

**Moderator Effects of Father's Traditional Masculinity and Mother's Parental Beliefs on
Associations Between Father's Psychological Distress and Maternal Gatekeeping**

by

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A SENIOR THESIS PRESENTED TO THE FACULTY OF
THE OHIO STATE UNIVERSITY IN CANDIDACY FOR GRADUATION
WITH RESEARCH DISTINCTION IN THE BACHELOR'S DEGREE
IN PSYCHOLOGY MAJOR

Committee

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April 2022

Abstract

Maternal gatekeeping, or attitudes or behaviors that facilitate or inhibit fathers' participation in childcare, predicts less paternal involvement in childcare (Lamb, 1997). A recent study by Thomas and Holmes (2020) suggests that maternal gatekeeping could be a protective tool for the child against fathers' risk factors such as adherence to toxic masculinity norms (i.e., violence and dominance) and psychological distress (i.e., depression and anxiety). For further investigation of this claim, this study focuses on two research questions: 1) Do mothers gatekeep to protect their children from risk factors? 2) Do paternal masculinity/maternal parental beliefs have moderating effects on the association? This study used survey data from the New Parents Project (NPP), consisting of 182 dual-earner couples that transitioned to parenthood for the first time in 2008-2009. Measures used in this study include self-reports of fathers' anxiety, parents' perceptions of mothers' maternal gatekeeping, fathers' masculinity score, and beliefs regarding parental roles from both mothers and fathers collected at 3 months and 9 months of post-partum. Mothers' progressive parental beliefs moderated the association between fathers' anxiety and maternal gatekeeping. When mothers were more progressive, they both gateopened and gateclosed anxious fathers more. This result suggests that mothers use maternal gatekeeping as a protective tool. Progressive mothers may be more cognizant of negative child outcomes from parental anxiety and develop more rigid standards of parenting than traditional mothers. Researchers can further study this correlation in the future. Depending on the type, masculinities can be positively or negatively associated with depression and anxiety (Schoppe-Sullivan et al., 2021). Hence, future research can also examine what distinct masculinities moderate the association.

Moderator Effects of Father's Traditional Masculinity and Mother's Parental Beliefs on Associations Between Father's Psychological Distress and Maternal Gatekeeping

Women's entry into the labor market in greater numbers during the 1960s and 1970s fueled revision and transformation of gender roles in work and domestic settings (Chinhui & Potter, 2006). While women traditionally served as "homemakers" and men "breadwinners," modern norms regarding domestic gender roles are more of a blend of both. Mothers and fathers are expected to occupy more egalitarian occupational and domestic roles (Rochlen et al., 2008; Esping-Andersen, 2009); contemporary fathers are, and expected by the society to be, more involved with childrearing and housework than ever before (McGill, 2014).

Burgeoning evidence suggests that greater fathers' involvement in nurturing aspects of parenting is associated with positive outcomes for children and families (Pleck & Masciadrelli, 2004). A systematic review by Sarkadi et al. (2008) included 24 publications about the effects of father involvement on children's developmental outcomes. Twenty-two of these 24 studies supported positive effects of fathers' consistent, active engagement on children's social, behavioral, and psychological outcomes. Fathers' engagement had differential effects on desirable child outcomes. For instance, boys showed reductions in behavioral problems, and girls showed reductions in psychological problems. Fathers' greater engagement with children is also associated with stronger child emotion regulation and better academic achievement, such as in math and reading (Diniz et al., 2021; King, 1994; Cano et al., 2018). These findings apply to both less and highly educated fathers.

Yet, fathers' participation in childcare is still disproportionately less than that of mothers (Coltrane, 2000; Thompson & Walker, 1989). Interactions between parents, shaped by their relationship (Levy-Shiff & Israelashvili, 1988) and gender ideologies (Beitel & Parke, 1998), are

one of the factors that influence their participation in child rearing. Couples' everyday negotiations and decisions on family and work shape the distribution of childcare duties (Deutsch et al., 1993; Coltrane, 1996). One type of interaction, maternal gatekeeping behavior, is an important predictor of paternal involvement in parenting (Coltrane, 1996; Hochschild, 1989; Lamb, 1997).

Maternal Gatekeeping

Maternal gatekeeping is a holistic term consisting of maternal attitudes and behaviors associated with encouraging and discouraging fathers' involvement in childrearing (Schoppe-Sullivan et al., 2008). Mothers who are reluctant to relinquish their parental control discourage fathers from being involved in childcare. For instance, mothers may criticize father's completion of childcare tasks, such as changing diapers or feeding. This is called maternal gateclosing. In contrast, encouraging behavior, such as inviting fathers to help with feeding and playing, is called maternal gateopening.

Studies on maternal gatekeeping suggest that higher maternal gateclosing when children are infants predicts less positive and less frequent father-child interaction at later points in the child's development (Altenburger et al., 2018; Metever & Perry-Jenkins, 2010). In contrast, greater maternal gateopening behavior appears to foster higher levels of father involvement in childcare (Schoppe-Sullivan et al., 2008). Fathers' engagement also mediated the effect of maternal gatekeeping on preschoolers' socio-emotional development (Diniz et al., 2021). Given burgeoning evidence indicating the importance of high-quality engaged fathering to children's development, understanding why maternal gatekeeping occurs, and whether particular mothers are more or less likely to engage in gateclosing or gateopening behavior, is of critical importance.

Mother's Beliefs

Reasons for maternal gatekeeping are complex, and distinct psychological antecedents to maternal gatekeeping are known to be associated with different consequences (Gaunt, 2008). For instance, mothers' beliefs and attitudes are directly related to maternal gatekeeping and hence fathers' involvement (Fagan, & Barnett, 2003; Gaunt, 2008; Schoppe-Sullivan et al., 2015). Gaunt and Pinho (2018) found that mothers who adopt hostile sexist attitudes toward men and women were strongly likely to engage in maternal gatekeeping behaviors. In contrast, when the mothers held positive beliefs and attitudes about the fathers' role and competence in childcare, they exhibited less maternal gateclosing behavior (De Luccie, 1995; Beitel & Parke, 1998; Zvara et al., 2013; Schoppe-Sullivan et al., 2015).

Fathers also affect maternal gatekeeping, however. The more mothers rated fathers as competent fathers, the less they exhibited maternal gateclosing behaviors toward fathers (Fagan, & Barnett, 2003; Schoppe-Sullivan et al., 2008). Schoppe-Sullivan et al. (2015) found that greater maternal gateclosing behavior was associated with fathers who reported lower parenting self-efficacy. Some have suggested that maternal gatekeeping may serve a protective function in some cases. Indeed, Zvara et al. (2017) found that maternal gateopening moderated the correlation between fathers' harsh-intrusive parenting and child conduct problems. That is, children exhibited conduct problems when mothers encouraged fathers with high levels of harsh-intrusive parenting to interact with their children.

Masculinity

Although fathers' characteristics are not predictive of maternal gatekeeping as much as mothers' characteristics, some studies suggest masculinity is associated with maternal gatekeeping behaviors (Schoppe-Sullivan et al., 2021, Pleck, 2010). A growing body of studies

since the 1970s have researched the gender hierarchies and cultures of masculinity in different local settings, including in schools (Willis, 1997), in male-dominant workplaces (Cockburn, 1983), and in village communities (Herdt, 1981). These findings confirmed the plurality and complexity of masculinity, leading to a development of hegemonic masculinity, or traditional masculinity. Traditional masculinity can be the antithesis of progressive parental beliefs. It adheres to traditional gender roles, where mothers are the primary caregivers and fathers are providers.

Adhering to traditional masculinity, which is associated with harsh-intrusive parenting and intimate partner violence (Lisak, 1991), may trigger maternal gatekeeping from mothers (Pleck, 2010). However, recent studies have found that distinct masculinities can be positively or negatively correlated with maternal gatekeeping (Schoppe-Sullivan et al., 2021). For example, Schoppe-Sullivan et al. (2021) found that fathers who endorsed specific stereotypical masculine agentic characteristics such as daring, dominant, and aggressive were actually more engaged in parenting when interacting with their infants.

New Fathers' Depression and Anxiety

Following the birth of a child, parental depression and anxiety are prevalent (Paulson & Bazemore, 2010). Although plenty of studies have reported the prevalence and gravity of new mothers' depression and anxiety, relatively few studies have examined new fathers' psychological distress. A meta-analysis by Paulson and Bazemore (2010) that included a total of 43 studies ($N = 28,004$) recording depression in new fathers showed that about 10% of the participants experienced prenatal and postpartum depression. Researchers have found that fathers are more likely to experience depression during the postnatal period when they have a personal history of depression or when their partners are depressed (Goodman, 2004).

Paternal depression poses a variety of problems to both children's development and family functioning. To illustrate a few, children of depressed fathers may exhibit adverse emotion and behavior at 3 to 5 years old and are at heightened risk of conduct problems (boys) (Ranchanadi et al., 2005). Fathers experiencing depressive symptoms are highly likely to experience anxiety as well (Gorman, 1996). Prolonged anxiety in fathers can also be problematic for children's development. Anxious fathers are usually overinvolved, overprotective, and overcontrolling of their infants, and children of anxious fathers are likely to grow up to exhibit anxiety symptoms as well (Gibler et al., 2018).

Given the negative implications of new fathers' depression and anxiety for child and family development, it stands to reason that mothers may exercise more gatekeeping behavior towards fathers who are suffering from psychological distress. Thomas and Holmes (2020) found that mothers were more likely to engage in gateclosing towards fathers when fathers reported higher rates of depression. Notably, this association was amplified when the fathers reported stronger adherence to masculine norms, suggesting that mothers may engage in gateclosing to protect children from the negative parenting behavior of fathers experiencing psychological distress, especially when those fathers are more traditionally masculine.

The Present Study

In keeping with the perspectives and findings of Zvara et al. (2017) and Thomas and Holmes (2020) that maternal gatekeeping may serve a protective function, the aim of this study was to examine associations between new fathers' depressive and anxious symptoms and maternal gatekeeping behavior and to test moderators of these associations. To that end, I used survey data from 182 dual-earner, different-gender couples who participated in a longitudinal study of the transition to parenthood. This study addressed two research questions: 1) Do

mothers gatekeep to protect their children from fathers' psychological distress? 2) Do paternal masculinity/maternal parental beliefs have moderating effects on the associations between father's psychological distress and maternal gatekeeping?

This study hypothesized that when fathers reported higher depressive or anxious symptoms, parents would report greater maternal gateclosing behavior and less maternal gateopening behavior. This study further expected that these associations would be strengthened when fathers viewed themselves as more traditionally masculine, consistent with Thomas and Holmes (2020), but weakened when mothers endorsed more progressive beliefs about parent and gender roles, given that past research suggests more progressive mothers are less likely to engage in gatekeeping behavior (Cannon et al., 2008).

Method

Participants and Procedure

Data from 182 dual-earner, different-gender couples transitioning to parenthood for the first time during 2008-2010 from the New Parents Project (NPP) were used. Expectant couples were recruited late in pregnancy from childbirth education classes, newspaper advertisements, and flyers at doctors' offices, participant referrals, and word-of-mouth. To be eligible, participants had to be: (1) (a) married, or (b) cohabiting for at least 3 months and living together all or most of the time; (2) at least 18 years of age; (3) expecting their first child; (4) the biological parents of the child they were expecting; (5) able to read and speak English; (6) currently employed full-time and both expecting to work at least part-time by the time their infant was 3 months of age; and (7) planning to stay in the Central Ohio area for at least one year.

Table 1*Demographic Characteristics of Participants*

Marital Status (%)		
Married	86	
Cohabiting	14	
Household Income (\$)		
Annual median income	81,000	
	Expectant Mothers	Expectant Fathers
Ethnicity (%)		
White/European Americans	85	85
Black/African American	6	7
Asian American or Pacific Islander	3	4
Hispanic/Latin American	4	2
Other race	2	3
Mixed race	4	1
Education (%)		
No college	25	35
Bachelor's degree	75	65
Age		
Range	18 - 42	18 - 50
Mean	28.24	30.20
SD	4.02	4.81

Given participant eligibility criteria and demographic characteristics shown in Table 1, this study is most generalizable to dual-earner, first-time parent couples with relatively high levels of social and financial capital. None of the mothers reported discernible physical disabilities in their infants. The New Parents Project was approved by Ohio State University's Social and Behavioral Sciences Institutional Review Board (Protocol # 2007B0228). Parents

provided informed consent and families received modest incentives and gifts for participating at each phase of this longitudinal study.

Fathers reported their symptoms of depression and anxiety at 3 and 9 months postpartum. In addition, maternal gatekeeping behaviors were reported by both mothers and fathers at 3 months and 9 months postpartum. Fathers' masculinity and mothers' parental beliefs were reported by fathers and mothers, respectively, at the first assessment during the third trimester of pregnancy. 179 out of the original sample of 182 couples completed surveys on maternal gatekeeping at 3 months postpartum; and, 161 at 9 months postpartum.

Fathers' Psychological Distress

Depression

A 5-item (Bonomi et al., 2008) version of the Center for Epidemiologic Studies Depression Scale (CES-D) was used to measure fathers' depressive symptoms at 3 months postpartum. Fathers rated the frequency (0 = rarely or none of the time (<1 day); 3 = most or all of the time (5-7 days)) they experienced depressive symptomatology (i.e., "I felt hopeful about the future"). This brief measure had poor internal consistency in this sample. Thus, a reduced set of four items was used in the current study ($\alpha = .58$). Note that this alpha is still low.

Anxiety

A 6-item version of the Spielberger State-Trait Anxiety Inventory (STAI; Marteau & Bekker, 1992) was also administered to fathers at 3 months postpartum. Similar to the CES-D, fathers rated how much they agreed (1 = not at all; 4 = very much) with items measuring anxiety (i.e., "I am tense"). Cronbach's alpha was .82.

Measurement of Maternal Gatekeeping

Maternal gatekeeping behaviors were measured at 3 months and 9 months postpartum. Six items each for maternal gateopening and gateclosing behaviors were drawn from the Parental Regulation Inventory (PRI; VanEgeren, 2000; Lee et al., 2018). To collect both mothers and fathers' perceptions of maternal gateopening and gateclosing behaviors, they were asked to complete the same set of questions. Mothers rated how frequently (1 = *never*, 6 = *several times per day*) they responded to fathers' parenting behaviors with either encouragement or criticism. For maternal gateopening questions, mothers were asked how often they "encouraged your baby's father to be involved in child care and with your baby, including feeding, play, and emotional support." Fathers were asked how often mothers engaged in these same behaviors. For instance, for maternal gateclosing questions, mothers answered how often they exhibited various behaviors when "your baby's father does something that you don't approve of regarding childcare or with your baby." Fathers were asked how often mothers exhibit these behaviors when "you do something that your baby's mother doesn't approve of regarding childcare or with your baby." Mothers and fathers' reports were averaged separately (3 months $\alpha_m = .82$ and $\alpha_f = .87$; 9 months $\alpha_m = .76$ and $\alpha_f = .88$).

Mother's Beliefs about Parental Roles

A 26-item questionnaire called the Beliefs Concerning the Parental Role Scale (Bonney & Kelley, 1996) was used to assess mothers' beliefs about parental roles during the third trimester of pregnancy. Mothers rated how much they agreed (1 = disagree strongly; 5 = agree strongly) with the items concerning the role of the mother (e.g., "When a child becomes ill at daycare/school it is primarily the mother's responsibility to leave work or make arrangements for the child") and the father in parenting (e.g., "Men should share with child care such as bathing,

feeding, and dressing the child"). This measure has demonstrated reliability and validity across studies of dual-income families (Bonney, Kelley, & Levant, 1999). Some items were reverse-scored and then mothers' responses to the 26 items were averaged to create a single beliefs score ($\alpha_m = .80$).

Fathers' Masculinity

Seven items reflecting Gender-Stereotypic Characteristics (Diekmann & Eagly, 2000) measured the stereotypical masculine personality. During the third trimester of pregnancy, fathers were asked to rate how much positive agentic personality characteristics (i.e., daring, courageous, competitive, adventurous, dominant, aggressive, stands up under pressure) described them on a 4-point scale (1 = not at all like me; 4 = very much like me). This measure has shown high internal reliability ($\alpha = .85$).

Analysis Plan

All analyses were conducted in IBM SPSS 28. First, descriptive statistics, including means and standard deviations, of key variables were computed. To examine relations between key variables, intercorrelations among variables for mothers' and fathers' reports of maternal gateopening and gateclosing and other key measures (fathers' depression and anxiety, fathers' masculinity, and mothers' progressive parental beliefs) were computed. Next, primary hypotheses was tested using regression analysis. In each equation, the set of control variables (mothers' and fathers' reported maternal gateopening and gateclosing at 3 months postpartum) was entered on Step 1. Next, fathers' anxiety was entered on Step 2 because it is considered to be the main determinant of maternal gatekeeping behaviors, followed by moderating variables (mothers' progressive parental beliefs and fathers' masculinity) on Step 3. Finally, two interaction terms were entered on Step 4 to test whether a) mothers' progressive parental beliefs

(fathers' anxiety X mothers' progressive parental beliefs) and b) fathers' masculinity (fathers' anxiety X fathers' masculinity) moderated the relations between fathers' anxiety and maternal gatekeeping.

A second set of analyses were conducted in the same way but considered fathers' depressive symptoms as predictors of maternal gatekeeping instead of fathers' anxiety. Variables that had significant interaction effects in the regression analyses were put into the IBM SPSS 28 Hayes PROCESS Macro to investigate the nature of the interaction effects. Standardized values were used in both regression and moderation analyses.

Results

Descriptive Analyses

The means, standard deviations, *ns*, and Pearson correlations for key variables are reported in Table A1. The results of the correlation analyses showed a significant negative correlation between fathers' depressive symptoms and maternal gateopening ($r = -.199; p < .01$), consistent with my hypothesis. There was also a significant positive correlation between fathers' anxiety and fathers' perceptions of maternal gateopening ($r = .176; p < .05$). The latter correlation is particularly interesting that it suggests that fathers' anxiety is predictive of fathers' perception of greater maternal gateopening at 9 months postpartum. Although these correlations are significant, their magnitudes are too small to be interpreted as having a relationship. The reason may be the complex nature of maternal gatekeeping. That is, many other factors including depression and anxiety are affecting maternal gatekeeping, so each seem to have little or no relationship. Other variables did not have significant predictive correlations with maternal gateopening and gateclosing at 9 months postpartum.

Multiple Regression with Interactions Analyses

Results from regression analyses are shown in Tables B1 to B6. We ran regression analyses for both fathers' depression scores and anxiety scores, but fathers' depression results are not presented because fathers' depressive symptoms did not explain significant variance in maternal gatekeeping behaviors when entered on their own or in interaction effects.

In Table B1, the only significant step was Step 3 where fathers' masculinity was entered ($B = .147, p < .05$). This result suggests that fathers who reported higher agentic masculinity also perceived greater gateclosing behaviors in mothers. On the other hand, fathers who reported higher anxiety symptoms perceived greater gateopening behaviors in mothers, as shown by the significant fathers' anxiety in Steps 2, 3, and 4 in Tables B3 ($B = .183, p < .05; B = .187, p < .05; B = .192, p < .05$) and B4 ($B = .186, p < .05; B = .187, p < .05; B = .161, p < .05$). Table B5 had no significant results. Of the 6 models, only those shown in Tables B2 ($B = .162, p < .05$) and B6 ($B = .211, p < .01$) had significant interactions (fathers' anxiety X mothers' progressive parental beliefs). That is, the association between fathers' anxiety score and maternal gateclosing for Table B2 and gateopening for Table B6 will be different based on the degree of mothers' progressive parental beliefs.

Moderation Analyses

The IBM SPSS Process Macro was employed to further examine the moderating effects of the mothers' progressive beliefs on the association between father's anxiety and maternal gatekeeping (reported maternal gateopening and gateclosing). Figures C1 and C2 show the graphs of these significant interaction effects. Mothers' progressive beliefs had significant moderating effects on the association between fathers' anxiety and maternal gatekeeping. When mothers had more progressive parental beliefs, mothers were more likely to engage in

gateopening (reported by mothers; $b = 0.2107$, $p = 0.0056$) and gateclosing (reported by fathers; $b = 0.1625$, $p = 0.0267$) behaviors at 9 months postpartum when fathers exhibited more anxiety symptoms, whereas the opposite was observed for more traditional mothers.

Discussion

The purpose of this study was to find whether fathers' psychological distress (anxiety and depression) predicted maternal gatekeeping behaviors and if parental characteristics (mothers' progressive parental beliefs and fathers' masculinity) moderated these associations. This study identified moderating effects of mothers' parental beliefs on the association between fathers' psychological distress (anxiety) and maternal gatekeeping (gateclosing and gateopening). It also found that the patterns for maternal gateopening and gateclosing behaviors were similar in these models. Lastly, unlike Thomas and Holmes (2020), this study did not find evidence that fathers' masculinity moderated relations between fathers' psychological distress and maternal gatekeeping, nor did this study find effects of fathers' depressive symptoms on maternal gatekeeping.

The results suggest that the degree of control mothers exercise over the parenting behaviors of anxious fathers changes depending on mothers' beliefs about parental roles. Both maternal gateopening and gateclosing behaviors toward anxious fathers appeared to increase when mothers held more egalitarian beliefs about parental roles, in contrast to my expectations. That is, progressive mothers were less likely to control fathers' involvement in childcare tasks when fathers were low in anxiety, but became more controlling as fathers became more anxious. This result suggests that progressive mothers may consider fathers' anxiety as a risk factor to child development and therefore attempt to protect the child against it by using maternal gatekeeping. This supports the hypothesis that maternal gatekeeping can be a protective tool.

Intuitively, gateopening and gateclosing are opposite of each other. However, my results indicate that the patterns for both gateopening and gateclosing are very similar. It is possible that progressive mothers exert more control over anxious fathers because they have certain standards of parenting. Progressive mothers are oriented toward egalitarian parenting, meaning they want equal distribution of parental responsibilities and involvements between parents. They engage in both less gateopening and gateclosing when fathers' anxiety scores are low because they believe both parents should have equal roles in parenting. However, as fathers get more anxious, mothers may consider fathers' psychological distress as a negative influence on the child's development and protect the child by exerting more control in childcare.

On the other hand, more traditional mothers believe that mothers should be the one in charge of childcare, with fathers adopting other roles in the family, such as "breadwinner." They engage in greater gateopening and gateclosing behaviors toward fathers when fathers' anxiety scores are low because they want to have control in domestic duties. However, as fathers have higher anxiety scores, traditional mothers do not feel the need to engage in gateopening and gateclosing behaviors because anxious fathers in traditional families are likely already withdrawn from childcare. Studies of anxious fathers suggest that anxious fathers often engage in denial or escaping activities such as smoking and working prolonged hours to cope with the stress associated with the fear of becoming a father (Baldwin et al., 2018).

Although there was a relationship between fathers' sense of masculinity and perception of gateclosing, it did not moderate relations between fathers' psychological distress and maternal gatekeeping unlike mothers' progressive parental beliefs. Research on the association between masculinity and psychological distress (depression and anxiety) suggests that distinct masculinities are differently associated with depression (Iwamoto et al., 2018) and anxiety (Sileo

& Kershaw, 2020). That is, some types of masculinities confer risk for depression and anxiety, while the others may be protective. Masculinity may have more significant moderation effects when it is distinguished by types that are either risk factors or protective factors for depression and anxiety.

Although Thomas and Holmes (2020) found that fathers' depression predicted maternal gatekeeping behaviors, the current study's results indicate otherwise. One reason might be low internal consistency of the depression measure ($\alpha = 0.582$). It is possible that the number of items was too few to accurately measure fathers' depression. Given that depression is significantly correlated with anxiety ($r = 0.389$; $p < 0.01$), having more reliable and valid measures of depression in the future may improve the result.

Although this study contributed to further understanding of the complexity of maternal gatekeeping, including identifying contributing factors such as fathers' psychological state and mothers' parental role beliefs, some limitations should be addressed. The measures used in this study are problematic. Although the measures for depression were carefully chosen at that time, they show poor psychometric properties, as shown by its low internal reliability. Also, although reports of maternal gatekeeping were collected from both mothers and fathers, it is undeniable that the measures of maternal gatekeeping are somewhat biased because they are self-reported. Further work is needed on the conceptualization and measurement of maternal gatekeeping. Furthermore, the generalizability of the participants to the population of new parents is limited due to sociodemographic composition of the participants. To diversify the sample, future studies should recruit especially same-sex couples, and couples with a broader range of socioeconomic status and race/ethnicity

Burgeoning evidence suggests that mothers have strong influence on father-child interactions and relationships (Doherty et al., 1998), and maternal gatekeeping is one form of maternal influence. The importance of fathers' involvement in childcare is supported by mounting evidence, and efforts to understand factors increasing or decreasing fathers' involvement including maternal gatekeeping will persist. To better understand the complex nature of maternal gatekeeping, continuing to identify factors that may influence maternal gatekeeping is important.

For future studies, researchers should investigate whether mothers with progressive parental beliefs have more rigid standards of parenting than more traditional mothers. Concepts such as "intensive parenting" norms suggest that this may, in fact, be the case (Liss et al., 2013). Researchers can also study the roles that different facets of masculinity may play in the associations between paternal mental health and maternal gatekeeping.

Acknowledgement

This thesis would have not been possible without the help of many people. I would like to express my deepest gratitude to my advisor, Dr. Sarah Schoppe-Sullivan, who guided me throughout the course of senior thesis and read my numerous revisions. Also thanks to Donithen Reed who helped my statistical analysis. I also appreciate my committee member, Dr. Cravens-Brow, who offered comments and suggestions.

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Appendix A

Descriptive Analysis

Table A1. The means, standard deviations, *ns*, and Pearson correlations of key variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Fathers' Anxiety		.389**	-.145	-.034	-.050	.125	-.044	-.048	-.139	.123	.088	.176*
2. Fathers' Depression			-.223**	-.045	.036	.111	.001	-.199**	-.044	.108	.051	-.117
3. Fathers' Masculinity				.051	.075	.052	.136	.026	.143	.140	.094	.004
4. Mothers' Progressive Beliefs					-.036	.011	-.045	-.062	.019	.066	-.157	-.026
5. Mothers' Perception of Maternal Gateclosing at 3 Months Postpartum						.264**	-.070	-.186*	.546**	.173*	-.061	-.138
6. Fathers' Perception of Maternal Gateclosing at 3 Months Postpartum							-.142	-.289**	.137	.634**	-.188*	-.207*
7. Mothers' Perception of Maternal Gateopening at 3 Months Postpartum								.301**	-.077	.044	.579**	.160
8. Fathers' Perception of Maternal Gateopening at 3 Months Postpartum									-.157	-.132	.307**	.518**
9. Mothers' Perception of Maternal Gateclosing at 9 Months Postpartum										.287**	.028	-.175*
10. Fathers' Perception of Maternal Gateclosing at 9 Months Postpartum											-.041	-.107
11. Mothers' Perception of Maternal Gateopening at 9 Months Postpartum												.245**
12. Fathers' Perception of Maternal Gateopening at 9 Months Postpartum												
Mean	10.0179	5.6686	2.7475	4.3031	2.4665	2.4448	4.2190	3.9341	2.4400	2.3833	4.1095	3.8278
SD	3.38095	1.60429	.52880	.40663	.74793	.89282	.83396	.98223	.83281	.83785	.83889	.97095
n	168	172	175	178	174	171	174	172	155	150	154	151

* $p < .05$ ** $p < .01$

Appendix B

Multiple Regression with Interaction Terms

Table B1: Fathers’ Perception of Gateclosing at 9 Months Postpartum with the Anxiety/Masculinity Model

Variable	Step 1				Step 2				Step 3				Step 4			
	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.
Fathers’ perception of gateclosing at 3 months postpartum	.638***	.071	8.953	<.001	.634***	.072	8.832	<.001	.630***	.071	8.887	<.001	.629	.071	8.832	<.001
Fathers’ anxiety					.038	.071	0.532	.596	.061	.071	.862	.390	.062	.072	.867	.387
Fathers’ masculinity									.147*	.068	2.148	.034	.149	.070	2.117	.036
Anxiety x masculinity interaction													.012	.085	.139	.890
R ²	.376				.377				.399				.399			
F for change in R ²	80.151***				0.283				4.613*				0.019			

*p < .05 **p < .01 ***p < .001

Table B2: Fathers’ Perception of Gateclosing at 9 Months Postpartum with the Anxiety/Mothers’ Progressive Parental Beliefs Model

Variable	Step 1				Step 2				Step 3				Step 4			
	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.
Fathers’ perception of gateclosing at 3 months postpartum	.644***	.070	9.193	<.001	.639***	.071	9.033	<.001	.638***	.071	8.976	<.001	.649	.070	.624	<.001
Fathers’ anxiety					.042	.070	.606	.546	.042	.070	.604	.547	-.009	.073	-.130	.897
Mothers’ progressive parental beliefs									.003	.066	.049	.961	-.012	.066	-.183	8.55
Anxiety x progressive parental beliefs interaction													.162*	.073	2.241	.027
R ²	.383				.385				.385				.407			
F for change in R ²	84.520***				.367				.002				5.021*			

*p < .05 **p < .01 ***p < .001

Table B3: Fathers' Perception of Gateopening at 9 Months Postpartum with the Anxiety/Masculinity Model

Variable	Step 1				Step 2				Step 3				Step 4			
	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.
Fathers' perception of gateopening at 3 months postpartum	.559***	.077	7.222	<.001	.558***	.076	7.343	<.001	.557***	.076	7.298	<.001	.562***	.076	7.360	<.001
Fathers' anxiety					.183*	.077	2.373	.019	.187*	.078	2.379	.019	.192*	.078	2.447	.016
Fathers' masculinity									.021	.075	.281	.779	.042	.077	.547	.585
Anxiety x masculinity interaction													.108	.093	1.162	.247
R ²	.279				.308				.308				.315			
F for change in R ²	52.154***				5.632*				.079				1.351			

*p < .05 **p < .01 ***p < .001

Table B4: Fathers' Perception of Gateopening at 9 Months Postpartum with the Anxiety/Mothers' Progressive Parental Beliefs Model

Variable	Step 1				Step 2				Step 3				Step 4			
	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.	B	SE B	t	Sig.
Fathers' perception of gateopening at 3 months postpartum	.546***	.075	7.294	<.001	.551***	.073	7.501	<.001	.554***	.074	7.482	<.001	.561***	.074	7.553	<.001
Fathers' anxiety					.186*	.075	2.494	.014	.187*	.075	2.493	.014	.161*	.079	2.048	.043
Mothers' progressive parental beliefs									.027	.071	.376	.708	.020	.072	.279	.781
Anxiety x progressive parental beliefs interaction													.085	.079	1.072	.286
R ²	.527				.556				.557				.562			
F for change in R ²	53.196***				6.222*				.141				1.149			

*p < .05 **p < .01 ***p < .001

Table B5: Mothers’ Perception of Gateopening at 9 Months Postpartum with the Anxiety/Masculinity Model

Variable	Step 1				Step 2				Step 3				Step 4			
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>
Mothers’ perception of gateopening at 3 months postpartum	.585***	.073	8.016	<.001	.596***	.073	8.204	<.001	.592***	.073	8.091	<.001	.599***	.074	8.079	<.001
Fathers’ anxiety					.134	.075	1.784	.077	.142	.076	1.860	.065	.145	.077	1.890	.061
Fathers’ masculinity									.045	.072	.623	.534	.057	.075	.756	.451
Anxiety x masculinity interaction													.057	.091	.626	.533
<i>R</i> ²	.319				.335				.337				.339			
<i>F</i> for change in <i>R</i> ²	64.252***				3.181				.389				.391			

*p < .05 **p < .01 ***p < .001

Table B6: Mothers’ Perception of Gateopening at 9 Months Postpartum with the Anxiety/Mothers’ Progressive Parental Beliefs Model

Variable	Step 1				Step 2				Step 3				Step 4			
	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>	<i>B</i>	<i>SE B</i>	<i>t</i>	<i>Sig.</i>
Mothers’ perception of gateopening at 3 months postpartum	.577***	.072	8.050	<.001	.589***	.071	8.269	<.001	.578***	.071	8.119	<.001	.586***	.070	8.432	<.001
Fathers’ anxiety					.147*	.074	1.993	.048	.145	.073	1.971	.051	.083	.075	1.108	.270
Mothers’ progressive parental beliefs									-.103	.069	-1.481	.141	-.116*	.068	-1.717	.088
Anxiety x progressive parental beliefs interaction													.211**	.075	2.817	.006
<i>R</i> ²	.316				.335				.346				.382			
<i>F</i> for change in <i>R</i> ²	64.810***				3.971*				2.194				7.933**			

*p < .05 **p < .01 ***p < .001

Appendix C

Moderation Analysis

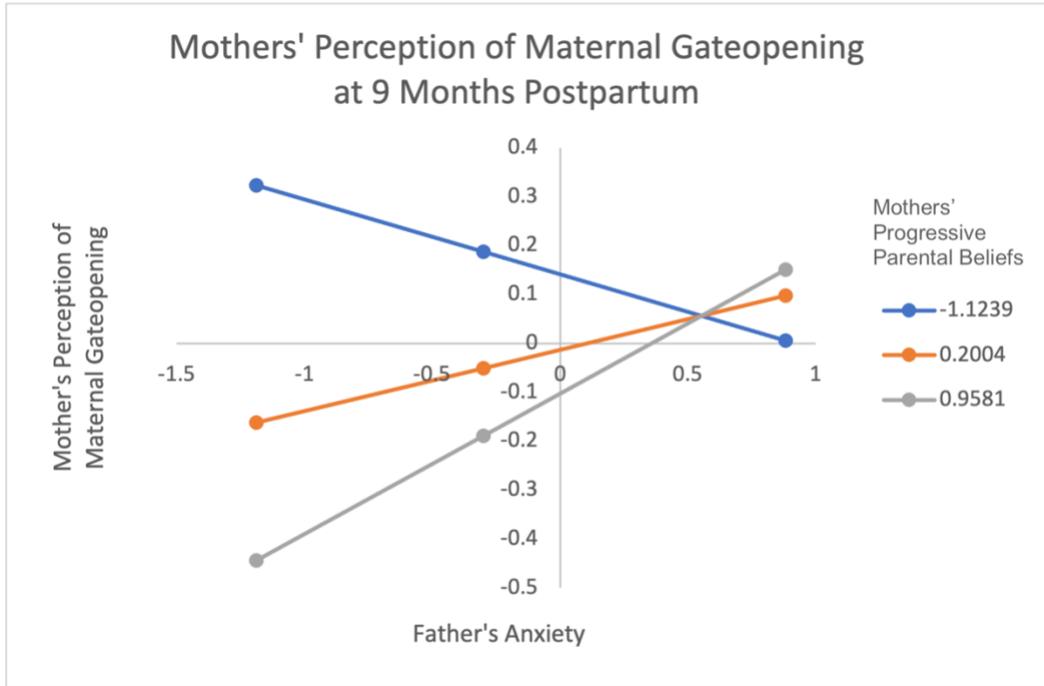


Figure C1: Moderator effect of mothers' progressive parental beliefs on the association between mothers' perception of gateopening at 9 months postpartum and fathers' anxiety

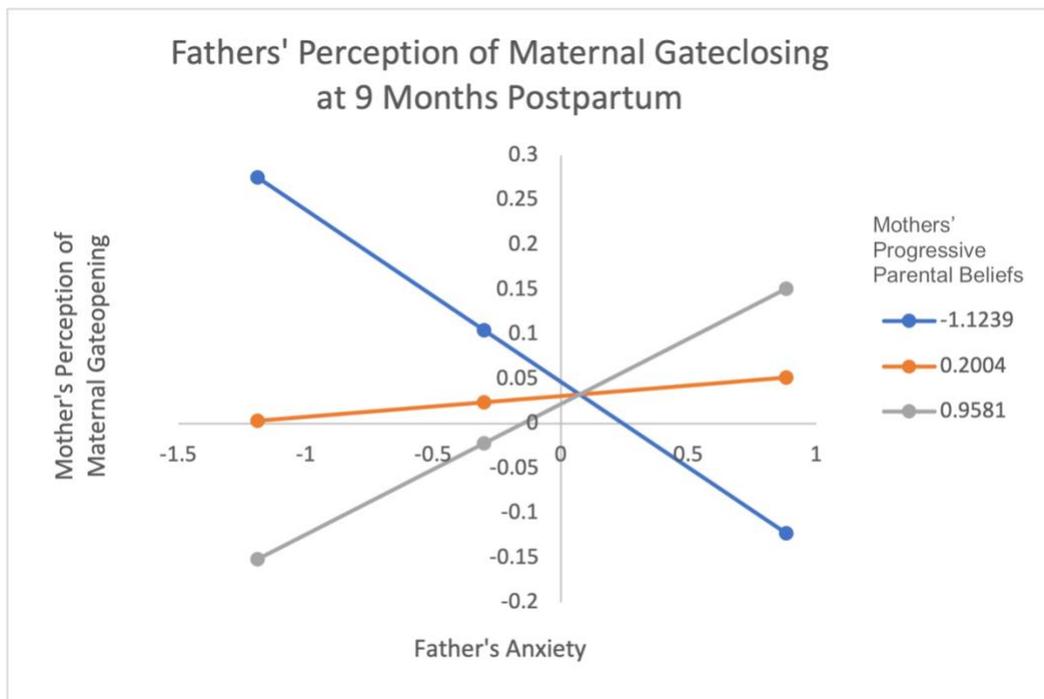


Figure C2: Moderator effect of mothers' progressive parental beliefs on the association between mothers' perception of gateopening at 9 months postpartum and fathers' anxiety