SD	М	SD	F
	Prena	atal		
3.36	0.33	3.24	0.34	6.45*
2.38	0.38	2.34	0.48	0.43 ns
	Work/f	amily		
1.76	0.46	1.68	0.54	1.25 ns
25.48	4.95	27.71	4.57	10.36**
8.08	7.42	11.32	6.97	9.58**
	Postn	atal		
9.34	7.02	9.76	6.75	0.18 ns
	Fathers (M 3.36 2.38 1.76 25.48 8.08 9.34	Burner 1 Fathers (n = 98) M SD Prena 3.36 0.33 2.38 0.38 Work/ft 1.76 0.46 25.48 4.95 8.08 7.42 Postn 9.34 7.02 1.02	Fathers (n = 98) Mothers M SD M Prenatal 3.36 0.33 3.24 2.38 0.38 2.34 Work/family 1.76 0.46 1.68 25.48 4.95 27.71 8.08 7.42 11.32 Postnatal 9.34 7.02 9.76	Mathematical Automatical Structures Fathers (n = 98) Mothers (n = 91) M SD M SD Prenatal 3.36 0.33 3.24 0.34 2.38 0.38 2.34 0.48 Work/family 1.76 0.46 1.68 0.54 25.48 4.95 27.71 4.57 8.08 7.42 11.32 6.97 Postnatal 9.34 7.02 9.76 6.75

Table 1	
Mean Role Quality, Life Satisfaction, and Depression for Dual	1-
Earner Parents	

p < .05.p < .05.

For fathers, the correlations between prenatal role quality variables were weak to moderate and in the expected directions for role strain and disparity (r = .24), but not for role intensity and disparity (r = -.37). Disparity was positively associated with postnatal depression (r = .30), and work-family strain was only associated with prenatal depression (r = .22). Life satisfaction and role disparity were weakly correlated (r = -.33). As expected, life satisfaction was moderately negatively correlated postnatal depression (r = -.47). For mothers, role strain and disparity variables were correlated (r = .40), whereas role disparity and intensity variables were negatively correlated (r = -.41). Role disparity was related to postnatal depression (r = .22). Mothers' life satisfaction and role disparity were weakly negatively correlated (r = -.26), as was their life satisfaction and postnatal depression (r = -.33). Mothers' and fathers' (n = 91) prenatal and postnatal depression scores were weakly correlated (r = -.33).27, .21, p <.05, respectively). Page 5 of 11 28 October 2012

Variable	Age	Intensity	Disparity	Strain	Satisfaction	Pre-depression
		H	athers $(n = 9)$	8)		
Age	I					
Role intensity	001	1				
Role disparity	179	371**	J			
Role strain	071	.127	.237**	I		
Life satisfaction	020	700.	333**	017	1	
Pre-depression	150	.005	.289**	.221*	.574**	I
Post-depression	085	.084	.296**	.139	466**	·670**
		z	fothers $(n = 9)$	1)		
Age	Ī					
Role intensity	172	J				
Role disparity	.030	411^{**}	I			
Role strain	059	059	.398**	l		
Life satisfaction	.154	022	264*	165	1	
Pre-depression	172	035	.153	.164	282**	I
Post-depression	.046	.037	.222*	.211	325**	.494**

Hypothesis Testing To test our first hypothesis, we conducted a 2 by 2 (gender ×time) repeated measures on the second factor (pre- to postnatal) ANOVA, with depression as the dependent measure. A statistically significant interaction of gender x time was found, F(1,187) = 9.81, p < .003, ($\eta = .05$) but contrary to our hypothesis, the analysis revealed that women's and men's depression levels changed differentially over time with women's means decreasing from pre- to postnatal (Ms = 11.32, 9.76; SDs = 6.97, 6.75, respectively); whereas men's means increased during that time (Ms = 8.08, 9.34; SDs = 7.42, 7.02). For the second hypothesis, we used hierarchical multiple regression and treated postnatal depression as the criterion variable. The analyses examined the additive effects of role intensity and disparity, role strain, and life satisfaction, after controlling for prenatal depression and the effects of gender and age. Prenatal depression, age, and gender (coded 1 = male, 2 = female) were entered simultaneously in step 1. Role intensity, role disparity, role strain, and life satisfaction were in entered simultaneously in step 2, as a block. The beta values are from the final simultaneous analysis (see Table 3). After controlling for prenatal depression, age, and gender, the variables in step 2 accounted for a statistically significant increase in variance in postnatal depression ($\Delta \ddot{E}$ ^{sup} 2^{*} = .05, p <.004), role intensity (b = .15), role disparity (b = .16), and life satisfaction (b = -.14) independently accounted for a statistically significant amount of the variance in depression, total R^{sup 2⁺} = .41 (Adj. R^{sup 2⁺} = .38). Unexpectedly, work-family role strain did not independently account for a significant amount of variance in postnatal depression. As a post hoc test for exploratory purposes, we examined the moderating effect of gender on role quality in predicting postnatal depression. Three multiplicative terms were entered as the third block (step 3): gender by role intensity, gender ×disparity, gender ×strain. This block of variables did not significantly increase the amount of variance in postnatal depression, and none of the interactions used to test the moderating role of gender made a statistically significant contribution.

I reuteting i ost	inatal Depress	1011 (11 - 1)	.00)
Variable	В	SE B	ß
Step 1			
Prenatal Depression	0.485	0.063	0.518**
Age	0.135	0.093	0.087
Gender	-0.008	0.890	-0.001
Step 2			
Role Disparity	2.555	1.110	0.162*
Role Intensity	2.967	1.320	0.146*
Work/Family			
Role Strain	0.024	0.107	0.014
Life Satisfaction	-0.202	0.095	-0.144*

	Table 3		
Summary of Hierarchical	Multiple	Regression	for Variables
Predicting Postn	atal Dep	ression $(N =$	189)

Note. $R^2 = .35$ for Step 1; ${}^{\Delta}R^2 = .05$ for Step 2 (p < .004). Total $R^2 = .41$, Adj. $R^2 = .38$; F(7,181) = 17.60, p < .001.

p < .05.p < .01.

DISCUSSION This study has a number of limitations. No assessment was made of infants' contributions to postpartum depression. Some investigators have argued that aversive and uncontrollable infant behavior may precipitate maternal depression (Field, 1992; Murray, Stanley, Hooper, King, & Fiori-Cowley, 1996). No clinical determinants of depression that would validate the CES-D were included. Only 5% of our sample was clinically depressed based on the CES-D. Although our rate is consistent with some work undertaken with women and couples (Gavin et al., 2005; Raskin et al., 1990), it could also indicate a decreased likelihood that depressed parents would volunteer for the study. In our study, drop-outs did not vary on depression score. Our sample was mostly middle class. Finally, estimates of the relationship between change in depression and role quality may be biased because we did not include indicators of negative affectivity, a construct that can confound the relationship between measures of affect (Brennan & Barnett, 1998). The purpose of the present prospective study was to examine the extent to which prenatal role quality contributed to dual-earner parents' postnatal depression, by drawing on Goode's (1960) scarcity theory, and to determine whether dual-career couples' depressive symptoms change differentially, after the birth of their child. This study is one of a handful of longitudinal international studies that address fathers' and mothers' postpartum depression (e.g., Areias et al., 1996a; Ballard et al., 1994; Perren, von Wyl, Bürgin, Simoni, &von Klitzing, 2005; Raskin et al., 1990). In the prenatal period, fathers in our study had greater levels of role intensity, the same levels of role disparity and work/family strain, and less life satisfaction and prenatal depression than mothers. In the postnatal period, fathers had the same level of depression as mothers. No other publications were located that were directly comparable to these findings; however, Perren and colleagues (2005) found that fathers felt most distress about jobs, whereas, mothers' distress was about their households. Consistent with the literature (Ross et al. 2004; Terry et al. 1996), our findings indicated that the most salient predictor of postnatal depression was prenatal depression (accounting for 35% of the variance). However, role intensity, role disparity, and life satisfaction accounted for an additional 5% of the variance in postpartum depression, while controlling for prenatal depression, age, and gender. Although it requires replication, the finding that prenatal role and life quality is associated with change in parents' depression up to 2.5 months after their children's births is important. Our results also are consistent with reviews that have found that maternal and paternal postnatal depression in couples is positively correlated (Goodman, 2004). The growing body of evidence supporting the adverse impact of maternal depression on children's cognitive and social development (Areias, Kumar, Barros, & Figueiredo, 1996b) emphasizes the importance of recognizing fathers' postnatal depression, as well as their partners'

experiences with depression. In this study, the association of role quality with postpartum depression acted independently of gender, even though prenatal to postnatal depression changed differentially for men and women. Because the moderating effect of gender on role quality in predicting postnatal depression did not make a statistically significant contribution, this study lends support to researchers' requests to consider similarities in the salience of family-role identities amongst men and women living overlapping lives (Barnett, Brennan, Raudenbush, & Marshall, 1994). A provocative finding is the differential change over time (from pre- to postnatal) in depressive symptoms for mothers and fathers such that mothers' and fathers' means for depression were similar at 8 to 10 weeks postpartum. Men's postnatal depression has been found to develop up to 3 months later in the postnatal year than that of their wives (Areias et al., 1996a). Although our findings indicate that men's depression is lagged, they suggest convergence can earlier than 2.5 months in the postnatal period. In contrast, Raskin and colleagues (1990) indicated at 8 postnatal weeks, more fathers moved into depressed mood than mothers when compared with prenatal proportions of fathers with depressed mood and Perren et al. (2005) found that couple members' depression means fell consistently from the prenatal measure to 18 months post birth. It would be important to follow parents over time to determine co-occurring patterns of change in depression. The reduction in maternal means is a positive indicator; however, children who are exposed to depressed mothers and fathers have had poorer outcomes than those exposed to only one depressed parent (Goodman, Brogan, Lynch, &Fielding, 1993; Marchand &Hock, 1998). Moreover, higher paternal postnatal depressed mood has been related to difficult infant temperament (Davé, Nazareth, Sherr, &Senior, 2005). CONCLUSION In conclusion, this study provides evidence to support role scarcity theory, because high levels of prenatal role intensity and disparity, and low levels of satisfaction were associated with postnatal depression, while controlling for prenatal depression, age, and gender. Although both role disparity and intensity predicted postnatal depression, they were negatively correlated, which was unexpected when role scarcity theory suggests that high levels of demands and negative attitudes about demands lead to role strain (Goode, 1960). A possible explanation is that couple members who find their high levels of demands acceptable would account theoretically for the negative correlation between role intensity and disparity. Replication of these findings in other countries is important. Given that parents with depressed mood are less engaged in parental roles, with effects on child development (Murray & Cooper, 1997), the association between role quality and depression suggests consideration of development of non-educational interventions around role quality for prenatal Canadian dual-earner couples, because providing prenatal education for depression without other interventions has not improved postnatal outcomes (Webster et al., 2006). In the Canadian context, nursing interventions that examine and manipulate role quality should be studied experimentally for their potential influence on depression. References REFERENCES Affonso, D.D. (1992). Depression symptoms in pregnantpostpartum women. International Journal of Psychology, 27, 448-449. Areias, M.E.G., Kumar, R., Barros, H., & Figueiredo, E. (1996a). Comparative incidence of depression in women and men during pregnancy and after childbirth: Validation of the Edinburgh Postnatal depression scale in Portuguese mothers. British Journal of Psychiatry, 169, 30-35. Areias, M.E.G., Kumar, R., Barros, H., & Figueiredo, E. (1996b). Correlates of postnatal depression in mothers and fathers. British Journal of Psychiatry, 169, 36-41. Atienza, F.L., Balaguer, L, &Garcia-Merita, M.L. (2003). Satisfaction with Life Scale: Analysis of factorial invariance across sexes. Personality and Individual Differences, 35, 1255-60. Ballard, C.G., Davis, R., Cullen, P.C., Mohan, R.N., &Dean, C. (1994). Prevalence of postnatal psychiatry morbidity in mothers and fathers. British Journal of Psychiatry, 164, 782-788. Barnett, R.C., Brennan, R.T., Raudenbush, S.W., & Marshall, N.L. (1994). Gender and the relationship between marital role quality and psychological distress - a study of women and men in dual-earner couples. Psychology of Women Quarterly, 18, 105-127. Baruch, G.K. & Barnett, R.C. (1986). Role quality, multiple role involvement and psychological well-being in midlife women. Journal of Personality and Social Psychology, 51, 578-585. Brennan, R.T. & Barnett, R.C. (1998). Negative affectivity: How serious a threat to self-report studies of psychological distress? Women's Health: Research on Gender, Behavior, and Policy, 4,

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