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FACTORS INFLUENCING GRADUATE STUDENT PATERNAL INVOLVEMENT: AN
ECOLOGICAL SYSTEMS AND SPILLOVER APPROACH

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FACTORS INFLUENCING GRADUATE STUDENT PATERNAL INVOLVEMENT: AN
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A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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As I fully expect to find a well-worn copy of this text warmly nestled beneath each of their pillows, I dedicate it to my wife and daughter. Your presences are the enduring light of my spirit, and, over all other sustenance, I desire your love and affection.

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Table of Contents

List of Tables.....	vi
List of Figures.....	vii
Abstract.....	viii
Introduction and Literature Review.....	1
Statement of Problem.....	52
Hypotheses, Research Questions, and Analyses.....	57
Method.....	62
Results.....	78
Discussion.....	97
References.....	113
Appendix A: Measures.....	140

List of Tables

Table 1.....	65
Table 2.....	67
Table 3.....	71
Table 4.....	72
Table 5.....	78
Table 6.....	80
Table 7.....	81
Table 8.....	84
Table 9.....	87
Table 10.....	88
Table 11.....	90
Table 12.....	91
Table 13.....	93
Table 14.....	95
Table 15.....	95

List of Figures

Figure 1.....	24
Figure 2.....	30
Figure 3.....	31
Figure 4.....	31
Figure 5.....	55
Figure 6.....	58
Figure 7.....	83
Figure 8.....	86
Figure 9.....	96

Abstract

The present study seeks to test a new model of the work-home balance interaction based on the integration of two existing models in the literature, Spillover-Crossover Model (Bakker & Demerouti, 2013) and the Work-Home Resources (W-HR) Model developed by ten Brummelhuis and Bakker (2012). Additionally, the present study attempts to incorporate Conservation of Resources (COR; Hobfoll, 1988; 1989) and ecological systems theory (Bronfenbrenner, 1979; 1992) to develop a broader understanding of the factors influencing paternal involvement with an under-researched population—graduate student fathers.

Introduction and Literature Review

The last four decades have seen substantial change in how families address issues related to responsibilities at home and work. In that time there has been a significant shift away from the single-provider family model and a considerable increase in the prevalence of dual-earner families, in which both fathers and mothers are employed outside the home, such that this situation is now normative for married couple families (Fraenkel & Capstick, 2011). Several factors have contributed to the dominance of the dual-earner household including increased access to higher education for women, changing gender role expectations, and the economic necessity for two incomes to meet the demands of a culture of consumption that includes, among other things, expectations for home and vehicle ownership, higher education for children, and healthcare and retirement at ever increasing costs over the last 30 years (U.S. Bureau of Labor Statistics, 2012; U.S. Department of Education, 2012). As expectations and beliefs about gender in the classroom and workplace have changed to reflect a greater sense of gender equality, so too have beliefs about equality in marriage, and a majority of Americans have adopted more egalitarian perspectives on work and family issues and responsibilities (Galinsky, Aumann, & Bond, 2009; Gerson, 2010; Pleck & Pleck, 1997; Pleck, 1993; Willinger, 1993).

Despite more popularly held notions, this is not the first instance of the role of the American father changing, let alone evolving with the expectation of greater paternal involvement and responsibility (Morman & Floyd, 2002). A lack of

understanding of the history of American fatherhood and its considerably more slowly paced evolution draw a stark contrast between the comparatively rapid development of contemporary views on rights of women and minorities in America. Perhaps for that reason, combined with the stubbornness of entrenched traditional gender-based values and power dynamics, the adaptation of American fatherhood in response to cultural and economic shifts throughout the history of the country is often ignored and images of fathers simplified to caricature.

Brief History of American Fatherhood

One of the more definitive and comprehensive reviews of the history of American fatherhood has been provided by Robert Griswold's (1993) *Fatherhood in America: A history*, recognized as the first substantive historical work on American fatherhood (Rotundo, 1995). Griswold's work provides "broadscale sociohistorical" analysis of the evolution of fatherhood and social, ethnic, political, and economic forces responsible for shaping the role of fathers (Biller, 2000).

During the American colonial period Griswold (1997) indicates a man's standing as a father was directly tied to not only his ability to provide materially for his children but also to his capacity for directing their intellectual and religious development. Though this focus on the father as a dominant moral and intellectual authority and disciplinarian certainly chafes against contemporary expectations for fatherhood and demonstrates a definitive lack of physical caretaking responsibilities, this does little to diminish the central role fathers were expected to play in the home and in the lives of

their offspring. In addition to those listed above, fathers frequently bore the responsibility of preparing their sons for the world of work. For many fathers this meant significant time educating their sons in a skilled trade or agriculture through direct father-son interaction and shared labor. As the 18th century unfolded, expectations for American fathers, particularly the affluent, began to shift away from the importance of paternal dominance and authority as the Puritan religious notion of the “infant fiend” whose sinful nature needed to be broken and brought into submission waned (Griswold, 1997). Griswold (1993) reports a focus on greater affective involvement and companionate father-child relationships emerged as families grew to be increasingly child-centered, and children were believed to be innately good though “vulnerable to sin,” and thus capable of being led to redemption (Greven, 1988).

The American Revolution and emergence of an economy driven by the growth of industrialization and commercialization led to a series of ideological transformations that changed social conceptions of the roles of American mothers and fathers. The declining of agrarian and artisanal economy, in which both the work and domestic activity of the family unit was centered at home, was being supplanted by a model where families were supported by breadwinner fathers who worked outside the home in manufacturing or commercial settings. This often meant much of the time fathers previously would have spent working in the home or working their own land was now dedicated to commuting to work long hours in factories. In addition to the physical absence of the father this created, it also meant a disruption of the trend for fathers to

educate their sons in trades and skilled work most frequently passed from generation to generation (Griswold, 1993). While some fathers played an important role in recruiting their sons into factory work, the bonds developed in teaching a trade and working closely alongside each other in an apprentice relationship were lost and increasingly sons were forced to seek work outside their communities (Griswold, 1993; 1997). Additionally, increased consumption and the tendency for children to remain in the parental home into their mid-twenties in middle-class families made providing financial support for the family the protracted task that consumed the time of fathers. The case was similar for wealthier families with the primary difference being increased costs of both education and material consumption (Griswold, 1993).

During this time a cultural shift from focus on fathers to mothers took place, which repositioned mothers as directors of the household and made them primarily responsible for the social development of their children (Griswold, 1993; 1997). As noted above, this had been the primary domain of the American father, who took on the role of educator, moral authority, and facilitator of social standing through employment and marital unions. Norton (1996) describes these new “republican women” as making vital contributions to the development of their emerging free state by first serving their families. The task of instilling and supporting the growth of moral character and skill acquisition to maintain the standing and livelihood of the family shifted to the development of those traits necessary for citizens of a fledgling democracy, and with it the responsibility shifted from fathers to mothers (Griswold, 1993). Though the idea of this form of a woman’s “service to the republic” faded by

the early 19th century, the mother's central role in the development of children did not. American ideals of father the provider and mother the nurturer had been firmly implanted. The fathers' increasing physical absence from the home for long periods of time each day was not irreconcilable with the building of affective relationships with children but was certainly less well suited to that task. This diminished availability combined with rising support for theories of child development that stressed the importance of a warm, affectionate environment to support the inherent goodness of children positioned women as the more vital of the two parents in terms of the day-to-day life of the child (Griswold, 1997). This was not only true for sons who less frequently worked closely with their fathers as tradesmen or agricultural workers but also daughters as a trend of "more rigid gender-role differentiation" increased dramatically (Griswold, 1993, p. 16). Distinct worlds for men and women were created as fathers and sons worked and women were brought together with other women through pregnancy, childbirth, and social organizations with limited intermingling of one sex into the sphere of the other (Griswold, 1993). In the Southern states Griswold (1993) indicates the culture of honor further served to draw distinction between the sexes as Southern men "distrusted feminized child rearing [and] maternal indulgence [...] because they believed it sapped male prowess" (p. 18). Sons were expected to prove their honor by excelling in masculine endeavors like hunting and fighting, which evolved into the subculture of dueling in defense of offended honor.

Soon, however, the notion of "Christian fatherhood" and Victorian medicine and psychology evolved in the popular conscience highlighting the need for men to

take back up their former presence in the household by helping mothers prepare their children for the adult world and bolster male dominance as paterfamilias. The Victorian medical community endorsed fatherhood as an essential milestone in the male psychological development from sensation-seeking postadolescent to the “less selfish, more refined, and better disciplined” adult (Griswold, 1997, p. 75). The benefits of “Christian fatherhood,” by comparison, were believed to include an increased sense of meaning and fulfillment for the father in addition to improved outcomes for children (Frank, 1998). It was at this time the concept of the companionate father began to take hold, as men were encouraged to bond with their children through play (Griswold, 1997).

Further, the available evidence supports the notion that a majority of fathers took this role seriously and also greatly valued opportunities to interact with their children, relished their accomplishments, took great interest in their well-being, and were saddened by their absence. As children grew older, fathers of this time took part in promoting and supporting their education and securing social standing through consultation and assistance in finding husbands for their daughters and employment for their sons. Beyond the “contractual” language of the father-child relationship, it became increasingly common for fathers to bring emphasis to their affection for and the ready willingness to engage in self-sacrifice to ensure the welfare of their children (Griswold, 1997).

Marsh (1988) identified what has been called the emergence of “masculine domesticity”—a renewal of paternal involvement in childrearing activities—around the turn of the 20th century in the United States that would become the archetype until the 1960s alongside the growth of a suburban middle-class. Professionals across an array of social science fields elevated and supported the ideal of the companionate family in response to the perceived weakening of family relationships by the rapid growth and industrialization of the economy. Fathers were encouraged to spend time with their children to help affect positive personality development and build families characterized by “tolerance, strong emotional bonds, diffuse authority, and companionship” (Griswold, 1997). By the 1930s “masculine domesticity” grew to become an essential component in the proper sex role socialization. A father’s presence was necessary for his son to successfully transition into manhood and to prepare his daughter for her marital relationship. These tasks were primarily accomplished by engaging his children in play, hobbies, or sports. And though this move reinforced the idea of increased paternal involvement, which history suggests men attempted to do with great intentionality, it preserved previously established gender roles regarding breadwinning and domestic responsibilities (Griswold, 1997; LaRossa & Reitzes, 1993). But by the 1950s, however, some fathers came to resent the establishment of parenting standards that were increasingly set by mothers and experts. The incongruence of more progressive companionate fatherhood expectations and more conservative breadwinner responsibilities came into sharper contrast as confidence in the advice of experts, who were frequently viewed as

“inadequate men” given their alliance with mothers and energies focused on the feminine task of childrearing, eroded. A culture of American consumption grew to place even greater demands on fathers’ breadwinning duties and further polarized gender role differentiation (Griswold, 1997).

If one were to rely solely on popular media representations, commonly accepted and recited history, and the segment of professional work extending from these ideas for an understanding of American fatherhood as a whole, it would not be unreasonable to believe the experience of some fathers of the late 1950s and 1960s was the predominate experience of the majority of American men. And while due consideration must be paid to the highly segmented division of labor along gender lines, the fact remains that “the historical record suggests millions of U.S. men throughout the 20th century conscientiously strove to be more competent, better informed fathers” (Griswold, 1997, p. 80) and recent research, such as that of Bianchi (2000) and Galinsky et al. (2009), still finds a majority express desire for and report more actual time spent with their children than their own fathers.

The history of fathers presented above is most representative of that of white EuroAmerican fathers, particularly those from working-class, middle-class, or affluent families. The experience of Black, American Indian, immigrant, and poor fathers shared some commonalities in their evolution over time with the above history, but were defined, in part, by factors absent from the experience of the ethnic and economic majority fathers such as acculturation and assimilation issues, racism, and poverty.

Contrary to the myths asserting the black slave father's irrelevancy and the racially motivated theories of pathologically inadequate black fatherhood, historians have noted that slave marriages were remarkably secure and slave fathers demonstrated a long tradition of naming their male children after themselves, symbolically linking themselves to their children in opposition to a system that stripped much of the legal authority and protections to manage their families enjoyed by their white contemporaries (Gutman, 1975; 1977). In much the same way white fathers were responsible for educating their children, slave fathers were also valuable teachers of their children educating them in their trade, teaching their sons to hunt or fish to supplement the family's diet, and important social lessons about navigating the dangerous world of enslavement. However, the fundamental difference between their experience and that of slave owners was slave fathers had no power or authority to prevent their families from being divided by the forcible sale of themselves, their spouses, or their children (Griswold, 1993). These separations for which there was no available recourse resulted in grief and despair (Gutman, 1975; 1977; Mintz & Kellogg, 1989) unknown by free fathers that, for many, could only be assuaged by reunion following emancipation or in death (Lammermeier, 1973).

Black families became increasingly headed by females as Reconstruction failed and gave way to Jim Crow in the South establishing a new system of social, economic, and educational racial segregation and discrimination that would persist for nearly a century severely limiting the ability of black fathers to serve as breadwinners (Griswold, 1993). As thousands of black families began migrating to urban centers in

the North and South, black men were “denied factory jobs, excluded from unions, [and] routinely paid lower wages than whites” (Griswold, 1993, p. 23) resulting in under- and unemployment for many (Gutman, 1977). It was these conditions that black fathers were again forced to leave their families in order to provide for them financially only to be recast later by social scientists as evidence of a peculiar pathology painting black men as incapable or disinterested in providing or caring for their partners and children (Gutman, 1975) culminating in *The Negro Family: The Case for National Action* of 1965 or the Moynihan Report produced by an assistant U.S. Secretary of Labor. This report and its conclusions would be used by politicians nearly two decades later seeking to reduce social programs aimed at offering assistance to the poor under the auspices of breaking the cycle of “pathological” paternal absenteeism in black families (Griswold, 1993). Economic, educational, and social inequality remain significant obstacles for black families and fathers where 29% of black households with no male present are married women with children (U.S. Census Bureau, 2011a). The rate of poverty for African Americans remains more than twice the national average of 13.2% (DeNavas-Walt, Proctor, & Smith, 2011). They have lower rates of high school and higher education completion (U.S. Census Bureau, 2011a), have more limited access to medical resources and public services (Institute of Medicine, 2003), are overwhelmingly represented in job fields such as transportation, production, and service industries (U.S. Census Bureau, 2011a), and represent 41% of those imprisoned in the United States while comprising only 13% of the population (Harrison & Beck, 2005). Black men aged 25 to 29 are more than three times as likely

as Latino males and seven times more likely than white males to be incarcerated (Harrison & Beck, 2005).

The experiences of American Indian families and fathers have also been characterized by a “cumulative trauma” that has included forced relocation, racism, poverty, and loss of traditional lands, language, and culture (Trimble & Gonzalez, 2008; Sue & Sue, 2008). Following relocation in the 19th century from their traditional lands on the authority of the Indian Relocation Act of 1830, many families were further disrupted by the removal of children to boarding and missionary schools where students were systematically alienated from traditional culture (Robinson-Wood, 2013; Sue & Sue, 2008; Trimble & Gonzalez, 2008) with the expressed goal of “kill[ing] the Indian and sav[ing] the man” (Hoxie, 1996). Within the boarding school system the ties between Indian children and their tribes, families, and fathers were severed by both distance and the disparagement of native ways as students were forbidden to speak their own languages, had their hair cut, and were even renamed (Cameron & Turtle-Song, 2002; Robinson-Wood, 2013). Further, prior to the passage of the Indian Child Welfare Act of 1978, upwards of 90% of American Indian children placed in foster care were put under the care of non-Indian homes by order of state courts and institutions (Congressional Record, 1997). Indian traditions and values regarding parenting, family structure, and roles of family members may also differ significantly from that identified as desirable or ideal by social researchers and policy makers (Rockey Robbins, personal communication, August 7, 2013). Failure to acknowledge the validity and importance of these structures and traditions serves to further

alienate tribes, families, and individuals and undermine efforts to preserve traditional culture and sovereignty.

Presently, American Indian families experience many of the same issues encountered by black families described above: 28.4% live in poverty, a rate matched only by that of black families, fewer completed high school or college degrees than other minority groups (U.S. Census Bureau, 2011a), estimates of diabetes within the American Indian community rise as high as 50% (Robinson-Wood, 2013), and almost a third do not receive routine health care (Institute of Medicine, 2003). Further, inconsistency between many tribal definitions of membership and that established by the U.S. government, separation by space and the complex issues of acculturation differences, and problems within and without Indian groups contributes to the continued disruption of tribal communities, cultures, families, and fatherhood (Sue & Sue, 2008).

Finally, the evolution of mainstream American fatherhood is likely significantly different from that observed in immigrant families. The stresses of migration (which may be voluntary or involuntary), separation from extended or immediate family, culture, and language, and the struggle to maintain balance in establishing bicultural identification present unique challenges for immigrant families and fathers (Falicov, 2003). Ambivalence about migration or acculturation of their children or reliance on their children as interpreters or guides through American culture can dramatically change traditional parent-child relationships and interactions leading to potential

conflict and American norms and values may directly conflict with culturally appropriate norms and values of immigrants (Falicov, 2003).

Contemporary Fatherhood

Morman and Floyd (2002) describe contemporary American fatherhood as continuing the trend of adaptation; currently, they note a move “away from ‘father as breadwinner’ and toward ‘father as nurturer’” (p. 399). This change is supported by current U.S. Census data indicating that the number of married fathers who report being out of the workforce during the previous year to care for their children while their spouse was employed outside the home has more than doubled since 1994 with a full 50% increase from 2003 to 2010 (U.S. Census Bureau, 2011b; 2011c). The fact that these numbers co-occurred with significant economic changes point to not only the impact of the economic climate on the involvement of fatherhood, as was observed in the period of American industrialization, but also the growing acceptability of father’s taking on increased responsibility for child care.

Recently fathers have reported an increasing physical presence equitable to that of mothers at key points during weekdays (e.g., at morning and evening meals), taking regular outings with their children, and reading an average of six times a week to children between the ages of three and five years old (U.S. Census Bureau, 2011b; 2011c). Research aimed at reanalyzing paternal time use (Bianchi, Robinson, & Milkie, 2006), has demonstrated paternal interactive engagement activity with children has nearly doubled since 1965 and paternal activity in routine childcare tasks has also

increased during this time. In 2000, married American fathers reported spending an average of 4.7 hours total time with their children daily. Though these data indicate fathers continue to spend less time with their children than do mothers, it is important to note that this ratio has been impacted by corresponding changes in the amount of time mothers spend with children. While both American men and women have increased the amount of interactive activity with children only fathers have significantly increased their time spent on routine activity (Bianchi et al., 2006).

Furthermore, publications directed at popular consumption, such as those by Kornelis (2012) and Slaughter (2012b) demonstrate an increased presence and interest on the part of fathers in daily tasks of childcare and the development of family life along with a growing sense that beliefs about gender roles and work-home balance is an issue facing both men and women. As these transitions in gender roles continue, the expectations of American men and women start to resemble mirror images of one another as meeting work-home balance responsibilities places each in increasingly untenable positions. Just as women have struggled with the expectation of retaining the role of primary caregiver while also taking on the responsibilities of the workplace and provider, men are finding it a struggle to meet the demands of the traditional breadwinner role and being a more involved parent. Ultimately, the maintenance of rigid, socially constructed gender roles and the resultant lack of equity of responsibility leaves couples struggling to find balance together, and at the same time, separately.

Though there are appreciable and important differences between the experiences of mothers and fathers working to maintain work-home balance, it

appears, consistent with Hyde's (2005) Gender Similarities Hypothesis and recent research by Carothers and Reis (2013), the emphasis on differences to the exclusion of shared features may come at substantial cost to understanding these experiences, addressing the problems posed to parents in a more comprehensive manner, and maintaining traditional gender divisions that work against more equitable sharing of family responsibilities.

Generative Fatherhood

In response to what was observed as the prominent focus in academic work on the failure of fathers to adequately fulfill the expectations of the fatherhood role, researchers such as Doherty (1991) attempted to reorient the discussion of fatherhood away from a deficit model of men. As Hawkins and Dollahite (1997), among others, argue deficit approaches, or "role-inadequacy perspectives," to fatherhood in both research and practice are significantly limited by their focus on the inadequacy that does characterize the ineffectiveness of some fathers while ignoring good fathers. A perspective whose primary focus, they write, lies in emphasizing an image of men as unwilling, incompetent, and disinterested in changing their role in childrearing, regardless of arguments about its validity, provides a poor foundation for understanding and cultivating a culture of better fathering.

The following excerpt from the introduction to a text entitled *Fatherless America* (Blankenhorn, 1995), serves as evidence of the vitriolic and pejorative nature of the discussion of fatherhood by role-inadequacy perspectives:

Because fatherhood is universally problematic in human societies, cultures must mobilize to devise and enforce the father role for men, coaxing and guiding them into fatherhood through a set of legal and extralegal pressures that require them to maintain a close alliance with their children's mother and to invest in their children. Because men do not volunteer for fatherhood as much as they are conscripted into it by the surrounding culture, only an authoritative cultural story of fatherhood can fuse biological and social paternity into a coherent male identity (p.3).

Clearly, as the remarks above indicate, role deficit models posit a bleak picture of fatherhood with little hope for significant change without the threat of social, legal, or monetary punishment to provide sufficient enforcement of calls for men to act against their purported "true nature." And like many other stereotypes, this model requires opposition to prove a negative as a means of refutation while proponents can simply describe fathers who do not fit the model (e.g., single fathers) as anomalies or, more likely, positive proof of the assertion that good, responsible fathering only takes place in the context of the necessary pressures they describe (e.g., threat of legal action or social recrimination as an unfit parent).

Additionally, much of the scholarly work providing the foundation for role deficit model theories is often predicated on data and research demonstrating low involvement by fathers in parenting and caregiving tasks, particularly by relative comparison to mothers, or that living apart from one's children as the result of divorce

or birth out of wedlock is equivalent to “paternal abandonment” (e.g., Blankenhorn, 1995) When the historical shifts in the role of the American father and the increased differentiation of gender specific domains is taken into account, it comes as little surprise that research narrowly defining parental involvement as limited to completing tasks socially prescribed as falling into the maternal domain would find that fathers are “uninvolved” or less involved than mothers (Cohen, 1993). Pleck (2010) notes early operationalization of paternal involvement included direct engagement, accessibility, and responsibility (Lamb, Pleck, Charnov, Masciadrelli, 1985); however, total interaction time became the data point of greatest interest to researchers. As research progressed so did interpretations of the paternal involvement construct resulting in disagreement and inconsistency in arriving at definitions of parental involvement and reporting issues (Palkovitz, 1997; Pleck, 2010; Willinger, 1993). Furthermore, Palkovitz argues, relying on theories developed around poorly operationalized constructs of involvement leads us to maintain misconceptions that hinder our ability to fully measure and understand involvement (e.g., involvement must involve close proximity, involvement is always observable, involvement is static and predictive, and that appropriate involvement should be uniform regardless of developmental needs, socioeconomic status, or culture). More recent research has expanded the construct to include qualitative dimensions of interaction to include concepts of warmth and responsiveness, control, indirect care, and process responsibility (Pleck, 2010).

The heightened emphasis on paternal involvement and nurturance is the foundation for the theory of “generative fatherhood” by Hawkins and Dollahite (1997).

Drawing from Erikson's (1950, 1959) developmental model, generative fathering theorists seek to reframe fathering in terms of Erikson's generativity-stagnation stage, which, when successfully navigated, involves biological reproduction and involved, supportive fathering that contributes not only to the individual and family but also society in a greater sense (Snarey, 1997). This form of fathering is based heavily in the beliefs that fathers have ethical obligations to ensure the positive development of their children and communities and they are able to do so actively and intentionally because they do possess the abilities necessary to be supportive and nurturing parents beyond the provision of a secure environment where material needs are provided. Fathers, generative theorists argue, can and do play important roles in the growth of their children thorough relationship building and supporting their developmental needs (Dollahite, Hawkins, & Brotherson, 1997).

Finally, generative fathering recognizes the necessary collaborative and interactive nature of parenting between parents. Parenting does not belong in the domain of a particular gender, but instead "optimal involvement occurs when both mothers and fathers assess their strengths and weaknesses, the developmental needs of the family, and the resources and deficits that they individually and cooperatively bring to the family" (Palkovitz, 1997, p. 201).

Interaction Between Work and Home

Research exploring the interaction between the stress of meeting role demands across work and home domains began as early as the 1970s yet early reviews

of the literature revealed mixed empirical findings and a paucity of comprehensive underlying theoretical structure (Barnett, 1998). A strong inclination toward research focusing on identifying a negative relationship between the roles of work and home loosely based on assumptions that role conflict and depletion of resources were inevitable for employees with families characterized much of the early endeavors in this area. In spite of evidence supporting a more complex interaction that extended beyond a simplistic, unidirectional zero-sum hypothesis positing that work negatively impacts family life, theories explaining these interactions were slow to develop (Barnett, 1998). The clash between traditional gender role beliefs that presumed women were best suited to be in the home and the increased presence of women entering the workforce during the 1960s and 1970s likely contributed greatly to the emphasis on exploring the negative consequences of work-family interactions (Chan & Margolin, 1994).

In a recent meta-analysis of nearly 200 studies published between 1980 and 2002 on work-home interactions, Eby, Casper, Lockwood, Bordeaux, and Brinley (2005) also found a strong prevalence of predictive rather than exploratory research focusing on hypothesized negative effects in regard to work-family relationships (58%) compared to positive effects (18%) or a combination of both positive and negative effects (18%). Further, work-family interaction variables were the most commonly proposed mediators in predictive models of criteria such as work attitudes, job satisfaction, health and wellness, and stress. Contrary to those findings of Barnett (1998), Eby et al. found a significant portion of these studies also predicted these

effects would be bidirectional demonstrating a growing trend toward broader conceptualization of work-family interaction. Overall, associations between work-family conflict and negative outcomes at work and outside of work at individual, organizational, and family levels have been clearly established. Increased work-family conflict has been associated with increased prevalence of psychological disorders, stress, physical health complaints, poorer family and marital functioning, and lower life, job, family (Eby et al., 2005), and marital satisfaction (Brock & Lawrence, 2008).

Developing a More Comprehensive Understanding

One of the few early efforts to expand the theoretical conceptualization of work-family interactions involved a naturalistic study of working class families. Piotrkowski (1979) identified three processes by which workers' occupational experiences impacted them and their families at home described as a contagion effect. This model is consistent with much of the research of early home-family conflict by virtue of its unidirectional nature, focusing on work-to-home interaction; however, it is notable for the fact that it posited processes related to both positive and negative affective contagion. The inclusion of positive effects of managing multiple roles stands in contrast to the majority of research in this area that is based heavily in work-family conflict hypotheses.

Piotrkowski (1979) suggests there are two negative processes involved in work-family interaction. Negative carryover occurs when stressful work situations result in tension that persists from the work domain to the home domain straining familial

relationships and role function. The energy deficit pathway describes a pattern in which work situations are neither notably positive nor negative but nonetheless drain the personal and physical energies of the worker making reintegration into their family role difficult; similar in nature to role scarcity (Edwards & Rothbard, 2000) and conservation of resources (Hobfoll, 1989) hypotheses. Piotrkowski also suggests positive carryover occurs when a positive work environment that supports autonomy and control leaves the employee relaxed and available to other family members facilitating greater ease in family relationships (Podmore, 1981).

Since that time, the construct of carryover has been of continued interest in work-family literature leading to the development of two more specific pathways that describe the relationship between role domains, relationships, and intrapersonal experience: spillover and crossover (Bolger, DeLongis, Kessler, & Wethington, 1989). Spillover refers to an intrapersonal process by which stress experienced in either the work or home domain leads to increased stress in the other domain. For example, a couple has an argument regarding childcare responsibilities and one partner experiences frustration and resentment that persist through the following workday. Crossover, by contrast, is an interpersonal process in which stress experienced at work by one partner results is shared by the other partner at home. For example, an employee who experiences chronic frustration and a lack of control at work may through conversation at home transfer disparaging attitudes about the role of work to his or her partner (Bolger et al., 1989; Bakker & Demerouti, 2013). Spillover involves “within-person across-domains” transmission while crossover involves “transmission

between individuals” (Bakker, Demerouti, & Burke, 2009). While work-family conflict perspectives have dominated the majority of this literature (Eby et al., 2005), a group of researchers has made an argument for increased attention to the positive effects of work-family interaction in order to understand this complex relationship more fully (e.g., Barnett, 1998; Frone, 2003; Greenhaus & Parasuraman, 1999; Grzywacz & Marks, 2000), leading to the development of constructs and theories distinct from work-family conflict such as family-to-work facilitation (Grzywacz & Bass, 2003) and work-family enrichment theory (Greenhaus & Powell, 2006). The former has been observed to mitigate the negative effects of work-family conflict on mental health (Grzywacz & Bass, 2003) while the latter posits that resources and skills developed in one role and the resultant positive affect achieved promote improved performance and increased positive affect in other roles (Demerouti, Bakker, & Voydanoff, 2010; Greenhaus & Powell, 2006).

Eby et al. (2005) indicated there has been greater inclusion of research hypotheses and theory supporting bidirectional effects of work-family interaction since Barnett’s (1998) review, and there have been a few notable attempts to provide a broader theoretical framework integrating conflict and enrichment perspectives and bi-directional pathways. The most recent of these include the Spillover-Crossover Model of Bakker and Demerouti (2013), introduction of ecological systems theory perspectives to a spillover model by Grzywacz and Marks (2000), and the Work-Home Resources Model of ten Brummelhuis and Bakker (2012). These models, though

distinct in their foci, share some common theoretical foundations that support further integration through continued research.

Spillover-Crossover Model. Bakker and Demerouti (2013) presented an integrated model, the Spillover-Crossover Model (SCM), unifying these two pathways and the Job Demands-Resources Model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) to suggest a pattern of spillover that impacts an employee's performance and well-being across domains while also impacting the performance and well-being of the employee's partner via crossover, which is facilitated by social interaction. The Job Demands-Resources model, which was originally developed by Demerouti et al. (2001) to predict work performance and employee burnout, states that work environments place demands on employees as well as affording them resources. Subsequent studies (e.g., Bakker, Demerouti, & Verbeke, 2004; De Beer, Rothmann, & Pienaar, 2012) have supported the structure of this model linking work environment factors (e.g., work pressure, emotional demands, high workload) and demand-resource balances favoring demands to increased rates of employee burnout and negative work performance. The Spillover-Crossover Model proposed by Bakker and Demerouti (2013) posits the valence of the ratio of demands and resources in the workplace directly impacts the experience of employees across work and home domains through patterns of spillover and indirectly impacts the experience of employees' significant others through the process of crossover (See Figure 1).

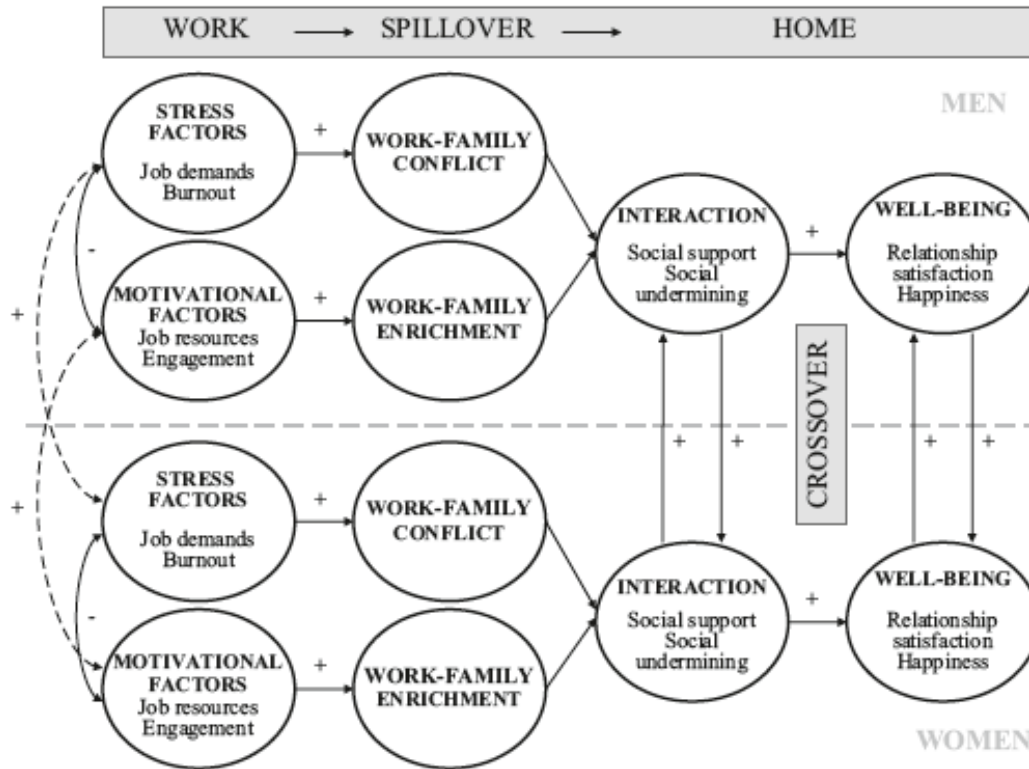


Figure 1: The Spillover-Crossover Model (Bakker & Demerouti, 2013, p. 58)

Though SCM provides a theoretical framework for understanding the causal relationships related to work-to-home interaction on intrapersonal and interpersonal levels including both positive and negative outcomes, it does not explicitly include pathways reflecting the reciprocal relationship of home-to-work interaction. Moreover, the model, and related research, have primarily emphasized the pathways of spillover and crossover while research on related outcomes has been limited to measures of well-being for employees and their significant others and work domain outcomes (e.g., Bakker, Demerouti, & Verbeke, 2004; De Beer, Rothmann, & Pienaar, 2012).

Ecological systems integration. Grzywacz and Marks (2000) expanded previous research in the area of spillover through the inclusion of ecological systems theory, stating it provides an “expanded conceptualization of the work-family interface” that supports a more nuanced understanding due to its necessary consideration of broader factors of the environment in which the individual is immersed and intrapersonal factors without “restrict[ing] the experience to either positive or negative spillover” (p. 112-113).

Bronfenbrenner’s (1979; 1992) ecological systems theory is distinguished by its assertion that human development occurs, “through processes of progressively more complex reciprocal interaction between an active, evolving biopsychosocial human organism and the persons, objects, and symbols in its immediate environment” (Bronfenbrenner, 2001, p. 6963), and therefore must be understood, within the biological, social, cultural, and historical contexts in which individuals are immersed. The environment is comprised of five interactive systems in which the individual holds membership, and the active, ongoing development of the individual is shaped by bidirectional influence between systems and individual. Ecological systems theory holds that an individual’s development is the result of their active participation within these five levels of environmental systems each comprised of specific norms, rules, and roles and the interaction of these systems (Bronfenbrenner, 1979; 2001; 2005). The five systems defined by environmental systems theory include the microsystem, mesosystem, exosystem, macrosystem, chronosystem. Bronfenbrenner (1992) defines microsystems as immediate environments in which developing person “engage in

patterns of activities, roles, and interpersonal relations” with others who also possess unique temperaments, beliefs, and personality characteristics. This system involves face-to-face interaction by the developing person with other individuals or groups that include family, work or school peers, neighborhoods, religious associations, etc. The term mesosystem refers to a “system of microsystems” or the “processes taking place between two or more settings containing the developing person” (Bronfenbrenner, 2005, p. 148). In other words, the mesosystem comprises the ways in which groups the developing person belongs to interact with one another, e.g. relationships between immediate family and work, family and school, etc. It is this system that has been of greatest interest to researchers of work-home interaction through the investigation and identification of the spillover process. The exosystem, by contrast, involves the interaction of microsystems in which the developing person is not actively and directly involved but, nonetheless, impacts the developing person indirectly. For example, a child does not actively participate in the political or socioeconomic systems, however, the interaction between these microsystems and that of his family indirectly influence his or her development. In the context of home-work interaction, Bakker and Demerouti’s (2013) crossover process provides an excellent example of exosystem interactions and its associated effects. The well-being and work performance of employees are impacted by their spouses’ work experiences and resulting affective states through the couple’s shared social interaction in the family microsystem (Bakker, Demerouti, & Verbeke, 2004; De Beer, Rothmann, & Pienaar, 2012). The macrosystem refers to an “overarching pattern of [underlying systems] characteristic

of given culture or subculture” (Bronfenbrenner, 1994, p. 1645) while the chronosystem encompasses change over time in the characteristics of the developing person and the systems of their environment (Bronfenbrenner, 1994).

Results of the Grzywacz and Marks study (2000) provided evidence indicating that positive and negative spillover effects from work-to-family as well as from family-to-work are distinct experiences, and also identified environmental factors correlated with spillover outcomes (e.g., increased pressure at home was positively correlated with negative work-to-family spillover). Consistent with ecological systems theory, increased ecological barriers (e.g., increased work hours) and fewer ecological resources (e.g., less support and decision-making latitude at work) were found to be associated with increased negative spillover and decreased positive spillover between domains in both directions (i.e., work-to-home and home-to-work) supporting Bronfenbrenner’s descriptions of the mesosystem (i.e., interaction of the microsystems work and home) through the pathway of spillover. Additionally, intrapersonal characteristics such as neuroticism, gender, age, ethnicity, education, and earnings were also linked to variability in spillover effects (Grzywacz & Marks, 2000).

Work-Home Resources Model. In much the same way that the Bakker and Demerouti (2013) Spillover-Crossover Model seeks to integrate the Job Demands-Resources Model with theories of spillover and crossover to explain the causal mechanisms of work-home conflict and enrichment, the Work-Home Resources (W-

HR) Model developed by ten Brummelhuis and Bakker (2012) draws on both the Model of Conservation of Resources (COR; Hobfoll, 1988; 1989) and ecological systems theory (Bronfenbrenner, 1979; 1992) to provide a broad explanation of the processes of work-home conflict and enrichment, as well as a more specific understanding of the roles of contextual demands and resources from the individual and relevant environmental systems in these processes.

The Model of Conservation of Resources was developed to explain what occurs when individuals encounter stress in their environment and what impacts this stress has on their well-being. Similar to the Job Demands-Resources Model, which provides a specific and limited focus on the domain of employment, COR posits that “people strive to obtain, retain, and protect resources” as ends themselves or as means to achieve desirable ends and environmental conditions often threaten the loss or depletion of these personal resources (Hobfoll, 2002 p. 313). An individual’s resources may include a wide range of objects, personal characteristics, conditions or statuses, and energies deemed valuable by the individual or culture (ten Brummelhuis & Bakker, 2012). These resources can be described as material (e.g., money, a home) or conditional (e.g., marital status) and may have instrumental and/or symbolic values (Hobfoll, 1989; 2002). COR also distinguishes between resources that may be attributed primarily to the individual or environment, personal and contextual, respectively, and the stability of resources over time. Resources such as time or assistance from others are described as volatile because they are limited in that they are expended with a single use. Structural resources, by contrast, are considered more

durable. Social networks and personal experience, for example, while bound by certain parameters tend to be more stable resources that can be reused (Hobfoll, 2002; ten Brummelhuis & Bakker, 2012). Hobfoll (2002) also distinguishes certain personal resources as “key resources,” which are believed to play the role of facilitating the utilization and acquisition of resources and are thought to enhance coping. The W-HR model integrates ecological systems theory through the introduction of macroresources. These macroresources are conceived as characteristics of the macrosystems (culture, subculture, political and economic climate) described by Bronfenbrenner that influence the degree to which individuals are able to utilize resources in their environment. See Figures 2 and 3 for a graphic summary of the dimensional system of resources of the W-HR model.

Stress occurs when resources are threatened and depleted, and the ability for individuals or groups to cope with stress is predicated on the degree to which resources are depleted by environmental threats, i.e., greater resource loss will result in higher levels of stress and stress becomes chronic when environmental threats persist, losses cannot be offset, and resources cannot be sufficiently replenished (Hobfoll, 2002). This phenomenon is also known as a loss spiral (Hobfoll, 1989). Further, COR suggests that those with greater resource reserves will weather stress or

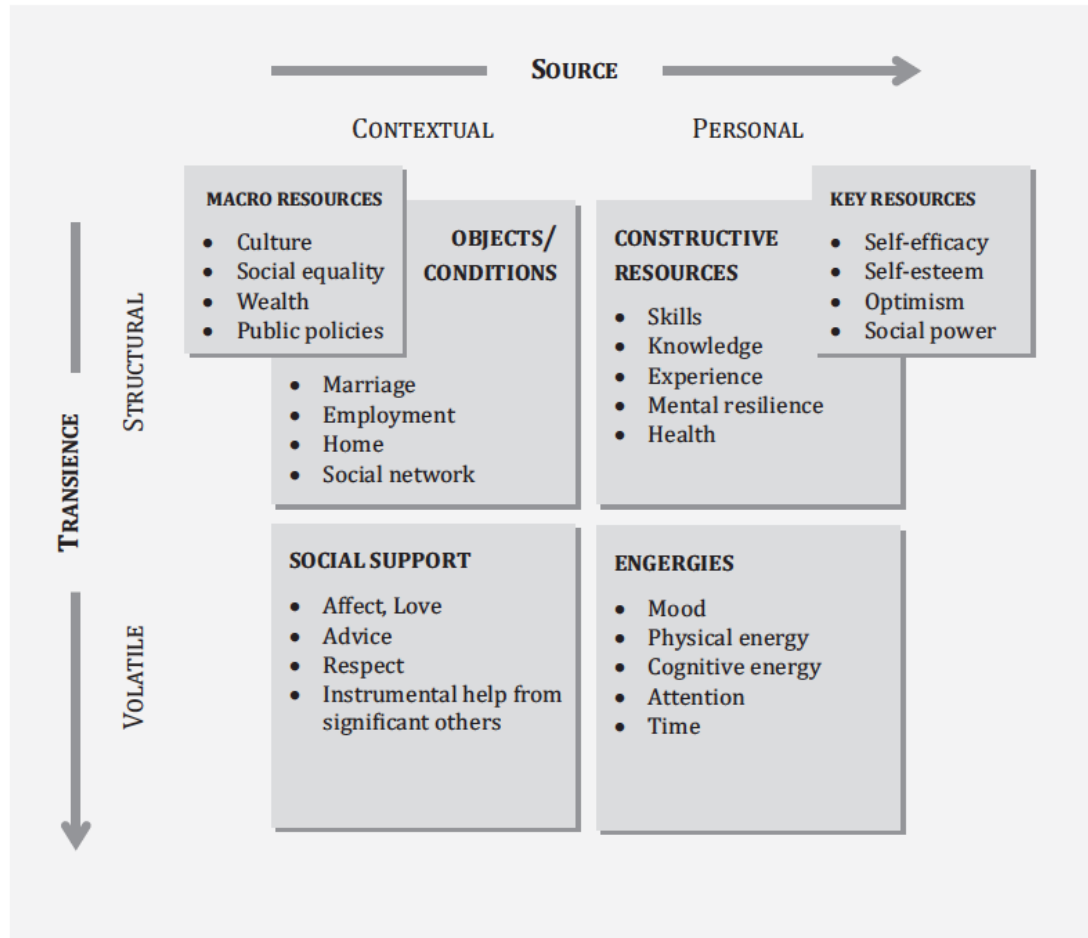


Figure 2: W-HR categorization of resources (ten Brummelhuis & Bakker, 2012, p. 549)

cope more effectively by substituting other resources for those lost, replacing lost resources, or investing energy to offset depletions. This ability to cope more effectively buffers the negative effects of stress, and also enables those with greater resources to seek additional resources more readily, referred to as a gain spiral (ten Brummelhuis & Bakker, 2012). This process is aided by the persistence of resources over time and “resource caravans,” the tendency of resources to bundle together or to be closely associated with one another (Hobfoll, 2002). Figure 4 displays the interdomain pathways between contextual demands and resources and opposite domain outcomes

with personal resources mediating that relationship.

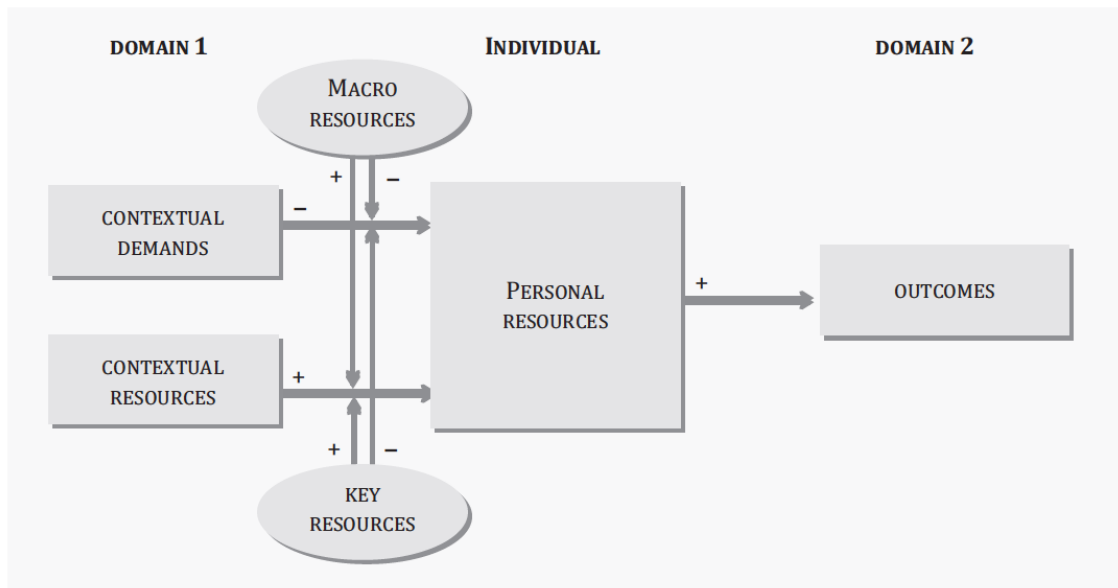


Figure 3: Moderating roles of macro and key resources (ten Brummelhuis & Bakker, 2012, p. 550)

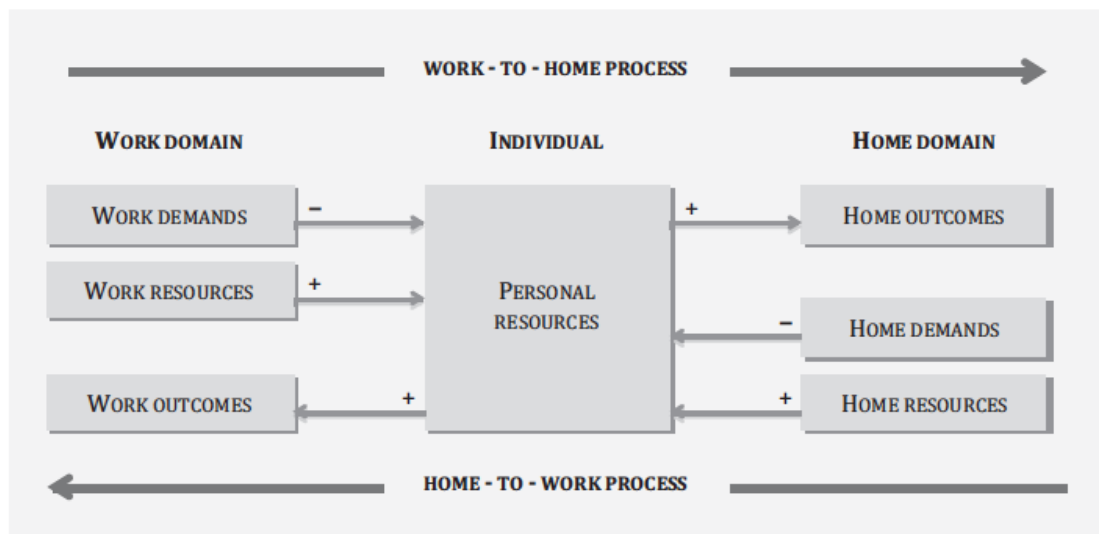


Figure 4: W-HR interdomain pathways (ten Brummelhuis & Bakker, 2012, p. 550)

Most researchers (e.g., Bakker, Demerouti, & Verbeke, 2004; De Beer, Rothmann, & Pienaar, 2012; Grzywacz & Marks, 2000; Neilson, Carlson, & Lankau, 2001) have primarily concentrated on identifying ecological factors that may influence the valance or prevalence of spillover and crossover with limited attention to specific outcomes (most frequently cross-spouse work outcomes). These studies focus on the role of positive or negative workplace characteristics generally believed to be responsible for affecting the work experience directly (e.g., decision making latitude, supervisor feedback, workload, work hours) that impact outcomes at home indirectly through the process of spillover and partner work outcomes via spillover-crossover-spillover pathways. Alternatively, the role of ecological factors in domains outside the home that may be more directly linked to home outcomes, such as paternal involvement, have not been examined.

Ecological systems barriers to involved fathering

As the body of Bronfenbrenner's work and theory suggests, development is influenced by a host of factors within the individual and the environment in which one is embedded. By extension, to understand, and particularly to shape, behavior a thorough understanding of the factors and systems contributing to its production is vital. Involved parenting, like any other behavior, is affected by factors from a variety of domains. Research in the area of fathering specifically has suggested that fathering behavior is determined by multiple factors (McBride, Schoppe, Ho, & Rane, 2004; McBride & Rane, 1998; Nangle, Kelley, Fals-Stewart, & Levant, 2003; Schoppe-Sullivan,

Brown, Cannon, Mangelsdorf, & Szewczyk Sokolowski, 2008), and given the social norms supporting less parental involvement on the part of fathers relative to mothers, it is important to examine factors that may serve as barriers to involved fathering.

Despite the increases noted from the most recent U.S. Census data (U.S. Census Bureau, 2011b) in stay-at-home fathers in recent years and concurrent decreases in the number of mothers staying out of the workforce, men make up only a very small fraction of stay-at-home parents. This survey of American homes identified a mere 154,000 men who stayed out of the workforce for at least one year for the primary purpose of caring for children while nearly 5 million women reported doing the same over the same period (U.S. Census Bureau, 2011c). And while this represents a significant increase in stay at home fathers, it underscores research findings from nearly two decades earlier suggesting that though there was a significant shift toward equality in attitudes regarding work and family roles for men and women, men remained only moderately willing to relinquish their traditional role as provider to take on an increased family work role (Willinger, 1993). Wall and Arnold (2007) have questioned how much involved fathering actually occurs, and point out common support seen for fathers as “part-time, secondary parents whose relationship is less important than [that] of mothers (p. 508).”

Although men may express attitudes supporting a father’s decision to stay home at a substantially higher rate than 30 years ago, it seems few would consider it a desirable option (Willinger, 1993) and even mothers employed full-time continue to do

a disproportionate share of parenting (Pleck, 1997). The existence of this phenomenon, which LaRossa and Reitzes (1993) describe as discrepancies between the “culture” and “conduct of fatherhood” that reflect an “asynchrony” between how fatherhood is portrayed and how it is practically enacted in the home, has been observed previously in the United States during the 1930s and under similar circumstances, e.g. cyclical economic and social changes (p. 465). It was also noted that in addition to differences observed between changes occurring in popular culture regarding fatherhood and the reality of what was occurring in American homes, there were also likely to be differences in the expectations of men and women regarding fatherhood and the role of fathers, potentially leading to conflict about paternal involvement or responsibilities.

What accounts for this lack of congruency between an increase in beliefs about the flexibility of gender roles regarding parenting and the presumably static parental involvement of fathers? Some early researchers, such as Hunt and Hunt (1987) and Willinger (1993), suggest this discrepancy is the result of either a lagging sense of understanding by men of the benefits of more androgynous gender roles or a willful “resistance” on the part of American men to relinquish the power and privilege they have enjoyed as a group by the imposition of sex stratification and the politics of domination. These perspectives, particularly the latter, tend to paint the experience and motivations of men in very broad strokes in much the same way that the role deficit theories discussed previously did, and seem to rest on suppositions reminiscent of fundamental attribution error with little consideration of how economic and social

factors may also impact men beyond simply actively partaking in an oppressive system to preserve benefits reaped from that system. More recently, Ray, Gornick, and Schmitt (2009) have argued a combination of inadequate parental leave policies, the culture of the labor-market, and traditional gender roles “work together to deprive men the opportunity to participate actively in providing infant and child care” (p. 2).

Macrosystems Factors and Macroresources

Economic and workplace factors. As previously noted, the dual-earner family has become the most common work-home arrangement for married couples with children (Fraenkel & Capstick, 2011). And though the increased prevalence of attitudes accepting and supporting women and mothers working outside the home has helped spur this increase, the necessity of two incomes for many families to meet increasing costs of food (U.S. Department of Agriculture, 2011), higher education (U.S. Department of Education, 2012), housing, healthcare coverage, and retirement (U.S. Bureau of Labor Statistics, 2012) has also become increasingly clear. In addition to the frequent need for dual-incomes, the culture of the American workplace is not readily compatible with involved parenting (Slaughter, 2012a) and provides disincentives for both men and women to increase men’s involvement in the home.

The existence of a pay gap for American men and women for equivalent work is widely noted and estimates range between 34.9% (Jarrell & Stanley, 2004) and, more recently, 20% (U.S. Government Accountability Office, 2010) favoring men. Although the presence of a gender-based disparity in wages is well documented, arriving at a

clear understanding of underlying causes and contributory factors has been a challenge. In a meta-analysis of over 250 international studies of wage disparity, Weichselbaumer and Winter-Ebmer (2005) found that missing or imprecise data on variables of human capital (i.e., job tenure with employer, on-the-job training, work experience) have contributed to significant biases resulting in overestimates of gender wage gaps in some instances. However, they report raw wage differentials worldwide, which fell 35% between the 1960s and 1990s with an estimated continued annual decline of .17%, are estimated to be approximately 30% (p. 508). And while research has indicated estimates of the gap narrow further when researchers select groups with greater comparability, e.g., workers in a single occupation, new job market entrants, or among employees in high prestige jobs rather than random population samples or low prestige jobs (Ferreira, Harlow, & Katz, 2012; Weichselbaumer & Winter-Ebmer, 2005) suggesting gender is not as powerful a predictor when evaluating differences by rank, Crothers et al. (2010) report controlling for years of experience, willingness to negotiate, and negotiation preparation did not account for gender differences in salaries. In sum, questions regarding the causes of wage discrepancy remain difficult to answer. Crothers et al. (2010) suggest stronger correlations between reported job satisfaction and salary for men than women may contribute to continued lower expectations for compensation that contribute to the persistence of the gender wage gap. Additionally, recent evidence of a “fatherhood premium” that translates to a 4% wage increase for those taking a more traditional provider role has been found only for fathers whose wives do not also work full-time (Killewald, 2012).

These financial incentives and prevailing gender role mores are likely key components in the observed pattern of less frequent use of part-time employment or flexible scheduling by men than women (Biggart & O'Brien, 2009; O'Brien & Shemilt, 2003; Sheridan, 2004). Further, parental leave benefits available to working parents in the United States lag behind those offered by many developed countries across Europe, Asia, North America, and the Western Pacific; most of whom provide direct financial support for some portion of paternal leave (Ray, et al., 2009).

Current U.S. law, the 1993 Family and Medical Leave Act (FMLA), establishes minimum standards for leave for medical or parental reasons as a total of 12 unpaid weeks annually for qualifying employees working for businesses maintaining a workforce of 50 or more employees (Fass, 2009; Ray et al., 2009; U.S. Department of Labor, 2013). Though both fathers and mothers can utilize FMLA and provisions exist providing a certain level of job security and retention of healthcare benefits while on leave, significant shortcomings exist that lead Ray et al. (2009) to describe FMLA as falling "well short of [...] best practices" (p. 2). As unpaid leave, FMLA provides no mechanism for recouping lost income, lacks transferability of benefits between parents should one return to work, provides little flexibility in the use of leave, employers can require employees to use accrued paid leave concurrently, and is not accessible for approximately 40% American workers due to tenure and work hour requirements and the exemption of many small businesses (Ray et al., 2009; U.S. Department of Labor, 2003). And as surveys conducted in 2000 funded by the U.S. Bureau of Labor (Cantor et al., 2004) found less than 60% of employees had heard of

FMLA seven years after its passage and even fewer, roughly 50%, knew if the legislation applied to them.

A small handful of American states have established legislation that provides either extension of FMLA eligibility or paid leave, typically without job protection (Fass, 2009); however, these paid benefits “would not qualify as generous by international standards” (Ray et al., 2009). By comparison, mothers in Great Britain are eligible to receive 90% of their weekly wages for six weeks and may apply for an additional 33 weeks of coverage equal to the lesser of 90% weekly wages or a capped stipend. Recent legislation to allow transferability of maternal leave to fathers if a mother chooses to return to work, in addition to the two weeks paid paternity leave already provided, has been proposed and is being debated (Winnett, 2012).

Given the comparatively low minimum standards provided for by FMLA and the limited expansion of those benefits by a few American state governments, much of the burden of providing parental leave has fallen to American employers. Unfortunately, recent estimates indicate that only about 25% provide fully paid maternity leave benefits of any duration, which ostensibly is unavailable to fathers, and a full 20% fail to provide maternity leave benefits of any kind (Ray et al., 2009). Complicating the issue is the fact that while the language of FMLA does not explicitly address the eligibility of both fathers and mothers individually, instead utilizing the inclusive term parents. There is some confusion about the whether these benefits are even available to fathers, even amongst researchers (e.g., Fraenkel & Capstick, 2011). Critics, such as

Pleck (1993), have also noted implementation of family-supportive workplace policies has largely been done on a gender-neutral basis without specific efforts to encourage men's utilization of these policies.

Though the most recent data regarding the use of FMLA indicate that men are much less likely to take unpaid FMLA leave following the birth of a child than women and do so less frequently for child bonding after birth than for other reasons, such as personal injury or the infirmity of a family member (Cantor et al., 2001), research by McKay, Marshall, and Doucet indicates in countries, like Canada, where paid leave has been made available to fathers, use has risen sharply (as cited in McKay & Doucet, 2010, p. 300). Pleck (1993) reports men are most likely to use family-supportive policies to the extent that their earnings are not negatively affected, and 53% of individuals using FMLA leave reported significant concern about their ability to pay their bills while doing so (Cantor et al., 2001). These findings likely explain why half all employees who took advantage of FMLA leave earned annual salaries in excess of \$50,000, and half of those earned more than \$75,000 and most relied on personal savings to meet financial obligations during leave (Cantor et al., 2001). Similarly, Whitehouse, Diamond, and Baird (2007) found men in Australia, which has similar policies for paternity leave as the United States, with higher income are more likely to utilize this kind of leave than those employed by small businesses and working jobs deemed as nonpermanent. This pattern of greater use of paternity leave among fathers of greater economic and occupational stability has also been observed in countries providing paid paternity leave (Månsdotter, Fredlund, Hallqvist, &

Magnussun, 2010), but when the rate of wage recoupment is generous and policies extend leave to men individually rather than jointly to the couple to share use of the paternity leave up to the provided quota is high (Moss & Kamerman, 2009; Moss & Korintus, 2008).

In addition to the economic difficulties facing parents, particularly fathers, who choose to leave the workforce to take care of their children, Eaton (2003) discovered many workers choose not to use available leave because of fear they will be perceived as lacking commitment to their jobs. Indeed, nearly 40% taking FMLA leave feared doing so would hurt their opportunities for job advancement or result in loss of seniority upon their return (Cantor et al., 2001). Whether these threats to job security or advancement are perceived or real, they are likely significant obstacles to at least some of those 3.5 million eligible employees who reported a need for leave but did not utilize FMLA leave (Cantor et al., 2001).

Gender norm factors. Despite the cyclical and dynamic nature of the role of fathers in the American society, fatherhood and manhood remain commonly conceived as much more static. The strength and prevalence of traditional conceptualizations of Western manhood vary regionally, but many of the core elements remain deeply held in many parts of the world (Glick et al., 2004). This popular image continues to be strongly constrained by an image of a man who is a stoic physical specimen of strength, virility, and instrumental competence but has little time, inclination, or aptitude for developing relationships outside the limited contexts

of work, sports, or physical labor (Glick et al., 2004). This image, that is so narrowly defined and poorly representative of most men, has important implications for the development of both sexes as young men are educated about what it means to be a man and young women are taught what sort of partners to look for and expect. Decisions that couples then make together and as individuals regarding parenting are influenced by internalized images of fatherhood and motherhood (Deutsch, 2001), which are formed and reinforced by powerful social messages about gender roles, which are often biased by the “assumption that children need mothers more than they need fathers” (Wall & Arnold, 2007, p. 519). For most families, “employment is often framed as a ‘choice’ for women and an assumed responsibility for men” (Wall & Arnold, 2007, p. 518) while husbands defer to their wives on decisions regarding childcare and use of paternal leave, particularly shared leave time (McKay & Doucet, 2010). When men do choose to use flexible work schedules or part-time work, it is associated with increased time participating in childcare (Lee, 1983; Winnett & Neal, 1980). This increased activity may become socially “invisible” as narrowly proscribed definitions of parental involvement (Palkovitz, 1997) may not adequately account for all forms of parenting activity and the propensity of gender role stereotypes may lead others to assume men have other motivations for the use of flexible scheduling (Pleck, 1993).

Glick and Fiske’s (1997, 1999a, 1999b) work on stereotypes and bias reveals that ambivalence plays a strong role in maintaining and reinforcing stereotypes and traditional gender roles. Just as men are theorized to enact a form of gender bias

toward women called paternalism (Glick & Fiske, 1997) so too do women hold corresponding gender biased attitudes toward men known as maternalism (Glick & Fiske, 1999b; Glick et al., 2004). Both of these forms of bias are rooted in stereotypes that suggest a weakness or inadequacy in the opposite sex that requires protection or nurturance from the other (Glick & Fiske, 1999b), e.g. women are physically less powerful and therefore need protecting, and men are ill-equipped to meet their own basic needs and therefore need to be cooked for and cleaned up after. Each form of ambivalent, benevolent bias underlies beliefs about gender roles that suppose that each sex is more competent and more powerful in their respective domains or spheres (Glicke & Fiske, 1999b). As described previously, since the Industrial Revolution men's and women's spheres of activity and competence have been traditionally regarded as the world of work outside the home and domestic world of home and family, respectively (Griswold, 1993; 1997).

Glick and Fiske (1999a) discuss two dimensions of stereotypes, competence and likability, that are key to understanding the ambivalent nature of traditional gender relations. Women, on the one hand, are conceived by men holding traditional views as more sensitive, nurturing, and relationally attuned; qualities that made them highly likable. And on the other hand, women were believed to lack the ambition, analytical skills, and competitive spirit that were believed to make men successful and high achieving in the world of work; in other words, women were lacking in competence. Men, conversely, are viewed by women holding traditional gender beliefs

as high in competence but insensitive to others and thus low on in terms of likability (Glick & Fiske, 1999a).

Seeking to gain competence, power, or status outside one's traditionally defined gender sphere is often met with resistance by those seeking to maintain the status quo; sometimes direct and hostile and sometimes indirect and benevolent. However, because competence and power are context-specific, those in positions of privilege, authority, and power can change situationally. Women have dominated the domestic sphere for generations as the result of economic and social forces, and the qualities Glick and Fiske (1999a) discuss that make them highly likable have also identified them as holding special knowledge and competence in the domain of the home, particularly as parents. Traditional gender roles place women in the position of power and authority in this context and from that perspective it is men, as fathers, who primarily constitute the outgroup.

As outlined by Glick and Fiske (1999a) outgroups portrayed in stereotypes are generally viewed in an ambivalent nature by those making up the ingroup; either highly competent but unlikable or highly likable and incompetent. This ambivalence, in either form, provides justification for the division of worlds of work and home along gender lines. It posed barriers for women seeking equitable standing outside the home for the last half-century, and similarly does so for men making efforts to become more involved parents. Men who take on tasks and responsibilities traditionally within the domain of women may be viewed in terms of the popular fatherhood troupe: well

intentioned (likable) but bungling or inept (incompetent), which may support traditional views from the perspective of both genders. Men achieving a level of competence in childcare tasks, alternatively, may be acknowledged as competent but also unlikable as they pose a threat to the maintenance of stereotypical beliefs of both genders about the role of the mother and the masculinity of men. The pressures resulting from culturally constructed gender roles serve not only as barriers to men in general from potentially taking greater responsibility for things like parenting and housekeeping, but likely serve to undermine the efforts of those who seek to take on a more equal share of responsibility as they meet direct criticism, quiet disapproval, and patronizing forms of support from family members, friends, and even strangers (D. J. Robbins, personal communication, August 13, 2012; January 9, 2013) or encounter gatekeeping behaviors that may limit opportunity.

This pattern of ambivalence regarding deviation from traditional gender norms was observed by Wall and Arnold (2007) who noted a distinct “unease” in popular media descriptions of men who take on the role as primary or equal caregivers. These depictions are frequently marked by attempts to reconcile this traditionally feminine role with the “ideals of masculinity” (Wall & Arnold, 2007, p. 520). These men, while lauded for their abilities as warm, loving, and involved caregivers, are just as, and sometimes more, frequently also noted for their capacity to continue to meet masculine role expectations. Although some might argue that providing a “balanced” view of these dads as successfully straddling both traditional male and female gender roles reflects a positive movement in the evolution of our ideas concerning masculinity

and paternal involvement, it cannot be denied that in doing so the traditional gendered dichotomy regarding caregiving is maintained. Child care remains, implicitly, inconsistent with masculine norms, and the men who are more involved as parents do so only to the extent that they are able to maintain their masculinity by meeting expectations for traditional gender roles in addition to their child care role.

Though profiles of stay-at-home fathers are often full of praise for the decision to take such an active role in the life of their children, they rarely fail to highlight his ability to still run his own business from his home office, play evening pick-up basketball with friends, or his successful past endeavors in more traditionally masculine arenas. The subtle implication that caregiving is inherently feminine remains intact, consistent with more traditional gender role beliefs. Further, the strong emphasis these articles place on his continued pursuit of traditionally masculine activities often carries the tone of perseverance; his masculinity persists in spite of the decision or necessity of taking on the feminine role of being a primary or equal parent. These findings are consistent with those of Glick and Fiske (1997, 1999a, 1999b) regarding the pervasive cultural maintenance to traditional gender expectations through subtle, implicit mechanisms and those of Pleck (1993) who discovered men's use of family-supportive workplace policies to the extent that not only their earnings are not negatively affected, but also that they are not perceived as uncommitted to their job, and therefore unmasculine. Furthermore, men using flexible work schedules are assumed to do so for reasons other than spending increased time with their families.

Given these prevalent social mores and other factors, one might reasonably expect that men might be unlikely to consider a primary caregiver role, or even an equal caregiver role, as culturally appropriate or acceptable. And those who might find that role personally desirable are left with the choice to emphasize a hypermasculinity as a means of providing “balance” or to identify themselves as openly defying traditional gender role expectations. It may not simply be that men do not want to take on roles traditionally conceived as feminine as suggested by Willinger (1993), Hunt and Hunt (1987), and others, but their decision to do so can often be difficult. Conversely, in countries where policies have been established with the aim of diminishing traditional gender role divisions and encouraging paternal involvement in childrearing, husbands whose spouses lack maternity leave benefits have been observed to take the longest periods of leave (six to nine months) to provide childcare (McKay & Doucet, 2010).

Microsystems

Family Unit Factors. There may be factors within the family unit, particularly within the parenting dyads, that may influence paternal involvement with children or enactment of caregiving behaviors. The quality of the relationship between the parents of a child has been found to have important implications for the development and well-being of children (e.g., Froyen, Skibbe, Bowles, Blow, & Gerde, 2013; Waldfogel, Craigie, & Brooks-Gunn, 2010). Increased marital satisfaction has been associated with increased positive family emotional expression leading to better home

learning environments that yield higher emergent child literacy skills (Froyen et al., 2013) and fewer emotional and behavior problems (Waldfogel et al., 2010).

In addition to parental satisfaction with their own relationship researchers such as Feinberg (2003) and Van Egeren and Hawkins (2004) have suggested the relationship between partners as parents also plays a key role in the healthy development of children. This aspect of parents' relationship with one another, called the parenting alliance or co-parenting relationship, focuses on the couples commitment to and cooperation in childrearing and is considered to be distinct from the marital and parent-child relationships. Weismann and Cohen (1985) described the following conditions necessary for the formation of a positive parenting alliance: "(a) each parent is invested in the child, (b) each parent values the other parent's involvement, (c) each parent respects the judgments of the other parent, and (d) each parent desires to communicate with the other" (p. 25).

Holland and McElwain (2013) have demonstrated the relationships between partners who are caring for children are linked to one another finding that increased marital relationship quality leads to an increase in co-parenting factors of trust and support that support parent-child relationship quality. Similarly, Morrill, Hines, Mahmood, and Córdova (2010) found support for a bidirectional interaction between marital relationship quality, co-parenting alliance, and parenting practices. The extent to which individuals can participate in joint parenting within a family context and cooperate in setting goals and accomplishing child care routine tasks, known as the co-

parenting alliance, is a significant predictor of child development (McHale, Khazan, Erera, Rotman, DeCoursey, & McConnell, 2002; Schoppe, Mangelsdorf, & Frosch, 2001) and paternal involvement (Buckley & Schoppe-Sullivan, 2010). Schoppe et al. (2001) found increased parental support of one another and decreased undermining of the other parent's efforts was associated with improved child development and McHale et al. (2002) reported a positive correlation between co-parenting alliance and socioemotional functioning in children.

More specifically, because of the construction of heavily gendered domains of activity and responsibility in American culture discussed above, the status and importance of mothers in the lives of children, relative to that of fathers, has placed mothers in a position to regulate fathers' involvement. This process has been termed maternal gatekeeping, and is defined by Allen and Hawkins (1999) as "a collection of beliefs and behaviors that ultimately inhibit a collaborative effort between men and women in family work by limiting men's opportunities for learning and growing through caring for home and children" (p. 200), has been demonstrated to have important implications for paternal involvement (e.g., Fagan & Barnett, 2003; Schoppe-Sullivan et al., 2008). While gatekeeping behaviors have not been overwhelmingly well-operationalized in previous research and are seen as covering a wide range of behaviors, maternal gatekeeping is most commonly associated with behaviors that restrict the involvement of fathers in the lives of their children, such as mothers expressing a clear preference to perform certain caregiving tasks to the exclusion of their partner or explicitly circumscribing their partners' behavior with

regard to interaction with the couples' children. Not all research has identified gatekeeping as being exclusively inhibiting. In a recent study by Schoppe-Sullivan et al. (2008), these behaviors were broadly conceived to represent both encouragement and criticism, which can serve to regulate paternal involvement by acting as moderators in the relationship between intrapersonal factors of fathers (e.g., beliefs about the role of fathers, commitment to parenting) and actual paternal involvement. The authors found paternal involvement was differentially affected by how much criticism or encouragement the mother engaged in depending the father's fatherhood role beliefs. Fathers with more progressive beliefs were found to be more active overall than fathers with more traditional beliefs about the role of fathers, but their responses to encouragement and criticism were also unique. More progressive fathers were found to be less active as criticism by their partners increased, but their activity was unlikely to be affected by encouragement while fathers with more traditional beliefs were more active when encouraged and their involvement remained unchanged and less active when criticized (Schoppe-Sullivan et al., 2008).

Personal and Key Resources

Intrapersonal factors of fathers. From the perspective of the W-HR and COR models, resources play a crucial role in an individual's ability to maintain stability, adapt to environmental demands, and recover from adversity, and flourish. Perhaps most conceptually essential element in these theories is the concept of personal resources, which is the central hub through which the pathways of environmental

resources and demands and domain outcomes are linked. The W-HR model conceives of personal resources in very broad, open terms, and the highly idiosyncratic patterns in which particular personal resources are likely possessed, utilized, and prioritized presents challenges to researchers seeking to quantitatively operationalize them for study. Rather than attempt to select a number of resources that might conceivably be related to interdomain balance and parenting, and fatherhood particularly, the decision was made to focus on resilience. Though ten Brummelhuis and Bakker (2012) specifically identify mental resilience amongst their constructive personal resources, resilience more generally defined may be a more useful construct for the purposes of this study. Much like Bronfenbrenner's ecological systems theory, the concept of resilience in psychology is believed to have emerged from ecological research and theory with Holling (1973) defining it as "the persistence of systems to absorb change and disturbance and still maintain the same relationships" (p. 15). Since that time the construct has been adapted refer to a person's ability to successfully adapt to diversity and has been widely researched in the areas of the developmental effects of chronic adversity (Luthar, 2003), trauma exposure and recovery (Bonanno, 2004; Scali et al., 2012), and response to natural disaster (Karairmak, 2009; Wang, Shi, Zhang, & Zhang, 2010). Conceptualized in this manner resilience is well-suited to the present investigation of the W-HR and SCM models and captures a broader capacity or resource characterizing adaptive ability (resource management) than individual resources might.

Key resources are distinguished by Hobfoll (2002) and ten Brummelhuis and Bakker (2012) as more stable and durable resources. Examples of which include self-efficacy, optimism, or self-esteem. These key resources, unlike resilience or specific knowledge or skills, play an indirect role in resource management, adaptation to environmental demands, and interdomain balance, facilitating or organizing the use of personal resources toward a particular goal or outcome. Key resources related to fathering such as beliefs about the role of a father or parental self-efficacy are resources that guide and direct resources of specific knowledge, mental energies, and resilience toward fulfilling particular responsibilities of fatherhood.

The beliefs that men hold about fatherhood have been shown to have important implications for their parental involvement. In a model of paternal involvement in child care developed by Bonney, Kelley, and Levant (1999) paternal beliefs about masculinity and the role of fathers were identified as significant predictors of the amount of paternal involvement in child care activities. More specifically, causal links between less traditional paternal beliefs about masculinity resulting in more progressive attitudes about the role of the father were observed, which in turn resulted in more child care involvement by fathers. Similarly, Aldous, Mulligan, and Bjarnason (1998) found that support for more egalitarian beliefs regarding gender norms were associated with more active fathers in younger children consistent with the moderating effect of fatherhood beliefs on maternal gatekeeping behavior observed by Schoppe-Sullivan et al (2008).

Kaufman and Uhlenberg (2000) reported fathers who endorsed a stronger identification with a primary role of provider tended to work longer hours than fathers endorsing an involved fatherhood role. Research has also shown that some fathers choose to make sacrifices in their careers, forgoing advancement and increased benefits, to spend more time with their children (Reynolds, Callendar, & Edwards, 2003) and fathers who work fewer hours during the first year of a child's life engaged in more childcare tasks such as changing diapers, feeding their child, and getting up with the child at night (Aldous et al., 1998; Kaufman & Uhlenberg, 2000).

The related construct of parenting self-efficacy has been shown to have important links to child development and parenting attitudes (Hill & Bush, 2001; Izzo, Weiss, Shanahan, Rodriguez-Brown, 2000) through its relationship with parents' ability to understand emotion and behaviors within the context of the family (Jones & Prinz, 2005). Further, research has demonstrated that parents measured to be high in parenting self-efficacy are associated with positive parenting attitudes and practices (Ardelt & Eccles, 2001; Elder, Eccles, Ardel, & Lord, 1995; Peterson, Tremblay, Ewigman, & Saldana, 2003; Swick & Hassel, 1990) while low parenting self-efficacy has been associated coercive parenting practices and maladjustment among children (Coleman & Karraker, 2003; Shumow & Lomax, 2002).

Statement of Problem

To date much of the research on work-home balance has been focused more heavily on the experience of mothers (e.g., Hall, Anderson, Willingham, 2004;

Moore, Sikora, & Grunberg, 2007; Vujinovic, Williams, & Boyd, 2013), while notable exceptions like Duan, Brown, and Keller (2010) examined the experience of fathers in post-degree academic occupations. Similarly, non-scholarly publications directed at the public, and even those directed at graduate students, tend to pay little attention to these issues as they relate to fathers (Connelly & Ghodsee, 2011; Mason, 2009). Even the American Psychological Association's gradPSYCH publication devoted little coverage to the experience of fathers in psychology graduate programs in a recent article (Siblo, 2012).

Given that male graduate students are subject to many of the same social expectations regarding the roles of men in society and family (in addition to the expectations for high achievement in the classroom, research, and professional development) it is likely these men face challenges similar and unique to their counterparts further ahead of them in their occupation development. Findings in the area of work-home balance research indicating work-home conflict is higher for those with children (Behson, 2002; Carlson, 1999; Grzywacz & Marks, 2000), less family support (Carlson & Perrew, 1999; Grzywacz & Marks, 2000), less schedule flexibility, lower managerial support, and those who perceive family as having negative career consequences (Anderson, Coffey, & Byerly, 2002) while interdomain conflict is lower for those who receive family sensitive supervision (Clark, 20002), professional role modeling and mentor support from a mentor with similar perceived work-home values (Nielson, Carlson, & Lankau, 2001) would seem to have potentially important implications for fathers in graduate school. These findings taken into consideration

with the significant transitions in the areas of career and family development likely occurring during this time make graduate student fathers a compelling group for study. This study has the opportunity to provide meaningful contributions to the existing literature by not only focusing on the experience of a group that has previously received little attention, but also by continuing recent efforts to strengthen integrated theoretical foundations in the area of work-home interface and expanding the frame of reference from process to outcome.

Work-Home Resource Model and Spillover-Crossover both describe the work-family interface in similar ways, but make unique contributions that can be combined into an integrated model due to their significant overlap. SCM utilizes the terms stress and motivational factors, which are analogous to the contextual demands and resources, respectively, described in the W-HR model. In terms of ecological systems theory, these factors/demands/resources represent characteristics of microsystems. For SCM, these specifically describe the work microsystem and posit the mesosystem level interaction between work and home domains. The W-HR model, by name, describes the same process, but also implicitly allows for a broader interpretation representing mesosystem level interaction between multiple microsystems (See Figure 3). Additionally, the W-HR model places the individual directly, rather tacitly, into the model using ecological systems theory and Conservation of Resources components to bridge the gap between contextual demands/resources and interdomain conflict; something SCM neglects. Moreover, WH-R incorporates macro- and key resources (broader cultural and individual characteristics, respectively) as moderators of the

relationship contextual demands/resources and personal resources. Similarly, WH-R can be expanded on the other side of the model by incorporation of the SCM concept

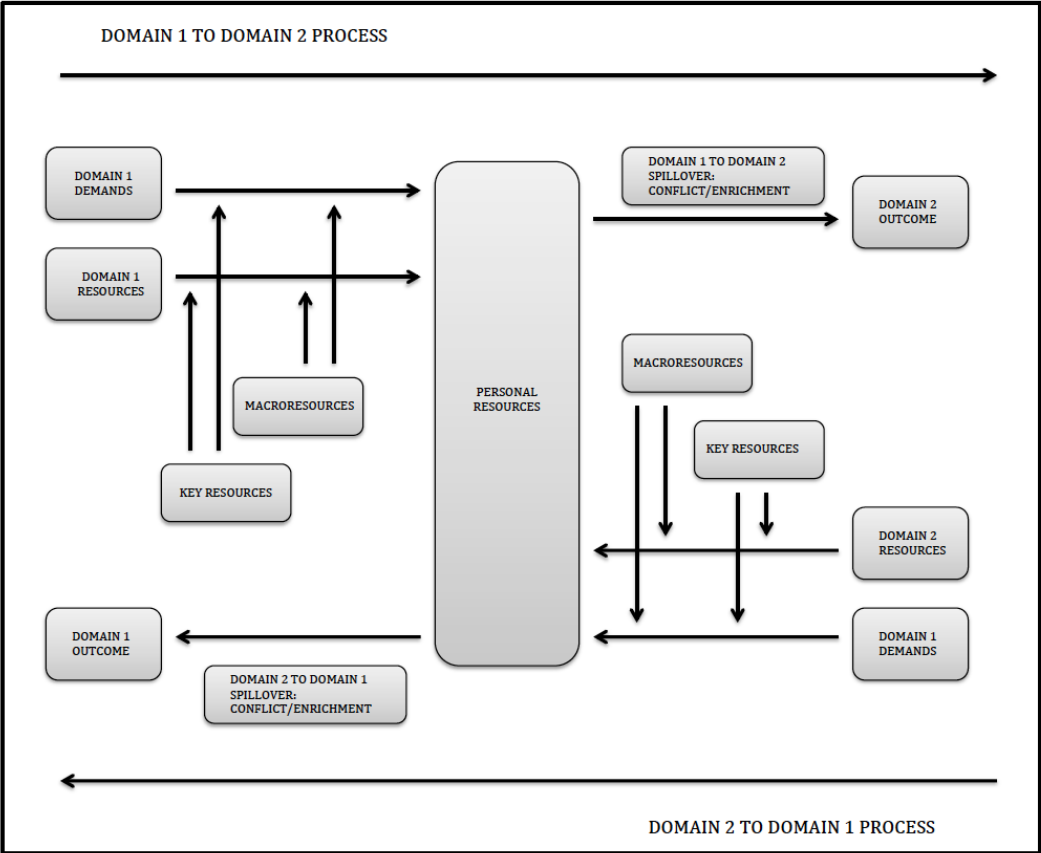


Figure 5: Integrated Spillover-Crossover and W-HR model

of spillover when establishing the link between personal resources and outcomes in the domain at the end of the work-home process or home-work process as shown in Figures 2 and 3. The process of spillover is consistent with the W-HR model’s COR concepts of gain and loss spirals, which can easily be seen as resulting in interdomain enrichment or conflict, respectively. Figure 5 demonstrates how the two models might be integrated as a whole. The process of crossover is not included in this figure for the sake of clarity and brevity; however, this process remains compatible with the model.

As mentioned above, greater emphasis has been placed on identifying and describing processes than outcomes (e.g., Bakker, Demerouti, & Verbeke, 2004; De Beer, Rothmann, & Pienaar, 2012; Grzywacz & Marks, 2000; Neilson, Carlson, & Lankau, 2001) and integration of ecological systems elements has been limited to examining workplace factors that are linked to the prevalence or type of spillover generally, and much less to specific outcomes affected by these processes. Most researchers have primarily concentrated on identifying ecological factors that may influence the valance or prevalence of spillover and crossover with limited attention to specific outcomes (most frequently cross-spouse work outcomes). These studies focus on the role of positive or negative workplace characteristics generally believed to be responsible for affecting the work experience directly (e.g., decision making latitude, supervisor feedback, workload, work hours) that impact outcomes at home indirectly through the process of spillover and partner work outcomes via spillover-crossover-spillover pathways. Alternatively, the role of ecological factors in domains outside the home that may be more directly linked to home outcomes, such as paternal involvement, have not been examined.

The present study seeks to extend the current research by integrating demands/resources from multiple microsystems hypothesized to be directly related to a specific outcome in the domain where spillover is occurring. Rather than exploring the relationship of job environment characteristics to individual well-being at home or partners'-relationship satisfaction (arguably a more indirect relationship), the current study will examine the link between paternal involvement and microsystems

characteristics believed to be more directly related to paternal involvement and marital satisfaction (e.g., perceived support for involved fathering role, maternal gatekeeping, co-parenting alliance). In addition to the prospect of integrating and expanding previous theory development, the present study provides an opportunity to provide support for research in the areas of maternal gatekeeping, co-parenting alliance, fatherhood beliefs, attitudes about gender roles, spillover, paternal involvement, and role satisfaction.

Hypotheses, Research Questions, & Analyses

Figure 6 presents the predicted model of relationship between the variables to be observed in the present study. As stated previously, the present study seeks not only to integrate SCM and W-HR models regarding interdomain interactions (as seen in Figure 5), but also to expand the previous models by including a broader perspective of ecological systems that may play a part in these relationships. The predicted model, while consistent with the fully integrated model in Figure 5, is notably different. First, the current study limits its scope of investigation to a single direction of interdomain influence rather than the bidirectional model suggested by the fully integrated model. Second, an expansion of the model in the previous figure (Figure 5) is proposed by including demands and resources from multiple domains or microsystems: the co-parenting (represented by co-parenting alliance and gatekeeping behavior) and social microsystem (represented by support of the fatherhood role from extended family and friends), in addition to the work/professional microsystem. This expansion was

included to further reflect the broader conception of interactive environmental components found in ecological systems theory.

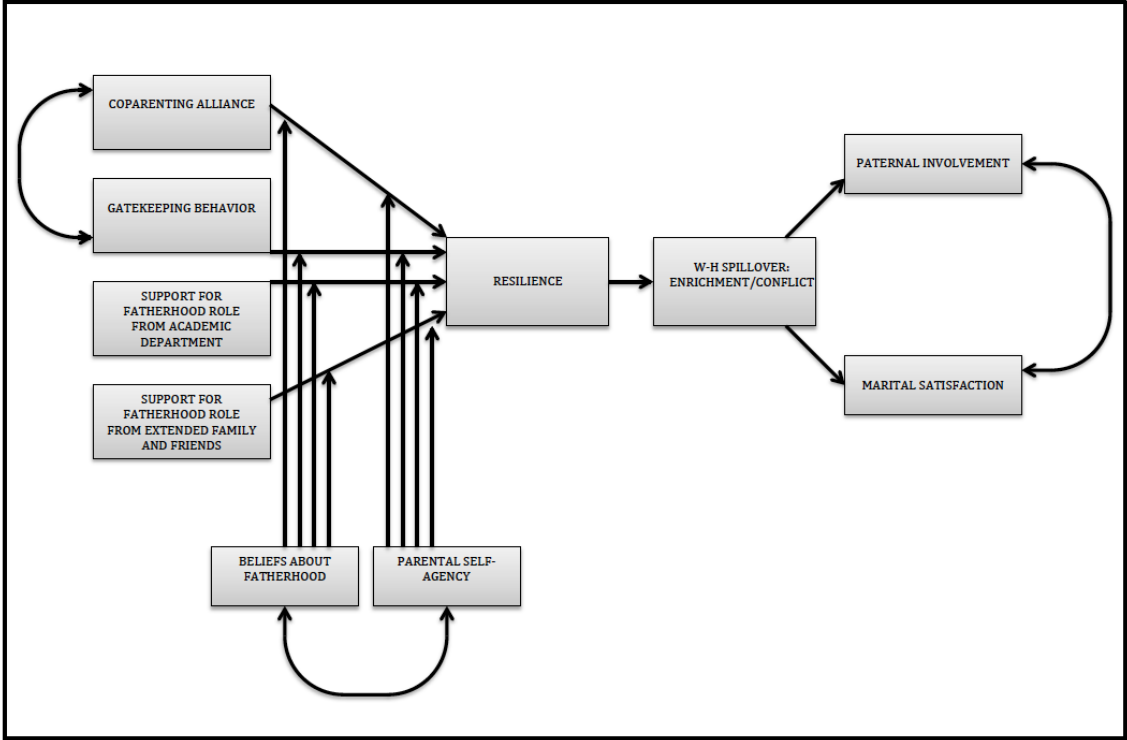


Figure 6: Proposed Model for Present Study

Finally, the predicted model does not include macroresources. While the moderating role of the broader cultural, economic, and political factors that comprise macroresources is an important ecological systems theory component of the model, measuring these resources in a meaningful way exceeds the scope of the current project. These factors are likely better suited for investigation by a smaller mixed methods or qualitative design model, which would be an appropriate possible extension of the present study.

Hypothesis 1 (H_1): The predicted model, seen in Figure 6, suggests resources and demands from three microsystems or domains (co-parenting, professional, and social microsystems), beliefs about fatherhood, and parental self-agency function as exogenous variables and work-home spillover, paternal involvement, and marital satisfaction will function as endogenous variables. This model indicates that the exogenous variables maternal gatekeeping, co-parenting alliance, support for the fatherhood role from participants' academic department and extended family and friends will have an indirect effect on the participants' work-home spillover, which will be mediated by personal resources (resilience). W-H spillover, in turn, will affect paternal involvement and marital satisfaction. The initial plan of analysis called for the predicted model to be tested by conducting confirmatory structural equation modeling (SEM). However, the current sample size was deemed more suitable for path analysis due to concerns related to sufficient statistical power.

The relationships between support for the fatherhood role in the professional and social microsystems and resilience, are predicted such that as support for the fatherhood role increases there will be a resulting increase in the amount of participant-reported resilience. Similar causal paths are hypothesized to exist between co-parenting alliance and encouragement-based gatekeeping behavior and resilience. Increases in either are believed to be predictive of decreased participant-reported resilience. Criticism-based gatekeeping behavior, however, is expected to exhibit an inverse causal relationship with work-home spillover; increases in criticism are expected to predict decreased participant-reported resilience.

Previous research in the area of maternal gatekeeping has revealed different gatekeeping behaviors may influence paternal behavior differently and may be moderated by a father's intrapersonal factors. Schoppe-Sullivan et al. (2008) found fathers' involvement differed in response to gatekeeping behaviors based on those fathers' beliefs about fatherhood. While fathers holding beliefs favoring greater paternal involvement did not change their level of involvement with their children in response to encouragement-based maternal gatekeeping behaviors, the same group was noted to curtail paternal involvement when facing criticism-based gatekeeping. Conversely, the level of involvement of fathers holding more traditional beliefs about the fatherhood role were not significantly impacted by criticism, but these fathers were found to increase involvement in response to encouragement-based gatekeeping behavior. It is hypothesized that participants' sense of parental self-agency and their beliefs about fatherhood (key resources) will demonstrate similar patterns of moderation on the pathways between the ecological microsystems factors gatekeeping, co-parenting alliance, support for fatherhood role from social and professional systems (environmental demands/resources) and participant resilience (personal resources). More traditional fatherhood beliefs are expected to act as a buffer against critical maternal gatekeeping and fathers holding them are expected to be more responsive to encouragement-based gatekeeping behaviors.

Higher scores on resilience are predicted to result in higher reported levels of work-home enrichment and lower levels of work-home conflict while lower resilience

scores are predicted to result in lower reported work-home enrichment and higher work-home conflict.

Work-home spillover in the forms of enrichment and conflict is expected to have a direct effect on the home outcomes of paternal involvement and marital satisfaction. Specifically, increases in participant-reported work-home conflict are hypothesized to predict lower paternal involvement and lower marital satisfaction. Conversely, increases in participant-reported work-home enrichment are expected to predict increased paternal involvement and increased marital satisfaction. It is expected that scores on paternal involvement and marital satisfaction will be positively correlated.

The model also predicts correlations between maternal gatekeeping behavior and co-parenting alliance. It is hypothesized a negative correlation between criticism-based gatekeeping and co-parenting alliance will be observed and a reciprocal positive correlation between encouragement-based gatekeeping and co-parenting alliance will also emerge.

Hypothesis 2 (H₂): Support for fatherhood role from friends and extended family will have a greater impact on resilience than support from those in professional microsystem.

Hypothesis 3 (H₃): Participants' satisfaction with their fulfillment of the fatherhood role will be higher for those demonstrating congruence between their beliefs about the role of the father and their level of paternal involvement. Fathers

endorsing beliefs supportive of greater paternal involvement will demonstrate greater satisfaction with how they fulfill the fatherhood role when they report greater involvement with their children. Those endorsing beliefs that fathers should be less involved with children will be report greater satisfaction when they are less involved.

Research Question 1 (RQ₁): Are there statistically significant differences between men across fields of study on measures of beliefs of the role of father and paternal involvement?

Method

Participants

Participants were recruited via email from a list of students who were enrolled in a graduate or professional program during the Spring 2013 and/or the Fall 2013 semesters on one of three campuses of a Southern Plains university who made their contact information publicly available through the University directory. Additional participants were recruited through snowball techniques. Criteria for participation in the study required subjects be male students who were enrolled in any graduate or professional program during the previous six months, were in a committed relationship with a spouse or partner at the time of the study, and had children under the age of 18 years living in their home. Neither marital status, sexual orientation, nor paternity of their children served as criteria for exclusion in participating in the current study. Male graduate student fathers who were single parents or were living separated from their partner or children were not be included in the current study. Graduate

students meeting study criteria were invited to complete an online survey and were offered the opportunity to enter a drawing to win a gift card to a local retailer in the amount of \$25 after completion in exchange for their participation.

A total of 385 individuals responded to the recruitment message by proceeding to the online survey hosted by Qualtrics where 381 consented to participate while four declined to do so. Those consenting to participation were asked to complete a brief screener to determine if they were eligible for participation, as the list of enrolled graduate students could not be sorted by sex, relationship, or parenthood status on the basis of directory information provided to the University. Of the 381 individuals consenting to participate, 70 were eliminated because they failed to meet criteria related to enrollment, relationship, or parenthood status or did not have children under the age of 18 years currently living in the home. An additional 69 were excluded because they reported their sex as female. Individuals who did not meet participation criteria were exited from the survey and were not able to provide additional data.

Following screening, 242 participants were found to meet all criteria and 219 completed surveys were obtained and used for data analysis. The twenty-three participants were excluded from data analysis because their responses contained excessive incomplete data. Of those excluded, only one participant's response reflected a pattern of selective non-response to items across measures. The remaining twenty-two were observed to demonstrate a pattern that implied abandonment of the survey. The participants who had excessive missing data were not found to differ

significantly from the rest of the sample in terms of age, religion, relationship status, or length of relationship. This group was notable in that it was composed of a greater percentage of participants reporting non-U.S. citizenship or American citizens of ethnic minorities than the sample used for data analysis.

Demographics. Graduate student fathers in the sample ranged in age from 24 to 50 years of age, mean age=34.98 years [SD=5.837] and represented ten separate university systems, 24 colleges, and approximately 60 academic departments. Participants were primarily enrolled on one of the three campuses from which student directory information was requested: 57% of these were enrolled in programs on the University's main campus, 22% at the Health Sciences campus, 17% at a satellite campus or through an online program. The remaining 4% reported in enrollment at institutions outside the main university institution surveyed.

Nearly 60% of participants reported full-time, rather than part-time, enrollment and had completed a mean of two years in their program of study. Approximately half of participants in the sample reported pursuit of a Masters degree of various kinds and half reported pursuit of doctoral degrees including doctorates of philosophy, medicine and associate fields (Audiology, Physical Therapy, Pharmacology, Dentistry), law, and the fine arts.

The sample was largely composed of U.S. citizens (94 %) while 6% of participants reported non-U.S. citizenship from a variety of nations across the African, Asian, European, and South American continents. The ethnic background of the

sample was predominately White Non-Hispanic American (73%). American ethnic minority groups and individuals identifying as belonging to more than one ethnic group made up 21% of the remaining sample while non-U.S. citizens of various ethnic groups comprised the remaining 6%. More detailed descriptions of reported participant ethnicity and the ethnic diversity of the three primary campuses surveyed can be found below in Table 1.

Table 1 Ethnicity of Sample and Three Primary Campuses		
	Percentage of Sample	Range on Three Primary Campuses, Spring 2013
White Non-Hispanic American	73.1	48.0-72.5
Black/African American	3.7	2.9-4.9
Hispanic/Latino American	2.3	1.2-4.0
Asian American	3.2	0.7-12.6
American Indian	4.6	4.3-4.9
Multiethnic	5.5	4.9-5.1
White Non-Hispanic International	1.4	---
Black International	1.4	---
Hispanic/Latino International	0.9	---
Asian International	2.3	---
International Total	6.0	1.9-12.5
<i>Note: 2013 Spring enrollment statistics taken from reports compiled by the OU Office of Institutional Research & Reporting.</i>		

Although sexual orientation nor marital status precluded inclusion in the study, no participants (including those removed for the reasons stated above related to data analysis) identified as LGBTQ; however, two individuals of 219 reported they preferred

not to answer the question related to sexual orientation, and 93% of the graduate fathers reported being legally married. The remaining seven percent described their relationship status as a committed relationship or engaged with the intention of legally marrying. Participants reported typically having been in their current relationship for several years (mean length of relationship=10.16 years, [SD=5.409]).

These fathers reported an average family size (self, partner, and minor children) of four (SD=1.04) with a range of 3 to 10 people. The average age of children in the participants' families was 5.96 years for female children and 5.59 years for male children with a range of less than a year old to 17 years of age.

A substantial majority (92%) represented traditional families of two partners and their biological or adoptive children. The remaining families were comprised of the participant father, his partner, and children from previous relationships or a combination of children from the current and previous relationships—a blended family. Though the sample is limited, it is notable families in which the only children were from the previous relationship of participants' partners were observed to occur at rate far lower than those of families with children from the participants' previous relationships or blended families (0.9% compared to 2.7 and 4.1%, respectively).

Consistent with the trend noted by Fraenkel and Capstick (2011) and others, the majority of participants reported their partners worked outside the home at least part-time, 56.2%. Families in which the participant's partner worked outside the home full-time made up a substantial portion of the total sample (43.8%) followed by

families in which the partner stayed at home full-time (37%). Fewer than seven percent of fathers reported their partners were also full-time students or split their time between school and providing childcare in the home. Table 2 below displays the childcare arrangements reported by participants.

The most common arrangements included enrollment of children in school or daycare (42.5%) and the participant father’s partner staying at home to provide childcare (37.4%). Far less frequently did participant fathers report acting as primary caregiver to their children (n=3, 1.4%); however, twice as many reported joint care (shared responsibility between themselves and their partner) as the primary source of childcare or as an adjunct to other forms of childcare such as school or daycare (n=7, 3.2%).

	n	Percentage of sample
School or daycare	93	42.5
Partner	82	37.4
Participant father	3	1.4
Joint care by father and partner	3	1.4
Another family member or nanny	7	3.2
Combination of school/daycare and above options	28	12.8

Measures

Parental Regulation Inventory. The PRI is a self-report, Likert-scale measure in which participants are asked to answer questions about their own parental

involvement and gatekeeping behaviors, as well as, their perceptions of their spouse or partner's parental involvement and gatekeeping behaviors. Preliminary studies have supported the validity and reliability of this measure, $\alpha = .86$ (Schoppe-Sullivan et al., 2008; Van Egeren, 2003). For the current study, items assessing parental involvement were adapted and expanded consistent with broader definitions of parental involvement and beliefs about the role of fathers as proposed by Palkovitz (1997), as discussed below. Additionally, participants were only asked to rate their own involvement with their child(ren) and their partner's gatekeeping behaviors. Reliability was calculated for individual sections of the measure and were found to be consistent with that reported by previous studies ($\alpha \geq .729$) and were acceptable (Kline, 1999).

Paternal Involvement with Child. Paternal involvement was measured utilizing an adapted version of the Parental Regulation Inventory (PRI; Van Egeren, 2000). Section 1 of the measure was originally comprised, in part, of five Likert-scale items for which parents indicated how involved they believed they were in five categories of parent-child interaction.

Palkovitz (1997) has noted many traditional parental involvement measures are limited by their tendency to focus on observable, direct interactions between parent and child like caregiving duties (e.g., feeding, dressing, bathing). He argues for a broader conceptualization of involvement that includes both direct and indirect types of involvement across cognitive, behavioral, and affective domains. Palkovitz (1997) offers 15 categories of involvement in parenting: communication, teaching,

monitoring, thought processes, errands, caregiving, child-related maintenance, shared interests, availability, planning, shared activities, providing, affection, protection, and supporting emotionally.

The five original PRI items addressing involvement related to five of these categories (supporting emotionally, caregiving, planning, shared activities, and teaching). For the purposes of the current study, this section of the PRI was adapted to 14 items representing 14 of Palkovitz's 15 categories (shared interests was not included because of issues related to construct measurement and overlap with shared activities category). The six-point Likert-scale format and wording of the questions was retained. Reliability for this portion of the measure was observed to be good (Kline, 1999), $\alpha = .895$. Participants reported a mean involvement score of 69.76 [SD=9.02] with a maximum possible score of 84.

Beliefs about Fatherhood Role. Participants' beliefs about the role of fathers were also assessed by an adapted version of Section 1 of the PRI (Van Egeren, 2000). This portion of the measure consisted of the same five Likert-scale items used to assess parental involvement described above, but parents instead indicated how important they believed being involved in five categories of parent-child interaction was to them personally allowing comparison between beliefs about and reported enactment of parental behaviors. Consistent with the changes made for paternal involvement questions on the PRI discussed above, these items were expanded to include the same 14 of 15 categories of involvement proposed by Palkovitz (1997). The

six-point Likert-scale format was retained; however, the language of the questions were adapted to reflect interest in beliefs about the role of fathers generally rather than participant's belief about their individual role as a father. Reliability for this portion of the measure was observed to be good (Kline, 1999), $\alpha = .876$. Participants reported a mean involvement score of 77.63 [SD=6.24] with a maximum possible score of 84.

Results of paired-samples t-tests conducted to assess mean differences between beliefs about paternal involvement and reported involvement; analyses were conducted for total score means and for each of the 14 types of involvement assessed. Table 3 presents the means and the results of the t-tests including effect sizes according to Cohen (1988). All t-tests were found to be statistically significant indicating that reported involvement was outstripped by belief about the importance of involvement with the exception of Thinking About and effect sizes for most were medium to large. Table 4 displays the rank order of the mean scores of beliefs about the fatherhood role side by side with the mean scores of reported paternal involvement.

Gatekeeping Behavior. Gatekeeping is defined as a set of behaviors enacted by one partner that serves to either encourage or discourage the involvement of the other partner with the couples' children. Gatekeeping behaviors of the participant's partners were assessed using adapted Sections 2 and 3 of the Parental Regulation Inventory (PRI; Van Egeren, 2000), which asked participants to rate the frequency their

partners enacted 35 behaviors on six-point Likert-scale. The measure produces two separate scores: one for gatekeeping behaviors that encourages parental involvement and another for gatekeeping behaviors that discourages parental involvement. For the current study, participants were asked only to report on the frequency of their partner’s gatekeeping behaviors.

Type of Involvement	Belief Mean	Involvement Mean	t	p	Effect size
Communication	5.88	5.21	13.723	<.001	Large
Teaching	5.85	5.09	13.099	<.001	Large
Monitoring	5.66	4.72	14.968	<.001	Large
Thinking About	5.44	5.37	1.418	0.158	---
Errands	4.81	4.17	7.832	<.001	Medium
Caregiving	5.23	4.29	11.645	<.001	Medium
Maintenance	5.05	4.55	7.586	<.001	Medium
Availability	5.73	4.84	13.045	<.001	Large
Planning	5.04	4.35	8.753	<.001	Medium
Shared Activities	5.57	4.9	9.801	<.001	Medium
Providing	5.86	5.56	5.818	<.001	Small
Affection	5.84	5.56	6.562	<.001	Small
Protection	5.81	5.41	8.078	<.001	Medium
Emotional Support	5.87	5.67	5.341	<.001	Small
Totals	77.66	69.68	15.845	<.001	Large

The measures of gatekeeping were found to have good to acceptable reliability (Kline, 1999), $\alpha = .803$ and $\alpha = .729$ for encouragement and discouragement, respectively. Participants reported a mean encouragement gatekeeping score for their

partners of 55.16 [SD=11.38] and a mean discouragement gatekeeping score for their partners of 48.16 [SD=9.24]. Maximum scores for each type of gatekeeping were 108 for encouragement and 102 for discouragement.

Rank	Type of Involvement	Belief Mean	Involvement Mean	Type of Involvement	Rank
1	Communication	5.88	5.67	Emotional Support	1
2	Emotional Support	5.87	5.56	Providing	2
3	Providing	5.86	5.56	Affection	3
4	Teaching	5.85	5.41	Protection	4
5	Affection	5.84	5.37	Thinking About	5
6	Protection	5.81	5.21	Communication	6
7	Availability	5.73	5.09	Teaching	7
8	Monitoring	5.66	4.90	Shared Activities	8
9	Shared Activities	5.57	4.84	Availability	9
10	Thinking About	5.44	4.72	Monitoring	10
11	Caregiving	5.23	4.55	Maintenance	11
12	Maintenance	5.05	4.35	Planning	12
13	Planning	5.04	4.29	Caregiving	13
14	Errands	4.81	4.17	Errands	14

Co-parenting Alliance. The Parenting Alliance Inventory (PAI; Abidin, 1988; Abidin & Brunner, 1995) is a 20-item self-report, Likert-scale questionnaire developed to assess the degree to which parents exhibit cooperation and teamwork (parenting alliance) in collaboratively raising their children. Items were derived from the four dimensions of the sound co-parenting alliance theory developed by Weissman and Cohen (1985): investment in the child, valuing the other parent's involvement in childrearing, mutual parental respect, and communication between parents. The PAI has been shown to demonstrate adequate construct and convergent validity and high internal consistency, (Abidin & Brunner, 1995; Bearss & Eyeberg, 1998). PAI scores and measures of paternal involvement have also been observed to be positively correlated with one another and marital satisfaction (Abidin & Brunner, 1995; Futris & Schoppe-Sullivan, 2007; McBride & Rane, 1998).

This measure was found to have excellent reliability ($\alpha = .937$) and the mean score on the measure for the current sample was 87.02 [SD=10.44] of a maximum possible score of 100 (Kline, 1999). These figures were consistent with the reliability and mean for married men described Abidin and Brunner (1995), $\alpha = .97$ and 86.1 [SD=9.0].

Perceived Support of Fatherhood Role Outside Immediate Family.

Participants' perception of support from their extended family and academic department was assessed by a measure for developed for the purpose of this study.

The measure is composed of six statements for which participants indicate their level of agreement or disagreement on a Likert scale.

Resilience. Participants' ability to cope with stress was assessed by a 10-item version of the Connor-Davidson Resilience Scale 25 (CD-RISC-25; Connor & Davidson, 2003). The original CD-RISC-25 is a self-report scale consisting of 25 items intended to measure resilience that has demonstrated good internal consistency, test-retest reliability, and divergent and convergent validity in samples of the general population and psychiatric patients (Connor & Davidson, 2003). A 2003 analysis of the measure's psychometric properties by Campbell-Stills and Stein found elimination of 15 of the original items produced a scale with improved internal consistency ($\alpha = .85$) and an exploratory factor analysis produced a model whose scores are highly correlated with the original ($r=.92$). Further, Campbell-Stills and Stein (2003) found scores on the 10-item CD-RISC moderated the relationship between reported childhood trauma and current psychiatric symptoms supporting the construct validity of the measure and successfully differentiated between individuals who were coping well following trauma exposure from those coping less effectively. Since its development the CD-RISC-10 has demonstrated good internal consistency ($\alpha = .85-.91$), test-retest reliability ($r=.71-.90$), and good construct validity as marked by its efficacy in distinguishing between individuals also reporting psychiatric symptoms and healthy controls (Goins, Gregg, & Fiske, 2013; Nortario-Pacheco et al., 2011; Scali et al., 2012; Wang, Shi, Zhang, & Zhang, 2010). The CD-RISC-10 has also been validated across multiple cultures

including populations of older American Indians and translated into several languages Chinese, Spanish, and Italian.

Reliability for the measure for the current sample was observed to be good (Kline, 1999) and consistent with previous studies, $\alpha = .858$, with a mean score of 31.34 [SD=5.03] of a possible maximum score of 50.

Spillover. Negative and positive spillover across work-family domains was measured utilizing seven of 14 items originally developed for use in the National Survey of Midlife Development in the United States in 1995 by the John D. and Catherine T. McArthur Foundation Research Network on Successful Midlife Development. Grzywacz and Marks (2000) conducted a principal-axis factor analysis with varimax rotation on the 16 original items constructed to assess work-home interface. Four distinct factors were identified: negative work-to-family spillover, positive work-to-family spillover, negative family-to-work spillover, and positive work-to-family spillover. Fourteen items with factor loadings of greater than .40 were retained while two items were eliminated due to unacceptable levels of cross-loading. Each of the retained items demonstrated loadings of greater than .50. Reliability for the items in each factor was acceptable (Kline, 1999), all $\alpha \geq .70$ (Grzywacz & Marks, 2000). Because the present study only seeks to assess spillover in the direction of work-to-home, the seven items regarding home-to-work spillover were not included.

Reliability for the work-to-family spillover and enrichment factors of the measure with the present sample was observed to be good (Kline, 1999) for spillover

and acceptable (Kline, 1999) for enrichment ($\alpha = .781$ and $\alpha = .678$, respectively), consistent with that reported by Grzywacz and Marks (2000). Mean scores for work-to-family spillover and enrichment were 11.94 for spillover and 8.22 enrichment. When compared to data reported by Grzywacz and Marks (2000), means for work-to-family spillover and enrichment in the present study were found to differ significantly more than those the previous authors observed ($t=7.192$, $p<.001$ for spillover and $t=3.122$, $p=.002$).

Marital Satisfaction. The Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986) is a brief 3-item self-report, Likert-scale measure used to assess marital satisfaction. The KMSS has demonstrated high internal consistency, $\alpha > .90$, (Akagi, Schumm, & Bergen, 2003; Jurič, 2011; Kurdek, 2002; Schumm, Crock, Likcani, Akagi, & Bosch, 2008), high test-retest reliability (Mitchell, Newell, & Schumm, 1983; Kurdek, 1995), concurrent and discriminant validity (Schumm et al., 1986) and is highly correlated with numerous other marital satisfaction scales including the Dyadic Adjustment Scale (Grover, Paff-Bergen, Russell, & Schumm, 1984; Kurdek, 1991, 1992; Schumm et al., 1986) and the Quality Marriage Index (Schumm et al., 1986).

The present study utilized a five-response (rather than the seven-response) version of the KMSS tested by Schumm et al., 2008). Reliability for the measure was observed to be excellent for the present sample, $\alpha = .971$ (Kline, 1999), with a mean of 13.31 [SD=2.478] with a maximum possible score of 15.

Parental Self-Efficacy. Parental Self-Efficacy was assessed by the Parenting Self-Agency Measure (PSAM; Dumka, Stoerzinger, Jackson, & Roosa, 1996), a five-item self-report, Likert-scale questionnaire. Participants indicate their “overall confidence in their ability to act successfully in the parental role (p.221)” by indicating how often they agree with a series statement related to their confidence as a parent. A confirmatory factor analysis performed on initial 10 items produced a five-item, single factor solution with adequate internal consistency for Anglo-American ($\alpha = .70$) and Latino immigrant ($\alpha = .68$) groups. More recently, Piedra, Byoun, Guardini, and Cintron (2012) found improved reliability ($\alpha = .73$) with a Spanish translation version adapted to simplify the Likert-scale format from seven to five items and improved descriptive distinctions for polar points with an immigrant Latino sample. Construct validity has been supported through significant correlations of parenting self-efficacy, as measured by PSAMS, and measures of relevant parenting practices and coping styles (Dumka et al., 1996).

The measure demonstrated acceptable (Kline, 1999) reliability with the current sample, $\alpha = .764$, which exceeded that reported by previous researchers. The mean score for the sample was 19.95 [SD=2.67] with a maximum possible score of 25.

Satisfaction with Fulfillment of Fatherhood Role. Participants’ satisfaction with the degree to which they meet their own standards for fatherhood was assessed by a single-item, self-report measure. This measure is adapted from Shreffler, Parrish Meadows, and Davis (2011) who used single-item assessment of parenting satisfaction

in a recent study of work-family conflict and parenting satisfaction among fathers. Participants reported a mean satisfaction score of 4.34 [SD=.76] with a maximum possible score of 5.

Results

Hypothesis 1: Proposed Model Testing. Moderated multiple regression analysis was performed to assess the predicted moderation effects (Baron & Kenny, 1986) of beliefs about the role of fathers and parental self-efficacy on relationship (key resources) between microsystems factors pertaining to fatherhood (parental alliance, gatekeeping behaviors, support from extended family and friends, support from professional) and the personal resource resilience. Table 5 presents the results of this regression modeling for the variables and hypothesized interactions described above.

Table 5 Multiple Regression of Microsystems Factors & Key Resources on Resilience							
Model	<i>R</i>	<i>R</i> ²	<i>F</i> for Equation	<i>p</i>	<i>R</i> ² Change	<i>F</i> for Change	Sig <i>F</i> Change
1	.468	.219	8.462	<.001	.219	8.462	<.001
2	.501	.251	3.969	<.001	.032	.862	.570

The variance accounted for by Model 1 was observed to be statistically significant from zero indicating a significant predictive relationship between the microsystems variables and key resources as a set and resilience [$R^2=.219$; $F(7,211)=8.462$, $p<.001$]. However, only two variables, the microsystems factor parental alliance [$b=.079$, $SE=.037$, $p=.033$; $\beta = .162$] and the key resource parental

self-agency [$b=.670$, $SE=.126$, $p < .001$; $\beta = .357$] were observed to represent statistically significant predictors of resilience after controlling for the remaining key resource (beliefs about the role of fathers) and microsystems factors pertaining to fatherhood (gatekeeping behaviors and support from others). Model 1 suggests that for every one point increase on scores of parenting alliance, there is a .162 point increase in scores of resilience. Parental self-agency was found to account for 1.72% of the variance in resilience after controlling for the other predictors in the model. Model 1 suggests that for every one-point increase on scores of parental self-agency, there is a .357 point increase in scores of resilience. Parental self-agency was found to account for 10.5% of the variance in resilience after controlling for the other predictors in the model. However, in the model predicted in Figure 6 parental self-agency was hypothesized as moderating the relationships between microsystems variables rather than having a direct predictive relationship on resilience. Table 6, below, presents data for all predictors regressed on resilience from Model 1.

According to Bauer and Curren (2005), “testing the unique contribution of the product term net of the lower-order main effects provides an omnibus test of the interaction effect” (p. 374). Model 2 [R^2 change=.032; F change(17,201)=.862, $p=.570$], which represents the addition of the eight hypothesized moderation interactions on the predictive relationship between microsystems factors and resilience by key resources (parental self-agency and beliefs about the role of fathers), was not found to represent statistically significant change in the variance accounted for by Model 1—

thus the omnibus test indicates the interactions do not significantly contribute to the predictive model.

Factor	Zero-order Correlation	Standardized Coefficients	<i>t</i>	<i>p</i>	Effect size	Semi-partial Squared
Beliefs	.218	.087	1.300	.195	Small	.006
Parental Self-Agency	.428	.357	5.329	<.001	Medium	.105
Co-parenting Alliance	.273	.162	2.150	.033	Small	.017
Encouragement Gatekeeping	.040	-.074	-1.041	.299	Small	.004
Discouragement Gatekeeping	.055	.127	1.782	.076	Small	.012
Support Professional Support Extended Family/Friends	.101	.054	.857	.393	Small	.003
	.172	-.037	-.503	.615	Small	.001

No statistically significant interaction effects were found and the only significant main effect observed was that between parental self-agency and resilience [b=.684, SE=.134, $p < .001$; $\beta = .364$] when controlling for all other predictors, which the predicted model posited as a moderating rather than direct predictive variable. With the addition of the interaction relationships, the predictive relationship between parenting alliance and resilience was no longer found to reach the level of statistical significance [b=.074, SE=.038, $p=.052$; $\beta = .153$]. While encouragement gatekeeping was not observed to be a significant predictor of resilience in either model the relationship

between the variables was strengthened when controlling for interaction relationships between key resources and microsystem factors. Regression model data for Model 2 is found in Table 7, below.

Factor	Zero-order Correlation	Standardized Coefficients	<i>t</i>	<i>p</i>	Effect size	Semi-partial Squared
Beliefs	.218	.062	.824	.411	Small	.003
Parental Self-Agency	.428	.364	5.113	<.001	Medium	.097
Co-parenting Alliance	.273	.153	1.954	.052	Small	.014
Encouragement Gatekeeping	.040	-.131	-1.657	.099	Small	.010
Discouragement Gatekeeping	.055	.127	1.713	.088	Small	.011
Support Professional	.101	.063	.968	.334	Small	.003
Support Extended Family/Friends	.172	-.058	-.724	.470	Small	.002

Path analysis was conducted utilizing IBM® SPSS® Amos™ to assess the model represented in Figure 7, below, with the following modifications: the personal resource (resilience) was removed from the model and key resources (parental self-agency and beliefs about the role of the father) were entered as direct predictors of

spillover and enrichment given the lack of any support for the existence of any significant interaction effects.

Of the four fit statistics presented, none were found to be within the optimal range (Kline, 1999): Comparative fit (CFI) < .90 [.122], Chi Square/df < 3 [12.086], the significant Chi square [$\chi^2=447.182$, $p<.001$], and Root Mean Square Error of Approximation (RMSEA) > .05 [.226]. Therefore, the weight of fit evidence is not in favor of the model.

The modified proposed model was not observed to fit the data from the sample and only 4 of the 18 proposed predictive pathways were found to reach the level of statistical significance at the .05 level, which are presented in Table 8, above. Parenting alliance was found to represent a statistically significant predictor of work-to-home spillover [$b=-.045$, $SE=.016$, $p=.005$; $\beta = -.182$]. Spillover was found to represent a statistically significant predictor of marital satisfaction [$b=-.190$, $SE=.064$, $p=.003$; $\beta = -.196$]. Enrichment was found to represent a statistically significant predictor of paternal involvement [$b=.754$, $SE=.266$, $p=.005$; $\beta = .179$]. Spillover was found to represent a statistically significant predictor of paternal involvement [$b=-1.060$, $SE=.221$, $p<.001$; $\beta = -.303$].

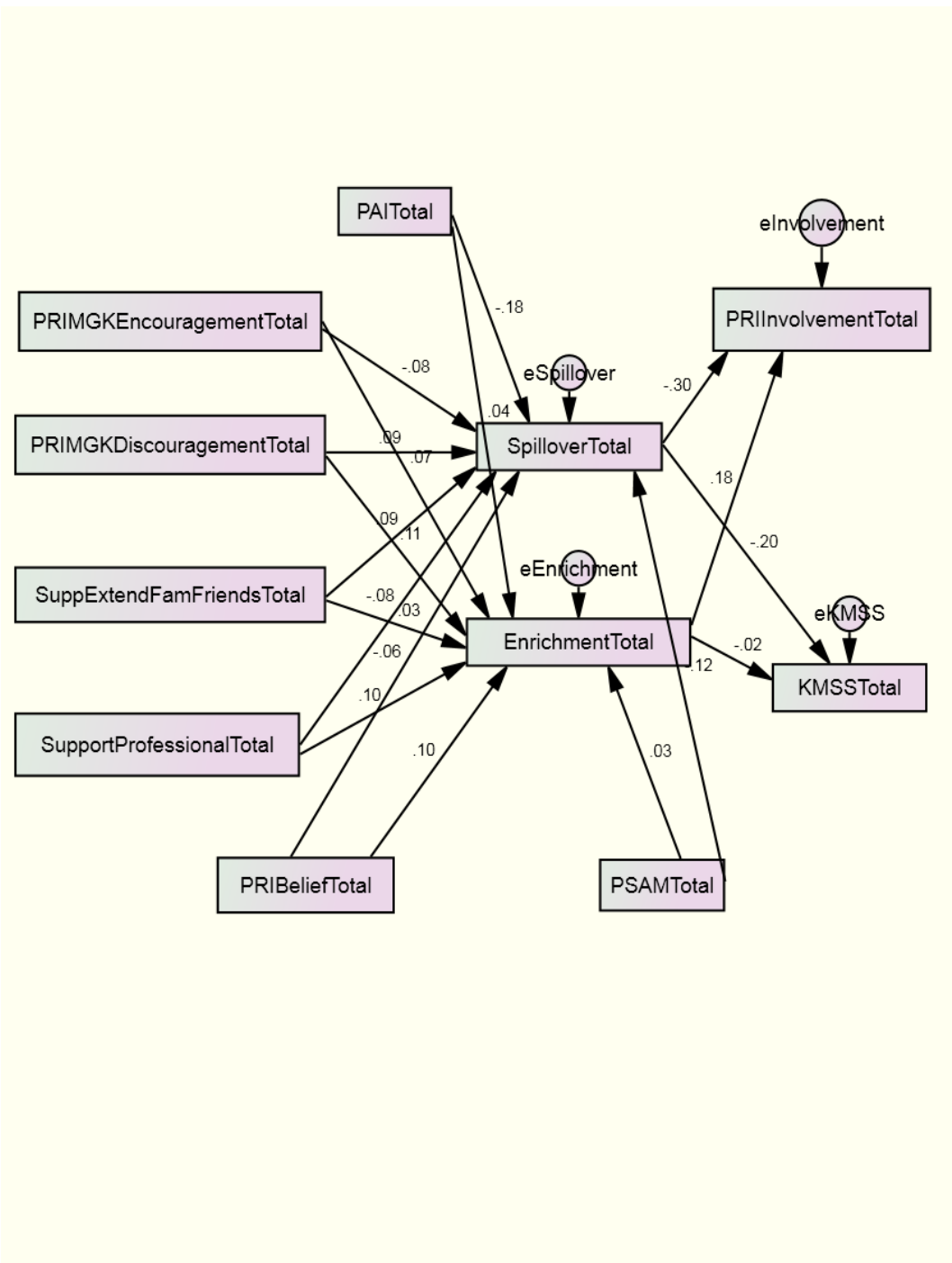


Figure 7: Path Diagram for Model with Resilience Removed

Table 8 Regression weights for path analysis of modified model without resilience						
			b	SE	β	p
Enrichment	<---	Beliefs about Role of Father	.034	.023	.098	.138
Enrichment	<---	Parental Self-Agency	.026	.053	.033	.619
Spillover	<---	Parental Self-Agency	-.117	.062	-.123	.058
Spillover	<---	Beliefs about Role of Father	-.027	.027	-.064	.321
Spillover	<---	Encouragement Gatekeeping	-.019	.014	-.084	.193
Spillover	<---	Co-parenting Alliance	-.045	.016	-.182	.005
Spillover	<---	Discouragement Gatekeeping	.024	.018	.088	.175
Spillover	<---	Support from Professional	-.067	.053	-.082	.205
Spillover	<---	Support Extended Family & Friends	.120	.090	.025	.185
Enrichment	<---	Co-parenting Alliance	.008	.014	.037	.572
Enrichment	<---	Encouragement Gatekeeping	.012	.012	.066	.323
Enrichment	<---	Discouragement Gatekeeping	.025	.015	.113	.089
Enrichment	<---	Support Professional	.070	.045	.103	.120
Enrichment	<---	Support Extended Family & Friends	.029	.077	.025	.703
Marital Satisfaction	<---	Spillover	-.190	.064	-.196	.003
Involvement	<---	Enrichment	.754	.266	.179	.005
Involvement	<---	Spillover	-1.060	.221	-.303	<.001
Marital Satisfaction	<---	Enrichment	-.022	.077	-.019	.774

Because the modified predicted model was not found to represent an adequate fit for the data, efforts were made to examine multiple theoretically consistent alternative models that might provide a better fit for the current sample. The best fit model found among these exploratory models is represented in Figure 8, below.

Of the five fit statistics presented, none were found to be within the optimal range (Kline, 1999): Goodness of fit (GFI) and comparative fit (CFI) < .90 [GFI=.848; CFI=.655], Chi Squared/degrees of freedom < 3 [6.011], the significant Chi squared [$\chi^2=204.370$, $p<.001$], and Root Mean Square Error of Approximation (RMSEA) > .05 [.152]. Therefore, the weight of fit evidence is not in favor of the model. Despite being the best-fit, the model was not observed to fit the data from the sample adequately though all of the proposed predictive pathways were found to reach the level of statistical significance at the .05 level, which are presented in Table 9, below.

Having failed to find a predictive path model with sufficient fit for the current data, hierarchical multiple regression was used to determine what, if any, significant predictive relationships between the proposed exogenous variables (microsystems factors, key resources), endogenous variables (resilience, spillover, enrichment) and the outcome variables, paternal involvement and marital satisfaction. Tables 10 and 12 (both below) display the results of the hierarchical regression model analyses on paternal involvement and marital satisfaction, respectively.

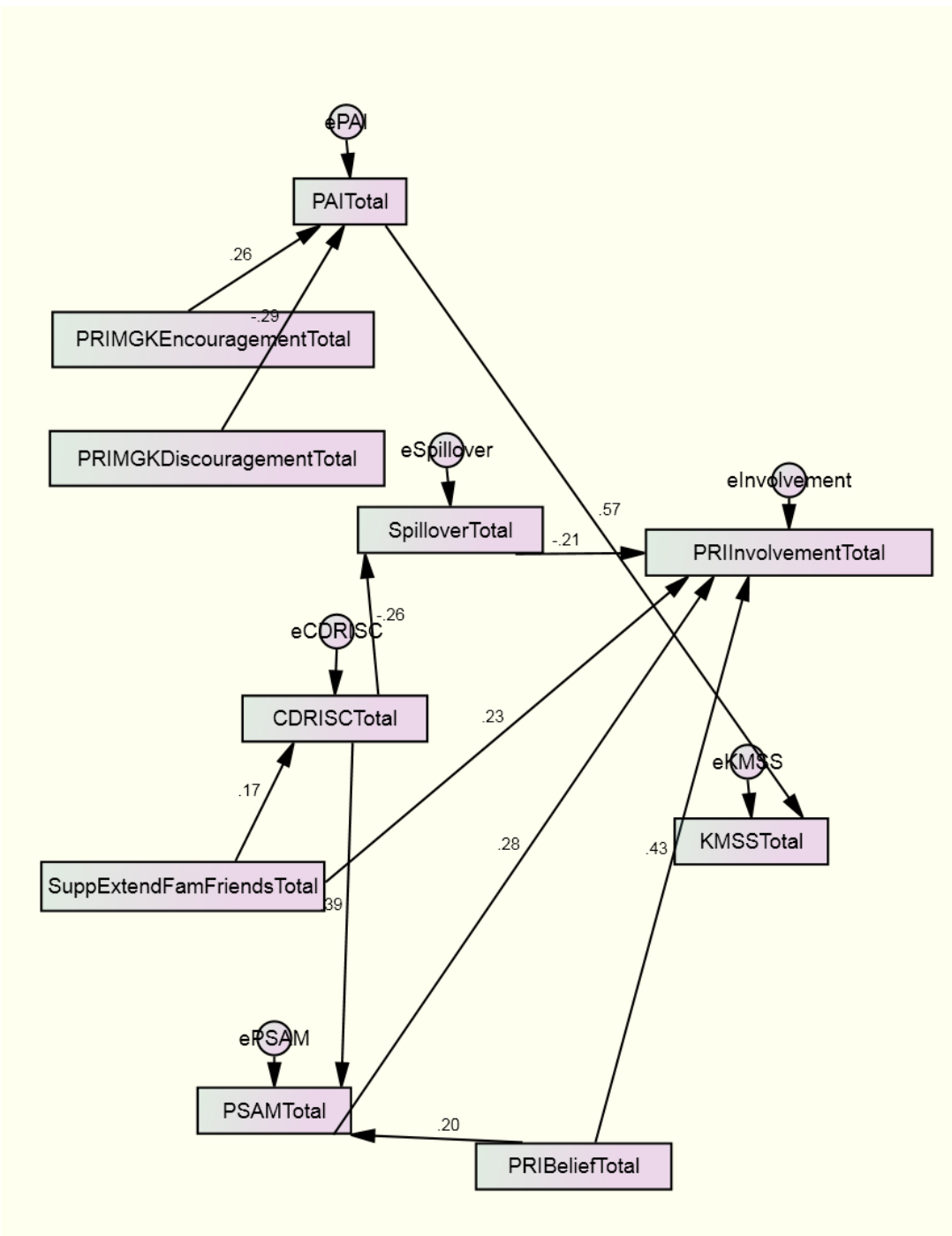


Figure 8: Best-Fit Model Path Diagram

Table 9 Regression weights for path analysis of best-fit model						
			b	SE	β	p
Resilience	<---	Support Extended Family & Friends	.471	.183	.172	.010
Parenting Alliance	<---	Encouragement Gatekeeping	.241	.058	.260	<.001
Parenting Alliance	<---	Discouragement Gatekeeping	-.332	.071	-.290	<.001
Spillover	<---	Resilience	-.133	.033	-.261	<.001
Parental Self-Agency	<---	Resilience	.205	.032	.391	<.001
Parental Self-Agency	<---	Beliefs about Role of Father	.087	.026	.205	<.001
Involvement	<---	Spillover	-.677	.167	-.208	<.001
Involvement	<---	Support Extended Family & Friends	1.028	.234	.226	<.001
Involvement	<---	Parental Self-Agency	.882	.167	.278	<.001
Involvement	<---	Beliefs about Role of Father	.579	.070	.430	<.001
Marital Satisfaction	<---	Co-parenting Alliance	.134	.013	.574	<.001

The variance accounted for by Model 1 was observed to be statistically significant from zero indicating a significant predictive relationship between work-to-home spillover and enrichment as a set and paternal involvement [$R^2=.136$; $F(2,218)=17.050$, $p<.001$]. Both variables, work-to-home spillover [$b=-1.060$, $SE=.222$, $p<.001$; $\beta = -.304$] and work-to-home enrichment [$b=.754$, $SE=.267$, $p=.005$; $\beta = .180$], were observed to represent a statistically significant predictors accounting for unique variance in paternal involvement when controlling for one another.

Model 2 [R^2 change=.054; F change(1,215)=14.395, $p > .001$], which represents the addition of the personal resource resilience to the predictive model between work-to-home spillover and paternal involvement, was found to represent statistically significant change in the variance accounted for by Model 1. Each of the three variables [work-to-home spillover ($b = -.849$, $SE = .222$, $p < .001$; $\beta = -.243$), work-to-home enrichment ($b = .634$, $SE = .261$, $p = .016$; $\beta = .151$), and resilience ($b = .434$, $SE = .114$, $p < .001$; $\beta = .243$)], were statistically significant predictors accounting for unique variance in scores on paternal involvement when controlling for one another.

Model	<i>R</i>	<i>R</i> ²	<i>F</i> for Equation	<i>p</i>	<i>R</i> ² Change	<i>F</i> for Change	Sig <i>F</i> Change
1	.369	.136	17.050	<.001	.136	17.050	<.001
2	.437	.191	16.870	<.001	.054	14.395	<.001
3	.693	.481	39.434	<.001	.290	59.507	<.001
4	.722	.521	22.611	<.001	.040	3.486	.005

Model 3 [R^2 change=.290; F change(2,213)=59.507, $p > .001$], which represents the addition of the key resources beliefs about the role of the father and parental self-agency to the predictive model, was found to represent statistically significant change in the variance accounted for by Model 2. Only four of the ten variables [work-to-home spillover ($b = -.626$, $SE = .180$, $p = .001$; $\beta = -.179$), work-to-home enrichment ($b = .426$, $SE = .211$, $p = .044$; $\beta = .102$), beliefs about the role of the father ($b = .637$, $SE = .076$, $p < .001$; $\beta = .440$), and parental self-agency ($b = .945$, $SE = .188$, $p < .001$; $\beta = .282$)], were statistically significant predictors accounting for unique variance in scores

on paternal involvement when controlling for one another. Resilience, by contrast, was no longer a significant predictor of paternal involvement ($b=.090$, $SE=.100$, $p=.373$; $\beta = .050$).

Model 4, the final model [R^2 change=.040; F change(5,208)=3.486, $p=.005$], which represents the addition of the microsystems resources (co-parenting alliance, encouragement and discouragement gatekeeping, and support from the extended family and friends and professional microsystems) to the predictive model, was found to represent statistically significant change in the variance accounted for by Model 3. Four of the ten variables [work-to-home spillover ($b=-.617$, $SE=.179$, $p=.001$; $\beta = -.177$), beliefs about the role of the father ($b=.574$, $SE=.077$, $p <.001$; $\beta = .396$), parental self-agency ($b=.824$, $SE=.189$, $p <.001$; $\beta = .246$), and support from the extended family and friends microsystem ($b=.922$, $SE=.287$, $p=.002$; $\beta = .188$)], were statistically significant predictors accounting for unique variance in scores on paternal involvement when controlling for one another and all other predictors. The remaining variables (work-to-home enrichment, resilience, co-parenting alliance, encouragement and discouragement gatekeeping, and support from the professional microsystem) did not predict statistically significant variance in paternal involvement. Table 11 displays regression data for significant predictors of paternal involvement including estimated effect sizes using guidelines established by Cohen (1988).

Factor	Zero-order Correlation	Standardized Coefficients	<i>t</i>	<i>p</i>	Effect size	Semi-partial Squared
Beliefs	.570	.396	7.484	<.001	Medium	.129
Parental Self-Agency	.474	.246	4.365	<.001	Small	.044
Spillover	-.323	-.177	-3.445	.001	Small	.027
Support Family/Friends	.922	.287	3.213	.002	Small	.024

The variance accounted for by Model 1 was observed to be statistically significant from zero indicating a significant predictive relationship between work-to-home spillover and enrichment as a set and marital satisfaction [$R^2=.039$; $F(2,218)=4.347$, $p=.014$]. However, only work-to-home spillover [$b=-.190$, $SE=.064$, $p<.001$; $\beta = -.198$] was observed to represent a statistically significant predictor accounting for unique variance in marital satisfaction when controlling for work-to-home spillover.

Model 2 [R^2 change=.024; F change(1,215)=5.490, $p=.020$], which represents the addition of the personal resource resilience to the predictive model between work-to-home spillover and paternal involvement, was found to represent statistically significant change in the variance accounted for by Model 1. Work-to-home spillover [$b=-.151$, $SE=.066$, $p=.022$; $\beta = -.158$] and resilience [$b=.079$, $SE=.034$, $p=.020$; $\beta = .161$], were statistically significant predictors accounting for unique variance in scores on marital satisfaction when controlling for one another and resilience.

Table 12 Hierarchical Multiple Regression of All Variables on Marital Satisfaction							
Model	<i>R</i>	<i>R</i> ²	<i>F</i> for Equation	<i>p</i>	<i>R</i> ² <i>Change</i>	<i>F</i> for <i>Change</i>	Sig <i>F</i> Change
1	.197	.039	4.347	.014	.039	4.347	.014
2	.250	.063	4.788	.003	.024	5.490	.020
3	.286	.082	3.785	.003	.019	2.201	.113
4	.613	.376	12.508	<.001	.294	19.579	<.001

Model 3 [R^2 change=.019; F change(2,213)=2.201, p =.113], which represents the addition of the key resources beliefs about the role of the father and parental self-agency to the predictive model, was not found to represent statistically significant change in the variance accounted for by Model 2. Only work-to-home spillover [b =-.135, SE =.066, p =.041; β = -.141) remained a statistically significant predictor accounting for unique variance in scores on marital satisfaction when controlling for other predictors. Resilience, by contrast, was no longer a significant predictor of paternal involvement (b =.050, SE =.037, p =.175; β = .102) and neither beliefs about the role of the father nor parenting self-agency were significant predictors of marital satisfaction.

Model 4 represents the final model [R^2 change=.294; F change(5,208)=12.508, p <.001] and the inclusion of the microsystems resources (co-parenting alliance, encouragement and discouragement gatekeeping, and support from the extended family and friends and professional microsystems) to the predictive model. It was

found to be a statistically significant change in the amount of variance accounted for by the previous model, Model 3. Of the ten variables, only three were statistically significant predictors accounting for unique variance in scores on paternal involvement when controlling for one another and all other predictors [co-parenting alliance ($b=.109$, $SE=.016$, $p<.001$; $\beta = .459$), support from the extended family and friends microsystem ($b=.220$, $SE=.090$, $p=.016$; $\beta = .163$), and support from the professional microsystem ($b=.116$, $SE=.045$, $p=.011$; $\beta = .148$)]. Those variables remaining (work-to-home spillover and enrichment, resilience, beliefs about the role of fathers, parenting self-agency, and encouragement and discouragement gatekeeping) did not predict statistically significant variance in paternal involvement. Table 13 displays regression data for significant predictors of paternal involvement including estimated effect sizes utilizing guidelines suggested by Cohen (1988).

Hypothesis 2: Differential Effects of Support Source. Scores for support for the fatherhood role from the extended family and friends microsystem were found to be positively correlated with scores on the measure of resilience [$r(217)=.172$, $p=.011$]. The strength of this correlation was weak and, as reported previously in Table 4, support from extended family and friends was not observed to be a statistically significant predictor of resilience when controlling for other microsystems variables.

Scores on support for the fatherhood role from the extended family and friends microsystem were found to be significantly positively correlated with scores on the measure of resilience [$r(217)=.172$, $p=.011$]. The strength of this correlation was weak

and, as reported previously in Table 4, support from extended family and friends microsystems was not observed to be a statistically significant predictor of resilience when controlling for other microsystems variables [$b=.062$, $SE=.190$, $p=.746$; $\beta=.022$].

Factor	Zero-order Correlation	Standardized Coefficients	<i>t</i>	<i>p</i>	Effect size	Semi-partial Squared
Co-parenting Alliance	.561	.459	6.632	<.001	Medium	.132
Support Family/Friends	.395	.163	2.440	.016	Small	.018
Support Professional	.255	.148	2.562	.011	Small	.020

No statistically significant correlation was observed between scores on support for the fatherhood role from the professional microsystem and scores on the measure of resilience [$r(217)=.101$, $p=.135$]. As with support from extended friends and family, the strength of this correlation was weak and support from the professional microsystem was not observed to be a statistically significant predictor of resilience when controlling for other microsystems variables [$b=.085$, $SE=.103$, $p=.408$; $\beta=.053$] (see Table 4).

While the results of correlation of suggest a stronger association between support from the extended family and friends microsystem and resilience than that between support from the professional microsystem, regression analysis suggests the effect of the latter is stronger in predicting resilience than the former. Further complicating interpretation is the observation that there is a significant interaction

between support from the extended family and friends microsystem with parental self-agency [$b=-.164$, $SE=.074$, $p=.027$; $\beta=-.158$], which results in a sign change in the beta coefficients for support from the extended family and friends microsystem and a substantial decrease in the already meager amount of variance accounted for by this predictor.

Hypothesis 3: Belief and Perceived Involvement. Participant total scores of paternal involvement were subtracted from their total scores on beliefs about the importance of paternal involvement to determine a Belief-Involvement Congruence score. Those who reported their paternal involvement exceeds beliefs about paternal involvement generated scores with negative values and those whose beliefs about paternal involvement exceeded their reported paternal involvement generated positive scores. Participant Belief-Involvement Congruence scores were ranked and divided into quartiles yielding High More Involved, Low More Involved, Low Less Involved, High Less Involved groups. An ANOVA [$F(3, 218)=4.447$, $p<.001$] then was conducted to determine if these groups differed on a measure of fatherhood role fulfillment satisfaction, which suggested there were statistically significant differences between the Belief-Involvement Congruence groups. Tukey post hoc analysis reveals statistically significant differences between the High More Involved and High Less Involved groups, statistically significant differences between the Low More Involved and Low Less Involved groups, and statistically significant differences between the Low Less Involved and High Less Involved groups. These results provide partial support from the congruence hypothesis while also suggesting a more complicated relationship

between role beliefs, behavior, and role satisfaction. The results the ANOVA and post hoc analyses are presented in Tables 14 and 15 and the means plot appears in Figure 9.

Table 14 ANOVA: Fatherhood Role Satisfaction by Belief-Involvement Congruence					
	Sum of Squares	df	Mean Square	F	p
Between	13.342	3	4.447	8.430	<.001
Within	113.423	215	.528		
Total	126.765	218			

Table 15 Tukey Post Hoc					
Group		Group	Mean Diff	SE	p
High More		Low More	.099	.142	.897
		Low Less	.155	.132	.643
		High Less	.658	.140	<.001
Low More		Low Less	.056	.140	.978
		High Less	.558	.147	.001
Low Less		High Less	-.502	.138	.002

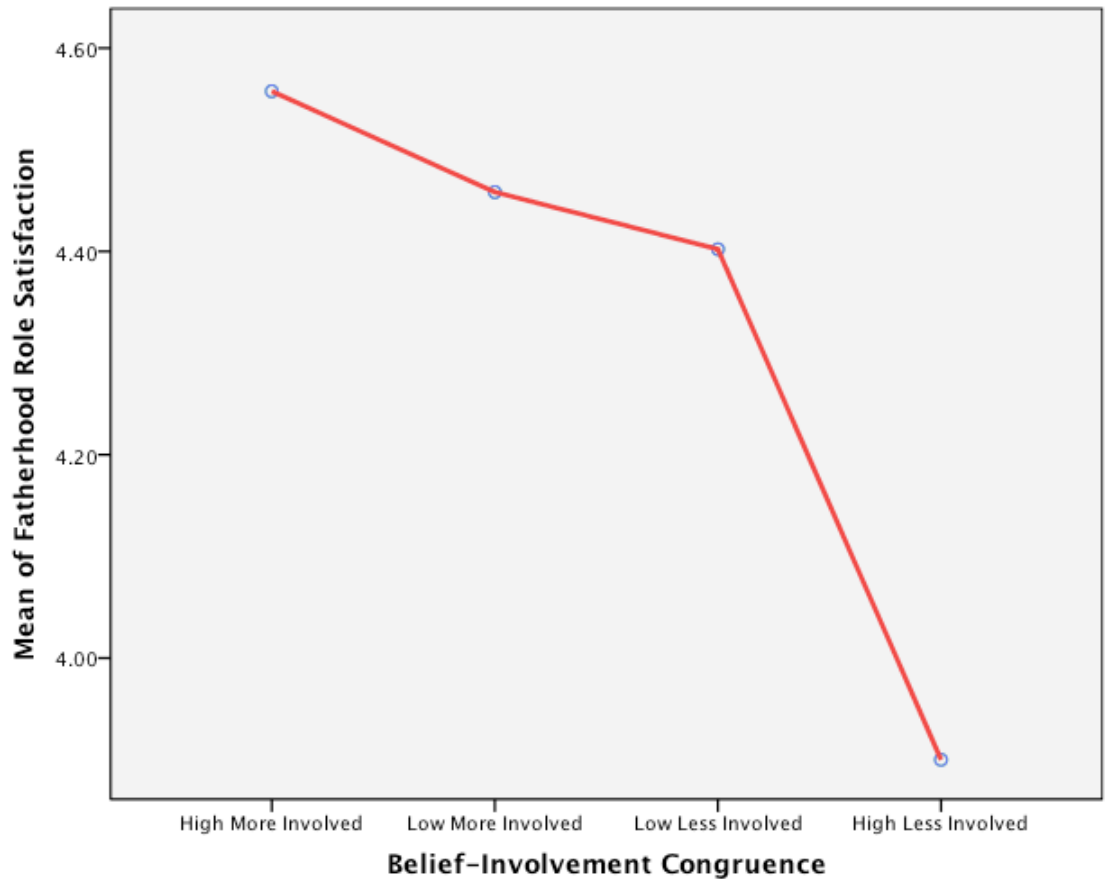


Figure 9: Fatherhood Role Satisfaction by Belief-Involvement Congruence

Research Question 1 (RQ₁): Differences Across Field of Study. Are there statistically significant differences between men across fields of study on measures of beliefs of the role of father and paternal involvement? To answer the above question Multivariate Analysis of Variance was performed with participants being grouped into one of five general field areas: Social Sciences, STEM (Science, Technology, and Mathematics), Medicine, Business and Law, and Education. Approximately, 20 participants were eliminated from this analysis because of missing data or their

program of study was of insufficient size for analysis and was not adequately represented by one of the above general fields.

Tests of homogeneity of variance and covariance were not significant suggesting MANOVA's assumptions regarding equality of variance and with-in group covariance were met. The multivariate result was not significant for field of study [$F(12, 505) = .944, p = .501; \text{Wilks' } \Lambda = .943$] indicating no significant difference between groups on either of the dependent variables: beliefs about the role of the father and paternal involvement.

Discussion

The Model

The first goal of the present study was to develop an integrative model utilizing Bakker and Demerouti's (2013) Spillover-Crossover Model and the W-HR model of ten Brummelhuis and Bakker (2012). Unfortunately, this study failed to produce support for the proposed integrated model.

The first threat to the proposed model occurred with the lack of significant main effects for predictive relationships between the microsystems factors (co-parenting alliance, encouragement and discouragement gatekeeping, and support from extended family and friends and the professional microsystems) on the personal resource resilience or significant interactions between the microsystems factors and hypothesized key resources (parental self-agency and beliefs about the role of

fatherhood). Data from the hierarchical multiple regression conducted are presented in Tables 5, 6, and 7. The only statistically significant predictor of resilience observed was parental self-agency, which proposed as a key resource was hypothesized to play a moderating role between the effect of microsystems on personal resources (see Figures 3, 5, and 6). The microsystem co-parenting alliance approached significance as a predictor though no significant interactions between key resources and this predictor were observed. The unexpected results of this preliminary analysis necessitated a change in the proposed model and resilience was removed due to its lack of significant relationship with so many other variables in the model. This decision was made in the hopes of confirming other proposed predictive relationships.

Path analysis, similarly, failed to support the proposed model and ancillary models consisting of a variety of alternate predictive pathways were not found to provide sufficient fit for the current data. However, individually statistically significant predictive relationships were observed, in predicted directions, which suggest some limited support for previous research. For example, beliefs about the paternal involvement were observed to be the strongest predictor of reported paternal involvement. These results are consistent with previous findings by Bonney, Kelley, and Levant (1999) who observed paternal beliefs about the role of fathers were identified as significant predictors of the amount of paternal involvement in child care activities and extend those findings by demonstrating the effect is similar for Palkovitz's (1997) expanded modes of paternal involvement used in this study.

Similarly, the observed significant predictive relationship between work-to-home spillover and paternal involvement (increased spillover predicts reduced paternal involvement) is consistent with assumptions of the Spillover Crossover Model (Bakker & Demerouti, 2013) and previous work by Gryzwacz and Marks (2000) and supports assumptions of the present study that spillover impacts specific parenting outcomes for fathers. Partial support was also observed for ecological systems theory (Bronfenbrenner, 1992, 1994) generally as the best fit model revealed statistically significant predictive relationships between internal factors such as beliefs about paternal involvement and parental self-agency and the external microsystems factor support for the fatherhood role from friends and family on paternal involvement. This support should be considered tentative and weak considering the predictors accounted for small amounts of variance and were part of a model that did not adequately fit the data. Together this might be interpreted as limited support for previous research suggesting that fathering behavior is determined by multiple factors (McBride, Schoppe, Ho, & Rane, 2004; Nangle, Kelley, Fals-Stewart, & Levant, 2003).

These results aside, the data and lack of sufficient fit of the data to the model do not provide support for the proposed integration represented in Figure 6, the previously untested Work-Home Resources Model (ten Brummelhuis & Bakker, 2012), or the significant impact of gatekeeping behaviors on paternal involvement reported by Schoppe-Sullivan et al. (2008).

In light of the lack of success in finding a model of sufficient fit the decision was made to utilize regression analysis to explore the relationship between all predictors and the criterion variables—paternal involvement and marital satisfaction. Hierarchical multiple regression analysis yielded results that supported the results reported above and the related literature, particularly the role of beliefs about paternal involvement in predicting reported involvement. Controlling for all other predictors, beliefs about paternal involvement emerged as the strongest predictor of paternal involvement accounting for nearly 13% of variance observed in the latter, which represented a medium effect size (Cohen, 1988), and supported earlier work (e.g., Bonney, Kelley, & Levant, 1999). Other significant predictors including spillover, parental self-agency, and support of the fatherhood role emerged as significant but weak predictors accounting for nearly 9% of the observed variance in paternal involvement together. As stated above, this lends limited support for previous research on spillover-crossover effects (Bakker & Demerouti, 2013; Gryzwacz & Marks, 2000).

Hierarchical multiple regression of all predictors on the measure of marital satisfaction resulted in comparably few significant predictive relationships. As reported earlier, co-parenting alliance emerged as the strongest predictor of marital satisfaction accounting for 13.2% of the variance observed affirming a relationship previously reported by other researchers (e.g., Abidin & Brunner, 1995; Futris & Schoppe-Sullivan, 2007; McBride & Rane, 1998). This finding may have potentially meaningful implications for counseling professionals working with couples, which will be described below. Additionally, support for the fatherhood role from the extended family and

friends and professional microsystems were observed to be significant predictors of marital satisfaction providing limited support for the role of external microsystems factors and ecological systems theory (Bronfenbrenner, 1992, 1994).

It is difficult to speculate about possible explanations for this lack of support for the hypothesized model with any degree of certainty. The significant alterations to the way involvement was defined to incorporate a more inclusive array of involvement behavior (Palkovitz, 1997) by comparison to previous research in the area and issues of sample size and range restriction may have contributed to the reported results. Additionally, one of the models (W-HR model) used to develop the integrated model tested here, has not, itself, been empirically validated.

Alternatively, the interaction between these factors may simply be poorly understood and represented by our current models and additional research will be needed to further our understanding of the complex interaction the psychosocial system involving work, family, marriage, and parenting. Finally, it remains possible that while this model may not provide adequate fit for this particular sample of graduate student fathers, the proposed model may indeed fit other samples or populations.

Additional Hypotheses and Research Question

Results of analyses conducted to test Hypothesis 2 regarding the differential impact of support for the fatherhood role from different microsystems (extended family and friends versus professional relationships) on resilience were mixed and taken together these results fail to provide sufficient support for the hypothesis that

support for fatherhood role from the friends and extended family microsystems has a greater impact on resilience than support from those in the professional microsystem. There was some evidence that parental self-agency may have a suppressing effect on the predictive relationship between support from extended family and friends and resilience and men in the study tended to report high levels of parental self-agency. This may be due the fact that those fathers high in parental self-agency may seek out support from this source less frequently than those with lower self-agency and family and friends might be less inclined to direct support at fathers whom they believe already demonstrate higher parental self-agency and involvement.

Another consideration is that the question about the impact of source of support on resilience may be less important than the relationship between sources of support and other factors like the outcome variables paternal involvement and marital satisfaction. Results of both multiple regression and path analysis provide more support, though characterized by small effect size (Cohen, 1988), for a direct relationship between support for the fatherhood role from extended family and friends between these variables (see Figure 8 and Tables 13 and 14). In these analyses, support for the fatherhood role from extended family and friends was observed to have a statistically significant predictive relationship that exceeded that of support from the professional microsystem and in some instances (Figure 8) the former yielded a significant relationship when the latter did not.

Finally, in regard to Hypothesis 2, it should be noted that measure of support for the fatherhood role in the extended family and friends and professional microsystems might have been improved by focusing on the presence or absence of specific behaviors or resources in these microsystems that encourage or discourage paternal involvement. As currently constructed, the measure assesses the degree to which the participant perceives these microsystems as generally supportive. This approach may not sufficiently capture the degree to which these microsystems actually form a supportive structure for parental involvement beyond expressed verbal support (e.g., on-site childcare, family flexible scheduling, breastfeeding rooms). Without underlying systemic structures to support and encourage paternal involvement, workers concerns, reported Eaton (2003), that their standing in the workplace or chances for advancement will be diminished by pursuing greater work-family balance are likely persist.

Perhaps one of the most interesting findings of the study comes from the result of testing Hypothesis 3: Participants' satisfaction with their fulfillment of the fatherhood role will be higher for those demonstrating congruence between their beliefs about the role of the father and their level of paternal involvement. Though fathers in the study reported relatively high levels of satisfaction with their fulfillment of the fatherhood role overall, it was possible to identify statistically significant differences between groups of varying congruence between beliefs about the fatherhood role and reported paternal involvement. Results provided partial support for the hypothesis above. Rather than a simple relationship indicating greater

congruence was associated with greater satisfaction with role fulfillment, results indicated a pattern of higher satisfaction associated with not only higher congruence between belief and behavior but also when incongruence between beliefs and behavior favored increased involvement. Fathers who reported more personal involvement than they believed was important for the ideal father reported the greatest level of satisfaction with their fulfillment of their role. Interpretation of these results is tempered by the increased threat to Type I Error due to the unequal size of the groups in the comparison and uncertainty about what statistically significant differences on satisfaction and belief-involvement congruence might mean in more practical or clinical settings.

The results of the MANOVA comparing the beliefs about fatherhood and paternal involvement across different fields of study as described by Research Question 1 indicated no statistically significant differences between groups indicating men across fields share similar beliefs about the role of fathers and report similar levels of paternal involvement. These results appear notable on the basis of previous research demonstrating men and women tend to hold occupational sex and gender-based stereotypes (White, Kruczek, Brown, & Brown, 1989; White & White, 2006) and prevalence of gendered socialization processes (Deutsch, 2001; Glick et al., 2004; Wall & Arnold, 2007). One might assume that occupations or fields of study associated with male membership and masculine traits (e.g., STEM fields or business) would attract men who were also socialized to develop more traditional views of paternal involvement and exhibit patterns of involvement consistent with those views than

those in fields associated with feminine traits (e.g., education or social sciences). The current data seems to indicate these assumptions are incorrect and further caution against assumptions made about individuals based on group membership and the importance of individual differences. As with many of the other analyses in this study, results should be interpreted carefully given issues of sampling and group size equivalence.

Limitations, Implications, and Future Research

This study has several limitations, which are important to note in regards to methodology and generalizability of the present findings. First, it was a methodological oversight that while participants were asked about paternal involvement and comparisons between reported involvement and beliefs about involvement revealed significant discrepancies, efforts were not made to seek explanations for potential discrepancies. Time graduate student participants are required to engage in teaching being in class, studying, and working as a research assistants or even outside the university system for pay would have likely contributed meaningful information about what activities might be precluding graduate student fathers from engaging in paternal involvement more consistent with their beliefs. Second, the present study relied exclusively on self-report measures without any form of direct observation or corroborative partner reports.

The primary limitations have to do with issues of sampling. This presented barriers not only in terms of the primary hypothesis, the testing of an novel integration

of work-home balance models, which failed to yield a model of adequate fit, but also for other analyses. Without a sample of a sufficient numbers, it was not possible to use more powerful statistical modeling techniques like structural equation modeling, as planned. Furthermore, the current sample somewhat limited the power and utility of the tests utilized. In this regard, the benefits of greater statistical power and greater range of the data being gathered with a larger sample size are clear and such a sample will be needed to adequately explore the integration of the models in question.

The subject of variability within the dataset is well illustrated when one considers the overall reported functioning of the participants in the sample. More than 90% of graduate student fathers surveyed reported they were satisfied to very satisfied with how well they fulfill their fatherhood role. The mean score on the measure marital stability was above the cutoff for probable distress (nearly 80% fell into the non-distressed category; Schumm et al., 2008). The sample demonstrated mean levels of resilience and scores of co-parenting alliance consistent with community populations (Campbell-Stills & Stein, 2003; Abidin & Brunner, 1995) with significant negative skews present in the distributions. They also reported greater mean levels of work-to-home enrichment than men currently in the workforce as reported by Gryzwacz and Marks (2000), and low levels of discouragement from their partners about their relationships with their children.

Though their results may be indicative of the unique experience of graduate student fathers, it is important to bear in mind the limited sample size and the use of a

convenience sample significantly limits our ability to generalize these findings even within the graduate student population. It cannot be ignored that observations of a high functioning sample reporting little significant distress may simply be the result of self-selection. Graduate student fathers functioning less effectively or experiencing elevated levels of distress may be difficult to access by the current methods.

Individuals more inclined to respond to requests to participate in research such as this may be unlikely to be those who lack sufficient resources for participation or struggle with distress tolerance and management.

Another prominent drawback of the limited sample relates to the ability to effectively generalize the findings of the current study. Beyond the fact that the sample was focused on graduate students, it was also found to be fairly ethnically homogenous, 73% White Non-Hispanic. Though this figure is consistent with those reported in recent U.S. Census data (U.S. Census Bureau, 2011c), the portion of U.S. ethnic minorities (particularly Black, American Indian, and Latino Americans) were not representative of the broader general population and the sample was also geographically limited. The difference between the population and present sample in terms of ethnic minority representation was largely made up by international students from a variety of nationalities and ethnicities. While inclusion of broader ethnic and cultural diversity is desirable the numbers were not adequate enough to allow reasonable extension the findings in a meaningful way across groups.

Additionally, there are some concerns the present study may have presented barriers to participants in terms of multicultural sensitivity or accessibility, particularly where international students were concerned. Participants identifying as citizens of countries outside the U.S. were three times as likely to abandon the survey as ethnic minority Americans. It is difficult to interpret with great confidence the reasoning for this, particularly as no clear pattern emerged as to when the survey was most frequently abandoned. Speculation leads one to assume either of two, or a combination thereof, explanations. The survey as constructed may have presented difficulties for those struggling with English language proficiency, as is a common struggle for many immigrant fathers (Falicov, 2003), but may also be indicative of a lack of adequate sensitivity to cross-cultural differences or expectations for fathers.

Finally, the absence of fathers identifying as a part of the LGBTQ community is disappointing though not necessarily unexpected. Lack of diversity on this particular demographic is likely strongly tied to local political and cultural factors; data was primarily collected from students attending a university located in a state known to be hostile or unaccommodating of rights for same-sex couples. Further, Coffman, Coffman, and Marzilli Ericson (2013) reported even when utilizing “current best practices” substantial bias in reporting non-heterosexual identity. The unique experience of fatherhood for gay men is a young and developing portion of the literature (Berkowitz & Kivalanka, 2013; Jenkins, 2013; Richardson, Moyer, & Goldberg, 2013) and, sadly, one to which this study cannot directly contribute.

Possible Implications for Clinical Practice. Noteworthy findings of this study from a clinical perspective include support for previous research (Abidin & Brunner, 1995; Futris & Schoppe-Sullivan, 2007; McBride & Rane, 1998) demonstrating a couple's ability to effectively collaborate in parenting their children predicts marital stability and satisfaction. This evidence may be particularly important for practitioners working with couples who may have difficulty understanding how their multiple roles as parents and partners may interact and potentially identifies co-parenting alliance as a point of intervention to improve marital functioning and satisfaction or as a point of strength around which couples may unite in therapy. The identification of support of the fatherhood role by extended family and friends as a significant predictor of paternal involvement when neither form of gatekeeping was found to be should also be of interest to clinicians working with couples and families. These findings suggest resources outside the relationship or immediate family units might be important sources of support for fathers when seeking to promote and maintain change in paternal involvement. Accessing these external resources may potentially provide some relief of responsibility for frustrated partners.

Results concerning the hypothesis regarding congruence between beliefs about fatherhood and reported involvement also have some potential impact on clinical practice. The partial support for the congruence hypothesis is consistent with treatment modalities such as Motivational Interviewing (Miller & Rollnick, 2002), which incorporates congruence between values and behavior as a motivation for change while also supporting the importance of paternal involvement with their

children (Lamb, 2010). Potential implications for these results included support for increased paternal involvement as a mechanism for behavioral activation in the treatment of depression or partner relationship issues. The latter is further supported when viewed in conjunction the data in the study supporting co-parenting alliance as predictive of increased marital satisfaction and stability.

Similarly, the absence of statistically significant differences between fathers across fields of study in terms of paternal involvement and beliefs about the role of fathers may have practice implications for those providing counseling services with families or couples. These results support the importance in considering the role of individual differences in addition to cultural affiliation (Sue & Sue, 2008). Those working with men with families should remain cognizant of both the existence of occupational sex and gender-based stereotypes (White, Kruczek, Brown, & Brown, 1989; White & White, 2006) that might present issues or misunderstandings related to work-home balance needs or concerns. In other words, practitioners working with a father who is also an engineer should not assume that paternal involvement is unimportant or limited to more traditional forms of involvement like material provision just as one should not assume black fathers lack interest in being involved, resident fathers.

Future Research. Research in the areas of work-home balance and fatherhood is likely to continue to expand and grow in the future. This study was unique in the efforts to seek improved understanding of the multitudinous environmental factors

influencing fatherhood behaviors through model integration and expansion and the results speak to the complex nature of the relationship between our socioecological environment and our behavior. Empirical support is needed for the Work-Home Resource Model (ten Brummelhuis & Bakker, 2012). Future research in these areas should also seek to utilize reports from both partners, as has been employed, for example, by Schoppe-Sullivan et al (2008). Reports from both partners are important to establishing a more coherent view and understanding of fatherhood and parenting in the context in which it most commonly occurs—couples and families.

Additionally, fathers tend to be poorly represented in the literature regarding parenting (e.g., Connelly & Ghodsee, 2011; Mason, 2009; Siblo, 2012). Given that many of the fathers surveyed for the present study were parents to young children, this period is likely to be formative in terms of both career development and preparation but also for the developing role of these men as fathers and partners. The present results indicating graduate student fathers experience higher levels of both spillover and enrichment when compared to men already in the workforce suggest being a father in graduate school is a unique experience and may be an important development point for the management of work-family balance skills and strategies. Should this be the case, it would appear there might be benefit in providing additional support for graduate students who struggle with work-to-home spillover or interventions that may help fathers maintain and seek work-to-home enrichment.

Additional research seeking to better define the fatherhood experience during the period will likely improve our understanding of the early development of the role balancing conflict, which is increasingly of interest in the current literature (e.g., Bakker & Demerouti, 2013; Gryzwacz & Bass, 2003; Gryzwacz & Marks, 2000; ten Brummelhuis & Bakker, 2012) potentially proving as a preventative intervention point for limiting future balance struggles or conflict.

Finally, an effort to explore questions surrounding work-home balance as it uniquely applies to fathers, children, and families of greater diversity is needed including those representing ethnic, racial, sexual orientation diversity as well as single fathers, non-resident fathers, and fathers in step or blended families.

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Appendix A: Measures

Palkowitz (1997) suggested broader conception of parental involvement that covers cognitive, affective, and behavioral domains, and he identified 15 major categories of involvement, which are listed below.

Communication: listening; talking; writing notes; making scrapbook; calling on phone when away; expressing love; expressing concerns; expressing forgiveness; expressing valuing; showing genuine interest in day, friends, interests, feelings, thoughts, aspirations, etc

Teaching: advising; role modeling; problem solving; disciplining; commenting on child's or parent's progress; teaching spiritual development, praying together, etc; fostering independence; providing long-term perspective; giving choices and respecting selections made; assisting in gaining new skills (teach to ride a bike, swim, drive, balance checkbook); scolding; giving chores; teaching responsibility; teaching about own and other cultures; answering questions; encouraging interests, hobbies; doing taxes

Monitoring: friendships; dating partners; safety; whereabouts; health; grooming; schoolwork; checking on sleeping child; going to parent/teacher conferences; overseeing TV or movie watching and music listening, rides to and from places

Thought Processes: worrying; planning; dreaming; hoping; evaluating; praying for child; "being there"

Errands: driving; picking up items; making calls for

Caregiving: feeding; bathing; clothing; reaching for things for children; caring for sick child; tucking into bed

Child-Related Maintenance: cleaning; repairing; laundering; ironing; cooking; pet care; creating child-centered spaces

Shared Interests: developing expertise; providing instruction; reading together

Availability: attending events; leading activities (scouting, PTA, etc); spending time together; allowing/encouraging child to enter leisure activities; being with child when he/she won't go alone; baking cookies for child's activities

Planning: birthdays; vacations; education; trips; holidays; saving for future; appointments; scheduling time with friends

Shared Activities: exercising; shopping; picnicking; movie going; parks; eating meals; playing together; building forts; celebrating holidays; working together; dancing together; chaperoning events

Providing: financing; housing; clothing; food; medical care; education; safe transportation; needed documentation (birth certificates, social security, etc); help in finding a job; furnishings; developmentally appropriate toys or equipment; extracurricular activities; alternative care; insurance

Affection: loving; hugging; kissing; cuddling; tickling; making eye contact; smiling; genuine friendship with child; showing patience; praising

Protection: arranging environment; monitoring safety; providing bike helmets, life jackets, etc

Supporting Emotionally: encouraging; developing interests

Parental Regulation Inventory (PRI) adapted from (Van Egeren, 2000).

Section 1: How important is it for FATHERS to be involved in:

Extremely Important	Not at all Important					
1. Communicating with your child (listening, talking, showing interest in their day, friends, interests)	1	2	3	4	5	6
2. Teaching your child (advising, problem solving, answering questions, disciplining, role modeling, teaching new skills like riding a bike)	1	2	3	4	5	6
3. Monitoring (your child's safety, friendships, health, dating partners, schoolwork, media use)	1	2	3	4	5	6
4. Thinking about your child (worrying, planning, hoping, evaluating, praying for child)	1	2	3	4	5	6
5. Running errands (driving, picking up items, making calls for)	1	2	3	4	5	6
6. Providing child care (feeding, bathing, dressing, caring for your sick child)	1	2	3	4	5	6
7. Doing child-related maintenance (cleaning, repairing things, doing laundry, cooking)						

	1	2	3	4	5	6
The 8. Being available to your child (attending events, leading activities, spending time together, being with child when he/she won't or can't go alone)						
	1	2	3	4	5	6
9. Planning (birthdays, time with friends, doctor's visits, trips, education, saving for the future)						
	1	2	3	4	5	6
10. Sharing activities with your child (exercising, watching TV or movies, playing together, going to parks, chaperoning events)						
	1	2	3	4	5	6
11. Providing for your child (housing, clothing, food, education, medical care, transportation, toys, furnishings, insurance)						
	1	2	3	4	5	6
12. Demonstrating affection to your child (hugging, kissing, smiling, tickling, cuddling, making eye contact, telling your child you love them or are proud of them)						
	1	2	3	4	5	6
13. Providing emotional support for your child (comforting when upset, asking about concerns or feelings, giving encouragement)						
	1	2	3	4	5	6
14. Providing protection for your child (making your child's immediate environment safe)						
	1	2	3	4	5	6

How involved do you think YOU actually are in:

	Not at all Involved				Extremely Involved	
1. Communicating with your child	1	2	3	4	5	6
2. Teaching your child	1	2	3	4	5	6
3. Monitoring your child	1	2	3	4	5	6
4. Thinking about your child	1	2	3	4	5	6
5. Running errands	1	2	3	4	5	6
6. Providing child care	1	2	3	4	5	6
7. Doing child-related maintenance	1	2	3	4	5	6
8. Being available to your child	1	2	3	4	5	6
9. Planning	1	2	3	4	5	6
10. Sharing activities with your child	1	2	3	4	5	6
11. Providing for your child	1	2	3	4	5	6
12. Demonstrating affection to your child	1	2	3	4	5	6

	1	2	3	4	5	6
13. Providing emotional support for your child						

	1	2	3	4	5	6
14. Providing Protection for your child						

	1	2	3	4	5	6
--	---	---	---	---	---	---

How much do you think your spouse/partner tries to get YOU to be even more involved in:

	Not at all					A great deal
1. Communicating with your child	1	2	3	4	5	6
2. Teaching your child	1	2	3	4	5	6
3. Monitoring your child	1	2	3	4	5	6
4. Thinking about your child	1	2	3	4	5	6
5. Running errands	1	2	3	4	5	6
6. Providing child care	1	2	3	4	5	6
7. Doing child-related maintenance	1	2	3	4	5	6
8. Being available to your child	1	2	3	4	5	6
9. Planning	1	2	3	4	5	6

	1	2	3	4	5	6
10. Sharing activities with your child						
	1	2	3	4	5	6
11. Providing for your child						
	1	2	3	4	5	6
12. Demonstrating affection to your child						
	1	2	3	4	5	6
13. Providing emotional support for your child						
	1	2	3	4	5	6
14. Providing Protection for your child						
	1	2	3	4	5	6

Section 2: How often does YOUR SPOUSE/PARTNER do the following things to encourage you to be involved in child care and with your child, including feeding, play, discipline, and emotional support?

How often does YOUR SPOUSE/PARTNER:

	Never			Several times a day		
1. Tell you to do a child care task ("Go wash Tyler's face.")	1	2	3	4	5	6
2. Ask you politely to help ("Can you wash Tyler's face please?")	1	2	3	4	5	6
3. Compliment you (You're able to calm Tyler down better than I can.)	1	2	3	4	5	6
4. Invite you to help ("Wouldn't you like to read to Tyler?")	1	2	3	4	5	6
5. Refuse to do it him/herself (I'm not giving Tyler a bath. It's your turn.)	1	2	3	4	5	6

6. Give you a serious look that means, "You need to deal with Tyler now!"
1 2 3 4 5 6
7. Let you know he/she appreciates your contributions
("It really helps when you take Tyler with you.")
1 2 3 4 5 6
8. Give you an irritated or exasperated look.
1 2 3 4 5 6
9. Hint that work needs to be done
("Boy, Tyler sure is dirty!")
1 2 3 4 5 6
10. Wait until you do child care tasks on your own.
1 2 3 4 5 6
11. Leave the house so you don't have a choice.
1 2 3 4 5 6
12. Tell your child to go ask for help
(Go tell Mommy/Daddy you want lunch.)
1 2 3 4 5 6
13. Tell you what a good parent you are.
1 2 3 4 5 6
14. Ask your opinion
("Do you think Tyler should wear a sweater today?")
1 2 3 4 5 6
15. Tell other people about what a good parent you
are at a time when you can hear him/her.
1 2 3 4 5 6
16. Tell you how happy you make your child
("Tyler really loves to play with you.")
1 2 3 4 5 6
17. Encourage you to spend time alone with your child.
1 2 3 4 5 6
18. Arrange activities for you and your child to do together.
1 2 3 4 5 6

Section 3: When you do something that YOUR SPOUSE/PARTNER doesn't approve of regarding child care or with your child, how often does he/she do the following?

How often does YOUR SPOUSE/PARTNER:

	Never				Every time	
1. Tell you the right way to handle the situation ("You need to leave him alone till he calms down.")	1	2	3	4	5	6
2. Show you that he/she is angry or irritated.	1	2	3	4	5	6
3. Keep quiet, let you handle it anyway.	1	2	3	4	5	6
4. Tell you what he/she thinks you did wrong ("The bath water is too hot, you'll burn him.")	1	2	3	4	5	6
5. Explain his/her concerns to you ("I'm worried because Tyler might hurt himself if you do that.")	1	2	3	4	5	6
6. Criticize you	1	2	3	4	5	6
7. Ask if you would like his/her help.	1	2	3	4	5	6
8. Look exasperated and roll his/her eyes.	1	2	3	4	5	6
9. Try to discuss his/her feelings about it with you.	1	2	3	4	5	6
10. Tell you how he/she has learned to handle similar situations.	1	2	3	4	5	6
11. Tell other people about the things he/she doesn't like ("He/she puts winter clothes on them and it's 70 degrees out!")	1	2	3	4	5	6
12. Take over and do it his/her way.	1	2	3	4	5	6

13. Let you make your own mistakes.
1 2 3 4 5 6
14. Instruct you
("Tyler likes to have his sandwich cut like this.")
1 2 3 4 5 6
15. Not mention anything, but redo things after you
are gone.
1 2 3 4 5 6
16. Tell your child what he/she thinks you did wrong
("Mommy/Daddy makes your food too hot, huh?")
1 2 3 4 5 6
17. Let you do it your own way.
1 2 3 4 5 6

Parenting Alliance Inventory (PAI; Abidin, 1988; Abidin, & Brunner, 1995)

Directions: The questions listed below concern what happens between you and your child's other parent, or the other adult most involved in the care of your child. While you may not find an answer which exactly describes what you think, please circle the answer that comes closest to what you think.

YOUR FIRST REACTION SHOULD BE YOUR ANSWER.

Example:

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
My child's other parent and I go to the movies.	5	4	3	2	1

(If you sometimes go to the movies, you would circle "4".)

1. My child's other parent enjoys being alone with our child.

SA	A	NS	D	SD
5	4	3	2	1

2. During pregnancy, my child's other parent expressed confidence in my ability to be a good parent.

SA	A	NS	D	SD
5	4	3	2	1

3. When there is a problem with our child, we work out a good solution together.

SA	A	NS	D	SD
5	4	3	2	1

4. My child's other parent and I communicate well about our child.

SA	A	NS	D	SD
5	4	3	2	1

5. My child's other parent is willing to make personal sacrifices to help take care of our child.

SA	A	NS	D	SD
5	4	3	2	1

6. Talking to my child's other parent about our child is something I look forward to.

SA	A	NS	D	SD
5	4	3	2	1

7. My child's other parent pays a great deal of attention to our child.

SA	A	NS	D	SD
5	4	3	2	1

8. My child's other parent and I agree on what our child should and should not be permitted to do.

SA	A	NS	D	SD
5	4	3	2	1

9. I feel close to my child's other parent when I see him/her play with our child.

SA	A	NS	D	SD
5	4	3	2	1

10. My child's other parent knows how to handle children well.

SA	A	NS	D	SD
5	4	3	2	1

11. My child's other parent and I are a good team.

SA	A	NS	D	SD
5	4	3	2	1

12. My child's other parent believes I am a good parent.

SA	A	NS	D	SD
5	4	3	2	1

13. I believe my child's other parent is a good parent.

SA	A	NS	D	SD
5	4	3	2	1

14. My child's other parent makes my job of being a parent easier.

SA	A	NS	D	SD
5	4	3	2	1

15. My child's other parent sees our child the same way I do.

SA	A	NS	D	SD
5	4	3	2	1

16. My child's other parent and I would basically describe our child the same way.

SA	A	NS	D	SD
5	4	3	2	1

17. If our child needs to be punished, my child's other parent and I usually agree on the type of punishment.

SA	A	NS	D	SD
5	4	3	2	1

18. I feel good about my child's other parent's judgment about what is right for our child.

SA	A	NS	D	SD
5	4	3	2	1

19. My child's other parent tells me I am a good parent.

SA	A	NS	D	SD
5	4	3	2	1

20. My child's other parent and I have the same goals for our child.

SA	A	NS	D	SD
5	4	3	2	1

Support for the Fatherhood Role Outside the Immediate Family

1. My extended family (parents, siblings, in-laws, etc) and friends recognize my role as a father is important.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

2. My extended family and friends encourage me to take an active role in the life of my child(ren).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

3. My extended family and friends acknowledge the efforts I make as a father.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

4. My department (my advisor, chair, faculty, administrators, etc) recognizes my role as a father as important.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

5. My department encourage me to take an active role in the life of my child(ren).

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

6. My department is supportive when my roles as a father and student/employee are in conflict or present challenges.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

Work-Family Spillover (Grzywacz & Marks, 2000). Adapted to include introductory paragraph.

The following questions ask about the impact of your professional and academic work as a graduate student on your life at home. Where the questions use the words WORK or JOB, please answer with respect YOUR PROFESSIONAL AND ACADEMIC WORK AS A GRADUATE STUDENT at your current university (taking classes and working on assignments, conducting research, teaching classes, presenting at conferences, collaborating with your colleagues and faculty, etc).

How often have you experienced the following in the past year?

1) Your job reduces the effort you can give to activities at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

2) Stress at work makes you irritable at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

3) Your job makes you feel too tired to do the things that need attention at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

4) Job worries or problems distract you when you are at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

5) The things you do at work help you deal with personal and practical issues at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

6) The things you do at work make you a more interesting person at home.

1	2	3	4	5
Never	Rarely	Sometimes	Most of the time	All of the time

7) The skills you use on your job are useful for things you have to do at home.

1

2

3

4

5

Never

Rarely

Sometime

Most of the time

All of the time

Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986). Adapted to include introductory paragraph.

The following questions have to do with your relationship with your romantic partner. Though these questions use the words marriage, spouse, and husband/wife, please answer these questions with respect to relationship with your partner, regardless of your marital status.

How satisfied are you with your marriage?

Very dissatisfied	Somewhat dissatisfied	Mixed	Somewhat satisfied	Very satisfied
1	2	3	4	5

How satisfied are you with your relationship with your husband/wife?

Very dissatisfied	Somewhat dissatisfied	Mixed	Somewhat satisfied	Very satisfied
1	2	3	4	5

How satisfied are you with your husband/wife as a spouse?

Very dissatisfied	Somewhat dissatisfied	Mixed	Somewhat satisfied	Very satisfied
1	2	3	4	5

Parental Self-Agency Measure (PSAM; Dumka, Stoerzinger, Jackson, & Roosa, 1996)

I feel sure of myself as a mother/father.

1	2	3	4	5
rarely	once in a while	sometimes	a lot of the time	always

I know I am doing a good job as a mother/father.

1	2	3	4	5
rarely	once in a while	sometimes	a lot of the time	always

I think I know things about being a mother/father that would be helpful to other parents.

1	2	3	4	5
rarely	once in a while	sometimes	a lot of the time	always

I feel I can solve most problems between my child(ren) and me.

1	2	3	4	5
rarely	once in a while	sometimes	a lot of the time	always

When things are going badly between my child(ren) and me, I keep trying until things begin to change.

1	2	3	4	5
rarely	once in a while	sometimes	a lot of the time	always

