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Gender and the Division of Household Labour: An Analysis of the Implications for Mental and Physical Health

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Gender and the Division of Household Labour:
An Analysis of the Implications for Mental and Physical Health

by

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A THESIS

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Abstract

This thesis examines the relationships between the division of household labour and mental and physical health using survey data from 1,193 male and female lawyers in Canada. Household labour is examined in terms of time spent in housework on work days and non-work days, relative contribution to housework, and perceptions of fairness about the division of household tasks. The results indicate that housework time and relative contributions are not particularly detrimental to mental and physical health. Rather, time spent in housework only appears to be harmful when it interferes with weekends or when individuals feel that the division of housework is unfair, particularly if it is unfair to one's spouse. Interestingly, these relationships do not differ for men and women. The results also suggest that work demands mediate the relationships between gender and health, as well as housework and health. Several avenues for further research are discussed.

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Chapter 1 – Introduction

Gender roles and stereotypes have traditionally located men in the workplace and women in the home (Bartley, Blanton, & Gilliard, 2005; Robinson & Spitze, 1992; Tichenor, 2011). Men and women specialized in different family roles such that men provided for their families financially, as the sole breadwinner, while women cared for the home and for children (Breen & Cooke, 2005; Lee, 2007; Moen & Yu, 2000; Robinson & Spitze, 1992; Tichenor, 2011). Over the last several decades, however, this gendered division of labour has begun to shift (Bianchi & Milkie, 2010; Duffy & Pupo, 2011; Ravanera, Beaujot, & Liu, 2009; Ross, Mirowsky, & Huber, 1983). Women have become increasingly involved in paid employment outside of the home, and women's employment has become more acceptable and desirable to many couples and to society overall (e.g., Beaujot & Liu, 2005; Breen & Cooke, 2005; Duffy & Pupo, 2011; Hochschild, 2011; Marshall, 2006; Percheski, 2008; Sayer, 2005). For example, 20% of women in the United States were employed in 1900, 30% were employed in 1950, 50% were employed by 1970, and 55% were employed in 1986 (Hochschild, 1989; Ross et al., 1983; see also Lennon & Rosenfield, 1994). More recent Canadian data show a similar pattern: in 1976, 42% of women over the age of 15 were employed in the labour force, and by 2004 this had increased to 58% (Statistics Canada, 2006).

In addition, women have also become increasingly involved in professional and male-dominated careers such as medicine, engineering, and law (Pavalko, Gong, & Long, 2007; Percheski, 2008; Statistics Canada, 2006). In 1975, 13% of physicians, 7% of lawyers, and 15% of those with a doctoral degree were female, and by 1992, women represented 20% of physicians, 21% of lawyers, and 30% of those with a doctoral degree

(Pavalko et al., 2007). More recent data show that by 2008, women represented approximately one-third of practicing lawyers and physicians, as well as about half of students graduating from law and medical schools (Department for Professional Employees, 2010).

Women also increasingly work in full-time, year-round positions and in professional careers where they are required to work long hours, which has decreased the gap between employed men's and women's work hours (Barnett, Gareis, & Brennan, 2009; Duffy & Pupo, 2011; Marshall, 2006; Percheski, 2008). A cohort study from the United States indicates that less than 10% of professional women born before 1935 worked more than 50 hours per week compared to 15% of those born after 1956, and while this general trend has continued across younger cohorts, it is now increasing at a slower rate (Percheski, 2008).

At the same time, men have become more actively involved in the home both in terms of childcare and housework (Beaujot & Liu, 2005; Bianchi, Casper, & King, 2005; Bianchi & Milkie, 2010; Bianchi, Milkie, Sayer, & Robinson, 2000; Coltrane, 2000; Duffy & Pupo, 2011; Percheski, 2008; Sayer, 2005, 2010; Sullivan, 2004). In Canada, men between the ages of 25 and 54 completed an average of 2.1 hours of unpaid childcare and housework per day in 1986 compared to 2.5 hours per day in 2005 (Lindsay, 2008; Marshall, 2006). As such, men's and women's contributions to household labour are becoming somewhat more equitable as women spend less time in core household tasks such as cooking and cleaning, and men allocate more time to these activities (Duffy & Pupo, 2011; Heisig, 2011; Marshall, 2006; Sayer, 2005; Sullivan, 2004). Early research examining dual earners did not find any examples of husbands and

wives sharing household labour equally, but by the mid 1980s research began documenting couples' reports of equal divisions (Risman & Johnson-Sumerford, 1998). These initial self-reports of equal divisions of household labour were largely inaccurate since further examination showed that women still retained primary responsibility for household tasks. Nonetheless, these reports reflected a shift in ideologies that may have helped pave the way for future trends, such that by the late 1980s researchers found some couples actually dividing housework equally (Risman & Johnson-Sumerford, 1998).

Despite these shifts toward greater equality in the division of household labour, women, even those employed in full-time careers, continue to bear primary responsibility for planning, organizing, and completing household labour (e.g., Bartley et al., 2005; Beaujot & Liu, 2005; Bianchi & Milkie, 2010; Blair & Lichter, 1991; Hunt & Annandale, 1993; Lennon & Rosenfield, 1994; Mannino & Deutsch, 2007; Smock & Noonan, 2005). In fact, according to Baxter (2002) "the gender division of labour in the home appears to be one of the most enduring patterns in modern social life" (p. 419). This can clearly be seen in recent Canadian data which demonstrate that, on average, women between the ages of 25 and 54 spent 4.3 hours per day on unpaid housework and child care in 2005 compared to men's average of 2.5 hours per day (Lindsay, 2008; Marshall, 2006).

While the division of household labour is becoming more equitable, some women continue to experience a double burden or "second shift" (see Hochschild, 1989).¹ This may be particularly true for couples with children since childcare, and the additional housework tasks associated with childcare (e.g., extra cleaning, preparing appropriate meals, and spending additional time driving children to various activities), continues to

¹ It should be noted that this double burden or second shift is not inevitable, and not all women who work in paid employment experience it (Ferree, 1991).

be primarily women's responsibility (Beaujot & Liu, 2005; Bianchi & Milkie, 2010; Marshall, 2006; Sullivan, 2004). In effect, the pattern has not changed substantially from the 1970s when Benston (1972) asserted that "at all times household work is the responsibility of women... Women, particularly married women with children, who work outside the home simply do two jobs" (p. 125-126).

That being said, it is also possible that men may experience a double burden as they try to balance their paid employment with household responsibilities (see Baruch & Barnett, 1986). Although this is less common (Beaujot & Liu, 2005), it is likely becoming more prevalent as men increase their involvement in the home and their wives are increasingly working full-time as well. In fact, the percentage of Canadian couples reporting that men have a double burden, where husbands complete the same or more paid work as their wives and also complete the majority of the housework, increased from approximately 6% in 1992 to 11% in 2005 (Ravanera et al., 2009).

These trends in the division of labour may have serious implications for the mental and physical health of both men and women. The spheres of work and family continue to be the two most important domains in people's lives, and while they are often considered separately (Bianchi et al., 2005), they necessarily interact to impact health. Both men and women are increasingly required to balance paid employment and household labour. Integrating work and family demands can be a daunting, stressful challenge that may have consequences for individuals' mental and physical health, particularly since paid employment has become more stressful, time consuming, demanding, and often spills over into one's home life and family time (Barnett et al., 2009; Bianchi & Milkie, 2010; Casper, Bianchi, & King, 2005; Duffy & Pupo, 2011;

Fudge, 2011; Kleiner & Pavalko, 2010; Pavalko et al., 2007; Percheski, 2008; Sauvé, 2009; Schiltz, 1999).

Therefore, household tasks, on top of work demands, may be overwhelming and unhealthy, especially for those engaged in highly demanding professional careers such as law (Griffin, Fuhrer, Stansfeld, & Marmot, 2002; Klitzman, House, Israel, & Mero, 1990; Moen & Yu, 2000; Robinson & Spitze, 1992; Shehan, 1984; Shultz, Wang, & Olson, 2009; Tao, Janzen, & Abonyi, 2010). As Percheski (2008) explains, professions and families are both ‘greedy institutions’ that demand high levels of commitment. In particular, lawyers must be willing to work long hours and are also required to have a disciplined work ethic, an endless supply of energy, and professional devotion in order to successfully practice law. As a result of these great demands, lawyers often face burnout and other stress-related problems such as depression (Carter, 2006). It is clear from this that the challenges of balancing work and household responsibilities may negatively impact one’s mental and physical health, particularly when individuals are employed in highly demanding professional careers such as law.

While it is important to examine the actual time that an individual spends completing household labour, it is also necessary to consider other aspects of housework that may contribute to poorer mental and physical health. More specifically, it is valuable to also examine an individual’s contribution relative to their partner, along with perceptions about how fairly the housework is divided. A lack of shared responsibility for household labour and feelings of inequity are in themselves potential sources of psychological distress (Bird, 1999). Regardless of whether or not household tasks are

actually divided equitably, individual perceptions of inequity can impact health, since feeling disadvantaged in the division of household labour can be harmful to one's health.

The time one spends in housework, the way in which household labour is divided, and how this is perceived may have serious repercussions for the health of both men and women, and as Carr and Springer (2010) point out, health is the most critical indicator of a society's overall wellness. Despite the importance of this issue, research has not sufficiently considered how the division of household labour is related to health (see Tao et al., 2010). Specifically, research has not adequately examined how the division of household labour may impact women's physical health, how it impacts men's mental and physical health, or how the division of household labour may be related to health differently for women and men. With regard to methods, many studies focus primarily on absolute housework time or relative contributions but do not include measures of perceived fairness. Moreover, when perceptions of fairness are included, few examine unfairness to oneself and to one's partner separately. Further research is needed in order to better understand the relationships between gender, housework, and health and how these relationships may be related to broad social inequalities. This thesis therefore aims to address these gaps in the literature by exploring the following research questions:

- 1) Are there differences between men and women with regard to their mental and physical health and the division of household labour?
- 2) Is the division of household labour detrimental or beneficial for mental and physical health, and does this relationship change when involvement reaches a certain level?

- 3) Is the time spent in housework, relative contribution, or perception of fairness more important in influencing mental and physical health?
- 4) Are men's and women's mental and physical health differentially affected by the division of household labour?

These questions are addressed using questionnaire data from a sample of male and female lawyers. This sample was selected because the respondents are all employed in a highly demanding professional career which requires extensive educational and work commitments. As such, the men and women in this sample could be considered career-oriented, rather than primarily focused on family and/or household responsibilities. Furthermore, these respondents are required to balance both paid employment and household responsibilities which, as outlined above, may become overwhelming and unhealthy. Law is a particularly demanding career in terms of the long hours, endless supply of energy, and high professional devotion required to be successful (see Carter, 2006). The men and women in this sample likely face extensive time and psychological demands, and housework, on top of these extensive demands, may be problematic. Therefore, this sample is well suited to examining how the division of household labour is related to health within the context of juggling multiple demands from the spheres of both work and home. Finally, by limiting the analyses to a single career, occupational differences associated with education levels and professional norms or expectations are controlled.

This thesis is organized as follows. First, it begins with a review of the existing literature, along with a description of the theoretical framework that

guides this study and a systematic presentation of the hypotheses that are tested in this thesis. Following this, the sample, data, and methods used in this study are described, and the results are presented. This thesis then concludes with a discussion of the findings, their implications, the limitations of this study, and suggestions for future research.

Chapter 2 – Review of the Literature

This chapter begins with a brief explanation of the theoretical framework guiding this study. Following this, research findings on men's and women's mental and physical health are presented followed by findings on the gendered division of household labour. Next, literature examining the relationship between the division of household labour and men's and women's mental and physical health is summarized. In this section, the literature is presented in terms of four different measures of housework: time spent in housework on work days, time spent in housework on non-work days, relative contribution to housework, and perceptions of fairness about the division of household tasks. Finally, this chapter closes with a discussion of the ways in which other family demands, family resources, work demands, work resources, and age are related to both the division of household labour and health.

Theoretical Framework: Family and Work Demands and Resources

The framework that guides this thesis is based on Voydanoff's (2004, 2005) conceptual model of work-family fit. This model provides a theoretical framework for setting out the linkages between the work and family domains and, by extension, how they are related to the division of household labour and health.

While work and family domains are often separated in both time and location, they also impact one another (Bedeian, Burke, & Moffett, 1988). That is, one's work may permeate one's family life and vice versa, in both positive and negative ways in what is commonly referred to as work-family enhancement/facilitation or work-family conflict, respectively (Small & Riley, 1990; Grzywacz & Bass, 2003). According to Kelly, Moen, and Tranby (2011) as well as Fudge (2011), the majority of workers, both male and

female, within industrialized nations experience work-family conflicts such as time strains and spillover of stress from one domain to the other (Thomas & Ganster, 1995). Kelly et al. (2011) also suggest that work-family conflict may be more prevalent among professional workers who are required to work longer hours and who often experience a blending of work and family time, where work-related activities may be conducted at home outside of regular work hours.

Voydanoff (2004, 2005) elaborates on this in her discussion of work and family demands, which she argues are positively associated with work-family conflict, as well as her discussion of work and family resources, which she argues are related to work-family facilitation. More specifically, she identifies two types of demands: time-based and strain-based. Time-based demands can be understood as demands which restrict an individual's involvement in other activities since there is a limited amount of time each day in which to complete tasks. Strain-based demands, on the other hand, involve psychological spillover in which strains or stressors from one domain affect an individual's performance in the other domain through altered attitudes and behaviours as well as energy depletion and stress. With regard to work and family resources, Voydanoff suggests that enabling resources from one domain may be positively related to performance in the other domain as a result of skill development, psychological rewards, positive attitudes, and increased energy and motivation.

Most importantly for this thesis, the relationship between work and family, and specifically a lack of fit or balance between work and family roles or demands as a chronic stressor (Thoits, 2010), is shown to impact mental and physical health (Bianchi & Milkie, 2010; Frone, Russell, & Cooper, 1997; Fudge, 2011; Grzywacz & Bass, 2003;

Klitzman et al., 1989; Major & Cleveland, 2005). For example, research shows that work-family conflict is related to both depression and poor physical health (e.g., hypertension) in longitudinal studies (Frone et al., 1997). In addition, these conflicts may be more problematic for women's psychological health than men's, since women are traditionally responsible for more of the home and family demands (Glavin, Schieman, & Reid, 2011; Hill, 2005; Jang, Park, & Zippay, 2011). On the other hand, work-family facilitation may provide individuals with valuable skills to improve their work performance (Eichler & Matthews, 2010) and may also improve their psychological well-being (Grzywacz & Bass, 2003).

This clearly suggests that work and family domains are not as separate as one may initially think. Rather, they impact one another in complex, bidirectional ways, and together they impact individuals' mental and physical health. It is therefore important to consider the ways in which work and family demands and resources are intertwined when examining how the division of household labour impacts men's and women's mental and physical health (see also Wheaton & Young, 2009). As such, this thesis relies upon Voydanoff's (2004, 2005) conceptual model of work-family fit to incorporate these pivotal elements.

In this study, the focal variables *time spent in housework on work days*, *time spent in housework on non-work days*, *relative contribution to housework*, and *perception of fairness in the division of household tasks* are considered as family demands. This follows Voydanoff's (2005) classification of time spent in household work as a time-based family demand and household demands as a strain-based family demand. In the discussion that follows, hypotheses are formulated that specifically indicate how these

focal variables are expected to be related to men and women's mental and physical health. In addition, four sets of secondary variables are also included that reflect Voydanoff's conceptual framework. These secondary variables are categorized as *other family demands*, *family resources*, *work demands*, and *work resources*. Basically, following Voydanoff's model, it is hypothesized that demands, both work- and family-based, will negatively impact health, whereas resources from both domains will positively impact health. While these secondary variables are crucial to understanding how the division of household labour is related to health within the context of family and work, more specific hypotheses about these variables are not examined as they are beyond the scope of this study. The inclusion of these secondary variables is, however, important so as to ensure that the relationships between gender, the division of household labour, and mental and physical health are not spurious. That is, the inclusion of these variables will help to show that the relationships between housework and health do not result from other variables that are correlated with both health and the division of household labour (Allison, 1999; Stinchcombe, 1968).

The Gendered Nature of Health

Research reports gendered health disparities in terms of both mental and physical health (Moen & Chermack, 2005). With regard to mental health, the World Health Organization (*n.d.*) states that gender is a key determinant of mental health and mental illnesses such as depression and anxiety. Women tend to experience poorer mental health and higher rates of depression and distress than men (Bergdahl, Allard, Lundman, & Gustafson, 2007; Bird, 1999; Glass & Fujimoto, 1994; Robinson & Spitze, 1992; Rosenfield, 1992; Ross & Mirowsky, 1984; Roxburgh, 2004; Shaikh & Shaikh, 2004; see

also Sweeting, 1995). In fact, women are twice as likely as men to undergo a depressive episode (Kessing, 2005; WHO, *n.d.*). Research also suggests that, following diagnosis, women are more likely to go through longer periods of treatment for depression than men (Kessing, 2005). While the process of depression is not fully understood, research suggests that not only biological but also psychological and social factors may be involved, and more importantly, these factors may be related to gender and therefore may differ between men and women (Kessing, 2005).

Similar gendered patterns have also been found in terms of physical health. Again, women tend to experience poorer physical health, more acute and chronic illness or disability, and more frequent interactions with health professionals than men (Bird & Fremont, 1991; Gove, 1984; Krantz, Berntsson, & Lundberg, 2005; Macintyre, Hunt & Sweeting, 1996; Ross & Bird, 1994; Sweeting, 1995; Verbrugge, 1983, 1989). Women also tend to experience greater physiological stress than men as evidenced by women's higher norepinephrine levels both during and after work (Lundberg & Frankenhaeuser, 1999). While women typically have a greater life expectancy than men, women also tend to report more stress, worse health, and more years of illness or disability than men (Macintyre et al., 1996; Moen & Chermack, 2005; see also Sweeting, 1995). That is, women experience worse health but are less likely to die from their conditions than men, while men are more likely to experience infrequent, but more life-threatening illness, and thus death (see Verbrugge, 1989). However, some research suggests that differences in health between men and women are more complex than this initially appears. Instead, Macintyre et al. (1996) suggest that the direction and strength of the relationships between gender and health may differ based on the specific health condition. This means

that women may not necessarily have poorer physical health than men overall, but rather, only for certain conditions such as migraines, back and neck pain, arthritis, rheumatism, high blood pressure/hypertension, varicose veins, haemorrhoids, coronary heart disease, and cancer (see also Bianchi et al., 2005; Krantz et al., 2005; Walters, McDonough, & Strohschein, 2002). Nonetheless, based on the predominant findings in the literature, I hypothesize the following:

Hypothesis 1: Women will report poorer mental and physical health than men.

The Gendered Nature of Housework

Evidence consistently shows that the division of household labour is related to gender such that women continue to perform more housework than men (Barnett & Shen, 1997; Baxter, 2002; Beaujot & Liu, 2005; Bianchi, et al., 2000; Blair & Lichter, 1991; Bird, 1999; Hunt & Annandale, 1993; Lennon & Rosenfield, 1994; Mannino & Deutsch, 2007; Robinson & Spitze, 1992; Roxburgh, 2004; Sayer, 2010; Smock & Noonan, 2005). In fact, Erickson (2011) reports that gender is the key correlate predicting the division of household labour after taking into account husbands' and wives' relative resources, time constraints, and gender ideology (see also Kurdek, 1993).

Further evidence of this can be seen in a recent Australian study by Birch, Le, and Miller (2009) where they find that regardless of one's living situation — that is whether they are single, married, cohabitating, or raising children — women spend more time in housework than men. However, the most significant difference between men's and women's time in housework is found in couples with children. According to this study, mothers spend an average of 129.1 minutes more per day in household labour during the

work week (women spend 204.3 minutes and men spend 75.2 minutes) and an average of 84.4 minutes more per day during the weekend (women spend 230.0 minutes and men spend 145.6 minutes) than fathers.

Clearly the gendered division of household labour continues to persist despite women's increased involvement in paid labour and men's increased contributions to time spent in household tasks (Birch et al., 2009; Sayer, 2005). It is also interesting to note that this pattern is not restricted only to certain nations, but rather exists throughout the world. Internationally, women continue to perform the majority of housework regardless of race, ethnicity, class, religion, age, or nation (Baxter, 2000; Eichler, 2010; Treas & Tai, 2011).

This gendered division of household labour also persists in couples where both spouses are involved in full-time paid employment. In fact, the current division of housework largely mirrors that of the 1970s where, as Radloff (1975) explains, housewives performed much more housework than employed men, but employed women completed almost as much as housewives. Therefore, as he suggested, "most working wives are *also* housewives" (p. 259, emphasis in original). More specifically, Hochschild (1989) reports that in the mid-1960s employed women in the United States spent an average of three hours per day in household labour while employed men spent an average of only 17 minutes per day. Similar reports emerged in the early 1990s where wives' housework time averaged 31.1 hours per week and their husband's time averaged 15.3 hours per week when both spouses were employed (Blair & Johnson, 1992).

More current data mirror this general pattern, although men's and women's absolute time in housework have begun to converge because, on average, men are increasing the time they spend in housework while women are spending less time in

housework than they did in the past (Bianchi & Milkie, 2010). In Canada, employed women spent an average of 2.2 hours per day in household labour while men spent an average of 1.4 hours per day in 2005 (Marshall, 2006). Women therefore continue to perform at least 60% to 70% of the unpaid household labour, in that they spend twice as much time as their husbands doing housework, even when they are employed in full-time jobs outside of the home (Bartley et al., 2005; Bird & Fremont, 1991; Fudge, 2011).

Taken together this suggests that employed women work longer total hours when both paid labour time and unpaid household labour time are considered. That is, on average, women in the 1960s and 1970s worked fifteen hours per week more at work and in the home combined than men, which is equivalent to working an extra month each year (Hochschild, 1989). More recent figures indicate that this situation is gradually improving. Research now suggests that employed men and women both tend to engage in an average of between eight and nine hours of work per day when paid and household labour are combined (Fudge, 2011; Lindsay, 2008) and that the difference between men's and women's total labour is therefore not significant (Ferree, 1991; Sauvé, 2009). Some studies, however, continue to find that women's total work hours, that is paid work hours and time in housework combined, are longer than men's (Krantz et al., 2005).

Despite these relatively equal contributions with regard to total labour time, women tend to spend more hours in household labour and less time in paid employment than men (Barnett & Shen, 1997; Bianchi et al., 2005; Fudge, 2011; Krantz et al., 2005; Marshall, 2006; Sauvé, 2009; Sayer, 2005; Tao et al., 2010). Fudge (2011) finds that women spend an average of 2.1 hours in housework per day while men spend approximately 1.4 hours per day and that women spend an average of 5.9 hours per day

in paid work compared to men who spend approximately 6.6 hours per day. Similarly, a 2005 study of Canadians demonstrates that women spend approximately two hours more per day on housework than men, whereas men spend approximately two hours more per day in paid labour than women, despite overall work time being 8.8 hours for men and 8.7 hours for women (Lindsay, 2008). Therefore, I hypothesize the following:

Hypothesis 2: Women will report spending more time in housework than men.

Although most of the literature pertaining to the division of household labour focuses on the amount of time spent in housework, research also examines partners' relative contributions to housework. Rather than the actual time spent in housework as reported above, this refers to the proportion of household tasks that an individual performs in relation to his/her spouse. Overall, research suggests that the division of household labour has not changed substantially such that women continue to perform approximately two-thirds of the housework, even when they are employed full-time (Baxter, 2000; Lennon & Rosenfield, 1994; Robinson & Spitze, 1992). Another way of understanding this is that women continue to perform twice as much of the housework relative to their husbands (Bianchi et al., 2000; Blair & Lichter, 1991).

Women's greater relative contribution to housework may be particularly evident with regard to routine household tasks such as preparing meals, washing dishes, cleaning the house, shopping for groceries, and doing laundry (Barnett & Shen, 1997; Bartley et al., 2005; Baxter, 2002; Blair & Johnson, 1992; Blair & Lichter, 1991; Coltane, 2000; Hochschild, 1989; Tao et al., 2010). For example,

when respondents are asked to report their relative contributions to *all* housework, men report completing approximately 35% of the tasks while women report completing approximately 68% of the tasks (Lennon & Rosenfield, 1994). When they are then asked about their relative contributions to routine tasks such as preparing meals, doing dishes, cleaning the home, shopping for groceries, and doing laundry, however, men report completing approximately 23% of these tasks while women report completing approximately 78% of these tasks (Lennon & Rosenfield, 1994). In fact, Blair and Lichter (1991) explain that over 90% of certain routine tasks, such as washing dishes, are completed by women. Research also demonstrates that women spend approximately one hour more per day on these routine tasks and are twice as likely as men to spend more than thirty hours per week in this type of housework (Fudge, 2011; Lindsay, 2008). Although the studies by Fudge and Lindsay report time spent in housework, both lend additional support to the assertion that women complete a disproportionate share of housework, and particularly those routine tasks, relative to their husbands.

It is also important to note, however, that while women continue to perform a greater share of the housework relative to their husbands, men's relative contribution compared to their wives has increased substantially since the 1960s, suggesting that the division of household labour is gradually moving toward great equality (Baxter, 2002; Coltrane, 2000; Sullivan, 2004). These changes have not been sufficient to create full equality in the division of housework, and therefore, women continue to be responsible for a disproportionate share of household labour, although there is considerable

variation among households with some dividing housework quite equitably compared to others (Bianchi et al., 2005; Ferree, 1991; see also Risman & Johnson-Sumerford, 1998). Despite the increases in men's relative contributions to household labour, the literature reports that women continue to perform a greater share of the household tasks, and I therefore hypothesize the following:

Hypothesis 3: Women will report a greater relative contribution to housework than men.

Research also suggests that there may be differences between men's and women's perceptions of fairness in the division of housework. More specifically, research demonstrates that women are more likely than men to report that the division is unfair to themselves, while men are more likely to report that the division is unfair to their partner (Riviere, 2005; Robinson & Spitze, 1992; Tao et al., 2010). In both cases, the division tends to be seen as unfair to the wife. According to Lennon and Rosenfield (1994), as well as DeMaris and Longmore (1996), approximately 35% of women and only about 4% of men report that the division is unfair to themselves. On the other hand, approximately 28% of men reportedly feel that the division of housework is unfair to their wife compared to only 4% of women who feel that the division is unfair to their husband (Lennon & Rosenfield, 1994). Based on this, I hypothesize the following:

Hypothesis 4a: Women will be more likely than men to report that the division of household labour is unfair to themselves.

Hypothesis 4b: Men will be more likely than women to report that the division of housework is unfair to their partner.

While these differences in reporting may simply reflect the fact that women tend to perform a disproportionate share of the housework, research also suggests that this explanation may not be wholly accurate. Instead, men's and women's reports of fairness in the division of housework have been shown to be remarkably similar such that the majority of both sexes report that the division is fair for both partners (Coltrane, 2000; Lennon & Rosenfield, 1994). For example, in a study by Lennon and Rosenfield (1994), 61% of women and 68% of men reported that the division of household labour is fair to both partners. Men and women appear to agree that it is fair for women to complete a greater share of the housework compared to men as evidenced by the fact that both sexes report the division is equitable when men complete approximately 36% of the housework and women complete approximately 66% (Lennon & Rosenfield, 1994; Frisco & Williams, 2003). If men complete more than 36% of the housework it is seen as unfair to them, and if they complete less than this it is seen as unfair to their wife. On the other hand, if women complete more than 66% of the housework this is seen as unfair to them, and if they complete less than this it is seen as unfair to their husband. However, it should be noted that a few studies have found that men are more likely than women to report that the division of housework is fair to both partners (DeMaris & Longmore, 1996; Lavee & Katz, 2002).

This paradox, where both sexes tend to report that the division of household labour is fair despite unequal divisions, may be partially explained by differences in the factors that shape perceptions of fairness. For example, it is likely that gendered differences exist with regard to the caring or nurturing element of housework. Women's perceptions of fairness with regard to the division of labour are positively related to

matter, which can be understood as how often a wife feels that her husband is there for her and truly cares for her (Kawamura & Brown, 2010). Similarly, Thompson (1991) suggests that interpersonal outcomes such as keeping the peace at home and the symbolic meanings associated with housework may impact women's perceptions of fairness such that these interpersonal outcomes are positively related to reporting that the division of labour within the home is fair. Men's perceptions of fairness, on the other hand, may not be so closely related to these caring elements of housework, partially as a result of culturally-constructed gender stereotypes, expectations, or norms (see Erickson, 2011). These differences may therefore help to explain why men and women may perceive the division of housework as fair to both partners even though women continue to perform a majority of household labour. Based on these previous findings, I hypothesize the following:

Hypothesis 5: Men and women will be equally likely to report that the division of housework is fair to both partners.

Focal Variables: The Division of Household Labour as a Family Demand

This section examines the way in which the division of household labour, as a family demand, impacts mental and physical health. As such, it outlines the relationships between each of the focal variables and health beginning with time spent in housework, then moving on to relative contribution to housework, and finishing with perceptions of fairness regarding the division of housework.

Time spent in housework.

Time spent in housework has been extensively examined in the literature in terms of hours spent per day or per week in household tasks. For this thesis, time spent in

housework is considered separately for work days and non-work days. *Time spent in housework on work days* is the number of hours an individual spends doing household tasks in a typical day on days when they also work in paid employment, while *time spent in housework on non-work days* is the number of hours an individual spends doing household tasks in a typical day when they do not also work for pay.

Research frequently demonstrates that the time spent in household labour is negatively associated with mental health (Barnett & Rivers, 1996; Bartley, Popay, & Plewis, 1992; Bird, 1999; Glass & Fujimoto, 1994; Hunt & Annandale, 1993; Riviere, 2005; Roxburgh, 2004). That is, as the number of hours one spends in household labour increases, individuals report more distress and depression.

There are several potential explanations of why spending more time in household labour is related to poorer mental health. Household labour is highly routinized (Bird, 1999; Eichler, 2010; Oakley, 1974), subject to frequent interruptions (Lennon, 1994; Oakley, 1974) and often involves dirty or heavy work (Schooler, Miller, Miller, & Richtand, 1984). Housework is also largely invisible (Albanese, 2010; Eichler & Albanese, 2007; Gove, 1984) and tends to be regarded as trivial and less valuable, in part because it has traditionally been seen as ‘women’s work’ (Coltrane, 2000). In addition, housework offers fewer rewards and minimal recognition (Bird, 1999; Glass & Fujimoto, 1994; Kandel, Davies, & Raveis, 1985; Robinson & Spitze, 1992; Ross & Bird, 1994); is characterized by ambiguous standards of completion/success (Schooler et al., 1984); and often lacks a definite conclusion since the work is never fully done (Oakley, 1974). Finally, performing housework can also be socially isolating (Eichler, 2010; Kandel et al., 1985; Oakley, 1974). As Coltrane (2000) reports, research demonstrates that spending

more time in routine and repetitive household tasks may increase depression. Similarly, Golding (1990) suggests that housework is stressful, at least for women, and this strain is associated with increased depression. Taken together, this implies that spending more time in household tasks may lead to negative mental health outcomes.

Further evidence demonstrating the negative implications that household labour may have on mental health can be taken from studies comparing full-time homemakers to women who are employed outside of the home. Lennon (1994), for example, finds that full-time homemakers report more depressive symptoms than married women who are employed outside of the home. He explains that if women's paid jobs were as routine and physically demanding as the housework that full-time homemakers engage in, employed women would experience similar rates of depression compared to homemakers. The nature of unpaid household labour appears to contribute to poor mental health, and this likely extends from full-time homemakers to men and women who must balance both paid work and household labour.

Less attention has been given to how time spent in housework affects physical health although some research demonstrates that household labour is also negatively associated with physical health (Bartley et al., 1992; Bird & Fremont, 1991; Hunt & Annandale, 1993; Riviere, 2005; see also Shelton & John, 1996). As a result, I hypothesize the following:

Hypothesis 6: Time spent in housework is detrimental to one's mental and physical health.

Despite the potentially negative relationship between time spent in housework and health, involvement in household labour is also shown to provide several benefits.

Therefore, the relationship between time spent in household labour and mental health may be more complex than the linear relationship outlined above. In fact, some research suggests that the relationship may be quadratic instead of linear such that the relationship may initially be positive and then become negative at higher levels of involvement where an individual is completing many hours of housework (Bird, 1999). This may stem from the fact that household labour allows for some autonomy, specifically in terms of the order and pace of completing household tasks, and produces concrete results which may benefit mental health, at least to a certain level of involvement after which point involvement is no longer beneficial and instead becomes detrimental (Bird, 1999; Eichler, 2010; Glass & Fujimoto, 1994; Gove, 1984; Lennon, 1994; Oakley, 1974; Ross & Bird, 1994). Furthermore, household labour may provide interpersonal rewards associated with caring for and maintaining one's family such that housework is related to less distress (Glass & Fujimoto, 1994; Spitze & Loscocco, 2000). Housework may therefore offer some mental health benefits, and these benefits may help to counteract the potentially harmful effects of housework. However, if the harms come to outweigh the benefits, as may happen when individuals spend long hours doing housework, time spent in housework may become primarily detrimental to one's mental health.

The relationship between housework and physical health may also be nonlinear since household tasks allow for physical activity that may benefit physical health, at least up to a certain level. After this threshold has been reached, however, the benefits associated with housework may taper off and, instead, too much housework may become physically exhausting and unhealthy (Bird, 1999; Ross & Bird, 1994). Further evidence of the implications of housework for physical health emerges when comparing

housewives to employed wives. Employed wives report better self-rated physical health than women who are full-time homemakers (Shehan, 1984), which may suggest that the nature of household labour poses physical health disadvantages. I therefore hypothesize the following:

Hypothesis 7: Time spent in housework is beneficial for both mental and physical health to a certain level of involvement after which point additional time spent in housework becomes detrimental to one's mental and physical health.

It is also likely that the relationship between time spent in housework and health will vary depending on whether the housework is completed on work days or non-work days. Paid work and household responsibilities both require large time commitments, and finding time to complete both sets of tasks may impact health (Bianchi & Milkie, 2010). For example, research shows that time pressure is related to greater depression and distress (Roxburgh, 2002, 2004; Schooler et al., 1984). It is also plausible that spending time in paid employment and household labour on the same day is more physically exhausting than if housework is completed on non-work days. For example, when both paid and unpaid work loads are considered, individuals who are employed outside the home and also engage in household labour are more likely to experience role overload as a result of their substantial total work time (Shehan, 1984). Moreover, individuals with greater total workloads are more likely to report suffering from symptoms such as stomach pain, headaches, sleep disturbances, dizziness, lower back pain, loss of appetite, and shoulder or neck pain (Krantz et al., 2005). Housework may therefore be most

problematic when “it involves time demands that in addition to paid work create a role overload” (Robinson & Spitze, 1992, p. 846). I therefore hypothesize the following:

Hypothesis 8: Time spent in housework on work days will be more detrimental to mental and physical health than time spent in housework on non-work days.

Relative contribution to housework.

In addition to the time spent in housework, the ways in which household labour is divided between spouses, or in other words each partner’s relative contribution to housework, may also affect mental and physical health. *Relative contribution to housework* refers to the proportion of household tasks that an individual performs in relation to his/her partner.

Research reports contradictory findings about the relationship between relative contributions to housework and mental health. Some research concludes that one’s relative contribution is not related to mental health (Barnett & Shen, 1997; Glass & Fujimoto, 1994; Golding, 1990; Tao et al., 2010). However, other research suggests that greater relative contributions to housework are related to greater distress, unhappiness, and worse mental health (Bird, 1999; Hunt & Annandale, 1993; Robinson & Spitze, 1992; Rosenfield, 1992). It is similarly reported that husbands’ involvement in household labour is significantly related to less depression among wives (Ross et al., 1983). Put another way, this means that the distribution of household labour is more equitable than if wives are solely responsible for all household tasks, and this more equitable division is associated with greater mental health for both partners since the literature suggests that

husbands' mental health does not suffer as a result of greater participation in household labour (Ross et al., 1983).

This relationship between one's relative contribution to housework and their mental health may be especially evident with regard to routine housework such as preparing meals, washing dishes, cleaning the house, shopping for groceries, and doing laundry. These tasks allow for little discretion over when the tasks are completed, and this lack of control may be related to psychological distress and poorer mental health (see Barnett & Shen, 1997). As such, several studies find that completing routine household tasks is related to poorer mental health (Barnett & Shen, 1997; Riviere, 2005; Robinson & Spitze, 1992; see also Lennon, 1994). While these studies do not specifically look at relative contributions, it is likely that engaging in a disproportionate share of these tasks compared to one's partner is related to poorer mental health. On the other hand, Barnett and Shen (1997) look specifically at one's proportional contributions to these routine household tasks and report that there is no significant relationship with mental health.

Fewer studies examine the relationship between relative contributions to housework and physical health, but again, contradictory findings are reported. For example, Ross and Bird (1994) find that completing a larger percentage of the household labour is associated with good physical health. This finding is unexpected and the authors suggest that it may be due to the fact that housework involves physical activity which may benefit physical health compared to being sedentary (Ross & Bird, 1994). On the other hand, Riviere (2005) finds that completing routine housework such as preparing

meals, washing dishes, cleaning the house, shopping for groceries, and doing laundry is significantly related to poorer self-reported health among women. Finally, other research reports that one's relative contribution to household labour is not significantly related to physical health (Hunt & Annandale, 1993). Despite the contradictory findings in the past research, I hypothesize the following:

Hypothesis 9: Greater relative contributions to housework compared to one's partner will be associated with poorer mental and physical health.

These contradictory findings may also indicate that the relationship between one's relative contribution to housework and their mental and physical health has not been properly specified. That is, the relationship between one's relative contribution and health may be more complex than the linear associations considered above. In line with this, some research suggests that the relationship between one's relative contribution to housework and mental and physical health is curvilinear. More specifically, according to Bird (1999), greater involvement in household labour is beneficial for one's mental health until the individual does approximately half of the household labour, in which case the division of labour between spouses becomes equitable. If an individual does more than half of the household labour, however, housework may become detrimental to the mental health of the individual completing a larger proportion of the housework relative to his/her partner (Bird, 1999). Similarly, according to Ross and Bird (1994), involvement in household labour is beneficial for physical health until an individual is completing approximately 60% of the total household labour. Relative contributions above 60% may then become detrimental to physical health, because the harms may

outweigh the potential benefits of the physical activity involved in housework (Ross & Bird, 1994). I therefore also hypothesize the following:

Hypothesis 10: One's relative contribution to housework is beneficial for both mental and physical health to a certain point, after which one's relative contribution to housework in relation to one's partner becomes detrimental.

Perceptions of fairness about the division of housework.

Perceptions of fairness is understood as the extent to which an individual feels that the division of household tasks between oneself and their partner is just. If an individual perceives the division of household labour to be unfair, this may have implications for his/her mental and physical health. As Bird (1999) explains, feelings of inequity between spouses about how housework is divided may negatively impact mental health. Similar results are found by other scholars who report that perceiving the division of household labour to be unfair affects one's well-being and mental health (Robinson & Spitze, 1992; Schafer & Keith, 1980; Tao et al., 2010).

Individuals may perceive the division to be unfair either to themselves or to their partner, and these different experiences may have distinct associations with health. That is, feeling that the division of household labour is unfair to oneself may be qualitatively different than perceiving the division to be unfair to one's partner. Research shows that perceptions of unfairness to oneself are linked to reports of distress or depression, but, in some studies, perceptions of unfairness to one's partner are not significantly related to mental health (Riviere, 2005; Voydanoff & Donnelly, 1999).

On the other hand, there is also research that suggests that perceiving the division to be unfair to oneself is not an altogether different experience than perceiving the division to be unfair to one's partner. Perceptions of unfairness to either partner may therefore have a negative impact on one's mental health such that depression is lowest when an individual perceives the division to be fair to both partners and higher when they feel the division is unfair either to themselves or to their partner (Glass & Fujimoto, 1994; Lennon & Rosenfield, 1994; Schafer & Keith, 1980; Wheaton & Young, 2009). Feeling that the division of household tasks is unfair to oneself may contribute to feelings of anger or lack of control, while feeling that the division is unfair to one's partner may result in feelings of guilt or fear of retaliation (Voydanoff & Donnelly, 1999; see also Spencer & Rupp, 2009). Ultimately, however, both situations may result in poorer mental health than if the division was perceived as fair to both partners.

Equity theory may help to illustrate the process through which perceptions of unfairness in the division of household tasks come to influence mental health. According to Walster, Walster, and Berscheid (1978), equity theory posits that individuals will attempt to maximize their benefits and minimize their costs and that individuals who feel that a relationship is inequitable will feel distressed and will ultimately try to restore either actual equity or perceived/psychological equity so as to alleviate this distress. More importantly for this thesis, equity theory suggests that in unfair relationships the individual who is over-benefited will feel distressed, although the individual who is under-benefited will be relatively more distressed since s/he will not only experience inequality in the relationship but will also lack the rewards that the over-benefited received. There has been some debate about whether this applies in emotional

relationships, such as those between spouses, but it is in line with the literature cited above which suggests that individuals may experience deleterious mental health effects if the division of household labour is perceived to be unfair to either partner.

Substantially less consideration has been given to the way in which perceptions of fairness in the division of household labour may impact physical health. Therefore, an extension of relational ethics, which essentially refers to cooperation and compromise within relationships, may be useful in understanding how perceptions of fairness are related to physical health. The logic of relational ethics suggests that when relationships are no longer characterized by mutual compromise, individuals may experience physical health problems, such as sexual malfunction, anorexia, diabetes, and heart conditions, in addition to poorer mental health (Grames, Miller, Robinson, Higgins, & Hinton, 2008). While relational ethics does not specifically address perceptions of fairness in the division of household labour, it is likely that if an individual perceives this division to be unfair, they will suffer negative physical health effects because they will perceive the relationship to be imbalanced. I therefore hypothesize the following:

Hypothesis 11: Compared to perceiving the division of household tasks as fair to both partners, perceiving the division of household labour as unfair to either partner is associated with poorer mental and physical health.

Research also suggests that perceptions of fairness may have a greater impact on mental health than either time spent in housework or one's relative contribution to housework (Glass & Fujimoto, 1994; Robinson & Spitze, 1992; Tao et al., 2010; Voydanoff & Donnelly, 1999). For example, Thompson (1991) describes how many researchers assume that the time and allocation of tasks involved in housework are the

key elements to be considered. Thompson disagrees with this assumption, arguing instead that interpersonal outcomes, symbolic meaning, and perceptions of fairness are more important to how women perceive the division of household labour. If the time one spends in housework and the relative contribution to household tasks are not central to how one perceives the division, it is likely that time and tasks will not have the strongest impact on mental health.

Moreover, Robinson and Spitze (1992) suggest that household labour itself may be relatively enjoyable and unproblematic, but that it is only when people perceive the division of household tasks to be unfair that their well-being is jeopardized. Glass and Fujimoto's (1994) findings also show that perceptions of fairness have the greatest impact on depression as compared to the actual time spent in housework or one's relative contribution to the household labour, at least for wives. While issues pertaining to equity are related to depression or poorer mental health, the perception of equity, rather than more objective measures of equal contributions such as the actual time or proportion of time spent in household tasks, is likely most important (Glass & Fujimoto, 1994).

Research does not specifically examine whether time spent in housework, one's relative contribution to housework, or perceptions of fairness are most strongly related to physical health. However, based on Thompson's (1991) assertion that interpersonal outcomes, symbolic meaning, and perceptions of fairness are more important than the time one spends in housework and the ways in which tasks are allocated, it is likely that perceptions of fairness have the strongest relationship with physical health. I therefore hypothesize the following:

Hypothesis 12: Perceptions of fairness in the division of household labour will have a greater effect on mental and physical health than either time spent in housework or relative contribution to housework.

Gender, Household Labour, and Health

As described above, literature shows that women perform more household labour and experience poorer mental and physical health than men. Household labour is shown to be detrimental to one's health, yet it is also possible that men's and women's health will be differentially affected by their involvement in and perceptions of housework. This section explores how men's and women's mental and physical health may be differentially affected by the division of household labour.

According to Bianchi et al. (2005), work and family may impact the health of men and women differently. That is, research shows that men's and women's health can be impacted in different ways, even when they experience similar roles or contexts, likely as a result of gendered expectations, behaviours, or responses to stress (Froberg, Gjerdingen, & Preston, 1986; Moen & Chermack, 2005). Men and women may react differently to the same stimuli, and as a result, their health may be impacted in gender-specific ways. For example, Major and Cleveland (2005) explain that family-related stressors that lead to depression differ for men and women such that "dual-earner fathers' depression arose from lack of spousal support or family role insignificance, whereas dual-earner mothers were sensitive to a lack of task sharing" (p. 176). Another example of this can be seen in research by Roxburgh (2002) which examines time pressure in various roles. Female homemakers report more time pressures than male homemakers and, in fact, men in the homemaker role do not report significantly higher time pressures

than other men who do not do housework. Men and women may experience housework in different, albeit important, ways (see Roxburgh, 2002), which may differentially impact men's and women's mental and physical health.

Research also suggests that men and women may evaluate household labour differently. For women, housework is often considered to be an expression of their gender identity (see Spitze & Loscocco, 2000). For example, "the cleanliness of one's home is a reflection on women's competence" but not men's, and as a result, women may be more invested in household tasks (Bianchi et al., 2000, p. 195; see also Ferree, 1991). Men, on the other hand, may be more likely to perceive housework as drudgery since their involvement in housework may be in direct contrast to the gender identity they wish to portray. In contrast, women may see housework more positively, at least to the extent that housework may have more symbolic value for women since it corresponds more closely to their gender identity (Spitze & Loscocco, 2000). While this may suggest that housework is more detrimental to men's health than women's, research also suggests that housework may actually be more harmful for women's health than men's. This may occur because women are more likely to find housework lonely, unrewarding, and boring than men do, while men are more likely to view housework as more leisurely than women do (Erickson, 2011; Spitze & Loscocco, 2000).

The complex relationships between gender, housework, and health can also be seen in a study by Robinson and Spitze (1992) who report that the frequency of housework does not have a significant impact on women's mental health, but that increased frequency of household labour is associated with unhappiness for men. While this particular study looks at how often housework is completed rather than the amount of

time spent in housework, men and women may also be differentially affected by the amount of time they spend in household labour. That is, research suggests that time spent in housework is significantly related to poor mental health for women, but not for men (Hunt & Annandale, 1993).

Similarly, research shows that women's mental health is affected by their relative contributions to housework, while men's mental health is not (Robinson & Spitze, 1992). Similar findings are reported by Ross et al. (1983) who find that the division of household labour is significantly related to depression, or poor mental health, for women, but not for men. Furthermore, they point out that men's greater involvement within the home serves to reduce women's depression, but does not significantly affect men's own mental health. Another study, however, finds that one's relative contribution to housework impacts both men and women, but in different directions. That is, a more equal division of household labour improves women's mental health, but harms men's (Rosenfield, 1992).

The relationship between perceptions of fairness and mental health may also differ between men and women. Tao et al. (2010) find that perceptions of fairness about the division of housework have a statistically significant impact on mental health, but only for men. On the other hand, the majority of the literature reports the opposite — that perceptions of fairness significantly affect women's mental health, but not men's (Glass & Fujimoto, 1994; Riviere, 2005; Robinson & Spitze, 1992; Voydanoff & Donnelly, 1999). Furthermore, according to Wheaton and Young (2009), perceptions of fairness are differentially related to mental health. They find that women are more distressed when they feel that the division of housework is unfair to their partner than when they feel it is

unfair to themselves, while men are more distressed by feeling that the division is unfair to themselves than when they feel it is unfair to their partner.

The division of household labour may also differentially impact men's and women's physical health. While studies show that housework may be negatively associated with physical health, Hunt and Annandale (1993), as well as Riviere (2005), find this relationship only for women. One's relative contribution to routine household tasks such as preparing meals, doing dishes, cleaning the home, shopping for groceries, and doing laundry are also related to poorer physical health, but only for women (Riviere, 2005). Furthermore, research on employee stress and physical health symptoms shows that women's health is affected by both work conditions and household responsibilities, while men's health is affected solely by long work hours (Krantz et al., 2005).

Finally, there is evidence suggesting that the focal housework variables examined in this study may have different salience for men and women, although contradictory findings are reported. For example, Robinson and Spitze (1992) find that the amount of housework, that is the frequency of housework task performance, is the most important focal variable for men's mental health while perceptions of fairness in the division of household labour are most important for women's mental health. Other research suggests that perceptions of fairness do not appear to have a greater impact on mental health than the actual division of household labour for women, but for men perceptions of fairness appear more important than the actual division (Tao et al., 2010).

Taken together, the literature suggests that there are complex relationships between gender, housework, and health which will therefore be considered in an exploratory way in this thesis. Given the contradictory findings, specific hypotheses for

each focal variable are not presented. Rather, a more general approach is taken to explore the ways in which time spent in housework, relative contribution to housework, and perceptions of fairness may differentially affect men's and women's mental and physical health. As such, I hypothesize the following:

Hypothesis 13: Men's and women's mental and physical health will be differentially associated with time, relative contribution, and perceived fairness of household tasks.

Secondary Variables: Other Family and Work Demands and Resources

In addition to the focal variables already discussed, it is important to also consider the wider context in which the division of household labour exists. Following Voydanoff's (2004, 2005) theoretical framework, this section outlines how other family and work demands and resources are related to the division of household labour as well as mental and physical health as illustrated in the conceptual model in Figure 1.

Other family demands.

Family demands refer to "structural or psychological claims associated with role requirements, expectations, and norms" that an individual must respond to within the home or family domain (Voydanoff, 2004, p. 398). A key family demand is one's contributions to housework, which is represented by the focal variables examined in detail above. In addition, family demands may stem from one's children and partner. Family demands such as the *presence of children* and a *partner's work hours*, for example, are associated with greater household responsibilities for an individual (Voydanoff, 2005) as well as poorer mental and physical health.

Research shows that the *presence of children*, especially young children, is related to greater family and housework demands (Beaujot & Liu, 2005; Bedeian et al., 1988; Blair & Lichter, 1991; Olson, 1979; Riviere, 2005; Sayer, 2010; van der Lippe, 2010; Voydanoff, 1988). Children are associated with greater workloads as a result of more demands for nutritious meal preparation, clean clothing, and cleaning around the home (Sayer, 2010). The presence of children may also be related to more frequent grocery shopping and the need to wash more dishes. However, it should be noted that the presence of children tends to contribute more to the demands placed on mothers than the demands placed on fathers (Baxter, 2002; Baxter, Hewitt, & Haynes, 2008; Bianchi et al., 2000; Birch et al., 2009; Bird & Fremont, 1991; Coltrane, 2000; Eichler & Albanese, 2007; Keith & Schafer, 1980; Killewald & Gough, 2010; Lundberg & Frankenhaeuser, 1999; Marshall, 2006; Robinson & Spitze, 1992; Treas, 2010). Research also shows that a *partner's work hours* are related to greater family demands for the other spouse (Bianchi et al., 2000; Birch et al., 2009; Blair & Lichter, 1991; Coltrane, 2000; Cunningham, 2007; van der Lippe, 2010; Voydanoff, 1988). This occurs because the more time a partner spends at work, the more pressure the other spouse feels to complete household tasks (Aguilera, 2005).

More importantly, these two indicators of family demands may also be correlated with one's mental and physical health. Research shows that the *presence of children* may be negatively related to well-being and positively related to reporting fair, poor, or very poor health (Lee, 2007; Robinson & Spitze, 1992). Lee (2007) posits that this may partially be the result of the increased financial strains associated with caring for children. Essentially, as Bianchi et al. (2005) suggest, having greater demands within the home

may be related to poorer mental and physical health. Research also consistently shows that a *partner's work hours* may impact the other spouse's mental health (Barnett et al., 2009; Gareis, Barnett, & Brennan, 2003; Keith & Schafer, 1980; Kessler & McRae, 1982; Lee, 2007; Riviere, 2005; Rosenfield, 1992; Stolzenberg, 2001). Some research also indicates that a partner's work hours may even impact the other spouse's physical health (Riviere, 2005). While the connection between partner's work hours and the other spouse's health is not clearly understood, it is likely related to a combination of factors such as gender ideology, schedule-fit, and spousal support or caring that is beyond the scope of this thesis (Kessler & McRae, 1982; Lee, 2007).

Family resources.

Family resources refer to “structural or psychological assets [within the home or family domain] that may be used to facilitate performance, reduce demands, or generate additional resources” (Voydanoff, 2004, p. 398-399). Voydanoff (2005) suggests that family resources may facilitate or reduce household responsibilities. This often occurs when one spouse specializes in housework and the other focuses on paid employment, although other factors such as *income* and *paid help* may offer similar benefits. Furthermore, family resources are likely related to better mental and physical health.

Research shows that greater *income* and use of *paid help* with household tasks means there are fewer household tasks for individuals to complete themselves (Birch et al., 2009; Coltrane, 2000; Eichler & Albanese, 2007; Fudge, 2011; Heisig, 2011; Marshall, 2006; Spitze, 1999; Treas & Tai, 2011). That is, greater income allows individuals to outsource a portion of their household tasks, thereby eliminating some of the housework that couples would otherwise need to perform.

Research also suggests that *income* has a positive relationship with health for all members of the family such that individuals with higher family incomes have better mental and physical health because they can purchase health-promoting goods and services (Mossey & Shapiro, 1982; Riviere, 2005; Ross & Bird, 1994; Stolzenberg, 2001, WHO, *n.d.*). Conversely, lower income is related to depression and poorer mental health (Radloff, 1975; Shaikh & Shaikh, 2004; see also Thoits, 2010). Research has not examined whether hiring paid help impacts one's mental and physical health, but it is likely that the use of paid help is associated with better health since it reduces one's responsibility for household tasks. That is, having assistance with housework will likely reduce one's stress and improve overall health.

Work demands.

Work demands refer to the “structural or psychological claims associated with role requirements, expectations, and norms” that an individual must respond to in their paid employment (Voydanoff, 2004, p. 398). Work demands such as *work hours* and *work overload* are negatively related to one's ability to fulfill household responsibilities (Voydanoff, 2004, 2005) and are also negatively associated with one's mental and physical health.

Time-based demands such as long *work hours* are associated with less time available to complete household tasks (Aguilera, 2005; Baxter, 2002; Bianchi et al., 2000; Birch et al., 2009; Coltrane, 2000; Ferree, 1991; Hochschild, 1989; Sauvé, 2009; Sayer, 2010; Stolzenberg, 2001; Treas, 2010; van der Lippe, 2010; Voydanoff, 2005). Strain-based demands such as *work overload* may be associated with psychological spillover and energy depletion (Voydanoff, 2005). That is, work stresses (or work

overload) are negatively related to involvement in housework not only for the day that the stress occurred, but also for the following day (Mannino & Deutsch, 2007). Being mentally exhausted and overwhelmed by one's work may leave little energy for performing household tasks.

Similarly, while studies demonstrate that being employed offers mental and physical health advantages to both men and women (Barnett & Rivers, 1996; Bartley et al., 1992; Klumb & Lampert, 2004; Lee, 2007; Roos, Lahelma, Saastamoinen, Elstad, 2005; Verbrugge, 1983), excessive work demands are significantly related to poorer mental and physical health (Bianchi et al., 2005; Fudge, 2011). More specifically, research shows that longer *work hours* are associated with poorer mental and physical health (Bellavia & Frone, 2005; Kleiner & Pavalko, 2010; Sparks, Cooper, Fried, & Shirom, 1997). Individuals who work longer hours are more prone to a range of health problems such as depression, fatigue, back injuries, infection, and even heart problems such as coronary heart disease (Sparks et al., 1997). *Work overload* is also correlated with poor mental and physical health (Lundberg & Frankenhaeuser, 1999; Shultz et al., 2010; Sparks et al., 1997, Wallace, 2005). In fact, individuals who report work overload are significantly more likely to experience health problems such as back, head, or stomach aches; muscular pains; respiratory difficulties; fatigue; allergies; heart disease; and anxiety compared to those who report work underload or balance (Shultz et al., 2010).

Work resources.

Lastly, work resources refer to “structural or psychological assets [within the work domain] that may be used to facilitate performance, reduce demands, or generate additional resources” (Voydanoff, 2004, p. 398-399). Work resources such as *schedule*

control and having a supportive *work-family culture* are related to greater involvement in household tasks (Voydanoff, 2005) as well as better mental and physical health.

Work resources such as *schedule control* are positively related to involvement in household labour such that those individuals with greater flexibility in when they work are more likely to engage in additional housework (Birch et al., 2009). Control over their work hours enables individuals to spend more time in the home (Kelly et al., 2011) and therefore to complete more housework. Similarly, working in an organization with a supportive *work-family culture* can facilitate greater involvement in household labour since it may provide more time and energy for completing housework (Ranson, 2011; Voydanoff, 2005). Furthermore, Voydanoff explains that work-family cultures and employer support permit workers to make use of programs that facilitate greater involvement at home.

Work resources may also be related to improved mental and physical health. That is, research suggests that work-life policies, and specifically *schedule control*, are associated with better mental well-being since having control over when one works fosters better management of stress and conflicting demands (Jang et al., 2011; Kelly et al., 2011; Moen & Yu, 2000; Thomas & Ganster, 1995; Wallace, 2005). On the other hand, a lack of control, or low decision latitude, is related to greater risk of depression (Griffin et al., 2002). Research also suggests that a work culture that demands long hours, rather than a supportive *work-family culture*, is related to poorer health. For example, employer support is negatively related to work-life conflict, overload, and stress, but positively related to coping, mastery, and better mental health (Moen & Yu, 2000; Thomas & Ganster, 1995). Workplaces that are characterized by a positive work-family

culture may help employees to reduce the stress associated with balancing their career and family responsibilities and therefore foster better health (Thomas & Ganster, 1995).

Age.

Age is included as a control variable since household demands and health vary throughout life (see Casper et al., 2005). Research suggests that there is a positive relationship between age and household labour such that older individuals spend more time in housework than younger individuals (Bianchi et al., 2000; Birch et al., 2009; Coltrane, 2000; Golding, 1990; Treas & Tai, 2011). Furthermore, literature demonstrates that age is associated with health such that younger individuals experience poorer mental health (Bird, 1999; Keith & Schafer, 1980; Radloff, 1975; Riviere, 2005; Thoits, 2010). Age is also correlated with self-rated physical health such that physical health declines with age (Bird & Fremont, 1991; Eichler & Albanese, 2007; Mossey & Shapiro, 1982; Riviere, 2005; Roos et al., 2005; Thoits, 2010; Verbrugge, 1983).

In summary, this thesis examines the relationships between the division of household labour and mental and physical health within the context of other family and work demands and resources as outlined in Figure 1. It is hypothesized that women will have poorer health and be disadvantaged by the division of household labour. It is also hypothesized that the division of household labour will be negatively related to mental and physical health, particularly when housework is completed on work days, when individuals have high levels of involvement in housework, or when they perceive the division of housework as unfair. Finally, it is also hypothesized that these relationships between the division of household labour and health will differ for men and women. A complete listing of the hypotheses examined in this thesis is presented in Appendix A.

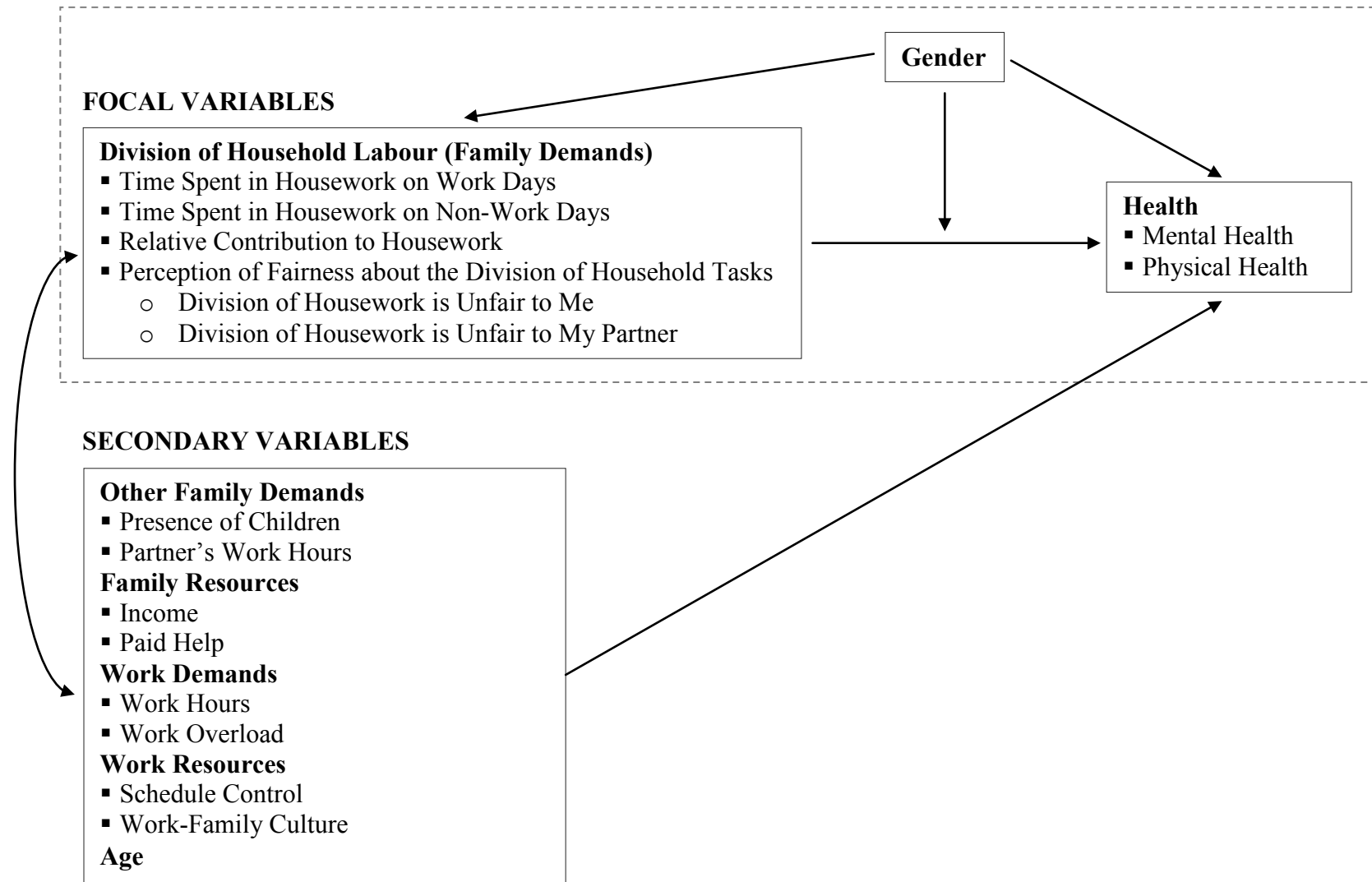


Figure 1. Conceptual model of hypothesized relationships between the focal variables, gender, secondary variables, and health.

Chapter 3 – Data and Methods

This chapter summarizes the data source, sample, measures, and statistical procedures used to estimate the relationships between the division of household labour and men's and women's mental and physical health. I first discuss the source of the data as well as the sample that was chosen for this study. Following this, I describe the measures for each of the variables and then present the statistical procedures that are used to test the hypotheses previously outlined.

Data Source

This thesis relies on secondary survey data collected from a sample of all lawyers practicing in Alberta.² The survey focuses on factors related to the challenges of balancing a legal career and home life, and several different measures pertaining to the division of household labour are included. A list of all currently practicing lawyers was obtained from the Law Society of Alberta and used as the sampling frame. Participants were eligible if they practiced law in Alberta at the time of the survey, but excluded if they were no longer members of the Law Society of Alberta, if they were on leave, or if their mailing address was no longer valid. Questionnaires were mailed on June 1, 2000 to the workplace of all 6,116 members. Identification numbers were included on each survey to facilitate the mailing of a follow-up letter in the first week of July to the 4,700 lawyers who did not respond to the initial questionnaire. A second set of questionnaires was then mailed in the middle of August to the 4,500 lawyers who had not yet responded.

Of the initial 6,116 potential respondents, only 5,921, at most, met the eligibility requirements previously outlined. In total, 1,799 completed questionnaires were returned,

² This thesis was funded by the Canadian Institutes of Health Research (CIHR), and the original project "Juggling It All: How Do You Do It?" was funded by the Law School Admission Council (LSAC). Any opinions expressed herein are those of the author and may not reflect the position of the CIHR or LSAC.

representing a response rate of 30%. The data obtained from this sample were compared to data from the Alberta Law Society of Alberta in order to assess the representativeness of the sample, and this comparison showed that the sample data have similar proportions in terms of gender, workplace (e.g., law firms, solo practices, private corporations, and government), and city of practice (e.g., Calgary, Edmonton, and other cities).

In this thesis, the sample is restricted to include only those respondents who were married, cohabitating, or living together common law at the time of the study. This subsample was chosen because the focus of this study is the division of household labour which requires that there be at least two adults living together in a marital relationship. In addition, the sample is further restricted to include only those lawyers who worked 10 or more hours per week at the office and/or in their home. This was done to ensure that only those individuals who were actively involved in paid employment are included. As a result, the sample size was reduced to 1,193 respondents and was comprised of 790 (66%) men and 403 (34%) women.³

Measures

This section discusses the reliability and validity of the measures, and examines the conceptualization and operationalization of the variables examined in this study. The measures of mental and physical health are examined first, followed by those tapping the division of household labour (*time spent in housework on work days, time spent in housework on non-work days, relative contribution to housework, and perceptions of fairness*). Finally, the measures of the secondary and control variables are described.

³ For the final models the N was restricted to those individuals who had no missing values for any of the variables in this study. This was done to ensure that the sample size was the same (1,193) for both outcome variables. As a result, twelve cases that would have been included in the analyses for physical health were excluded from the regressions for both mental and physical health.

It should be noted that in this study nominal measures are coded as dummy variables, single item ordinal measures are left as ordinal data, multi-item ordinal measures are combined to form scales, and ratio measures are treated as continuous. Unless otherwise indicated, responses are coded so that higher values indicate a greater amount of that variable. When generating ordinal scales, the values for each item in the scale were first summed and then divided by the total number of items in order to obtain a mean score for that scale. Several of the scales contained missing cases where the respondent did not provide responses for all items. In an effort to retain as much of the data as possible, respondents are included if they completed the majority of the items in each scale, and the minimum criterion for inclusion are indicated below.

Reliability and validity.

Many of the measures used in this study are well established in the literature and are shown to have good psychometric properties. However, a number of tests were conducted to ensure that the measures were reliable and valid for this particular sample.

Reliability is the extent to which measurements produce consistent results over repeated measures (Carmines & Zeller, 1979; Spector, 1981). To test the reliability of the multi-item scales in this study, Cronbach's alpha (α) was assessed. Cronbach's alpha is a statistic that demonstrates the internal consistency of the items, or repeated measures, in a scale. It ranges from 0 to 1 where higher values indicate greater intercorrelation between the items or, in other words, greater reliability (Carmines & Zeller, 1979; Spector, 1992). The norm for an acceptable alpha level is 0.70 or higher as recommended by Nunnally (1978). Descriptive statistics such as means, standard deviations, ranges, and alpha coefficients (where applicable) are presented in Table 1.

Table 1

Descriptive Statistics for All Variables Included in the Analysis (N = 1,193)

Variable	No. of Items for Inclusion	Mean	SD	Range	Alpha
Dependent Variables					
Mental Health	6 of 7	3.08	0.53	1.14 – 4	0.84
Physical Health	1	3.75	0.96	1 – 5	n/a
Focal Variables					
Time Spent in Housework on Work Days	1	1.65	1.09	0 – 9	n/a
Time Spent in Housework on Non-Work Days	1	3.83	1.92	0 – 12	n/a
Relative Contribution to Housework	3 of 5	2.69	0.93	1 – 5	0.81
Division of Housework is Unfair to Me (1 = Yes)	1	0.15	0.35	0 – 1	n/a
Division of Housework is Unfair to My Partner (1 = Yes)	1	0.25	0.44	0 – 1	n/a
Division of Housework is Fair to Both of Us (1 = Yes)	1	0.60	0.49	0 – 1	n/a
Gender (1 = Male)	1	0.66	0.47	0 – 1	n/a
Other Family Demands					
Children under 6 (1 = Yes)	1	0.27	0.44	0 – 1	n/a
Children aged 6 to 12 (1 = Yes)	1	0.30	0.46	0 – 1	n/a
Children aged 13 to 18 (1 = Yes)	1	0.26	0.44	0 – 1	n/a
Children over 18 (1 = Yes)	1	0.12	0.32	0 – 1	n/a
No Children (1 = Yes)	1	0.36	0.48	0 – 1	n/a
Partner's Work Hours	1	33.25	22.61	0 – 100	n/a
Family Resources					
Income (in thousands)	1	122.31	93.42	2 – 750	n/a
Paid Help (1 = Yes)	1	0.25	0.43	0 – 1	n/a
Work Demands					
Work Hours	1	50.83	11.78	10 – 100	n/a
Work Overload	3 of 4	3.49	0.77	1 – 5	0.79
Work Resources					
Schedule Control	1	3.45	1.16	1 – 5	n/a
Work-Family Culture	2 of 3	3.04	0.98	1 – 5	0.79
Age	1	42.18	8.71	26 – 81	n/a

As Carmines and Zeller (1979) explain, measures that are reliable are not necessarily valid. The validity of the measures in this study was therefore assessed using both content and construct validity. Generally speaking, validity refers to whether or not a measure reflects the intended concept of interest (Carmines & Zeller, 1979; Spector, 1992). Content validity can therefore be understood as the extent to which a measure relates to a specific domain of content (Carmines & Zeller, 1979). This was assessed by reading each item and examining their face validity based on the conceptual definition of the variables used in the literature and in this study. Construct validity, on the other hand, refers to the extent to which each item relates to other items of the same construct and can be assessed based on the results of a factor analysis or a principal components analysis (Carmines & Zeller, 1979). In this study, a principal components analysis was used in addition to estimating zero-order correlations between the measures and other theoretically related variables. As illustrated in Table 2, the correlations are consistent with that found in the literature, indicating that the measures have construct validity.

A principal components analysis (PCA) was conducted for each of the multi-item scales in order to demonstrate convergent and discriminant construct validity of the included items. Convergent validity indicates how well the items measure the same underlying construct that they are intended to measure, while discriminant validity indicates how well the indicators of each variable capture only the desired variable and not others (Carmines & Zeller, 1979). For each of the scales, other than mental health (discussed below), the loadings were all over 0.40 with no cross loadings onto other factors and only one factor was extracted indicating that the scales displayed both convergent and discriminant validity.

Table 2

Zero-Order Correlations for the Variables Used in the OLS Regressions (N = 1,193)

	1	2	3	4	5	6	7
1. Mental Health							
2. Physical Health	0.32*						
3. Time Spent in Housework on Work Days	-0.06*	0.02					
4. Time Spent in Housework on Non-Work Days	-0.12*	-0.07*	0.50*				
5. Relative Contribution to Housework	-0.12*	0.00	0.45*	0.27*			
6. Division of Housework is Unfair to Me (1 = Yes)	-0.13*	-0.02	0.28*	0.20*	0.49*		
7. Division of Housework is Unfair to My Partner (1 = Yes)	-0.06*	-0.17*	-0.23*	-0.11*	-0.41*	-0.24*	
8. Division of Housework is Fair to Both of Us (1 = Yes)	0.14*	0.17*	0.01	-0.05	0.01	-0.51*	-0.71*
9. Gender (1 = Male)	0.15*	0.01	-0.27*	-0.16*	-0.64*	-0.32*	0.23*
10. Children under 6 (1 = Yes)	-0.02	-0.07*	0.19*	0.15*	0.01	0.03	0.00
11. Children aged 6 to 12 (1 = Yes)	0.03	-0.02	0.03	0.06*	-0.15*	0.04	0.08*
12. Children aged 13 to 18 (1 = Yes)	0.03	0.04	-0.02	-0.03	-0.14*	0.01	0.05
13. Children over 18 (1 = Yes)	0.06*	0.03	-0.06	-0.04	-0.14*	-0.04	0.04
14. No Children (1 = Yes)	-0.04	0.01	-0.13*	-0.10*	0.16*	-0.04	-0.08*
15. Partner's Work Hours	-0.13*	-0.04	0.21*	0.11*	0.50*	0.18*	-0.05
16. Income	0.13*	0.07*	-0.16*	-0.10*	-0.34*	-0.14*	0.11*
17. Paid Help (1 = Yes)	-0.01	-0.01	0.04	0.02	0.11*	0.03	-0.06
18. Work Hours	-0.10*	-0.13*	-0.25*	-0.04	-0.22*	-0.10*	0.17*
19. Work Overload	-0.31*	-0.17*	0.01	0.15*	-0.02	0.03	0.12*
20. Schedule Control	0.22*	0.07*	0.04	-0.07*	-0.06*	-0.01	-0.03
21. Work-Family Culture	0.29*	0.17*	0.08*	-0.11*	0.04	0.01	-0.12*
22. Age	0.13*	0.08*	-0.07*	-0.08*	-0.23*	-0.04	0.03

* $p < 0.05$

(continued)

Table 2

Zero-Order Correlations for the Variables Used in the OLS Regressions (Continued)

	8	9	10	11	12	13	14
1. Mental Health							
2. Physical Health							
3. Time Spent in Housework on Work Days							
4. Time Spent in Housework on Non-Work Days							
5. Relative Contribution to Housework							
6. Division of Housework is Unfair to Me (1 = Yes)							
7. Division of Housework is Unfair to My Partner (1 = Yes)							
8. Division of Housework is Fair to Both of Us (1 = Yes)							
9. Gender (1 = Male)	0.03						
10. Children under 6 (1 = Yes)	-0.02	0.00					
11. Children aged 6 to 12 (1 = Yes)	-0.10*	0.16*	0.06				
12. Children aged 13 to 18 (1 = Yes)	-0.06*	0.14*	-0.27*	0.31*			
13. Children over 18 (1 = Yes)	-0.01	0.13*	-0.20*	-0.05	0.24*		
14. No Children (1 = Yes)	0.09*	0.19*	-0.46*	-0.49*	-0.45*	-0.27*	
15. Partner's Work Hours	-0.09*	-0.39*	-0.12*	-0.20*	-0.13*	-0.11*	0.23*
16. Income	0.00	0.27*	-0.05	0.15*	0.16*	0.14*	-0.16*
17. Paid Help (1 = Yes)	0.03	-0.07*	0.09*	0.13*	0.10*	0.01	-0.16*
18. Work Hours	-0.08*	0.18*	-0.06*	-0.05	0.02	0.04	0.07*
19. Work Overload	-0.12*	-0.06*	0.13*	0.04	0.02	-0.01	-0.08*
20. Schedule Control	0.04	0.13*	-0.04	0.08*	0.10*	0.08*	-0.07*
21. Work-Family Culture	0.10*	0.01	-0.05	0.02	0.02	0.01	-0.01
22. Age	0.00	0.31*	-0.30*	0.09*	0.30*	0.31*	-0.12*

* $p < 0.05$

(continued)

Table 2

Zero-Order Correlations for the Variables Used in the OLS Regressions (Continued)

	15	16	17	18	19	20	21
1. Mental Health							
2. Physical Health							
3. Time Spent in Housework on Work Days							
4. Time Spent in Housework on Non-Work Days							
5. Relative Contribution to Housework							
6. Division of Housework is Unfair to Me (1 = Yes)							
7. Division of Housework is Unfair to My Partner (1 = Yes)							
8. Division of Housework is Fair to Both of Us (1 = Yes)							
9. Gender (1 = Male)							
10. Children under 6 (1 = Yes)							
11. Children aged 6 to 12 (1 = Yes)							
12. Children aged 13 to 18 (1 = Yes)							
13. Children over 18 (1 = Yes)							
14. No Children (1 = Yes)							
15. Partner's Work Hours							
16. Income	-0.28*						
17. Paid Help (1 = Yes)	0.09*	0.20*					
18. Work Hours	-0.03	0.26*	-0.04				
19. Work Overload	0.06*	0.05	0.06	0.30*			
20. Schedule Control	-0.09*	0.02	0.02	-0.23*	-0.29*		
21. Work-Family Culture	0.03	-0.16*	-0.09*	-0.40*	-0.44*	0.37*	
22. Age	-0.25*	0.31*	0.09*	-0.10*	-0.10*	0.25*	0.08*

* $p < 0.05$

Outcome variables: Mental and physical health.

Mental health is the extent to which an individual experiences emotional and psychological well-being. This was measured using Ross and Mirowsky's (1984) shortened version of the Centre for Epidemiology Studies' Depression (CES-D) scale which is based on that used by Radloff (1977). This frequency scale used seven items: "How often in the *last* week have you: 1) had trouble getting to sleep or staying asleep? 2) felt you just couldn't get going? 3) had trouble keeping your mind on what you were doing? 4) felt that everything you did was an effort? 5) felt sad? 6) felt lonely? 7) felt you couldn't shake the blues?" ($\alpha = 0.84$, included if they answered at least 6 of the 7 items). Responses included "most of the time" (coded 1), "often" (coded 2), "not very often" (coded 3), and "never" (coded 4). This depression scale is often used as a measure of mental health, where it is coded such that higher values indicate better mental health (Klitzman et al., 1990; Lennon, 1994; Lennon & Rosenfield, 1994; Roxburgh, 2004), and this also ensures that it is consistent with the physical health variable.

As indicated above, the PCA for the mental health scale did not initially extract a single factor. Rather, the PCA for the mental health scale initially extracted two factors and many of the items loaded on both factors. While this could indicate that there are actually two unique factors, it may also be due to the fact that PCA uses Pearson correlations which assume all items are continuous. Because the items for the mental health scale are ordinal, using Pearson correlations may underestimate the correlations and factor loadings (Holgado-Tello, Chacón-Moscó, Barbero-García, & Vila-Abad, 2010; Lei, 2009). Therefore, a polychoric correlation matrix, which is based on the assumption that there is an underlying continuous distribution that is measured using

coarse categorizations (Holgado-Tello et al., 2010), was estimated to account for the non-continuous nature of the ordinal mental health items. This polychoric correlation matrix was then used for a subsequent PCA where all loadings were over 0.40 and one factor was extracted indicating both convergent and discriminant validity of the items. It should also be noted that this shortened version of the CES-D scale has been used extensively in past literature and has been shown to be a reliable and valid indicator of mental health (Bird, 1999; Ross & Mirowsky, 1984; Ross et al., 1983; Roxburgh, 2004).

Physical health is the extent to which an individual experiences overall physical well-being. Following the National Survey of Families and Households (NSFH), this was measured using a single item that asked, “Compared with other people your age, how would you describe your health?” The possible responses are “poor” (coded 1), “fair” (coded 2), “good” (coded 3), “very good” (coded 4), and “excellent” (coded 5). According to Bird and Fremont (1991), this self-report measure of overall physical health is shown to be reliable, reproducible, and strongly correlated with physicians’ more objective assessments of general patient health. Moreover, self-rated physical health is shown to be a reliable predictor of mortality and functional ability (Idler & Benyamini, 1997; Idler & Kasl, 1995; Mossey & Shapiro, 1982).

Division of household labour.

The division of household labour is measured using the following variables: time spent in housework on work days, time spent in housework on non-work days, relative contribution to housework, and perceptions of fairness. *Time spent in housework on work days* is the number of hours an individual spends doing household tasks in a typical day on days when they work. This was measured using a single item that asked “On days that

you work, about how much time do you spend on home chores, such as cooking, cleaning, repairs, shopping, yard work, banking?” *Time spent in housework on non-work days* is the number of hours an individual spends doing household tasks in a typical day when they do not also work in paid employment. This was measured using a single item that asked “And about how much time on the days that you’re not working?” Responses are given in hours per day and treated as continuous.

Squared terms were also tested to account for the potentially non-linear relationships between time spent in housework and mental and physical health that is suggested in the literature (Bird, 1999; Ross & Bird, 1994). These terms were created by mean centering each of the variables to avoid potential problems of multicollinearity and then multiplying *time spent in housework on work days* by itself to obtain *time spent in housework on work days squared* and by multiplying *time spent in housework on non-work days* by itself to obtain *time spent in housework on non-work days squared*. Each of these squared terms was tested separately in preliminary regression analyses for mental and physical health as described below. Since they were not statistically significant, they were not included in the final regression models.

Relative contribution to housework refers to the proportion of housework an individual performs in relation to his/her partner. Following the National Survey of Families and Households (NSFH), this was measured using eight items. Respondents were asked to “Indicate who usually does the following household tasks: 1) Who prepares meals? 2) Who washes dishes and cleans up after meals? 3) Who cleans the house? 4) Who shops for groceries and the household? 5) Who washes and irons the clothes?” ($\alpha = 0.81$, included if they answered at least 3 of the 5 items) Responses

included “partner almost always” (coded 1), “partner usually” (coded 2), “both of us equally” (coded 3), “me usually” (coded 4), and “me almost always” (coded 5). Higher values indicate that the respondent completes more of the housework than their partner, while lower values indicate that their partner completes more of the housework than the respondent. Values around 3 indicate that each partner completes an approximately equal proportion of the housework.

A squared term was also included to account for the potentially non-linear relationship between one’s relative contribution to housework and their mental and physical health (Bird, 1999; Ross & Bird, 1994). This term was created by mean centering *relative contribution to housework* and then multiplying it by itself to obtain *relative contribution to housework squared*. This squared term was tested in a preliminary regression analysis with mental and physical health and found to be significantly related to mental health only. Therefore, *relative contribution to housework squared* is included in the final regression models for mental, but not physical, health.

Perception of fairness is the extent to which an individual feels that the division of household tasks between them and their partner is just. Following Glass and Fujimoto (1994), this was assessed using a single item that asked, “How fair do you feel the division of housework is in your home between you and your partner?” Responses were “very unfair to me,” “somewhat unfair to me,” “pretty fair for both of us,” “somewhat unfair to my partner,” and “very unfair to my partner.” While research often treats perceptions of fairness as a linear variable, Wheaton and Young (2009) suggest that it may be more appropriate to treat it as an ordinal variable where perceptions of unfairness to oneself or to one’s partner may have different meanings. Therefore, perceptions of

fairness was recoded into a set of dummy variables where very and somewhat unfair to me were combined to create *division of housework is unfair to me* (coded 1) and very and somewhat unfair to my partner were combined to create *division of housework is unfair to my partner* (coded 1). Each of these dummy variables was then compared to the reference category of *division of housework is fair to both of us* (coded 0).

Moderating variable: Gender.

Gender is whether an individual self-identifies as a male or female. This was measured using a single item that asked, “What is your sex?” Responses were dummy coded (1 = male; 0 = female).

Secondary variables: Other family and work demands and resources

As indicated above, four sets of variables are included in order to account for the wider context in which the division of household labour occurs. Other family demands, family resources, work demands, and work resources are included based on Voydanoff’s (2004, 2005) conceptual model of work-family fit.

Other family demands.

In this study, other family demands are measured using *presence of children* and *partner’s work hours*. *Presence of children* refers to whether or not a respondent has children living in their home. This was measured using a single item that asked respondents to “Please indicate how many children are currently living at home with you and their ages.” Responses were given for four categories: “1) child/ren under 6 years of age, 2) child/ren 6 to 12 years of age, 3) child/ren 13 to 18 years of age, and 4) child/ren 18 years of age or older.” Individuals with no children were coded as 0. A series of dummy variables was then created with “no children” as the reference category.

Partner's work hours is the average number of hours an individual's partner works per week in paid employment. This was measured by asking, "On average, in a typical week, how many hours does your *partner* work in total (including evenings and weekends)." Responses were given in hours per week for time at the office and at home. These values were summed to obtain total work hours and treated as continuous. Individuals whose spouse did not work for pay were coded as 0.

Family resources.

Family resources are measured using *income* and *paid help*. *Income* was assessed using a single item that asked respondents "What was your total annual earnings from the practice of law for the 1999 tax year, before taxes and other deductions were made?" Responses were given in dollars per year and treated as continuous. In order to retain as many cases as possible, *income* was estimated for 122 of the 129 missing cases. Rather than imputing the overall sample mean for income, estimates were based on data from subgroups of other respondents who had similar values for significant predictors of income (e.g., years of experience, firm size, position within the firm, number of hours worked per week, and gender). This approach provides a better estimate and retains a greater amount of variance than imputing the overall sample mean (Acock, 2005). The remaining seven missing cases could not be estimated in this manner because there were no other respondents in the sample with similar values on each of the significant predictors of income. Because income was positively skewed, the natural log of the variable was used in the final regression models in order to normalize the distribution.

Paid help refers to whether or not an individual received paid help with house cleaning at least once a week. This was measured using a single item that asked "How

often do you do the following? Have paid help with house cleaning.” Responses were “almost daily,” “several times a week,” “once a week,” “every couple weeks,” “once a month,” “less than once a month,” and “never.” These responses were then dichotomized to indicate whether an individual received paid help at least once a week (almost daily, several times a week, or once a week, coded 1) or less than once a week (every couple weeks, once a month, or less than once a month, coded 0).

Work demands.

Work demands are measured using *work hours* and *work overload*. *Work hours* refers to the average number of hours an individual spends completing tasks related to their paid employment as a lawyer in a typical week. This was assessed using a single item that asked, “On average, in a typical week, how many hours do you work in total (including evenings and weekends)?” Responses were given in hours per week for time spent at the office and at home. These values were summed to obtain total work hours and were treated as continuous.

Work overload is the extent to which an individual sees their job demands as excessive. Using Caplan, Cobb and French’s (1973) four Likert items, respondents were asked about their agreement with the following: “1) My workload is too heavy in my job, 2) I have to work very quickly to get everything done in my job, 3) I do not have enough time to get everything done in my job, 4) I often feel rushed in my job” ($\alpha = 0.79$, included if they answered at least 3 of the 4 items). Responses were “strongly disagree” (coded 1), “disagree” (coded 2), “neither agree nor disagree” (coded 3), “agree” (coded 4), and “strongly agree” (coded 5).

Work resources.

Work resources are measured using *schedule control* and *work-family culture*.

Schedule control is the extent to which an individual may exercise control over the number of hours they work. This was measured using a single Likert item that asked respondents about the extent to which they agreed or disagreed with the following statement: “I have considerable control over the *number* of hours that I work.” Responses were “strongly disagree” (coded 1), “disagree” (coded 2), “neither agree nor disagree” (coded 3), “agree” (coded 4), and “strongly agree” (coded 5).

Work-family culture is the extent to which workplace attitudes and beliefs support the integration of work and family. This was measured using three Likert items adapted from Thompson, Beauvais and Lyness’s (1999) “Work-Family Culture Supportiveness Scale” that asked respondents about their agreement with the following: “1) To get ahead in this organization, lawyers are expected to work more than 50 hours a week, 2) Lawyers working here are often expected to take work home at night and/or on weekends, 3) Lawyers working here are regularly expected to put their jobs before their families” ($\alpha = 0.79$, included if they answered at least 2 of the 3 items). Responses were “strongly agree” (coded 1), “agree” (coded 2), “neither agree nor disagree” (coded 3), “disagree” (coded 4), and “strongly disagree” (coded 5). Higher scores indicate greater support for the integration of work and family while lower scores indicate less support.

A squared term was also included to account for the potentially non-linear relationship between working in a firm with a supportive work-family culture and mental and physical health that was observed in this sample. This term was created by mean centering *work-family culture* and then multiplying it by itself to obtain *work-family*

culture squared. The squared term was then tested in preliminary regression analyses with mental and physical health as described below. Because *work-family culture squared* was significant for mental health only, it was included in the final regression models for mental, but not physical, health.

Control variable: Age.

Age was included as a control variable and was measured by asking respondents, “In what year were you born?” The age of each respondent was then calculated by subtracting their year of birth from the year the study was conducted.

Statistical Procedures

This section outlines the statistical procedures used in this thesis. Before testing the hypotheses outlined above, several assumptions of Ordinary Least Squares (OLS) regression were tested. These regression diagnostics are explained first, followed by the statistical procedures used to test Hypotheses 1 through 13.

Regression diagnostics.

Regression diagnostics were conducted to determine whether the data used in this study included outliers or influential observations, whether they met the assumption of linearity, whether the distributions and error/disturbance terms were normally distributed, and whether there were any problems with heteroskedasticity or multicollinearity. The diagnostic procedures used in this study are discussed in greater detail below.

Scatterplots of mental health and physical health against each of the predictors were first examined to detect outliers. Following this, tests of leverage and discrepancy were conducted to determine whether these outliers were influential. Leverage examines whether cases have unusual or extreme values of the independent variables, while

discrepancy examines whether cases have unusual or extreme values of the dependent variables (Gordon, 2010). Influential cases — that is, cases that unduly influence the results obtained from regression analyses — are those that exhibit both high leverage and high discrepancy (Gordon, 2010).⁴ In this study, there was one influential case for mental health and three influential cases for physical health. Two separate regressions — one that included the influential cases and one that did not — were then estimated to determine whether or not the influential cases should be removed from the final analyses. Because the pattern of findings remained the same regardless of whether or not the influential cases were included, the cases are retained in the analyses of the final models as has been recommended by Gordon (2010).

Next, the assumption of linearity was tested. OLS regression assumes that the relationship between the independent and dependent variables is linear and therefore can be best represented by a straight line (Allison, 1999; Pedhazur, 1997). While OLS regression can tolerate small deviations from linearity, larger discrepancies may cause problems such as the underestimation of regression coefficients and R^2 values (Garson, 2008). If relationships are found to be non-linear, a variety of transformations can be used (Allison, 1999; Garson, 2008).

Linearity was tested by first examining scatterplots between each of the independent variables and mental health and then physical health. For those variables that appeared somewhat curvilinear, squared and cubed terms were calculated by mean

⁴ More specifically, the test for leverage created a new variable h and used a cut-off value of $2(k-1)/n$, where k is the number of predictors plus one for the intercept, to identify cases with high leverage. To identify cases with high discrepancy, studentized residuals and a cut-off value of 2 were used. Studentized residuals are calculated by dividing the residuals by the root mean square error for all cases less the i th case and they therefore follow a t -distribution with $n-k$ degrees of freedom. A scatterplot of h and the studentized residuals was created to determine which cases exhibited high leverage and high discrepancy thereby making them influential (see Gordon, 2010).

centring the continuous variables and then multiplying this mean centred variable by itself. The linear and quadratic forms of the variable were then tested together in a preliminary regression analysis. If the quadratic form was not significant, the linear form was used for the final analyses. If the quadratic form was significant, the cubic term was subsequently tested in a regression with both the linear and quadratic forms. The same procedure was followed for those focal variables that have been shown to have nonlinear relationships with mental and physical health in previous research and as outlined above. As a result, *relative contribution to housework squared* and *work-family culture squared* are retained in the final models for mental health. None of the quadratic variables were significant in the preliminary analyses for physical health.

Each variable was then examined separately to determine whether they were normally distributed. This was done using histograms as well as statistical tests of both skewness and kurtosis. Skewness refers to whether a distribution trails off in either direction, while kurtosis refers to whether a distribution's tails are either too thick or too thin (Acock, 2010). According to these tests, several of the variables in this study were not normally distributed. In order to correct for this, the natural log of mental health, physical health, and income were calculated and tested to see if the transformations normalized the distributions. The log of income was the only transformation that normalized the distribution, and it is therefore used in the final regression models. Mental and physical health remain in their original form and instead robust standard errors are used as recommended by Acock (2010) and described in greater detail below.

It is also important to examine whether the error or disturbance terms are normally distributed in order to ensure that confidence intervals and *p* values are accurate

(Allison, 1999). This means that the error term in the regression equation (or the difference between the observed and predicted values of the dependent variable) is assumed to be normally distributed such that errors above the mean balance out those errors below the mean (Allison, 1999; Frankfort-Nachmias & Leon-Guerrero, 2009). This was examined by first constructing a scatterplot of the predicted and observed values for mental health and then physical health. Following this, the residuals from the regression equations were calculated and p - p and q - q plots of the residuals were constructed. Together these plots showed that the error terms were not normally distributed, further supporting the decision to use robust standard errors.

Closely related to this concern is the issue of heteroskedasticity. OLS regression assumes that the error variances are constant across levels of the independent variables, or in other words, that they are homoskedastic (Allison, 1999; Gordon, 2010; Hayes & Cai, 2007). Heteroskedasticity, then, refers to the situation where the error variances are not constant which can result in inefficiency as well as biased standard errors (Allison, 1999; Hayes & Cai, 2007). This was tested by first examining plots of the residuals against each of the predictors. Following this, formal statistical tests of heteroskedasticity were conducted, and together these tests suggested that both mental health and physical health were heteroskedastic. In order to correct for the problems associated with this, robust standard errors (also known as heteroskedasticity-consistent standard errors) are used for all of the final regression models. Robust standard errors produce the same R^2 values and regression coefficients, but they do not assume normality or homoskedasticity and therefore produce slightly smaller t values and more accurate p values (Acock, 2010; Allison, 1999; Hayes & Cai, 2007). While there are several variants of

heteroskedasticity-consistent standard errors, the third variation (HC3) is used as it is shown to perform better than other variants and to be the same as OLS standard errors when the assumption of homoskedasticity is met (Gordon, 2010; Hayes & Cai, 2007).

Finally, issues of multicollinearity were assessed. Multicollinearity refers to the situation where predictors are highly correlated with one another, making it difficult to examine their unique relationships with the outcome (Allison, 1999; Gordon, 2010). Multicollinearity may also lead to inflated standard errors, thereby reducing the likelihood of finding statistical significance (Allison, 1999; Gordon, 2010). In order to determine whether the predictors in this study were multicollinear, two approaches were used. As shown in Table 2, zero-order correlations between each of the independent variables were examined to identify those over 0.60 (Pedhazur, 1997; see also Allison, 1999). The zero-order correlation between *relative contribution to housework* and *gender* ($r = 0.64$) was potentially problematic. Variance inflation factors (VIFs) were then estimated to determine whether the simultaneous inclusion of all independent variables in a single regression model would be problematic. When all of the focal, secondary, and control variables were included, the highest VIF was 2.99 which is higher than the recommended cut-off of 2.50 (see Allison, 1999). This means that the standard error of *relative contribution to housework* would be 1.73 times larger than if the independent variables were not highly correlated, and as a result, it would be more difficult to find statistical significance for this variable (see Allison, 1999; Gordon, 2010).

There are several potential remedies for multicollinearity such as removing one of the problematic variables or combining them into an index if they measure the same construct (Allison, 1999; Gordon, 2010). However, the hypotheses described previously

require the inclusion of several specific measures of the division of household labour and gender, and therefore these measures cannot be combined or removed without altering the purpose of this study. It is also a key goal of this thesis to determine which measure of the division of household labour has the strongest relationship with mental and physical health. Therefore, each individual measure of the division of household labour is tested in separate regression analyses to avoid the problems associated with multicollinearity while also retaining the ability to independently examine and compare the effects of each measure on mental and physical health.

Statistical analyses.

Three types of statistical analyses are employed using STATA (version 11) in order to test the hypotheses described above: t-tests of mean difference, ordinary least squares (OLS) multiple regression, and tests for interaction effects. In all of the analyses, two-tailed tests with an alpha value of 0.05 are used to determine statistical significance. Although many of the hypotheses tested in this study are directional and could therefore be examined using one-tailed tests, there are merits associated with using two-tailed tests. For example, two-tailed tests provide a more conservative test of significance while one-tailed tests are essentially equivalent to reducing the confidence levels required for significance (Burke, 1953). Because of this, any mean differences or regression coefficients that are significant in this study would also have been significant if one-tailed tests had instead been used. Furthermore, using two-tailed tests rather than one-tailed tests allows for the possibility that significant differences may exist but that they may be in the opposite direction to that hypothesized (Burke, 1953; Lombardi & Hurlbert, 2009). If a one-tailed test were used instead, these differences would not be identified, despite

the fact that they may be important and interesting contributions to existing knowledge (Lombardi & Hurlbert, 2009). Two-tailed tests may therefore be more appropriate tests of statistical significance (Burke, 1953; Lombardi & Hurlbert, 2009).

First, t-tests of mean differences in mental health, physical health, and the division of household labour were completed to determine whether gender differences in these variables were statistically significant as outlined in Hypotheses 1 through 5. The results of these t-tests of mean differences are presented in Table 3.

OLS multiple regression was then used to test Hypotheses 6 through 12, and the results are presented in Tables 4 through 7. OLS multiple regression enables a researcher to include several independent variables in a single model and determine the unique contribution of each independent variable on the outcome variable of interest (Allison, 1999; Frankfort-Nachmias & Leon-Guerrero, 2009). That is, OLS multiple regression estimates the relationship between an independent and dependent variable while statistically controlling for the other independent variables in the model (Allison, 1999; Frankfort-Nachmias & Leon-Guerrero, 2009).

Each variable's unique contribution can be understood using unstandardized (*b*) and standardized (β) regression coefficients. Unstandardized coefficients indicate the strength and direction of the relationship between the independent and dependent variables using the original units (Acock, 2010; Allison, 1999). Standardized coefficients, on the other hand, are no longer in the original measurement units, but rather in units of standard deviations (Acock, 2010; Allison, 1999). Because these coefficients represent a common metric across variables, standardized regression coefficients can be used to

compare the relative importance of independent variables on the outcome within equations (Allison, 1999).

As the name suggests, ordinary least squares multiple regression produces coefficients that minimize the squared errors (Allison, 1999; Gordon, 2010). Errors can be understood as the difference between the observed values of the dependent variable and the values that were predicted using the independent variables as predictors of the outcome. OLS multiple regression therefore produces coefficients with the smallest amount of error possible (Allison, 1999). In order to assess the overall fit of a model as a whole, the coefficient of determination (R^2) can be used to determine the amount of variance in the outcome variables that is accounted for by all of the independent variables as a group (Allison, 1999; Frankfort-Nachmias & Leon-Guerrero, 2009). R^2 values range from 0 to 1 where larger values indicate better model fit (Allison, 1999). In this thesis, R^2 values are used to determine how much of the variance in mental and physical health is explained by each of the focal variables individually, as well as the focal variables as a group. This approach, in addition to examining the standardized coefficients in Model 6 of Tables 5 and 7, is used to determine which of the focal variables has the strongest association with mental and physical health as outlined in Hypotheses 8 and 12.

Finally, tests for interaction effects were conducted in order to explore whether the division of household labour is differentially related to men's and women's mental and physical health (Hypothesis 13). Each measure of the division of household labour was multiplied by the moderating variable, gender, to create five interaction terms (e.g., *time spent in housework on work days* x *gender*, *relative contribution to housework* x *gender*, etc.) (see Allison, 1999; McClendon, 1994). Continuous variables were mean

centred prior to creating the interaction terms in order to avoid problems of multicollinearity (Acock, 2010).

Once the interaction terms were created, each term was tested separately in a series of preliminary regression analyses to determine whether split-sample analyses by gender should be used for the final regression models. These preliminary analyses included the interaction term, the original main effect form of that variable, gender, all of the secondary variables, and age. The other focal variables measuring the division of household labour were not included due to problems of multicollinearity with each other. The coefficients for the interaction terms were then examined to determine whether they were significant using an alpha level of 0.05 (two-tailed). Significant interaction terms indicate that the measure of the division of household labour is differentially related to men's and women's mental and physical health. In this study, none of the interaction terms were significant in the preliminary regression analyses for either mental or physical health. Therefore, rather than conducting split sample analyses by gender, only the main effects models for the pooled sample are presented in Tables 4 through 7.

Chapter 4 – Results

This chapter outlines the results of the statistical analyses conducted in this thesis. The first section describes the results from the t-tests of mean difference (Table 3), the second section describes the results from the ordinary least squares (OLS) multiple regression (Tables 4 through 7), and the third section describes the results from the tests for interaction effects.

Mean Difference Results

Dependent variables: Mental and physical health.

The mean difference results presented in Table 3 show that women experience significantly poorer mental health than men. Women report a mean score of 2.98 while men report a mean score of 3.14 on the mental health scale. With regard to physical health, the results show that there is no significant difference between men and women. Women report a mean score of 3.74 while men report a mean score of 3.76. Taken together these results lend partial support to Hypothesis 1.

Focal variables: The division of household labour.

As hypothesized, men and women report significantly different levels of involvement in household labour such that women consistently report doing a majority of the housework in terms of both absolute time and relative contributions. Women report spending significantly more time in housework than men on work days (women = 2.07 hours per day, men = 1.44 hours per day) and non-work days (women = 4.26 hours per day, men = 3.61 hours per day). Similarly, Table 3 shows that women's mean score for the relative contribution scale is 3.52 which is significantly higher than men's mean score of 2.27. These results therefore support Hypotheses 2 and 3.

Significant differences between men and women were also found in their perceptions of fairness about the division of household labour as predicted in Hypotheses 4a and 4b. Women (31%) are more likely than men (7%) to report that the division of household labour is unfair to them while men (33%) are more likely than women (11%) to report that the division of household labour is unfair to their partner. Put another way, this indicates that one-third of both women (31%) and men (33%) feel that the division of household labour is unfair to wives, while 11% of women and 7% of men feel that it is unfair to husbands. Furthermore, the results show that men (61%) and women (58%) are equally likely to report that the division of household labour is fair to both partners, which supports Hypothesis 5.

Summary of mean difference results.

Women report significantly poorer mental health than men, but there is no significant difference between men and women in terms of physical health. With regard to the division of household labour, women report spending more time in housework on both work days and non-work days than their male counterparts. In addition, women also report that they complete a significantly greater share of the housework relative to men. Finally, women are more likely than men to report that the division of housework is unfair to them, which is further supported by men being more likely than women to report that the division is unfair to their partner. Men and women are equally likely to report that the division of household labour is fair to both partners.

Table 3

Mean Differences for Male (N = 790) and Female (N = 403) Lawyers

	Male		Female		<i>t</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Dependent Variables					
Mental Health	3.14	0.52	2.98	0.52	-5.14***
Physical Health	3.76	0.96	3.74	0.97	-0.26
Focal Variables					
Time Spent in Housework on Work Days	1.44	0.92	2.07	1.27	9.72***
Time Spent in Housework on Non-Work Days	3.61	1.86	4.26	1.95	5.63***
Relative Contribution to Housework	2.27	0.70	3.52	0.74	28.60***
Division of Housework is Unfair to Me (1 = Yes)	0.07	0.25	0.31	0.46	11.76***
Division of Housework is Unfair to My Partner (1 = Yes)	0.33	0.47	0.11	0.32	-8.18***
Division of Housework is Fair to Both of Us (1 = Yes)	0.61	0.49	0.58	0.49	-0.98
Other Family Demands					
Children under 6 (1 = Yes)	0.27	0.44	0.27	0.44	-0.11
Children aged 6 to 12 (1 = Yes)	0.35	0.48	0.20	0.40	-5.52***
Children aged 13 to 18 (1 = Yes)	0.31	0.46	0.18	0.38	-4.78***
Children over 18 (1 = Yes)	0.15	0.35	0.06	0.23	-4.56***
No Children (1 = Yes)	0.29	0.46	0.49	0.50	6.63***
Partner’s Work Hours	26.89	22.57	45.72	16.74	14.80***
Family Resources					
Income (in thousands)	140.59	101.97	86.49	59.41	-9.83***
Paid Help (1 = Yes)	0.23	0.42	0.29	0.45	2.28*
Work Demands					
Work Hours	52.32	11.09	47.90	12.55	-6.23***
Work Overload	3.46	0.77	3.56	0.77	2.08*
Work Resources					
Schedule Control	3.57	1.15	3.24	1.16	-4.68***
Work-Family Culture	3.05	0.95	3.03	1.03	-0.44
Age	44.09	8.75	38.44	7.30	-11.12***

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed test)

Ordinary Least Squares (OLS) Multiple Regression Results

The results from the main effects regression models, including both unstandardized (*b*) and standardized (β) coefficients, as well as the robust standard errors, are presented in Tables 4 through 7. Tables 4 and 6 show the relationships between each of the focal variables (each tested separately), gender, and mental health or physical health, respectively. Tables 5 and 7 show the relationship between the secondary variables and mental health or physical health (Model 5), as well as the relationship between the focal variables (tested simultaneously) and mental health or physical health, holding the other focal variables constant (Model 6). In the section that follows, the results of time spent in housework, relative contribution to housework, perceptions of fairness in the division of household tasks, gender, other family demands, family resources, work demands, and work resources on both mental and physical health are presented in detail.

Time spent in housework.

The results presented in Tables 4 and 6 demonstrate partial support for Hypothesis 6 which predicted that time spent in housework would be negatively related to mental and physical health. That is, only time spent in housework on non-work days is significantly related to mental health ($\beta = -0.10, p < 0.01$) or physical health ($\beta = -0.07, p < 0.05$), as demonstrated in Models 2a. Time spent in housework on work days is not significantly related to either mental or physical health in Models 1a. However, the results also suggest that the relationship between time spent in housework on non-work days may be mediated by other family demands, family resources, work demands, and work resources

since the coefficients are reduced to non-significance when these secondary and control variables are added in Models 2b.

Preliminary tests were also conducted to determine whether the relationship between time spent in household labour and health was non-linear, such that time spent in housework was beneficial for mental and physical health until a certain level of involvement after which point additional time in housework becomes detrimental. The results of these preliminary tests (not shown) indicated that the quadratic variables were not significantly related to either mental or physical health, which contradicts Hypothesis 7. These quadratic terms are therefore not included in the final regression models.

Model 6 in Tables 5 and 7 demonstrates whether time spent in housework on work days or on non-work days has a stronger relationship with health since they are both tested in the same model. The results indicate that, compared to time spent in housework on work days, time spent in housework on non-work days has a stronger relationship with mental and physical health. In terms of mental health, the standardized coefficient for time spent in housework on work days is 0.04 (n.s.) compared to -0.11 ($p < 0.01$) for time spent in housework on non-work days. Similarly, in terms of physical health, the standardized coefficient for time spent in housework on work days is 0.05 (n.s.) compared to -0.10 ($p < 0.01$) for time spent in housework on non-work days.

The R^2 values in Tables 4 and 6 also indicate that, compared to time spent in housework on work days, time spent on non-work days has a stronger relationship with both mental and physical health. In Table 4, time spent in housework on work days and gender together have an R^2 value of 0.02 while time spent in housework on non-work days and gender together have an R^2 value of 0.03 which means that time spent on non-

work days accounts for more of the variance in mental health. The same pattern is also observed for physical health. According to Table 6, the R^2 value for time spent in housework on work days and gender together are 0 while the R^2 value for time spent on non-work days and gender together are 0.01. These results clearly demonstrate that, compared to time spent in housework on work days, time spent in housework on non-work days accounts for more of the variance in mental and physical health which contradicts Hypothesis 8.

Relative contribution to housework.

Hypothesis 9, which predicted that completing a greater share of the housework relative to one's partner would be related to poorer mental and physical health, is not supported in this thesis. According to Tables 4 and 6, one's relative contribution to housework is not significantly related to mental or physical health in Model 3a or 3b. This suggests that completing a greater share of the household labour relative to one's partner is not detrimental for a person's mental or physical health.

Furthermore, only limited support is found for Hypothesis 10 which predicted that one's relative contribution to housework would be beneficial for mental and physical health up to a certain level of involvement, after which it would become detrimental. Preliminary tests (not shown) were first conducted as described previously. These preliminary tests showed that the quadratic variable was significant only for mental health, and therefore, the quadratic variable is included in the final models for mental health, but not for physical health. However, when this quadratic variable is tested in the final regression models, it is only significant in Model 6 (Table 5) when the other focal

variables are included ($\beta = 0.07, p < 0.05$) but not in Models 3a or 3b (Table 4) when the other focal variables are excluded.

Perceptions of fairness about the division of household tasks.

Overall, the results show partial support for Hypothesis 11 which predicted that compared to perceiving the division of household labour as fair to both partners, perceiving the division of household labour as unfair to either partner would be associated with poorer mental and physical health. Looking first at mental health (Table 4), the results indicate that perceiving the division of household tasks as unfair to oneself is significantly and negatively related to mental health ($\beta = -0.11, p < 0.001$) even after the secondary variables and controls are included in Model 4b ($\beta = -0.10, p < 0.01$). Perceiving the division of household tasks as unfair to one's partner is also significantly and negatively related to mental health in Model 4a ($\beta = -0.12, p < 0.001$) and Model 4b when the secondary variables and controls are included ($\beta = -0.06, p < 0.05$). This reduction of the coefficients and levels of significance from Model 4a to 4b suggests that the relationship may be mediated by other family demands, family resources, work demands, and work resources. Compared to perceiving the division of household labour as fair to both partners, perceiving the division of household tasks as unfair to oneself or to one's partner is significantly related to poorer mental health.

With regard to physical health (Table 6), the results indicate that, compared to perceiving the division of housework as fair to both partners, perceiving the division as unfair to oneself is not significantly related to poorer physical health in either Model 4a or 4b. However, perceiving the division of household tasks as unfair to one's partner is significantly and negatively related to physical health in Model 5a ($\beta = -0.19, p < 0.001$)

as well as in Model 5b after the inclusion of the secondary and control variables ($\beta = -0.16, p < 0.001$). Therefore, compared to perceiving the division of household labour as fair to both partners, perceiving the division of household tasks as unfair to one's partner is significantly related to poorer physical health, while perceiving the division of tasks as unfair to oneself is not.

The results demonstrate support for Hypothesis 12 which predicted that perceptions of fairness in the division of household labour would have a stronger relationship with mental and physical health than would the time or relative contribution variables. With regard to mental health, the results from Model 6 (Table 5) show that the largest standardized coefficients correspond with perceiving the division of housework as unfair to one's partner ($\beta = -0.13$) followed by perceiving the division of housework as unfair to oneself ($\beta = -0.11$). For physical health (Table 7), Model 6 shows that the largest standardized coefficient corresponds with perceiving the division of housework as unfair to one's partner ($\beta = -0.20$). Therefore, perceptions of fairness in the division of household labour have a stronger relationship with mental and physical health than time spent in housework or one's relative contribution to household tasks.

Furthermore, according to Model 4a in Table 4, approximately 4% of the variance in mental health is accounted for by perceptions of fairness and gender which is larger than the other R^2 values for Models 1a, 2a, or 3a which examine actual time and relative contributions to housework. Similarly, according to Model 4a in Table 6 the R^2 value for perceptions of fairness is larger than the R^2 values for Models 1a, 2a, or 3a, and as such, indicates that approximately 3% of the variance in physical health is explained by perceptions of fairness and gender.

Gender.

In addition to using t-tests of mean difference to examine the relationship between gender and mental and physical health, OLS regressions were also used, and overall, the results from Model 6 (Tables 5 and 7) echo the results of the t-tests presented above. Gender is a significant predictor of mental health ($\beta = 0.12, p < 0.01$) such that men tend to report better mental health than women. On the other hand, gender is not significantly related to physical health, and therefore, women are no more likely than men to report poorer physical health. Together these results lend partial support to Hypothesis 1.

It should also be noted, however, that the relationship between gender and mental health appears to be mediated by the other family demands, family resources, work demands, and work resources since the regression coefficients for gender are reduced and are no longer significant when the secondary and control variables are added to the models. For example, as shown in Table 4, the coefficients for gender are decreased by an average of 0.09 in Models 1b to 4b when the secondary and control variables are added. Furthermore, gender is no longer significant in these models when the additional variables are included.

Other family and work demands and resources.

Models 5 of Tables 5 and 7, present the results for the secondary variables without inclusion of the focal housework variables or gender. According to these results, none of the other family demands are significantly related to mental or physical health. That is, having children in the home, regardless of their age, is not significantly related to mental or physical health, nor is the number of hours that one's partner works for pay. The results for family resources are more mixed, however. Income is significantly related

to both mental health ($\beta = 0.17, p < 0.001$) and physical health ($\beta = 0.12, p < 0.01$) such that greater income is related to better health. However, receiving paid help with household cleaning is not significantly related to mental or physical health. The results are also mixed for work demands. Work hours are not significantly related to mental health, but are significantly related to physical health such that working longer hours is related to poorer physical health ($\beta = -0.10, p < 0.01$). Work overload is significantly and negatively related to both mental health ($\beta = -0.21, p < 0.001$) and physical health ($\beta = -0.09, p < 0.01$). With regard to work resources, the results indicate that schedule control is significantly related to mental health ($\beta = 0.07, p < 0.05$), but not physical health. Work-family culture is significantly related to mental health ($\beta = 0.19, p < 0.001$) and physical health ($\beta = 0.11, p < 0.01$), while the quadratic variable for work-family culture is significantly related only to mental health ($\beta = -0.07, p < 0.05$). Lastly, age is not significantly related to either mental or physical health in this study.

Summary of OLS multiple regression results.

The OLS regression analyses indicate that, of the focal variables, only time spent in housework on non-work days, perceiving the division of housework as unfair to oneself, and perceiving the division of housework as unfair to one's partner are significantly and negatively related to mental health. Furthermore, perceiving the division of household labour as unfair to either partner is the strongest predictor of mental health, and being male is significantly related to better mental health. In total, the focal and gender variables account for 6% of the variation in mental health. Of the secondary and control variables, income, schedule control, and work-family culture are significantly and positively related to mental health while work overload and the quadratic form of work-

family culture are significantly and negatively related to mental health. These secondary and control variables account for 18% of the variation in mental health.

With regard to physical health, the results indicate that, of the focal variables, only time spent in housework on non-work days and perceiving the division of household labour as unfair to one's partner are significantly and negatively related to physical health. Again, perceiving the division of household labour as unfair to one's partner is the strongest predictor of physical health. Gender has no significant relationship with physical health, and in total, the focal and gender variables account for 4% of the variation in physical health. Of the secondary and control variables only income and work-family culture are significantly and positively related to physical health, while only work hours and work overload are significantly and negatively related to physical health. These secondary and control variables account for 6% of the variation in physical health.

Tests for Interaction Effects Results

In total, five interaction tests between gender and the division of household labour variables were conducted for mental health, followed by the same five interaction tests for physical health, as previously described. None of these exploratory interaction tests were significant for either mental or physical health, and therefore, the results do not support Hypothesis 13 (results not shown). Unexpectedly, men's and women's mental and physical health is not differentially associated with time spent in housework, relative contributions to housework, or perceived fairness in the division of household tasks.

Table 4

Unstandardized (b) and Standardized (β) Regression Results for Each of the Focal Variables Tested Separately, Gender, and Mental Health (N = 1,193)

	Focal Variable			Gender (1 = Male)			R^2
	b	SE	β	b	SE	β	
Model 1a ¹ - Time Spent in Housework on Work Days	-0.01	0.02	-0.02	0.16	0.03	0.14***	0.02
Model 1b ² – Time Spent in Housework on Work Days	-0.02	0.01	-0.04	0.06	0.04	0.05	0.18
Model 2a ¹ - Time Spent in Housework on Non-Work Days	-0.03	0.01	-0.10**	0.15	0.03	0.13***	0.03
Model 2b ² – Time Spent in Housework on Non-Work Days	-0.01	0.01	-0.04	0.06	0.04	0.05	0.18
Model 3a ¹ - Relative Contribution to Housework	-0.03	0.02	-0.05	0.14	0.04	0.12**	0.02
Relative Contribution to Housework Squared	0.01	0.01	0.03				
Model 3b ² – Relative Contribution to Housework	-0.02	0.02	-0.04	0.05	0.04	0.04	0.18
Relative Contribution to Housework Squared	0.01	0.01	0.02				
Model 4a ¹ - Division of Housework is Unfair to Me (1 = Yes)	-0.17	0.05	-0.11***	0.15	0.03	0.14***	0.04
Division of Housework is Unfair to My Partner (1 = Yes)	-0.14	0.04	-0.12***				
Model 4b ² – Division of Housework is Unfair to Me (1 = Yes)	-0.15	0.04	-0.10**	0.04	0.04	0.04	0.19
Division of Housework is Unfair to My Partner (1 = Yes)	-0.07	0.04	-0.06*				

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed test)

¹ Models 1a through 4a present the regression coefficients for the focal housework variable and gender. Each focal variable was tested separately, and therefore, each model included only the focal variable and gender.

² Models 1b through 4b present the regression coefficients for the focal housework variable and gender when the secondary and control variables are included in the model.

Table 5

Unstandardized (b) and Standardized (β) Regression Results for the Secondary Variables as a Group, the Focal Variables as a Group, Gender, and Mental Health (N = 1,193)

	Model 5			Model 6		
	b	SE	β	b	SE	β
Focal Variables						
Time Spent in Housework on Work Days				0.02	0.02	0.04
Time Spent in Housework on Non-Work Days				-0.03	0.01	-0.11**
Relative Contribution to Housework				-0.03	0.02	-0.05
Relative Contribution to Housework Squared				0.03	0.01	0.07*
Division of Housework is Unfair to Me (1 = Yes)				-0.17	0.05	-0.11**
Division of Housework is Unfair to My Partner (1 = Yes)				-0.16	0.04	-0.13***
Gender (1 = Male)				0.13	0.04	0.12**
Family Demands						
Children under 6 (1 = Yes)	0.04	0.04	0.03			
Children aged 6 to 12 (1 = Yes)	-0.01	0.03	-0.01			
Children aged 13 to 18 (1 = Yes)	-0.02	0.04	-0.01			
Children over 18 (1 = Yes)	0.04	0.05	0.03			
Partner's Work Hours	-0.00	0.00	-0.05			
Family Resources						
Income (Natural Log)	0.13	0.02	0.17***			
Paid Help (1 = Yes)	-0.01	0.04	-0.01			
Work Demands						
Work Hours	0.00	0.00	0.00			
Work Overload	-0.14	0.02	-0.21***			
Work Resources						
Schedule Control	0.03	0.01	0.07*			
Work-Family Culture	0.10	0.02	0.19***			
Work-Family Culture Squared	-0.03	0.01	-0.07*			
Age	0.00	0.00	0.01			
Constant	2.05	0.28	***	3.11	0.05	***
R²	0.18			0.06		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed test)

Table 6

Unstandardized (b) and Standardized (β) Regression Results for Each of the Focal Variables Tested Separately, Gender, and Physical Health (N = 1,193)

	Focal Variable			Gender (1 = Male)			R ²
	b	SE	β	b	SE	β	
Model 1a ¹ - Time Spent in Housework on Work Days	0.02	0.03	0.02	0.03	0.06	0.01	0.00
Model 1b ² – Time Spent in Housework on Work Days	0.01	0.03	0.02	-0.04	0.07	-0.02	0.06
Model 2a ¹ - Time Spent in Housework on Non-Work Days	-0.04	0.01	-0.07*	-0.01	0.06	-0.00	0.01
Model 2b ² – Time Spent in Housework on Non-Work Days	-0.02	0.01	-0.03	-0.05	0.07	-0.03	0.06
Model 3a ¹ - Relative Contribution to Housework	0.02	0.04	0.02	0.04	0.08	0.02	0.00
Model 3b ² – Relative Contribution to Housework	0.03	0.04	0.03	-0.02	0.08	-0.01	0.06
Model 4a ¹ - Division of Housework is Unfair to Me (1 = Yes)	-0.16	0.09	-0.06	0.07	0.06	0.03	0.03
Division of Housework is Unfair to My Partner (1 = Yes)	-0.43	0.07	-0.19***				
Model 4b ² – Division of Housework is Unfair to Me (1 = Yes)	-0.13	0.08	-0.05	0.00	0.07	0.00	0.08
Division of Housework is Unfair to My Partner (1 = Yes)	-0.35	0.07	-0.16***				

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed test)

¹ Models 1a through 4a present the regression coefficients for the focal housework variable and gender. Each focal variable was tested separately, and therefore, each model included only the focal variable and gender.

² Models 1b through 4b present the regression coefficients for the focal housework variable and gender when the secondary and control variables are included in the model.

Table 7

Unstandardized (b) and Standardized (β) Regression Results for the Secondary Variables as a Group, the Focal Variables as a Group, Gender, and Physical Health (N = 1,193)

	Model 5			Model 6		
	<i>b</i>	<i>SE</i>	β	<i>b</i>	<i>SE</i>	β
Focal Variables						
Time Spent in Housework on Work Days				0.05	0.03	0.05
Time Spent in Housework on Non-Work Days				-0.05	0.02	-0.10**
Relative Contribution to Housework				-0.05	0.05	-0.05
Division of Housework is Unfair to Me (1 = Yes)				-0.11	0.09	-0.04
Division of Housework is Unfair to My Partner (1 = Yes)				-0.45	0.07	-0.20***
Gender (1 = Male)				0.01	0.08	0.01
Family Demands						
Children under 6 (1 = Yes)	-0.11	0.07	-0.05			
Children aged 6 to 12 (1 = Yes)	-0.11	0.07	-0.05			
Children aged 13 to 18 (1 = Yes)	0.05	0.08	0.02			
Children over 18 (1 = Yes)	-0.02	0.10	-0.01			
Partner's Work Hours	-0.00	0.00	-0.01			
Family Resources						
Income (Natural Log)	0.17	0.05	0.12**			
Paid Help (1 = Yes)	-0.03	0.07	-0.01			
Work Demands						
Work Hours	-0.01	0.00	-0.10**			
Work Overload	-0.12	0.04	-0.09**			
Work Resources						
Schedule Control	-0.02	0.03	-0.02			
Work-Family Culture	0.11	0.03	0.11**			
Age	-0.00	0.00	-0.01			
Constant	2.47	0.58	***	4.13	0.16	***
R²	0.06			0.04		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed test)

Chapter 5 – Discussion

The central purpose of this thesis is to examine how the division of household labour is related to men's and women's mental and physical health. In doing so, the division of household labour is considered in the wider context of other family demands, family resources, work demands, and work resources following Voydanoff's model of work-family fit. There are four main research questions addressed in this study: 1) Are there differences between men and women with regard to their mental and physical health and the division of household labour? 2) Is the division of household labour detrimental or beneficial for mental and physical health, and does this relationship change when involvement reaches a certain level? 3) Is the time spent in housework, relative contribution, or perception of fairness more important in influencing mental and physical health? and 4) Are men's and women's mental and physical health differentially affected by the division of household labour? This chapter discusses how the results of this study relate to these main research questions.

Are there Gender Differences in Mental and Physical Health?

As expected, there are significant gender differences in mental health such that women report poorer mental health than men. These findings support previous research, which consistently finds that women experience higher rates of depression and distress than men. The results for physical health, however, are somewhat unexpected and contradictory to much of the previous literature. In this thesis, women do not have significantly poorer physical health than men. Rather, men and women report similar levels of self-reported physical health. In line with Macintyre et al. (1996) these results suggest that the relationship between gender and physical health is complex and may

vary only for specific health conditions. Women may report poorer physical health in terms of specific conditions, but it appears that women may not have overall poorer physical health than men.

It is also important to consider that the results of this study may differ from previous research examining gender differences in physical health because of the particular sample examined in this thesis. Specifically, because of the socio-economic status that the respondents hold, it is likely that both men and women will report good health. All of the respondents are employed at least ten hours per week, and previous research shows that paid employment offers a number of physical health advantages (Froberg et al., 1986; Fujishiro, Xu, & Gong, 2010; Moen & Chermack, 2005; Pavalko et al., 2007; Radloff, 1975; Verbrugge, 1983). Furthermore, these respondents have a university education, high incomes (mean = \$122,310), and professional careers with significant occupational prestige. Studies consistently identify a social gradient of health such that individuals with greater education, income, and occupational prestige enjoy better self-rated health and lower rates of morbidity (Babones, 2010; Fujishiro et al., 2010; Halleröd & Gustafsson, 2011; Orpana & Lemyre, 2004).

A simple comparison between this study and the 2005 Canadian census lends some support to this explanation. For example, in the census, 22% of Canadians reported excellent health and 11% reported fair or poor health, while in this study 24% of the lawyers reported excellent health and 10% reported fair or poor health (Statistics Canada, *n.d.a*). In contrast, studies of more diverse populations also include unemployed respondents and this may contribute to gender differences in health.

In essence, then, this study is not comparing men and women in the general population, but rather, men and women in a select, advantaged social position. The men and women in this sample may therefore report equally good physical health because of the health advantages associated with employment, education, and professional, prestigious careers, along with self selection of healthy individuals into this demanding occupation. More specifically, the women in this sample may be in better physical health than those in the general population, partly because all of the women in this sample are employed, and therefore, their physical health may be similar to employed men's. In the 2005 census, 21% of Canadian women reported excellent health and 12% reported fair or poor health, while in this study 25% of women reported excellent health and only 10% reported fair or poor health (Statistics Canada, *n.d.a*). While these may not be large differences, the general pattern suggests that the respondents in this sample have slightly better physical health than those in the general population, and this appears to be particularly true for women which may explain why women's physical health was not poorer than men's.

Similarly, it is possible that the women in this sample may be less likely than other women to report poorer physical health, regardless of how good their health actually is. Lawyers face extensive work demands, yet are required to maintain an image of competence in order to be successful. Reporting one's physical health as poor may be detrimental to upholding this image, and women, in particular, may be reluctant to admit poorer health since they are often required to portray an exaggerated ideal of success (Kay & Hagen, 1998; see below for a more detailed explanation). Therefore, the women in this sample may be more similar to their male counterparts than women in the general

population in terms of how they rate their physical health, and therefore, the results of this study may not be generalizable to all other populations.

Are there Gender Differences in the Division of Household Labour?

The hypothesis that women perform more of the household labour than men is supported. That is, women report spending significantly more time doing housework on work days and non-work days than men and also report completing a significantly greater relative proportion of household tasks compared to their husbands. As the findings of this thesis suggest, the gendered division of household labour persists even when women are employed in professional occupations, such as law, where they must balance extensive career demands and household responsibilities. In fact, discrepancies between men's and women's involvement in housework may actually be underestimated since research shows that both men and women tend to misestimate contributions to household labour for themselves and their partners (Bonke, 2005; Kamo, 2000). More specifically, research suggests that men are more likely than women to over report their contributions to housework (Geist, 2010). If men overestimate their involvement in housework, the actual discrepancy between men's and women's time in household labour may be larger than these results indicate as a result of potential gender bias in reporting.

As hypothesized, significant differences are also observed with regard to perceptions of fairness in the division of household labour. Women are more likely than men to report that the division of housework is unfair to themselves, while men are more likely than women to report that the division is unfair to their partner. Overall, respondents appear to recognize that wives complete a greater share of housework compared to their husbands and that this is unfair to the wives. Despite this, however,

over half of both men and women report that the division of household labour is fair to both partners. This is consistent with previous studies where most men and women report that it is fair for women to complete more of the housework, even when they are employed in highly demanding professional careers (Coltrane, 2000; Frisco & Williams, 2003; Lennon & Rosenfield, 1994). This pattern is likely due, at least in part, to gender norms, expectations, and ideologies. Housework has traditionally been deemed women's work, and the results of this study and others indicate that gender continues to play an important role in determining responsibility for household labour and perceptions of fairness, even for highly educated, career-oriented individuals. While the respondents in this study likely hold some progressive attitudes, as suggested by the fact that the same percentage of men and women (27%) have preschool-aged children and continue practicing law, it is possible that they may also retain more traditional attitudes about the division of household labour. This is in line with the "stalled revolution" that Hochschild (1989) describes as a lag between the rapid rate of change associated with women's entry into paid employment and the slower rate of change in family roles that would facilitate a more equitable division of labour in the home.

While measures of gender ideology were not available in the data used for this study, some studies find that traditional gender attitudes are related to greater perceptions of fairness (Braun, Lewin-Epstein, Stier, & Baumgärtner, 2008; Coltrane, 2000; DeMaris & Longmore, 1996; Lavee & Katz, 2002), while others find no significant relationship (Baxter, 2000; Blair & Johnson, 1992; Lennon & Rosenfield, 1994). Furthermore, studies involving interaction tests show that the actual division of housework is less important in determining fairness when individuals hold conventional gender attitudes (Coltrane,

2000). The relationship between gender ideology, the division of household labour, and perceptions of fairness is complex, and continuing to include measures of gender ideology in future studies would help to tease out these relationships.

Is the Division of Household Labour Detrimental or Beneficial to Mental and Physical Health?

Time spent in housework, relative contributions to housework, and perceptions of fairness of household tasks are used to examine how household labour relates to both mental and physical health. Overall, the results show partial support for the hypotheses posed in this study.

Time spent in housework is related to poorer mental and physical health, but only on days when respondents did not also work in paid employment. Respondents' health is unaffected by time spent in housework on work days. These findings suggest that spending time in housework is not detrimental in and of itself, nor is it harmful as a result of time pressures or juggling both paid employment and household responsibilities on the same day. Rather, housework may be harmful to mental and physical health when it limits the time individuals have to relax and unwind on the weekend. This may be particularly true for the respondents in this sample since law is an exceptionally demanding career (Carter, 2006). Therefore, given the large time and energy demands placed on lawyers, it is likely that they require leisure time on their days off from work to relax and rejuvenate. If, instead, these individuals spend their time completing housework on non-work days, then it is likely that their health will suffer. This explanation is supported by previous literature which shows that participating in and being satisfied with leisure activities is related to greater psychological and physical well-being

(Iwasaki, Mactavish, & Mackay, 2005; Ragheb, 1993). Research suggests that relaxing, recuperative leisure may be particularly important to mental and physical health as it helps to counteract stress and promote better life balance (Iwasaki et al., 2005; Ragheb, 1993; Wallace & Young, 2010). Furthermore, both active leisure (leisure that involves physical exertion) and social leisure (leisure that involves social interaction with others) are related to improved mental health for lawyers specifically (Joudrey & Wallace, 2009).

The results obtained for relative contributions to housework are also unexpected. In this study, completing a greater share of the housework relative to one's partner is not significantly related to mental or physical health. Previous research reports mixed findings about whether one's relative contributions to housework are significantly related to mental and physical health and the direction of this relationship. The findings of this study, in addition to the contradictory findings in past research, suggest that the relationship between relative contributions to housework and health is more complex than is typically considered. It may be that the relationship is curvilinear such that housework is beneficial to health until a certain level of involvement after which point additional contributions to housework relative to one's partner become detrimental. In this case, the positive impact of smaller contributions and the negative impact of larger contributions may negate each other so that no significant relationship is found between relative contributions to housework and mental and physical health. This hypothesis was also tested and is described below.

Finally, with regard to perceptions of fairness, the results indicate partial support for the hypotheses presented above. Compared to perceiving the division of household labour as fair to both partners, perceiving the division as unfair to oneself or to one's

partner is related to poorer mental health, as expected. Both being advantaged and disadvantaged by the division of household tasks can have negative implications for one's mental health. On the other hand, only feeling that the division was unfair to one's partner is significantly related to poorer physical health. Perceiving that the division of household labour was unfair to oneself is not significantly worse for one's physical health than feeling that the division was fair to both partners. It is possible that this unexpected relationship with physical health is due in part to issues of forgiveness and guilt.

Research suggests that forgiving others is related to better immune functioning, lower blood pressure, and fewer physical health problems (see Wilson, Milosevic, Carroll, Hart, & Hibbard, 2008). Therefore, if individuals forgive their partner for an unfair division of housework, it is likely that this forgiveness will buffer potentially negative consequences of perceived unfairness to self. That is, spouses may feel that the division of housework is unfair to themselves, but this may not be related to poorer physical health if the individual does not blame their partner for this unfair situation.

Conversely, if an individual feels that their partner is disadvantaged by the division of housework, they may experience feelings of guilt and have difficulty forgiving themselves for the unfair situation. This explanation is supported by research which finds that children as young as seven or eight are able to identify guilt as a ramification of not helping others (Shorr & McClelland, 1998). Furthermore, difficulty forgiving oneself may be related to poorer physical health since research shows that self-forgiveness is related to improved ratings of physical health (Wilson et al., 2008). Measures of guilt and forgiveness should be included in future research in order to

examine whether these factors mediate the relationship between perceptions of fairness in the division of household labour and physical health.

Future research should also use longitudinal data to explore the relationship between the division of household labour and mental and physical health. This study relies on a cross-sectional design which limits the ability to demonstrate causation since time priority cannot be established. Instead of the division of household labour impacting health, it is possible that mental and physical health impact how much time men and women spend in housework, their relative contributions to housework compared to their partner, and their perceptions of fairness about the division of household labour. Previous research has tried to determine the causal direction of the relationship between housework and distress and has found evidence suggesting that having problems with successfully fulfilling housework roles had a significant impact on distress, while distress did not have a significant effect on fulfilling household roles (Link, Mesagno, Lubner, & Dohrenwend, 1990). Despite these previous studies suggesting that housework affects health, it is important for future research to specifically examine the relationship between time spent in housework, relative contributions to housework compared to one's partner, and perceptions of fairness and mental or physical health using longitudinal data.

Does the Relationship between the Division of Household Labour and Health Change after Involvement Reaches a Certain Level?

It was hypothesized that time spent in housework and relative contributions to housework would be beneficial for both mental and physical health until involvement reached a certain level, after which point housework would become detrimental.

However, the results of this study indicate minimal support for these hypotheses. Of the

preliminary quadratic tests examined, the only one that is statistically significant is the relationship between relative contributions to housework and mental health. None of the other quadratic variables were significantly related to mental or physical health, and as a result, they are excluded from the final regression equations. Therefore, it appears that the relationship between time spent in housework and mental and physical health is not best fitted by a curvilinear one, nor is the relationship between relative contributions to housework and physical health.

While these findings contradict Bird (1999), it is possible that the quadratic variables for time spent in housework are not significantly related to mental or physical health because the respondents in this sample spent relatively few hours in housework compared to individuals in other occupational groups or in the general population. Even if the relationship is quadratic in more heterogeneous samples, the respondents in this study may not complete enough housework for the relationship to change such that it would become harmful to their health. That is, their involvement may not exceed the level required for the relationship to change. A brief comparison between this study and previous research lends some support to this interpretation. In Bird's (1999) population study of housework and mental health, women spent 35.5 hours per week in housework while men spent 16.4 hours per week, on average. Housework is measured differently in this thesis, as it is measured per day and divided between work days and non-work days. However, if these hours are summed based on a five day work week and two non-work days, women would spend 18.9 hours per week in housework and men would spend 14.4 hours per week, on average. This comparison suggests that the lawyers in this sample spend less time in housework relative to the general population because they do not have

enough time on top of their extensive paid work hours to complete more housework or because they have paid help with the housework. As a result, they may not reach the level of involvement where time spent in housework becomes detrimental to their health. If, however, they spend more time in housework, it is possible that their greater involvement, on top of their demanding careers, would become detrimental to their mental health.

With regard to relative contributions and physical health, neither the linear nor the quadratic variables are significant. This suggests that for the lawyers in this sample, housework is not associated with their physical health, regardless of how much of the housework they complete relative to their partner. As described previously, it is possible that lawyers have slightly better physical health than people in general, and it may be that the health advantages their career and status affords them prevent housework from negatively impacting their health, even if they are completing a large share of it relative to their partner.

The relationship between the quadratic variable for relative contributions to housework and mental health bears further discussion, however. This quadratic variable was significant in the preliminary tests and therefore included in the final regressions. However, when it is entered in the final regression models, it is no longer significantly related to mental health except in Model 6 (Table 5) when the other measures of the division of household labour are held constant. This suggests that the other measures may suppress the effects of one's relative contribution on mental health. In particular, it seems that the relationship may appear non significant when it is entered individually as a result of varying perceptions of fairness. When perceptions of fairness are held constant,

however, the quadratic relationship between relative contributions and mental health can be detected, although the direction of the relationship is unexpected. Contrary to the hypothesis and previous literature, the direction of the relationship is negative, but not significant, for the linear variable and becomes positive and significant for the quadratic variable. This pattern suggests that one's relative contribution to housework is not significantly related to mental health until involvement reaches a certain level after which point housework become *beneficial*.

While this finding is unexpected, it may be that there is an interaction between relative contributions and perceptions of fairness. That is, the relationship between one's relative contribution to housework and mental health may vary based on one's perceptions of fairness about the division of household labour. Auxiliary tests were conducted to explore this possibility, and they offer preliminary support for this interpretation. Relative contributions to housework were recoded into three discrete categories that represented completing less housework than their partner, approximately the same amount of housework as their partner, or more housework than their partner. Mean levels of perceptions of unfairness to oneself and one's partner were plotted for each category of relative contributions and one-way ANOVA tests were conducted. Overall, the results indicate that perceptions of unfairness to self and perceptions of unfairness to one's partner differ for each category of relative contribution, as illustrated in Figure 2. Of particular interest is that those who complete more housework than their partner held the lowest perceptions of unfairness to their partners, and as discussed in greater detail below, perceiving the division of housework as unfair to one's partner has the greatest negative impact on respondents' mental health. Completing a greater share of

the housework relative to one's partner means respondents are less likely to feel that the division is unfair to their partner, and therefore completing a disproportionately larger share of housework appears to benefit, rather than harm, one's mental health.

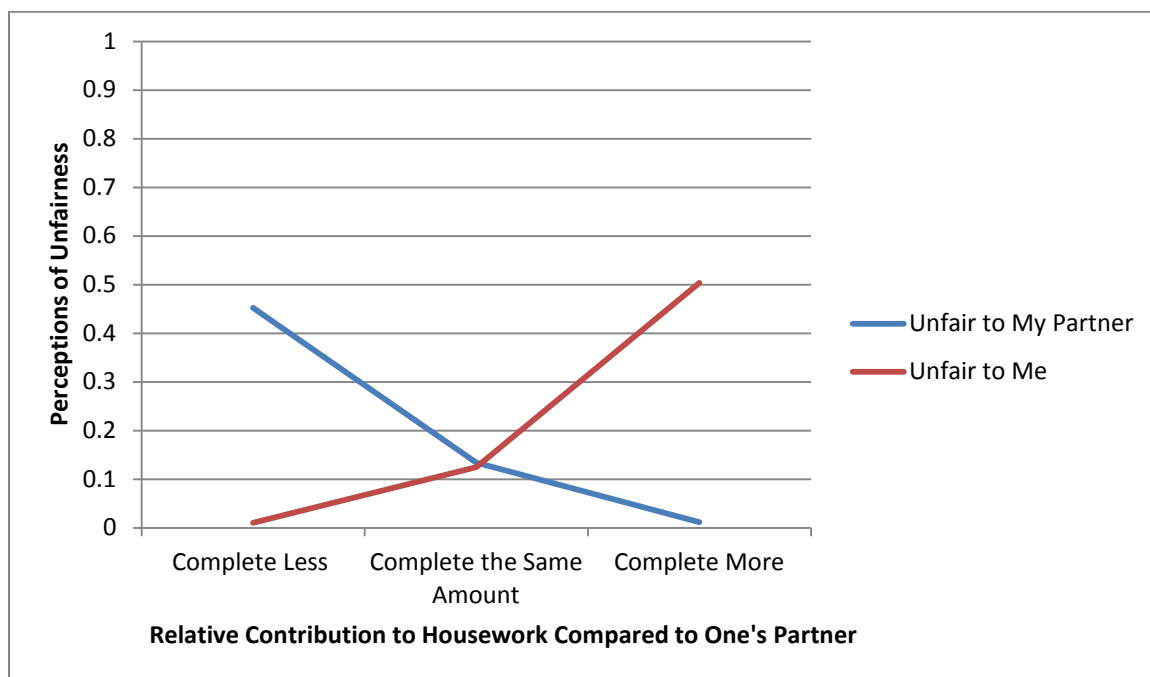


Figure 2. Graph of relative contributions to housework and perceptions of unfairness to self and to one's partner. Perceptions of unfairness ranged from 0 to 1 where 1 indicated that respondents felt the division was unfair either to themselves (red line) or their partners (blue line).

Additional analyses were then conducted to specifically test this potential interaction. Interaction terms were created (*relative contribution to housework x division of housework is unfair to me* and *relative contribution to housework x division of housework is unfair to my partner*) and added to Model 3a (see the original in Table 4). The results of this regression analysis (not shown) indicate that the interaction term for unfairness to oneself is not significant, but that the interaction term for unfairness to one's partner is ($p < 0.01$). Split-sample analyses were therefore conducted in order to understand how the relationship between relative contributions to housework and mental

health varied based on perceptions of unfairness to one's partner. These results show that one's relative contribution to housework is significantly ($p < 0.01$) and negatively related to mental health only for individuals who do *not* perceive the division of household labour as unfair to their partner. That is, performing a larger share of the housework is significantly related to poorer mental health when respondents feel that the division of housework is fair to both partners or when they feel that it is already unfair to themselves. On the other hand, when they perceive the division as unfair to their partner, performing a great share of the housework is not significantly related to mental health. As suggested, this is likely because they feel they are making the division more equitable and less unfair to their partner, and if the division of housework is perceived as unfair to one's partner, then completing a larger share may actually become beneficial. The relationship appears to be much more complex than the curvilinear association hypothesized from the literature. Future research should consider these interaction effects in order to better understand how relative contributions to housework are related to mental health, whether these relationships change after involvement reaches a certain level, and whether these patterns persist in other occupational groups.

Is the Time Spent in Housework, Relative Contribution, or Perception of Fairness More Important in Influencing Mental and Physical Health?

The hypothesis that perceptions of fairness in the division of household labour has a stronger relationship with mental and physical health than time spent in housework or relative contributions to housework is supported. It appears that housework in and of itself may not be of central importance for mental and physical health. Rather, it is likely that psychological evaluations, feelings, and perceptions about equity, along with

interpersonal outcomes and symbolic meanings, are more central to one's health than the physical performance of housework (see Robinson & Spitze, 1992; Thompson, 1991). In particular, perceptions of unfairness to one's partner have the strongest relationship with both mental and physical health. Unfairness to oneself is significantly related to poorer mental health, but not to physical health.

Together these findings suggest that being advantaged by the division of household labour may actually be more detrimental to mental and physical health than being unfairly overburdened by housework. This contradicts equity theory's claim that being disadvantaged will have worse consequences for one's mental health (see Walster et al., 1978). However, as discussed above, guilt and the inability to forgive oneself for disadvantaging their partner are likely important in understanding why this may occur. Individuals may be advantaged by the division of housework, but they may recognize that this is unfair to their partner and therefore feel guilty or be unable to forgive themselves, which may contribute to poorer mental and physical health.

In addition, crossover effects may also play an important role such that an individual's stress or strain may come to affect their spouse's mental and physical health (Bakker, 2009; Wallace, 2005). Many symptoms of stress or strain are obvious, and because spouses often talk about their experiences and empathize with each other, the other spouse may indirectly experience poorer mental and physical health, particularly if they have a close relationship (Bakker, 2009; Wallace, 2005). Therefore, if an individual is disadvantaged by the division of household labour they may experience stress, and as a result of crossover effects, the individual's spouse may indirectly experience poorer mental and physical health.

Future research should consider perceptions of unfairness to oneself as well as perceptions of unfairness to one's partner when examining the relationship between the division of household labour and health. Examining only time spent in housework, involvement in certain tasks, or relative contributions to housework may not be sufficient for understanding the association between the division of household labour and health since these more objective measures do not fully capture important interpersonal relationships and processes between husbands and wives. Furthermore, the results of this study clearly indicate that it is important to consider both unfairness to self and unfairness to one's partner separately since they are related to an individual's mental and physical health in different ways.

Are Men's and Women's Mental and Physical Health Differentially Related to the Division of Household Labour?

In this thesis, exploratory interaction tests were conducted to determine whether the division of household labour is differentially related to men's and women's mental and physical health. These exploratory tests indicate that the relationship between the division of household labour and health is not significantly different for men and women. Instead, it appears that involvement in and perceptions of housework are related to mental and physical health in similar ways for both.

Although these findings are somewhat surprising, it is possible that the male and female respondents in this sample are more similar to one another than men and women in the general population. That is, most studies of housework do not specifically examine individuals in highly demanding, male-dominated, professional careers such as law where women may become more similar to men as a result of their professional socialization,

male role models, and masculine work cultures (see Guinier, Fine, & Balin, 1997; Macerollo, 2008; Ranson, 2005a, 2005b). Law has traditionally been practiced exclusively by men, and it was only since 1942 that women were permitted to practice law in all Canadian provinces (Kay & Brockman, 2000). Because law has been dominated by men until recent decades, masculine work cultures have developed and become firmly entrenched.

Today, even though women are becoming increasingly involved in traditionally male-dominated professional careers such as law, they often face subtle discrimination, particularly in terms of career advancement, and as such, they are required to adapt themselves to fit the masculine culture, norms, and expectations that persist in these organizations if they want to be successful (Haines & Wallace, 2003; Kay & Hagan, 1998; Ranson, 2005a, 2005b). Women are therefore often required to take up masculine professional identities and to emulate the masculine attitudes, behaviours, and traits of their male role models in an effort to appear competent.

A brief examination of work hours may help to illustrate how the women in this sample hold views about paid employment that are similar to their male counterparts and different from women in the general population. Approximately 24% of women over the age of 25 in Canada worked part-time (less than 30 hours per week) in 2001 (Ferraio, 2010), compared to only 8% of women in this sample. On the other hand, approximately 7% of women in the general population worked long hours (50 or more hours per week) in 2000 (Canadian Policy Research Networks, *n.d.*), compared to 39% of the women in this sample. Overall, women in the general population worked approximately 34 hours

per week on average in 2000 (Statistics Canada, *n.d.b*), compared to 48 hours per week for the women in this sample.

The female lawyers examined in this study clearly work longer hours than women in the general population, and more importantly, the difference between men's and women's average work hours is smaller in this sample than in the general population (a difference of approximately 4 hrs/week in this sample and approximately 8 hrs/week in the general population) (Statistics Canada, *n.d.b*). This simple set of comparisons suggests that the women in this sample may have more masculine work identities than women in the general population, and it is likely that female lawyers' understandings and experiences of household labour may also become more similar to men's as they balance their careers and household responsibilities. As a result, gender differences in this sample may be minimized or masked. Future research should control for the potential effects of work identity or work involvement and should also examine whether the division of household labour is differentially related to men's and women's mental and physical health in other occupational groups. Particular attention should be given to determining whether similar findings are observed in studies of other male-dominated careers and also to compare these findings to studies of gender neutral and female-dominated occupations.

Secondary Variables

Family and work demands and resources are also included in this study following Voydanoff's model of work-family fit so that the relationships between the division of household labour and health could be examined within the wider context where they occur. While these variables are not the main focus of this thesis and specific hypotheses were not proposed for them, there are a number of findings that merit further discussion.

What is particularly striking is the fact that none of the other family demands are significantly related to either mental or physical health and neither is having paid help with housework. Rather, it is predominantly the work demands and work resources that contribute to lawyers' health. Given lawyers' professional investments into their careers in terms of education and long work hours, it is logical that work demands and resources would be strongly related to health and more salient than household demands and resources. In fact, the variables most highly correlated with mental health are work overload, the work-family culture of their employing organization, and schedule control at work, while work overload, work-family culture, and work hours (along with perceptions of fairness to one's partner and to oneself) have the strongest associations with physical health (see Table 2).

Although most of these relationships are in the expected directions, the one between work-family culture and mental health is somewhat surprising. The linear variable is significantly and positively related to mental health, as expected, but the quadratic variable is significant and, surprisingly, negative. Taken together this indicates that supportive work-family cultures are beneficial to lawyers' mental health until a certain point where they may actually become harmful. Further analyses (not shown) reveal that the point of inflection where the direction of the relationship becomes negative is near the end of the distribution for work-family culture. That is, it is only for extremely supportive work-family culture that the relationship changes direction. Therefore, it appears that there is a ceiling effect where the benefits of having an organizational culture that promotes balancing work and family taper off. In essence,

then, an overly supportive work-family culture does not become harmful to lawyers' mental health, but rather no longer offers significant benefits to it.

It is also interesting to note that the relationship between gender and mental health appears to be mediated by the secondary variables. In the models without the secondary and control variables, the coefficients for gender are significantly related to mental health, but once the additional variables are included the coefficients for gender decrease substantially and become non significant. Therefore, it appears that women's poorer mental health may, at least partially, be explained by differences in income, schedule control, or work overload. The men in this study earn significantly higher incomes (men = \$140,590; women = \$86,490) and experience significantly more schedule control at work (men = 3.57; women = 3.24) than their female counterparts, and in turn, income and schedule control are associated with better mental health. Conversely, men experience significantly less work overload than women (men = 3.46; women = 3.56) and work overload is negatively related to mental health. Together, these results suggest that women's poorer mental health may be mediated by these work demands and resources. Future studies should specifically test these possible mediation effects in order to more fully understand why women tend to suffer poorer mental health than men.

The results also suggest that many of the significant relationships between the division of household labour variables and health may be mediated by the secondary variables since the housework coefficients decrease and, in most cases, lose significance once the additional variables are included. Looking first at mental health, the results suggest that the relationships with time spent in housework on non-work days, perceptions of unfairness to oneself, and perceptions of unfairness to one's partner may

be mediated by the secondary variables. For physical health, the results suggest that the relationships with time spent in housework on non-work days and perceptions of unfairness to one's partner may be mediated by the secondary variables. It is possible that work demands, such as work hours and work overload, may at least partially explain the negative relationship between the division of household labour variables and health. For example, spending more time in housework on non-work days, instead of having time to relax and recover from the work week, may contribute to greater feelings of work overload, which in turn negatively impact mental and physical health. It is also possible that perceptions of unfairness to oneself or to one's partner are related to greater feelings of work overload which may explain a portion of the relationship between perceived unfairness and mental and physical health. Future research should continue to control for work demands and resources when examining the division of household labour and health since they may be important mediators. Future studies should also specifically test for these suggested mediation effects to determine whether there are in fact significant indirect effects of housework on health through work demands such as work overload.

Chapter 6 – Conclusions

This thesis examines how the division of household labour is related to health using a sample of male and female lawyers. Past research focuses primarily on how household labour impacts women's mental health. This thesis addresses several gaps in the literature by considering how housework impacts both mental and physical health and by examining this for men as well as women. Furthermore, this thesis examines not only the time spent in housework and one's relative contributions compared to one's partner, but also perceptions of unfairness to oneself and to one's partner. Finally, this thesis examines the division of household labour within the wider context of other family demands, family resources, work demands, and work resources, which adds valuable insights into how the division of household labour impacts health for professionals in highly demanding careers. Several interesting findings emerged that can be grouped into two general themes. First, housework does not appear to be harmful in and of itself. Second, several gender inequalities in regard to health and housework continue to exist, even among professionals. The remainder of this chapter discusses the conclusions drawn from this thesis as they relate to these two general themes.

It is More than Involvement in Housework that Hurts

First, the results of this study suggest that housework, in and of itself, is not necessarily detrimental to mental and physical health. It does not appear to be the actual time spent completing housework, or even one's relative contribution to housework, that negatively impacts health. Rather, completing housework seems to be harmful to health only if it interferes with having enough time to rest, relax, and rejuvenate. Leisure time is important for ensuring mental and physical health (Iwasaki et al., 2005; Joudrey &

Wallace, 2009; Ragheb, 1993; Wallace & Young, 2010), and for professionals, it appears that the time spent in housework becomes detrimental to health only when it interferes with their leisure time on their days off. When housework is completed on work days, individuals may already be stressed by work demands, and adding additional time pressures by completing housework may not significantly contribute to even poorer health. Therefore, housework may not be harmful to health because of the time pressures associated with trying to juggle both paid and unpaid labour demands on the same day, but rather because it limits the time an individual has to recuperate after a demanding work week. Given the fact that women enjoy less leisure time than men (Wallace & Young, 2010), however, these results imply that women's health may be poorer than men's, thereby compounding gendered disparities in mental health.

This study also finds that relative contributions to housework are not related to poorer physical health, regardless of how much more housework an individual completes compared to their partner. The benefits associated with highly paid employment may help to buffer any potentially negative consequences of housework on physical health, thereby masking the relationship in this study. On the other hand, relative contributions to housework appear to be related to mental health, but in more complex ways than initially expected. That is, relative contributions to housework are differentially related to mental health depending how an individual perceives the fairness of the division of household labour. Completing a large share of the housework relative to one's partner appears to be unrelated to poorer mental health, if the individual perceives the division of household labour as unfair to their partner. Instead, relative contributions to housework are detrimental for mental health only when individuals complete a majority of the

housework and they feel that the division is already fair to both partners or unfair to themselves. That is, relative contributions to housework are associated with mental health in different ways depending on one's perceptions of fairness about the division of household labour. However, given the fact that women complete a disproportionate share of housework and are more likely to perceive the division of household labour as unfair to themselves, these findings imply that women's mental health may suffer more than men's, thus compounding gendered inequalities in mental health.

This study also finds that perceptions of fairness about the division of household labour have the strongest relationship with both mental and physical health. Housework in and of itself is not necessarily detrimental for health, but the way in which individuals perceive the division of tasks appears to be particularly important. Psychological evaluations, perceptions about equity, interpersonal outcomes, and symbolic meanings associated with household labour appear to be central to health (see Robinson & Spitze, 1992; Thompson, 1991). In fact, perceiving the division of household labour as unfair to either partner appears to have consequences for one's health. Feeling that the division is unfair to oneself is related to poorer mental health, while feeling that the division is unfair to one's partner is related to poorer mental and poorer physical health. Individuals who feel disadvantaged by the division of household labour may feel angry and out of control such that their mental health suffers (Voydanoff & Donnelly, 1999; Walster et al., 1978). On the other hand, individuals who feel advantaged by the division may feel guilty and be unable to forgive themselves for disadvantaging their partner (Shorr & McClelland, 1998; Voydanoff & Donnelly, 1999). It is also possible that cross-over effects influence one's mental and physical health such that individuals who feel the division is unfair to

their partners may indirectly experience poorer health as a result of their partner experiencing distress (Bakker, 2009; Wallace, 2005). Even though an individual completes less housework than their partner, they may suffer from poorer mental and physical health because they perceive the division as unfair to their partner.

Lastly, the relationship between the division of household labour and health may be more complex than portrayed in the literature because housework may have indirect, rather than direct, effects on mental and physical health. The results of this study suggest that work demands and work resources are more important for health than family demands, at least for this sample of professionals. The family demands and resources, such as having children, partner's work hours, and receiving paid help with household tasks are not related to health. However, the work-related variables of income, work hours, work overload, schedule control, and work-family culture are strongly related to mental and physical health. In fact, it appears that income, work overload, and schedule control may mediate the relationships between gender and health. Gender disparities in mental health may therefore stem, at least partially, from differences in these variables rather than directly as a result of gender. Similarly, the relationships between the division of household labour and health also appear to be mediated by work demands, such as work overload. The division of household labour may lead to feelings of work overload and these feelings may, in turn, negatively impact mental and physical health. This means that the division of household labour may have an indirect, rather than direct, effect on mental and physical health.

Clearly the relationship between the division of household labour and health is more complex than originally expected. The actual time spent doing housework and

one's contribution to housework relative to their partner is not necessarily harmful. Rather, it seems that not having sufficient leisure time on weekends and feeling that the division of household labour is unfair — particularly when it is unfair to one's partner — are what negatively impact mental and physical health. Not all research includes perceptions of fairness when studying how housework impacts health (e.g., Barnett & Shen, 1997; Bird, 1999; Hunt & Annandale, 1993; Ross & Bird, 1994), but this thesis demonstrates that it is essential to consider in future studies. It is also important for researchers to examine unfairness to self and unfairness to one's partner separately since they appear to be related to health in different ways. For example, perceptions of unfairness to one's partner may be related to poorer health due to feelings of guilt, whereas if the situation is viewed as unfair to oneself it may negatively affect health because of anger and resentment. Furthermore, the relationship between the division of household labour and health may not be direct, but rather, may be indirect since it appears to be mediated by work demands.

The Persistence of Gender Inequalities

The second overarching theme that emerged from the results of this study is that there are several important inequalities that continue to exist, even among this sample of highly educated professionals working in demanding careers. However, there are also some unexpected findings that suggest the men and women included in this sample are different from those in the general population. For example, the results of this study demonstrate that gender differences may not exist for overall physical health since the male and female lawyers in this sample report similar levels of self-rated health. It is possible, however, that gendered inequalities exist for specific physical health conditions

since previous research shows that women are more likely than men to experience migraines, back and neck pain, arthritis, rheumatism, high blood pressure/hypertension, varicose veins, haemorrhoids, coronary heart disease, and cancer (Bianchi et al., 2005; Krantz et al., 2005; Macintyre et al., 1996; Walters et al., 2002). It is also possible that the education, income, and occupational prestige associated with this sample masks gendered health disparities since this sample of professionals reports better overall physical health than individuals in the general population. On the other hand, the results of this study do conclusively demonstrate that gender inequalities exist with regard to mental health such that women experience poorer mental health than men. It is possible that this poorer mental health is due in part to the persistence of the gendered division of household labour.

Gender continues to play an important role in how household labour is divided and in perceptions of fairness, even among highly educated individuals working in demanding professional careers such as law. Women spend more time performing housework, complete a larger relative share of the housework, and are more likely to perceive the division of household labour as unfair to themselves compared to men. Overall, men and women both tend to recognize that the division of housework disadvantages women, yet the majority of both genders report that this unequal division is fair. This pattern of findings is consistent with those reported in the literature across various occupation-specific and general population studies (e.g., Barnett & Shen, 1997; Baxter, 2000; Bianchi & Milkie, 2010; Blair & Johnson, 1992; Coltrane, 2000; Lennon & Rosenfield, 1994; Robinson & Spitze, 1992). As such, these findings imply that gender ideology continues to be important in influencing divisions of household labour and

perceptions of fairness, even among high-status professionals. Although women are more involved in paid employment than in the past, and specifically in professional careers, and men are more involved within the home, traditional gender ideologies are not obsolete. Rather, it appears that shifts in paid employment are still occurring more rapidly than shifts within the home, and traditional gender ideologies continue to shape how couples divide household labour and how they perceive the equity of these divisions.

It is also interesting to note that the relationships between the different aspects of the division of household labour and health did not differ for men and women. That is, men's and women's mental and physical health appears to be related to the division of household labour in similar ways. This should be interpreted with some caution, however, since the female respondents in this study may be more similar to men than would be expected in the general population. The women in this sample are all employed in highly demanding professional careers, and as such, they may adopt more masculine work identities that alter the way housework is related to their mental health. While most previous studies focus only on how housework impacts women's health, the findings in this thesis suggest that men's health may suffer in similar ways to women's as a result of how the household labour is divided and how it is perceived. Both men and women are increasingly under pressure to balance both paid employment and household responsibilities, and because their health is related to the division of household labour in similar ways, it is likely that their health may similarly decline from this increased involvement in housework.

Gendered inequalities continue to exist in terms of mental health and the division of household labour such that women experience poorer mental health and complete a

majority of the housework, even when they are involved in highly demanding professional careers such as law. Furthermore, it appears that traditional gender ideologies persist, at least with regard to how husbands and wives divide household labour and evaluate its fairness. The results of this study also suggest that the men and women included in this sample may differ from those in the general population and that this may lead to some of the unanticipated findings. For example, female lawyers do not experience poorer physical health than men, perhaps as a result of their occupational advantages, and the relationship between the division of household labour and health does not differ for men and women, possibly because female lawyers become more similar to their male counterparts.

In closing, these two themes illustrate that time spent in housework, relative contributions to housework, and perceptions of fairness about the division of household labour have complex relationships with men and women's mental and physical health. While this study extends past research in several important ways, it also highlights new avenues for further exploration. Future research should continue to examine these relationships for both men and women using the more complex approaches suggested in this thesis. Research should look beyond individuals' involvement in household labour since housework in and of itself may not be overly detrimental to health. Rather, it is important to consider how housework may interfere with leisure activities. It is also important to examine how perceptions of unfairness, particularly to one's partner, interact with housework contributions and how together they influence mental and physical health. Future research should also examine perceptions of unfairness to self and to others

separately since they appear to be related to health in different ways and function through different mechanisms.

Research should also consider the wider context in which housework occurs because work demands, in particular, appear to play a pivotal role in understanding the relationship between the division of household labour and health. While several of the results are unexpected, it is possible that the men and women in this sample differ from the general population, and therefore, future research should continue to explore these relationships in other occupational groups to see if the results are generalizable to other male-dominated occupations, other professional groups, or to the general population. Physical health disparities and differing relationships between housework and health may be masked by the homogeneity of this sample. What is clear, however, is the fact that even for individuals in highly demanding professional careers, gendered inequalities and traditional gender ideologies about housework persist. Women continue to report poorer mental health and complete a disproportionately large share of housework compared to men. Because of this, it is important that research continue to explore the complex ways in which the division of household labour relates to men's and women's health.

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Appendix A: Hypotheses

- Hypothesis 1:* Women will report poorer mental and physical health than men.
- Hypothesis 2:* Women will report spending more time in housework than men.
- Hypothesis 3:* Women will report a greater relative contribution to housework than men.
- Hypothesis 4a:* Women will be more likely than men to report that the division of household labour is unfair to themselves.
- Hypothesis 4b:* Men will be more likely than women to report that the division of housework is unfair to their partner.
- Hypothesis 5:* Men and women will be equally likely to report that the division of housework is fair to both partners.
- Hypothesis 6:* Time spent in housework is detrimental to one's mental and physical health.
- Hypothesis 7:* Time spent in housework is beneficial for both mental and physical health to a certain level of involvement after which point additional time spent in housework becomes detrimental to one's mental and physical health.
- Hypothesis 8:* Time spent in housework on work days will be more detrimental to mental and physical health than time spent in housework on non-work days.
- Hypothesis 9:* Greater relative contributions to housework compared to one's partner will be associated with poorer mental and physical health.

Hypothesis 10: One's relative contribution to housework is beneficial for both mental and physical health to a certain point, after which one's relative contribution to housework in relation to one's spouse becomes detrimental.

Hypothesis 11: Compared to perceiving the division of household tasks as fair to both partners, perceiving the division of household labour as unfair to either spouse is associated with poorer mental and physical health.

Hypothesis 12: Perceptions of fairness in the division of household labour will have a greater effect on mental and physical health than either time spent in housework or relative contribution to housework.

Hypothesis 13: Men's and women's mental and physical health will be differentially associated with time, relative contribution, and perceived fairness of household tasks.