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Abstract

Parenting is codependent and nested within a familial and cultural structure. While parenting research consistently demonstrates more maternal involvement with children, often fathers' involvement gets little or no attention. One of the major limitations of fathering research is single source data, often comprised of only mothers' reports of fathers' involvement. The purpose of this study was to address this gap by examining the nested nature and interdependence of immigrant parents' marital adjustment, parenting self-efficacy, and beliefs about parental role and, fathers' involvement. Actor-partner interdependence model (APIM) was applied to examine the actor (intrapersonal or spillover) and partner (interpersonal or crossover) effects. Data were collected from 127 Asian-Indian immigrant parents of 6 to 10 year old children residing in southern parts of the United States. In the single variable APIMs, actor effect pathways for fathers revealed significant effects of marital adjustment, parenting self-efficacy, and parental role beliefs on fathers' involvement, but only marital adjustment effect on mothers' reports of father involvement. These findings indicate that father involvement is enhanced when both fathers' and mothers' were adjusted in their marriage, when fathers' feel efficient in their parenting role and had egalitarian beliefs about parenting. Partner effects were found from mothers' marital adjustment onto fathers' reports of involvement. Also, fathers' parenting self-efficacy significantly influenced mothers' reports of fathers' involvement. These partner effects reveal that fathers' involvement depend on how adjusted mothers were in their marriage, and mothers' perceptions of fathers' involvement depend on how efficient fathers were in their parenting role.

Keywords: father involvement, immigrants, marital adjustment, parenting self-efficacy, parental role beliefs, and actor-partner interdependence model

FATHER INVOLVEMENT AMONG ASIAN-INDIAN IMMIGRANTS IN THE UNITED
STATES: ACTOR-PARTNER INTERDEPENDENCE MODEL

by

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Dissertation

Submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Human Development and Family Science

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DEDICATION

To my husband, Nikhil

To, Mom and Dad

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I am greatly thankful to all the people in my life who have supported me in my education and personal development. I am deeply grateful to:

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- Dimple Vadgama

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Chapter 1. Introduction

As stated by the United States Census Bureau, American Community Survey (2010), 18 million of the total 70.60 million children under the age 18 years are living with foreign-born parents. Whatley and Batalova (2013) reported that, after immigrants from Mexico and China, the third largest immigrant group residing in the United States (U.S.) in 2011 was from Asian Indian origin (approximately 1.90 million). The percentage of Asian Indian immigrants compared to all other immigrants in the U.S. has consistently proliferated from under 0.50 percent in 1960 to nearly 5 percent in 2011. Considering this pattern of incoming immigrants from the Indian subcontinent, research on parental involvement among immigrant groups raising children who are U.S. citizens is sparse, although, there has been significant progress in attempts to understand fathering globally. According to a national level study on paternal involvement with young children, “virtually no research has examined fatherhood among immigrants. Eighteen percent of current births are to mothers born outside of the United States; if the fathers also are foreign-born, this is a major gap in existing knowledge” (U.S. Department of Education, 2001, p. 22).

Asian Indians have been known as a “model minority” for their educational and economic success compared to other immigrant groups. According to the U.S. Census Bureau (2010), 74% of Asian Indians above age 25 years held bachelor’s degree or higher education, and 70% of Asian Indians’ occupation was in management, business, science, and arts compared to other nativity status professionals such as, Chinese (52%), American (37%) and Mexican (9%). Also, analysis of Texas academic performance report 2012-2013 reveals that Asian children in grade three, scored the highest in reading (96%) and mathematics (95%) topping the charts consistently through grade six, compared to other ethnic groups (TEA Division of

Performance Reporting, 2013). Unequivocal results can be obtained about Asian Indian adults' success in labor force as well as children's success in schools. This is in line with Ogbu's (1992) theory of voluntary immigrants who choose to come to the U.S. and coexist retaining own culture and without opposing the dominant culture. Such a group is motivated and is willing to acculturate for social mobility and success. With globalization and transnational migration, the social environment that families reside in is unstable and result in changing cultural contexts (Arnett, 2002; Treas, 2008). However, there is hardly any data on the situation of Asian Indian immigrants' family dynamics, child development, parent-child relationship and fathers' involvement with young children in the U. S.

Fatherhood studies date back to the 1950's but the construct of father involvement received increased recognition in child development since the 1980's (Day & Lamb, 2004). For the last four decades, studies in the field of father involvement have been growing gradually, with the focus progressively shifting from the negative impact of father absence on child development towards understanding what conditions influence, that is, either promote or hinder, positive father involvement. Paternal involvement has been linked with higher cognitive development, better socio-emotional development and improved physical health in children. Higher paternal involvement with infants and toddlers has been linked with better problem solving (Easterbrooks & Goldberg, 1984), higher intelligence quotient at age three (Yogman, Kindlan, & Earls, 1995), and diverse vocabulary (Rowe, Cocker, & Pan, 2004). These effects have replicated in studies involving school going children (McBride et al., 2005; McBride, Schoppe-Sullivan, & Ho, 2005), along with positive attitudes towards school (Flouri, 2005). Positive impact of paternal involvement has also been linked to young adults demonstrating career success, competence at work place and psychological well-being (Flouri, 2005), and

increased competence on standardized tests (Lamb, 1997). A study by Flouri and Buchanan (2004) revealed the benefits of early paternal involvement with seven year old boys and girls resulting in higher educational attainment at age 20. Father involvement is clearly linked with children's overall life satisfaction, low levels of depression, higher level of happiness (Dubowitz et al., 2001; Field, Lang, Yando, & Bendell, 1995; Flouri, 2005), and young adults' successful marriages and intimate relationships (Flouri & Buchanan, 2002; Lozoff, 1974). Since there is solid evidence of the crucial role of father involvement in child development in early as well as later years (Lewis, Feiring, & Weinraub, 1981), it is also important to study factors that influence this involvement, which is also the focus of the current study. In general, quantitative research on Asian Indian immigrants and their family dynamics still lags behind. There is very little data on immigrant fathers, and considering the success of this model minority group it will be interesting to explore their level of involvement in child care.

A major limitation is that Asian immigrants are often lumped together in one group and majority of the sample population consists of East Asian immigrants. There is a scarcity of research exclusively on Asian Indian immigrants, especially fathers. It is thereby important to study Asian Indians as a separate group without including them with other Asian groups such as Chinese, Japanese or Koreans. One of the limitations of the literature on father involvement in the U.S. is that most research data are gathered from nationally representative samples in the U.S. such as from African American samples. There is dearth of knowledge on Asian Indian immigrant fathers, irrespective of the fact that the children are performing well in schools. Thus, research is needed on the Asian Indian immigrant fathers' (who are the second largest Asian immigrant group in the U.S.) level and quality of fathers' involvement.

Studies on father involvement have faced several limitations, thus this study is significant for several reasons. According to Parke (2000) there is diversity in fathering experience in relation to ethnicity and although mothers' and fathers' involvement with children is co-dependent, fathers do have unique influences on child development (Flouri, 2005). Therefore, the current study aimed towards conceptualizing immigrant fathers' involvement based on ecological and cultural factors (e.g., Brown, McBride, Bost, & Shin, 2007; Parke et al., 2004) by examining the understudied, but, critical influence of intrapersonal and interpersonal factors, on Asian Indian fathers' and mothers' perceptions of fathers' involvement. There was a need to study the construct in the light of immigration and examine how parents' marriage, parental role beliefs, and self-efficacy influence their reports of father involvement.

Given the sparse nature of research on parenting among Asian Indian immigrants, the purpose of this study was to fill a major gap in the literature pertaining to fatherhood in the case of Asian Indian immigrants. Specifically, this study focused on examining the factors associated with Asian Indian fathers' level of involvement. Secondly, the current study collected data from not only mothers but also from fathers who were asked to report their perceptions of father involvement as well as the associated factors such as marital adjustment, competence in paternal role measured through self-efficacy, and gender role ideology about parental role. As most research on father involvement had reported collecting data on father involvement only from mothers' reports, this study makes an important contribution to fathering literature by collecting data on fathers' beliefs and perceptions. Thirdly, the focus of the current study was on fathers of school-age children between ages 6-10 years. The majority of the fathering studies have either studied fathers of infants and preschoolers or fathers of adolescents, with almost no studies focusing primarily on fathers of school-aged children. Moreover, this was a quantitative study

that makes a significant contribution to the existing sparse quantitative data on immigrant fathers. Most of the father involvement reports are obtained through qualitative inquiry (Seery & Crowley, 2000) or from secondary data sets which are rich data; however, more quantitative research is needed in this area. Furthermore, studies analyzing data from couples on father involvement have used individual-level analysis such as ANOVA and regression. This study analyzed data at the couple-level thereby taking into account the dependent and nested nature of the data structure.

Recent studies have indicated an increase in paternal involvement levels among men in India (Kakar & Kakar, 2007; Roopnarine, Talukder, Jain, Joshi & Srivastav, 1990; Sriram, 2011b; Sriram, Karnik, & Ali, 2002; Suppal & Roopnarine, 1999). According to a study by Roopnarine and Suppal (2003) Indian fathers have been increasingly expressive, interactive and unhesitating in expressing their affection towards their children. These findings are contrary to the traditional fathering role of Asian Indian men. Researchers uphold the occurrence of a shift from traditional roles towards more egalitarian roles mainly among metropolitan, high income, educated, dual-earner families (Shukla, 1987; Sinha, 1993; Verma, 1995). In this context, research on Asian Indian immigrants in the U.S. is sparse and needs further investigation.

Shwalb, Shwalb and Lamb (2013) suggest that “fathering is both universal and cultural, and the influence of culture on fathers has evolved over generations, centuries, and millennia.” Although studies about fathers and their children are few compared to mothers and their children, researchers have begun to examine the nuances of fathering among families of different ethnic and cultural groups (Cabrera & Tamis-Lemonda, 2013; Qin & Chang, 2013; Roopnarine & Hossain, 2013). Nonetheless, limited attention has been given to the study of Asian Indian

immigrants' paternal involvement, especially in the U.S. considering the high flow of immigrants every year.

According to cross-cultural researchers “to discover causes or predictors is the most common aim of cross-cultural studies” (Ember & Ember, 2009) and this discovery furthers our understanding of a culture. Therefore, the aim of this study was to identify the factors influencing father involvement among Asian Indian immigrants and advance research in order to understand the family dynamics and parenting of Asian Indian immigrants and their second-generation children. Cultural psychologists (Super & Harkness, 1997), anthropologists (Weisner, 1998; Gallimore, Goldenberg, & Weisner, 1993) and cultural ecological theorists (Ogbu, 1981, 1992) have emphasized the importance of understanding how cultural factors influence lives of individuals. Eco-cultural frameworks offer a foundation for studying child development, within specific cultural contexts. Ogbu (1992) embraced an eco-cultural view to explain why some ethnic minorities' succeed in comparison to others who do not. Immigrant Asian Indian parents are intensely embedded in the cultural belief of the significance of their heritage and may display strategies to successfully navigate through the challenges faced raising children within two cultures, that is, culture at home and the host culture (Schmalzbauer, 2004). Roopnarine (2002) emphasizes on the need for studies on immigrant fathers and the impact of immigration on fathering practices, thereby providing better understanding of socially and culturally constructed negotiations of fatherhood.

According to Suarez-Orozco and colleagues (2009) immigration is a family venture and it affects all family members (Behnke, et al., 2008). Family systems theory (Bowen, 1978) was applied in this study. According to family systems theory, a family is believed to be a system of individuals who influence each other. The concept of triangles (Bowen, 1978; Brown, 1999)

particularly highlights the father-mother-child triad and how each influence each other's behavior and thinking. Another concept of internal stressors demonstrates how stress from one member influences other members. For example, marital conflict experienced by mother may influence fathers' involvement with child (Cummings, Merrilees, & George, 2010). Secondly, responsible fathering model was applied, wherein, five categories of multiple determinants influence fathers' involvement with children, such as, the role of context (for example social support, ethnic resources), co-parental relationship (for example, marital relations), and individuals' (father, mother, and child) characteristics (for example, perceived parenting self-efficacy in parenting, beliefs about parental role) influence fathers' involvement (Doherty, Kouneski, & Erickson, 1998). Even though many scholars have opined the importance of building a theoretical framework for fathering, very few researchers have taken this guidance into practice.

To a great extent, parenting is constructed by cultural ideals (Harkness & Super, 2002), wherein culture is a guide for thinking, decision making, and actions based on previously learnt or shared or transmitted values, beliefs, norm and practices (Kim, Cain, & McCubbin, 2006). Cultural theorists suggest that new immigrants, retain, and simultaneously renounce, certain beliefs to accommodate to the host society. But little is known about this phenomenon. Although, research in India is slowly progressing towards exploring the meaning and patterns of father involvement (Sriram, 2011b), there is very little research on fathering among the Indian diaspora in the United States and around the world. Considering the multidimensional nature of paternal involvement, fatherhood researchers suggest the need to prioritize efforts towards conceptualizing and determining components of father-child relationships instead of focusing primarily on developing questionnaires to measure father involvement (Palkovitz, 2007). This is

in line with the current study's goals of examining the factors associated with paternal involvement among Asian Indian immigrants in the U.S.

Recent research has also focused on identifying the ways and means through which parents transfer their own values or cultural norms to children and how these messages may be affected by the immediate context they live in (Chase-Lansdale, Valdovinos D'Angelo, & Palacios, 2007; Cote & Bornstein, 2005). In order to ensure that the second-generation children identify with their roots as Asian Indians, parents use traditional ceremonies, cooking ethnic meals at home, and being a part of religious practices (Fuligni, 2001; Umana-Taylor & Yazedjian, 2006; Zhou & Xiong, 2005). Some immigrant groups face challenges as they uphold their cultural values and speak in their native language whereas their second-generation children growing up in the American culture face a cultural clash (Berry, 1997; Tseng & Fuligni, 2000).

The immigration process is challenging and not only impacts parents' lives as they accommodate to the host culture in terms of life style, gender roles, work ethics, parenting, and societal norms, but it significantly impacts children's development as well (Bacallao & Smokowski, 2007; Behnke, Taylor, & Parra-Cardona, 2008; Berry, 1997; Johnson, 2007; Schmalzbauer, 2004). Children of immigrants face multiple challenges as they live between two cultures of Asian Indian culture at home and dominant American culture with several other immigrants outside home. Children face challenges not only regarding discerning parenting ideals of their own parents as opposed to the counterpart American parents, but also in terms of eating, dressing, social etiquettes, and mainly academics. Since educational success is highly valued by Asian Indian parents in India, the pressure for succeeding in school tends to be even more when they are in the U.S. away from their home country. In the U.S. parents face more pressure themselves to perform and maintain a job status and visa status themselves while they expect

children to succeed in school and get on a well-planned educational-career path or goal. The family dynamics at this stage is very critical as children between ages 5 and 12 years are in a developmental stage of industry versus inferiority with a critical focus on competency skills (Erikson, 1968) and they are starting to gain self-confidence versus guilt while parental involvement is mostly in relation to homework and academics. Parental involvement is believed to be highly crucial now. Children need more warmth and attention from parents to feel industrious and productive at doing chores in the house, socially, and not just succeeding at school. School going children are more getting influenced by the American culture and ways of life and parents may be solely focusing on homework. This could be the potential beginning of a cultural gap, and there is no research or data on this ethnic group and age group.

Current Study

The current investigation focused on three factors related to father involvement as reported by fathers and mothers and include marital adjustment, perceived parenting self-efficacy, and beliefs about parental role.

Parenting, for the most part, is constructed by gender role expectations set for men and women in a particular culture (Harkness & Super, 2002), wherein culture acts as a guide for thinking, decision making, and actions based on previously learnt or shared or transmitted values, beliefs, norm and practices (Kim, Cain, & McCubbin, 2006). Studies on paternal involvement have been challenged by limitations in measurement with most studies using mothers as research participants and sole reporters of the level of paternal involvement. Moreover, parental role expectations strongly govern how men and women behave in society (Knapp, Muller, & Quiros, 2009). Considering the recent changes occurring in family roles of contemporary Asian Indian families, such as an increasing numbers of women are entering the

paid work force (58%, Government of India, 2016), men are more involved in child care than before (Sriram, 2011b). Although cultural theorists advocate that individuals who migrate retain as well as shed certain beliefs to accommodate to the host society, limited research has focused on paternal involvement of Asian Indian immigrants in the U.S. Only one study by Jain and Belsky (1997) studied the association between Asian Indian immigrant fathers' acculturation and nature of involvement with children. They found fathers of infants with bicultural identity, that is, those who identified as both Asian-Indian and American, were more involved with their children as compared to their counterparts who identified themselves as only Indian.

Marital relationship has been significantly associated with paternal involvement. Variations in paternal involvement based on internal and external familial context along with what promotes or discourages father involvement are some areas of focus that have gained importance in the eyes of researchers. It is known that mothers and fathers have coinciding effects, yet fathers appear to perform exclusive roles in child development such as fathers play differently with more rough and tough play, fathers build confidence by encouraging children to try new things while mothers protect the child, and the communication is uniquely different than mothers' way of communicating (Goncy & van Dulmen, 2010; Parke et al., 2004; Parke, 2002; Rohner, 1998; Stanton, 2004). Fathers tend to withdraw from time spent and involvement with children when they do not get along with mothers. Also, the reason why fathers are comparatively less involved with children than mothers is due to the lack of role clarity and differences among each couple (Doherty, et al., 1998).

Parenting competence or specifically parenting self-efficacy is one of the most understudied factors associated with paternal involvement. According to Lamb (1997) fathers' motivation, which includes his perception of competence, is one the major factors in determining

how much the father will be involved with his child. Parenting self-efficacy has received very little attention in the studies related to paternal involvement. Numerous behavioral studies have established that actions are influenced by perceptions (Bandura, 1982). Similarly, reports on paternal involvement levels are high when fathers perceive to be competent in their parenting as opposed to when they think they lack the necessary skills and abilities in carrying out child care tasks. Moreover, mothers' perceptions of how competent her own parenting is indirectly influences paternal involvement (Doherty, et al., 1998).

Conclusion

In summary, the current study aimed to bridge the gaps in the literature, by examining the factors associated with Asian Indian immigrant fathers' involvement with children of 6-10 years of age. These factors include parents' perceptions of marital adjustment, parenting self-efficacy, and beliefs about parental role and their associations with the level of paternal involvement. This will give a comprehensive picture and promote greater understanding of this ethnic group as well as contribute to the fatherhood literature. Roopnarine and colleagues (2013) emphasized the need to study fathers' investment with young children in the light of changing family patterns using complex research design (Roopnarine, Krishnakumar & Vadgama, 2013).

According to Pleck (2010), any re-conceptualization of father involvement should attend to important interrelated themes and contexts. Since father-child relationships are shaped by structure or familial context, embedded within a larger ecological context influenced by social class and race factors and, often shaped by gender due to its role as a major organizing principle of social life, an ecological approach is essential. It is important to understand that fathering is amenable as well as flexible and, to a large extent susceptible to influential contextual as well as

family factors as fathers, unlike mothers do not have a clear “job description” and thereby fathers may adapt to the demands of the contexts (Doherty, et al., 1998).

The following chapter will review the literature on father involvement globally, followed by background on Asian Indian culture, parenting in India, Asian Indian immigrants and a conceptual framework on the determinants of father involvement.

Chapter 2. Literature Review

The aim of this chapter is threefold. First, to give a background of study's ethnic group, sociohistorical factors of Asian Indian culture with respect to the diversity in religions and cultural ideals, gender roles beliefs, role of marriage, and fathering in the Indian context. Secondly, current understanding of the construct of paternal involvement and its determinants including marital adjustment, parenting self-efficacy, and beliefs about parental role among Asian Indian immigrants in the U.S. Third, an overview of the theoretical background and conceptual framework of the study followed by proposed hypotheses.

Transnational Families

Many Asian Indians migrate from India to the U.S. to pursue higher studies, better work opportunities and improved quality of life. Migration calls for leaving all or few of the family members behind and this leads to a new family formation called the 'transnational family'. According to Bryceson and Vuorela (2002), transnational families strive to retain a sense collective welfare and unity, and "do family" across borders (Ramadoss, 2017). Often transnational families comprise of: a transnational couple within the family, either with both the partners having migrated or with only one partner migrating and the other left behind in the home country; migrant parents who leave their children back home, or; migrant children who leave their elderly parents back home. Such families display an intersection of individual and family's needs and aspirations along with the accompanied strengths and challenges (Fesenmyer, 2014). It is also possible that the transnational aspect of the family is a temporary phase where families either reunite with their families in the country of origin or they apply for and take up permanent residency and eventually citizenship in the host county. The application challenges

and the long wait period is an entire other topic of discussion and not the focus of the current study (for detailed discussion see Ramadoss, Natrajan-Tyagi, & Myers-Walls, 2014).

According to Cohen (20017), transnational families contribute to processes of creolization wherein the unique and diverse background of individuals and based on the new place they live in the host country yield new identities and cultural practices. However, there is dearth of knowledge on this effects human development and family processes. India, known as a collectivistic society gives importance to the family unit, and individuals develop a sense of identity based on their responsibilities and duties towards the family. Transnational families are characterized by challenges and strengths. Among challenges, loss of support from family in terms of sharing the burden of income, childcare and emotional support is often compensated with reliance on technologies such as cheap calling cards, group chat platforms, Skype, and other video calling services. While such practices become the strength of these families where they are more connected and continue to feel a sense of autonomy, freedom and connectedness across space, it may give rise to gendered moral criticism reflecting on ideologies of what it means to be a good child, parent, in-laws or relative (Fesenmyer, 2014) as well as increased expectations to communicate, which may be difficult considering the vast differences in time zones, and lack of sophisticated internet services and technologies in turn giving rise to feelings of guilt, irritation, or anger. In spite of the several challenges, these families develop strengths and compensate for such loss of familial support by strengthening their marital bond and devoting their energy towards work and parenting. More research on these family practices will help understand the processes of family functioning. The following section provides further background of the Asian Indian culture in order to improve our understanding these transnational families.

Asian Indian Culture

To understand Asian Indian immigrants' socialization processes, it is important to reflect upon a broader picture of this ethnic group. Diversities of ethnic, language, provincial, financial, religious, status, and caste groups interweave Indian society, with vast urban-rural disparities and gender distinctions spread throughout the country. This makes the Indian society complex and heterogeneous in nature. It is extremely difficult to distinguish between the groups within Indian society as they are fixed and stubbornly divided based on geographical, regional, language, religious, caste, and ethnicity differences (Mallikarjun, 2004). Several researchers have opined that irrespective of the diversities, there are similarities such as family structures, historic colonization and collectivistic beliefs (Ramadoss, 2017). Indians share a basic "character structure", "national character", and "social character" (Kakar, 1996), although use of such descriptions should be done carefully.

Sociohistorical Factors

Homeland to the early Indus Valley Civilization and a region of historical trade routes and massive empires, the Indian subcontinent of Asia, was recognized for its industrial and cultural wealth for its considerably long history. India, the most populated democracy in the world, is a pluralistic, multilingual, and a multi-ethnic society. Similarly, regional disparities are evident among people from different parts in the country. Even though religious and regional discrepancies are marked, undoubtedly there are numerous characteristics of social life where one can capture common threads. Family relationships are a great example of one such area. Several widely accepted common codes of conduct (*samanya dharma* or common agreement) emerged in terms of values, belief systems, moral duties, and gender roles, associated with the family life stages that even in the middle of the complexities of Indians' lives, enhances social

harmony and order (e.g., speak the truth, respect for elders; Paranjpe, 2013). These traditional beliefs play a large role in shaping the family structure and social roles each member is expected to play at every life stage. Therefore, it is important to understand the cultural influences, in terms of values, belief systems, and family processes in the Indian cultural context in order to comprehend the patterns of behaviors Indians display in another country.

Cultural Values and Belief Systems

Parents from various cultures have been found to express distinctive opinions about parenting and their parenting practices (Keller, Borke, Lamm, Lohaus, & Yovsi, 2011). These intuitive cultural beliefs about “*the right way* to raise a child” are called parental ethnotheories (Harkness et al., 2010; Keller, et al., 2006). These opinions and beliefs about parenting, or parental ethnotheories about their children’s development are key to understanding the strategies that parents use to help their children grow up to become successful members of the society (Harkness, et al., 2010). Similarly, varying life experiences of Asian Indian immigrants around the world who have departed from their families and home culture, and strive to construct a new lifestyle in another country have received very little attention in research, especially the role and involvement of fathers. The stereotype of Indians as a collectivistic group fails to grasp either their behavior or ideology (Chaudhary, 2013). Culture functions at a deeper level than any single parenting strategy.

In the Indian context, many idealistic and realistic values provide an underlying, unsaid script or context for socialization processes, especially parental involvement. The two concepts of performing rightful duty (*dharma*) and, doing good (*kartavya*) guide the basic child rearing and socialization patterns. Discussion of these concepts among all the major religions in India is not possible here, thus in order to provide some understanding, these concepts are discussed in

the light of Hinduism (Sharma, 2003), which is the largest religion in India. Among the largest religious group Hindus, the notion of *dharma* is central to the way individuals view life. *Dharma* can be understood as rightful action, rightful demeanor, virtues and ethics (Kakar & Kakar, 2007; Sriram & Navalkar, 2012; Sriram & Sandhu, 2013). *Dharma* or duty is a value that involves meeting demands, fulfilling expectations, whereas, selfless acts gradually evolve as well as can expand without role conflict. Duties are obligatory in nature, whereas another value that is *kartavya* is liberating as it involves keeping aside one's egotism and contribute to the general good. Duties demand revering and obeying authority (e.g., elders), considering father as God (*pitru devo bhavah*), mother as god (*matru devo bhava*) and guests as God (*atithi devo bhava*) and is context-bound, often repetitive in nature (Moghaddam, Slocum, Finkel, Mor & Harre, 2000), while *kartavya* (selfless acts) is more malleable and unique to a person's understanding of the situation (Pande, 2013). While idealistic values and concepts such as *dharma* (duty), and *kartavya* (selfless acts that needs to be done) are upheld, more realistic values such as respect for elders (*izzat*) are intertwined within the human developmental or life stages (*ashramas*) and thus, shape the family dynamics. There are four developmental stages (*asramas*) in everyone's lives, namely, the student's life (*bramacarya*; up to 25 years), the householder's life (*grhastha*; 26-50 years of age), the life of retirement or the preparatory renunciation (*vanaprastha*; 51-75 years), and the renounced order of life (*sanyasa asrama*; 76 years and older; Tejomayananda, 1994). It is within the context of these belief systems that members of the family (especially men), fulfill their roles and responsibilities as husbands and wives, and as parents.

Beliefs about Family System

The Asian Indian family is characterized by harmony and a hierarchical structure. Allocentrism is a common scenario for children's socialization, wherein, aunts, grandparents,

and other relatives often stay in the same household who center majority of their time towards young ones (Abels, Keller, & Chaudhary, 2004; Chaudhary, 2004; Keller, Borke, Chaudhary, Lamm, & Kleis, 2010). The network of family relationships is a critical factor in one's identity, and children are inducted very early into this social reality (Kakar & Kakar, 2007; Kurtz, 1992; Saraswathi & Pai, 1997). Family is the social unit with which the child is intrinsically interwoven. Overall, Indian society has been and continues to be dominated to some extent by men folk as providers and major decision makers. Kakar and Kakar (2007) opined that family members still maintain flexible ties with relatives, despite modernization and urbanization resulting in increasing nuclear family structure. Some predominant beliefs about family life are to love each other, child shall be loyal to their parents, have common water and food storage, and share family burdens and hurdles.

Parental Role Beliefs

Parental role beliefs and expectations for men and women in Asian Indian society are strongly associated with life stages. Traditionally, during the childhood years, girls are taught to learn to cook, clean the house, and help the mother in household tasks as a preparation for married life. By comparison, boys could play outdoors and not expected to be involved in the household work. They were encouraged to spend a majority of their non-play time studying. Even now, boys and girls do not share many responsibilities in the house and are dependent on their parents until they get married. According to Banerji and Shastri (2006), the ancient text on rightful duties by the revered man Manu, outline how girls by law, are supposed to be protected by fathers and brothers in the family and are not allowed to be left alone in the presence of strange men. Also, a son is considered to give a father the status of authority and pride, whereas a girl is an external and temporary wealth (*paraayaa dhan*) who gives the father the benefit of

conducting charity (*kanyaa daan*) by giving her hand in marriage to another family (Banerji & Shastri, 2006). Any shameful act by the daughter brings a disgrace to her maternal as well as her husband's family; while a non-acceptable act by the boy is often overlooked, covered up, forgiven, or justified because of pressure, lack of options in bad circumstances, etc.

Post marriage, a family man is expected to follow *dharma* (righteous duty) and *kartavya* (performing selfless acts) to protect and support the family. The woman has multiple roles to be fulfilled to maintain harmony. A woman's duty towards her children is mainly focused on taking good care of the child by meeting all biological needs of the child such as bathing, feeding and cleaning (Roopnarine et al., 2013). If the child is lean or thin, the mother is often blamed for not feeding the child enough to make him/her healthy and chubby and thereby not taking good care of the child and mothers are expected to fulfill their duties of providing appropriate and good upbringing (good *parvarish*) to the offspring. In men dominated societies like India and other Asian countries, women often exercise some amount of power in the family through her children. While "the phase 'strict-father, kind-mother' has been used to characterize both traditional Chinese and Indian mothers" (Rao, McHale, & Person, 2003, p.478) the phrase 'austere- and distant-father and indulgent-mother' is used to describe Asian Indian parenting (J. L. Roopnarine, personal communication, May 1, 2014). A possible explanation for this could be that fathers bear a huge burden to provide for the family and are away from home for long hours, and it is the mother who assumes the responsibility of child care.

A study conducted by Keller and colleagues (2006) focusing on three cultural models of parenting, that is independent, interdependent, and autonomous relatedness (a combination of interpersonal relatedness and autonomous functioning) found that mothers (n=204) of 3 month old infants, residing in different urban and rural areas, including German (36), Euro-American

(21), Greek (46) followed independent cultural model of parenting; whereas, Chinese (17), Costa Rican (21), Asian Indian (23), and Mexican (12) followed autonomous-relatedness model of parenting. Among the Asian Indian sample, mothers from rural parts of India (Gujarat) ranged higher than urban educated mothers from Delhi in autonomous-socialization goals (Keller, et al., 2006).

Role of culture in parenting. It is important to understand the role of culture in order to study the nature of human development as culture is one of the contextual factors that shapes human development. Cultural influences and cultural norms strongly shape parenting behaviors (Keller, Borke, Yovsi, Lohaus, & Jensen, 2005). Culture is inseparably connected with the physical and social context the child is growing in (e.g., the family), socialization goals and child-rearing behavior of parents; it directly solidifies the familial values and practices and shapes the interactions within a child's family (Super & Harkness, 1997). Within this system of cultural influences, socialization goals are particularly powerful as they represent the motives behind parenting and reflect the cultural background (Harkness & Super, 1996). Parents' views provide a window into the culturally constituted self. Parents' values and beliefs influence how they structure their children's lives. Parents' cultural beliefs constitute an important aspect of the context of child's life and development. Thus, studying beliefs held by different groups within the same culture, such as the Asian Indian immigrants may enable us to understand the processes of cultural transmission and cultural change (Harkness & Super, 1996).

Culture has three main elements, namely, values and beliefs, norms and symbols and language. Furthermore, every culture has an ideal culture and a real culture. Ideal culture is a set of values and standards that the society would like to embrace; while real culture is the reality of what the society is, including conflicting value systems that may help some but hurt others

(OpenStax College, 2013). This is true in the case of Asian Indian cultural milieu in the U. S., as well. Although there are several traditional values and standards set by this society, such as collectivistic orientation, these may not be always met or followed, and there may exist different realities that may be the real culture.

Values are the backbone of beliefs, norms, symbols and language. For example, Asian Indian parents in their own affordable ways, provide educational toys and materials for their children, and tell them that these are means to help them with their studies so that they can get good grades like their siblings, cousins, or friends who excel academically. The parent often stares or frowns at the child if the child is not seriously utilizing these tools for his/her studies. The parent might even scold or nonverbally communicate anger or disapproval of the child's behavior if the child is not studying, or a smile and a nod if the child is studying. From this above example, it is understood that Asian Indian parents value success. Their belief is that if the child works hard, he/she will achieve success. The tools for the study area are symbols, and direct instructions and nonverbal communication in reaction to the child's behavior is the language. Although there is no visible or written rule about study behavior, the norm is that the child is expected to be focused and diligently studying to bring pride to the family. Thus, it is evident from this example how upholding one value leads to several social interactions and thereby shapes the dynamics of the entire family (OpenStax College, 2013).

Role of Marriage

The quality of the interaction between spouses in the marriage is an important determinant of parenting quality. One way in which marriages affect parenting, for example, is through emotions, either positive or negative. It is, therefore, important to look at marital relationship of the parents, to understand some aspects of parenting, for example a spillover from

unsatisfactory marriage to parenting, or a more involved parenting as a compensatory behavior due to poor marital relationship (Belsky, 2008).

Marriage, in India, is treated as a social ideal and duty, where love is an outcome of the union, and celebrated as a personal ideal. In Sanskrit, the root word for marriage is *vivah*, which means “sharing responsibilities.” It is characterized by mutually sacrificing for each other to achieve welfare in the society (Jahagirdar, 2005). Marriage is deemed to be a very important event in life, and not seen as a mere agreement or a deal between two individuals, but rather it involves coming together of two families, castes, and even a vast variety of family friends and well-wishers. Ideals of marriage involve economic, social and cultural value systems.

Usually, Indian marriages are either arranged marriage or *gandharva* marriage. An arranged marriage is organized by parents by finding an ideal partner in the community for their adolescents. *Gandharva* marriage (commonly known as love marriage in India), is determined and agreed upon by the couple first, followed by approaching the parents for their blessings for this union and is the only type of marriage approved by the *sastras* (religious literature) that involves pre-marital courtship (Gala & Kapadia, 2014). According to *sastras* this is a superior form of marriage since it is attained without much difficulty of going through the process of selection (Sriram, et al., 2002); nonetheless, it is not easily accepted and is looked down upon by families for various reasons (e.g., partners being from different caste, religion, economic standing, or geographical region).

Regardless of the type of marriage, the Indian outlook upholds that the success of any marriage depends on mutual love, respect, and willingness to sacrifice for each other, and if one person is always demanding from the other, problems in marriage may arise (Tejomayananda, 1994) and that the love for partner in a marriage, is a mere instrument to attaining the highest

pleasure that is, love for God (Gala & Kapadia, 2014). Newlyweds are asked to provide support to each other during inevitable struggles of life. Symbolic rituals and prayers are a part of the marriage ceremony wherein the pundit chants spiritual mantras specific to roles and responsibilities of in-laws towards the new bride, husband towards his bride and for the bride towards her in-laws and husband. The husband pledges to provide, protect and keep the bride happy, whereas the bride pledges to treat her in-laws as her new parents, to take care of and support the husband in his vocation and to bear children to continue the family and thereby human race (Jahagirdar, 2005).

Women are expected to follow the norm of *pativrata* (to fulfill her duty as an ideal wife), wherein she must obey and respect the husband, trust, respect and support his decisions, as well as obey and respect the husband's parents and family rules (*maryada*). Prior to marriage individuals are immature and do not have much responsibilities, as they are cared for by their parents. However, it is marriage that imposes responsibilities on the couple where they are expected to continue to grow the original family by starting their own independent family through child bearing and nurturing them (Jahagirdar, 2005).

Fathering in India

Fatherhood studies in India were rare and often a part of family and child socialization studies, with major focus on role of mothers. With industrialization and development, many families migrated from rural to urban areas, resulting in a shift from joint families to nuclear families, and maternal employment became a necessity. These changes gave rise to psychologists studying the negative impact of upward mobility and parents' employment characteristics on child development. It was then that fathers' participation in childcare received attention. Recently, many researchers have focused solely on studying fathers and their influence of young

children (Chandra, 2010; Desai, et al., 2010; Kakar & Kakar, 2007; Sriram, et al., 2002; Roopnarine & Hossain, 1992; Roopnarine, Talukder, Jain, Joshi & Srivastav, 1990; Suppal & Roopnarine, 1999).

As mentioned earlier in the context of Asian Indian family system, fatherhood is embedded in the householder's stage. It is also understood that a man enters the householder's stage upon getting married, followed by bearing children to continue the family legacy. Therefore, the householder has several duties towards wife and towards children (Banerji & Shastri, 2006). Often the father is torn between multiple responsibilities such as, often being the sole financial provider for the entire family as well as attending to the expectations from his wife and children.

Given the gender role beliefs, mothers are regarded as experts in caring for children, and for fathers, child rearing is mainly mothers' responsibility, whereas disciplining is fathers' responsibility (Chaudhary, 2013; Roopnarine, et al., 1992; Sriram & Ganapathy, 1997). Consequently, Indian fathers' role in regular parenting has been understood as vague, and distant in nature, wherein they are not in major direct contact with the child (Kakar & Kakar, 2007). Chaudhary (2013) further specified the distancing of fathers from children as displacement of attention. She identified two forms of "systematic and socially acceptable" emotional distancing, that is horizontal and vertical. Horizontal distancing is suppression of overt emotional expressions. Fathers often play a dichotomous role of an 'austere' father who is strict, stern and serious, yet at the same time indulging in some rough play with young ones. Gradually, interactions with older children, especially with teenage sons, are formal and reserved rather than warm or friendly. This resulted in children being submissive to their father, with fathers being even more constrained from communicating affection to them, especially in the presence of

seniors (Dasgupta, 1998). Nonetheless, horizontal distancing does not necessarily imply lack of affection, but more of an awkwardness or discomfort to display affection.

Vertical distancing implies that while a father is horizontally distant from comfortably expressing his affection to children, as he ages and becomes a grandfather he is now comfortable to display affectionate behaviors towards grandchildren (Chaudhary, 2013). However, it is not clear how this would be classified as distancing? From these classifications, it can be gauged that such social norms separates fathers from children, thereby making mothers the go-to person as well as a major source for emotional support and other daily needs. Often the mother is a mediator between the child and the father, in case of conveying child's needs for toys, clothes, academic-related materials, money, and even recreational outings; although, the father would have a final say if and to what extent the demands shall be met.

Traditionally, indulgence towards children was harmful, (Kakar & Kakar, 2007) implying that the child may become self-centered and demanding, rather than being trained to sacrifice for the family. Recent studies have detected role shift among the elite and educated individuals including higher levels of awareness and acceptance of more caregiving roles by men thereby increasing levels of paternal involvement (Sriram, 2011a). In traditional Indian families, childcare and domestic chores are also offered by grandmothers, father's sister who may be unmarried or divorced, and other women folk in the neighborhood, demanding not as much direct responsibility from fathers. Additionally, several middle-class families depend on domestic help from full time maids who stay at home to monitor and take care of the child's needs. Asian Indian families and thereby fathers' role is molded by an extensive, established traditional practice that sets great emphasis on family harmony and conformity with family rules (Larson, Verma, & Dworkin, 2001).

Daily, Asian Indian parents dedicate a great amount of time and energy in transferring various cultural values and beliefs to their children to shape their future. While mothers take up the major caretaking and nurturing role, fathers are more revered and distant due to their role as the head of the family. “*Pitru devo bhavah*” (father, just like God), an old Sanskrit saying in the Asian Indian culture has played an important part in children’s socialization. It has emphasized the authoritative and unquestionable or unchallengeable role of fathers in children’s growing up years and is encouraged by several Asian Indians residing in India and around the world. Because Asian Indians come from a traditional society wherein a father is believed to be horizontally and vertically distant, (see Chaudhary, 2013) and austere, recent studies have revealed contrasting results, wherein Asian Indian fathers are more involved in child care (Saraff & Srivastava, 2008; Singh & Ram, 2009; Sriram, et al., 2002; Suppal & Roopnarine, 1999). Even though fathers on average spend significantly less time with their children than mothers, they are just as important to the well-rounded development of children, because they satisfy different developmental needs of children than do mothers.

In summary, Asian Indian parenting in general, and fathering in particular, are shaped and encompassed within powerful cultural context, yet studies on fathering are still very few (Sriram & Navalkar, 2012). Contemporary family environment accords much more importance to children who now receive a great extent of responsiveness from parents (Sinha, 2003). Such a change in parenting is attributed to the effects of migration from developing cities to the metropolitan cities such as Mumbai and Delhi (Sriram, 2011b). However, it is not only the upward mobility within India but also emigration outside India that calls for adapting and adjusting of cultural scripts and parenting ethnotheories. Nonetheless, studies related to Asian Indians’ father involvement in the U. S. are limited. Experiences regarding fathering among

immigrants are discussed in the later section on fathering and Asian Indian immigrants in the U.S. The next section gives a glimpse into the transnational families' life upon migration.

Paternal Involvement

It is important to understand the distinction between fatherhood and fathering. The term “fatherhood” in the social sciences is applied in two interrelated but dissimilar ways, comparable to the two wide subdivisions of fatherhood research, that is, fatherhood conceptualized as a *fertility status* and second, as the *behavior* and *identity* of fathers. Former branch of fatherhood studies focuses on family demography providing an understanding of the changing aspects of men's fertility and reproduction aspects (see Astone, Dariotis, Sonenstein, Pleck, & Hynes, 2010; Knoester & Eggebeen, 2006), and includes studies for example, the role of men in teen pregnancies, adoption, or in relation to step children. Nevertheless, the focus of the current study is not on fertility status of fathers but, on the other branch of fatherhood studies, that is fathering research. The second branch of fatherhood research concerning men's behavior and identity as fathers is well recognized in the field of developmental science (Pasely, Futris, & Skinner, 2002). The focus in these studies is on how fathers are involved and what they feel or perceive as caretakers. Pleck (2007) suggested the use of the term “fathering” to refer to this second branch of fatherhood studies to clearly distinguish its focus from fertility research. Ever since, fathering studies have focused on understanding the factors associated with fathering and their consequences, thereby, emphasizing the important role fathers play in children's development (Amato, 1998; Lamb, 1981).

A review of literature reveals that initial motivation for studying fathers was to study the negative effects of father's lack of presence on children's emotional and behavioral outcomes. Until the late 1970's, father involvement was understood from a psychoanalytic perspective,

especially from a deficit-focused approach (Day & Lamb, 2004), that is, how men's absence affected children's sex role development, parental attachments, and psychological adjustments. However, researchers have challenged this deficit approach, by studying the positive opportunities immigration offer, as opposed to the sole focus on risks and challenges of immigration (Roer-Strier et al., 2005). Attempts were made to capture the discrepancies of the construct of fatherhood as it evolves conceptually as well as empirically while studying its meaning in different cultures of the world (Roopnarine & Hossain, 2013; Cabrera & Tamis-Lemonda, 2013) such as the Latino, African, and Caribbean ethnicities in the U.S.

There is a consensus that father involvement has multiple components. That is, the initial engagement, accessibility, and responsibility factors in the Lamb-Pleck model, and relatively recent paternal warmth, control/monitoring and, other perceptions and experiences (Stueve & Pleck, 2001). Moreover, recent focus has moved to the social concerns of time for example, the effects of immigration on families (Tamis-Lemonda, Kahana-Kalman, & Yoshikawa, 2009) as well as increased participation of women into the labor force and if children were getting 'enough fathering' It is thereby understood that father involvement is a multidimensional construct that keeps evolving not only in relation to its dimensions but also in regard to the variations in influential factors among fathers' involvement in different contexts within country or in the context of immigration.

Paternal Involvement among Immigrant Fathers

Studies on immigrant fathers have focused on various immigrant groups in the U.S. such as the Latinx, Asian, African and Caribbean fathers' influence on child development, family role shifts, and parenting practices and factors influencing fathers' parenting behaviors and involvement daily. Research studies have continuously advanced from studying one culture to

cross-cultural research by studying the same phenomenon in other cultures in order to make stronger conclusions about the phenomenon and make research methods more generalizable and universally valid. For example, research on immigrant fathers in Canada (Chinese, South American, Southeast Asian, Yugoslavian and Bosnian fathers) and Israel (Russian and Ethiopian fathers) reviewed fathers' beliefs, values and expectations regarding paternal role as well as comparisons of fathering in country of origin and the new country. Results showed immigrant fathers appreciated the opportunity to openly take up childcare as well as perceived Canadian and Israeli fathers to be low on imparting of values such as respecting adults (Roer-Strier et al., 2005). Researchers from the U.S. have studied European American fathers and their levels of involvement, and predictors of the same. However, Chaung and Moreno (2008), underscore the importance of studying immigrant fathers, as it calls for the crucial transitions and is consider the lack of research on fathering as a "serious challenge" to immigrant families' welfare. Roopnarine emphasized that such studies might benefit the "general comprehension of fatherhood as socially and culturally negotiated construction" (Roopnarine, 2002).

Numerous studies have been done with Asians as a group which include immigrants from China, Korea and Japan (Chaung & Su, 2009; Ishii-Kuntz, Makino, Kato & Tsuchiya, 2004; Qin & Chang, 2013). Also, these studies were done with mostly adolescents and mothers as participants. It is important that researchers realize that although individuals from the Asian continent do share some traditional cultural beliefs such as collectivism, Chinese parents differ in their parenting compared to Asian Indian parents. For example, Indian parents adapt "flexible Hinduism", a term coined by Kakar and Kakar (2007) explaining the rise of individualism among Asian Indians as an effect of modernization. Nevertheless, the individualism practiced by Indians is lenient, interpersonal and familial, less egocentric and more focused on group

responsibilities (Sharma, 2007). Therefore, fathers vary even in cultures that were once assumed to be homogeneous. There is evidence that Asian Indian men are being more involved than the stereotypical notion of the distant father (Roopnarine & Suppal, 2003; Sriram & Navalkar, 2012). However, it cannot be emphasized enough how scarce research on Asian Indian immigrant fathers' involvement is. Nevertheless, no study thus far has explored Asian Indian immigrant fathers living in the U.S. with regards to the factors determining the level of involvement with school-going children between ages 6-10 years.

Literature on immigrants reveal that, traditional two-parent families consists of the mother adopting the responsibility of the primary caretaker, residing at home and attending to children's needs, whereas the father undertakes the role of a breadwinner by spending most of the day hours away from home (Strier & Roer-Strier, 2010). Although this arrangement may be less conventional now compared to decades ago (see Brayfield, 1995; Hossain et al., 2005; Pleck & Masciadrelli, 2004; Roopnarine, 2002; Roopnarine & Gielen, 2005; Suppal & Roopnarine, 1999; Tamis-LeMonda & Cabrera, 2002), it is believed that along with mothers, even fathers assume diverse roles in the family and it is only recently that studies have been exploring this shift in roles in different cultures and ethnicities (Benetti & Roopnarine, 2006; Biller, 1993; Mirande, 1991; Flouri, 2005; Hossain, Roopnarine, Ismail, Menon, & Sombuling, 2007; Lamb, 2010; Parke, 1996; Roopnarine & Carter, 1992). This phenomenon may be clearly observed with immigrant families in which women take up employment to provide additional support to the family in the host country thereby, influencing father's involvement with children by taking up more caretaking tasks (Glick, 2010; Schmalzbauer, 2004). According to a recent study by Ramadoss (2017) on transnational families from the Indian subcontinent (India, Pakistan, Bangladesh, Sri Lanka, Nepal, & Bhutan), parental involvement increases among these families

due to the lack of “parenting partners” and loss of social support of grandparents who reside in the Indian subcontinent. Investigations of immigrant fathers have often judged them critically compared to peers who do not migrate, but Strier and Roer-Strier (2005) emphasize the strengths displayed by numerous immigrant men as they come across and conquer a series of barriers hindering their growth in the host countries, especially in the field of couple relationships, marital satisfaction, and marital expectations (see Madathil & Benschhoff, 2008; Myers, Madathil, & Tingle, 2005; Schmalzbauer, 2004; Treas, 2008).

Fathering among Asian Indian Immigrants

Although Asian Indians are one of the oldest immigrant groups (since 1907) and now the second largest among the Asian immigrant groups in the U.S. (U.S. Census Bureau, 2010), there is little research on this immigrant group. Moreover, of the few studies conducted on Asian immigrants, majority of them focus on immigrants from China, or lump Asian Indians along with other Asian immigrants, often Indians being a minority in the study. The focus on fatherhood studies has received even less attention with only a few studies focusing on this area (see Jain & Belsky, 1997). The current study thereby focused on factors associated with paternal involvement of Asian Indian immigrants in the U.S.

Parenting roles among Asian Indians are still regulated by traditional cultural guidelines (Roopnarine & Suppal, 2003) that govern the inner world or the psyche of people (Kakar & Kakar, 2007). Irrespective of the external circumstances, continuity is evident in the roots of Asian Indian immigrants in their cultural values and beliefs and, traditional male-dominated family system leading to continuity (Singh, 2010). Nevertheless, because of the migration process, Asian immigrant families experience cultural adjustments (Chao & Tseng, 2002). But, very little is known about paternal involvement in this ethnic group. One major study by Jain and

Belsky (1997) conducted on fathers with infants, revealed types of fathers (engaged, caretaker, and disengaged) based on their involvement patterns claiming that most of the acculturated fathers were engaged and the least acculturated fathers were disengaged. This clearly indicates that acculturation led to increased father involvement in the case of Asian Indian immigrants. Thereon, the construct of acculturation has been studied in association with adjustment patterns of Asian Indian first-generation parents in terms of their attitudes towards adolescents' dating and mate-selection (see Dasgupta, 1998; Mathur, 2000) and parenting attitudes of Asian Indian mothers (see Jambunathan & Counselman, 2002). Recent findings on academic socialization of Asian Indian parents revealed that although mothers were more involved with children at home and school, children of highly involved fathers performed better in their cognitive tasks compared to their counterparts with less involved fathers (Sanghavi, 2010).

Research conducted in the West reveal disparities between societal depictions of fathering and how men are truly involved (Pleck & Pleck, 1997). Although fathers in Asian Indian culture are given prime respect and authority (Chaudhary, 2013), compared to the few studies on Asian Indian immigrant adolescents and mothers (see Farver, Yiyuan, Bhadha, Narang & Lieber, 2007), research on Asian Indian immigrant fathers' involvement has received very slight attention (Chaudhary, 2013). Such a lapse is yet another indicator of the overall neglect that immigrant fathers' studies have suffered in history.

Determinants of Father Involvement

Evidence from research studies, on *what* fathers do and *how* it impacts children is well known. However, research on the determinants of father involvement, or *why* fathers do what they do needs further investigation. What factors influence paternal involvement? Some factors may enhance fathers' involvement while some may compromise or be a threat to their

involvement. Literature review consistently suggests the importance of an ecological approach in understanding the determinants of the construct of father involvement. Nonetheless, evidence regarding the determinants of fathers' involvement is comparatively dated and has gained little attention compared to the impact of paternal involvement (Doherty et al., 1998; Lamb, Pleck, Charnov & Levine, 1985, 1987; Parke, 1996). Lamb and colleagues (1985) outlined four major factors influencing father involvement that is, "motivation, skills, social support, and institutional practices" (p. 883). They opined that optimal father involvement will come up with high level of motivation, confidence in parenting, perceived social support, and when it is not restricted by work conditions. Parke (1996) expressed a systems model for resident fathers including individual, familial, extra familial, and societal or cultural factors (Parke, 1996). Nevertheless, Doherty and colleges (1998) outlined five major determinants of responsible fathering, such as contextual factors including cultural beliefs and family income; co-parental factors that include parents' marital adjustment as well as if mothers are employed or unemployed; father factors specifically how much they identify with their role as a parent, how competent they feel as fathers, the nature of fathering they received and do they replicate or compensate for the same, age when they became a father, their education level; mother related factors including how much support she provides to the father or does she practice gatekeeping (Allen & Hawkins, 1999); and lastly child factors such as child's age, gender, and temperament. These factors are in line with the systemic and ecological framework.

Influence of Parental Role Expectations on Paternal Involvement

As can be noted through the previous chapter that parental role beliefs are a primary factor in understanding traditional cultural meanings assigned to family members in the Indian, predominantly Hindu family (Kakar & Kakar, 2007). Men and women have discrete characters

to play in the family lifecycle. Fathers are expected to be the primary providers, disciplinarians, and protectors of the household (Kapoor, 2000). Moreover, the eldest male member of the family is the household head and is assigned the status of the '*karta purush*' or the highest authority in the family. Thus, he has majority power (Hirsch, 2002). The household head has the onus to carry out, maintain, and hand on cultural norms i.e., pass on a tradition to the son (*pitah putra parampara*), this also includes socialization behaviors such as to maintain or not to maintain relationships with certain relatives. A father looks after the wellbeing of the family and is its ultimate consultant (Chaturvedi, 2003; Kakar & Kakar, 2007). Mothers in contrast, must perform the majority of physical tasks including house work, caring for elderly and other family members, and child care. Particularly during infancy and toddlerhood, mothers and children form intimate bonds and are close physically and emotionally.

The traditional cultural norm involved a solid partition of family responsibilities wherein men take charge of the community domain or outdoor chores, comprising of generating income and public affairs and womenfolk uphold major responsibilities for household activities. Recently, studies reveal that such varied role discrepancy is no longer practiced by the middle class residing in cities, in fact growing numbers of women who are also mothers are employed and have crossed the home front to financially support and contribute to the family, and to pursue their passion for work (Sriram & Sandhu, 2013). However, even though wives are working, the primary providers' role is perceived to be of men and, women's primary responsibility towards the family and household (Sriram, 2011a). Review of literature reveals that the educated masses are shifting their beliefs about parenting roles from independent male-female distinctions towards increased interchangeable and mutual responsibilities, with men realizing the need to be more involved by attending to children's needs, as well as being a friend

and a guide to them (see Chaudhary, 2013; Pattnaik & Sriram, 2010; Saraff & Srivastava, 2008; Sriram, 2011b; Sriram & Navalkar, 2012; Sriram & Sandhu, 2013).

Association between Marital Relationship and Paternal Involvement

Fatherhood is mostly embedded in a complex array of other relationships (Palkovitz, Marks, Appleby, & Holmes, 2003) with marital relationship being the most influential. The quality of marital relationship is a major determinant of fathers' involvement and the quality of father-child relationship. The quality of co-parental association has direct and indirect consequences for paternal involvement and child outcomes (Jacobs & Kelley, 2006). Thus, marital relationship is a vital environment in which to encourage and sustain father involvement. Literature review reveals that there is a positive correlation between marital relationship and the following: levels of father involvement in child care responsibilities (Bouchard & Lee, 2000; Harris & Morgan, 1991; McBride & Mills, 1993), father-child relationship quality (Belsky & Volling, 1987; Cox, Owen, Lewis, & Henderson, 1989; Doherty, et al., 1998; Feldman, Nash, & Aschenbrenner, 1983; Levy-Schiff & Israelaschivili, 1988), father's satisfaction in his own paternal role, and his competence as a parent (Bouchard & Lee, 2000). These associations point out the crucial role of marital relationship as a context in determining the quality of fathers' experiences and involvement (Bouchard & Lee, 2000). Therefore, if marital satisfaction is low, fathers struggle with child care, which in turn hampers father-child relationship (Coiro & Emery, 1998; Doherty et al., 1998). For instance, in single wage Mexican families, higher marital dispute was related to lower fathering quality and vice versa (Formoso, Gonzales, Barrera & Dumka, 2007). Thus, awareness of coparental relationship and strengthening the same would help the quality of fathers' involvement (Formoso et al., 2007).

Investigations on the significance of the spousal relationship quality, shows that fathers who were romantically involved with mothers had higher level of paternal involvement than men who did not (Cabrera et al., 2004). Several studies have indicated the positive influence of high level of paternal involvement on marriage quality. For example, fathers who enjoyed a stable marriage were more involved in their children's lives (Cummings, Merrillees & George, 2010). Several researchers have found a comparable association between higher marital satisfaction and competent fathering behavior, in turn leading to higher marital stability in later life (Belsky, 1984; Cowan & Cowan, 1992; Heath & Heath, 1991). There is consensus that there is more positive influence of paternal involvement on marital relationship than negative (Pleck & Masciadrelli, 2004) however this is not the focus of the primary current study.

Association between Parenting Self-Efficacy and Paternal Involvement

One of the major determinants of parenting is their individual personality or their psychological factors (Belsky, 1984). Empirical evidence suggests the interconnectedness of parents self-efficacy and perceptions of competence in parenting with actual level of involvement in child care (for example, Beital & Parke, 1998; Ehrenberg, Gearing-Small, Hunter, & Small, 2001). Research illustrates that fathers tend to report lesser levels of parenting effectiveness compared to mothers (Hudson, Elek, & Fleck, 2001), which was also supported by mothers' reports. However, fathers reported higher levels of involvement in child care when they perceived themselves as effective parents (Sanderson & Thompson, 2002). There is very little research evidence on how fathers' perceived self-efficacy in parenting role influences their parenting. This less studied concept might be very important, as parents' perception of self-efficacy could improve if they are supported.

Sociodemographic Factors

Factors such as age, education, and income have consistently been associated with paternal involvement. Often, comparisons are made within and between cultures depending on the income and earnings above poverty line. However, it is important to note that majority of the Asian Indian immigrants are fluent English speakers, and are earning more than other immigrant groups in the U.S. Asian Indian immigrant families are mostly in the middle to high income range and are bachelors or higher degree holders especially in fields of science, technology, mathematics, management and medicine. This also means that fathers will be working longer hours, this is expected to be consistent throughout the Asian Indian immigrants. Therefore, considering such a homogeneous group characteristic, the only significant sociodemographic variable to be associated with paternal involvement is the maternal employment status. Factors determining fathers' involvement in India were different for fathers in single-earner families and dual-earner families (Saraff & Srivastava, 2010).

Maternal employment. Substantial evidence is found that maternal employment status moderates and influences various fathering related aspects such as increased involvement in household tasks (Thomas & Hildingsson, 2009), and childcare (Formoso, Gonzales, Barrera, & Dumka, 2007). However, there is dearth of knowledge if maternal employment status influences marital relationship quality and parenting ideologies. Given the cultural background of the current study's ethnic group, the current study proposes that maternal involvement will significantly be associated with various fathering variables given the background of cultural and transnational nature of these ethnic families. First, it is understood that in Asian-Indian culture, there are unsaid and gender defined roles for men and women and often women are expected to sacrifice for the success of male member. During the wedding ceremony, women are often asked

to vow to support men in their endeavors and maintain harmony in the family by sacrificing and supporting their partner. Secondly, above mentioned literature on transnational families reveals that women who may be in highly paid professions and held successful careers back home, may have to sacrifice their careers upon migration and stay at home due to the lack of supportive government policies of the host country, support husband and save on expensive childcare costs. Women who have higher educational degrees and may be employed in large organizations in the country of origin, may have to sacrifice their work and career ambitions as they migrate to the U.S. on H-4 dependent visa and do not qualify for a work visa.

Interestingly, several studies on maternal employment and father involvement have revealed that maternal employment led fathers to be more involved in child care (Formoso, Gonzales, Barrera, & Dumka, 2007; Suppal & Roopnarine, 1999). Often research on mothers' employment status and mothers' hours related to work is studied and reported interchangeably. A national survey of men's child-care responsibility found that the percentage of children whose fathers cared for them during their mothers' work hours increased to 20 percent in 1991 in contrast to 15 percent since 1977. Several findings suggest paternal involvement with younger children is higher when mothers are employed (Pleck, 2007; Sriram & Sandhu, 2013). Contrary to expectations, Saraff and Srivastava (2010) did not find differences in paternal involvement levels among dual versus single earner families. Contradictory findings reveal that men are more involved in household chores when their spouse worked full-time (Chaudhary, 2013; Ishii-Kuntz, 2003). This highlights the strong influence of cultural gender role expectations from men about parenting.

In general, it has been found that husbands and wives do not hold equal responsibilities regarding domestic matters. Most of the studies have indicated that "females take a greater

responsibility for the care of children” (Equal Opportunities Commission, 2006; Finley, Mira, & Schwartz, 2008). For instance, according to O’Connell (1993), working mothers reported that only 23% of fathers were primary care providers for their children under the age of 5. However, men’s involvement in domestic work increased with their spouses’ employment status. Results of a study that was done in Sweden showed that after their wives returned to full-time working, husbands began to be involved equally in domestic households (Thomas & Hildingsson, 2009). Another study that compared household labor division in Germany and Israel found that in both cultures women engaged in domestic work more than men, but increasing working hours led women being engaged less in household work which also resulted in more male involvement in domestic work (Lewin-Epstein, Stier, & Braun, 2006). Another study which was conducted in Turkey also found similar results. According to this study mothers were more involved than fathers in child care (Erkal, Copur, Dogan, & Safak, 2007).

According to Fagan and Barnett (2003) one of the most vital issues that led researchers to study fathers’ involvement with their children was the growing number of women entering the work force, and their number of work hours. When mothers worked especially long hours, childcare responsibility emerged as a burden shared by both parents. This gave rise to demand in more father involvement expectations, and increased fathering patterns emerged among husbands with working wives (Peterson & Gerson, 1992; Pleck, 1997). Similarly, several studies found a positive correlation between mothers’ employment and their husbands’ level of involvement (Brayfield, 1995; Volling & Belsky, 1991; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Therefore, they established that “the more hours the wife worked, the more time the father spent interacting with children, the greater the father’s proportion of interaction time relative to hers.” A different study claimed that women’s long work hours resulted in mothers’

taking lesser childcare responsibilities, thus resulting in fathers' increased level of childcare responsibility (Peterson & Gerson, 1992). Similar results were found among fathers' involvement in childcare activities in India (Patnaik & Sriram, 2010). Furthermore, Thomas and Hildingsson (2009) studied the influence of women's parental leave on the differences in childcare responsibilities among fathers and mothers, and they discovered that only when their mothers began working full-time, fathers shared "fairly equally in childcare".

Researchers studying dual-earner families have established that familial marital roles in most contemporary societies are exposed to intricate interchange of conflicting power struggles among couples (Cummings, et al., 2010, Hirsch, 2002). On the one hand, there exist values and norms that highlight inequalities between men and women. These are derived from cultural expectations about parental role beliefs that continue to be instructed with changing effectiveness through socialization. On the other hand, immigration, liberal values, and changing economic conditions have confronted traditional marriage and family roles. Because of these developments, more women are entering job market, which was once considered to be male territory. In such contexts, couples face a dilemma about being faithful to traditional arrangements or to adapt innovative family structures. However, the focus of the current study was only on the employment status of women.

Similar findings of investigations on Indian families are limited and what is known offers varying results. Results from surveys indicated traditional parental roles played by men in single-earner families wherein they did not wake up to care for the infant during nights as opposed to men in dual-earner families (Roopnarine & Carter, 1992). Furthermore, findings from observations and interviews also revealed differences based on maternal employment status in the way fathers interacted with children (Roopnarine et al., 1992). Scholars continue to advocate

the change from conventionally stereotyped roles to more egalitarian roles typically amongst metropolitan, high income, well-educated double income families (Chaudhary, 2013; Pattnaik & Sriram, 2010; Sriram, 2011b; Verma, 1995).

To summarize, the current study was about determining the paternal and maternal factors associated with their reports of father involvement among Asian Indian immigrant families in the U.S. It is essential to keep in mind that fatherhood is embedded in the larger context of family system and further influenced by cultural and societal factors; thereby it is influenced by the internal or within home factors and external factors. Considering the research gaps in the literature on Asian Indian fathering, it is important that we look at the factors influencing fathers' involvement with young children. The construct of father involvement is multidimensional and multifaceted, and therefore, it is beyond the scope of any study to tap all pathways of influences on the child. Therefore, it is important that we first become familiar with and, explore the influential context and develop better understanding as to how father involvement evolves in the context of significant predicting factors, and make efforts towards assuring that fathers' involvement is not compromised when other factors overpower father's role. Such an analysis will give a solid conceptual framework to base the investigation on the paternal involvement level of Asian Indians. Also, it is important to investigate the effects of maternal employment on fathers' involvement, as several researchers have deemed the importance of studying single- and dual-earner couples.

Most previous research has commonly focused on standard statistical measures such as ANOVA and regressions to analyze data from individual respondents, with mostly mothers reporting paternal involvement. The majority of the researchers who have used these techniques, listed these individual level analyses as a limitation of the study. Since the sample in the majority

studies is only one of the two parents, this gives an incomplete picture of only one of the parents' views about the nature of involvement. Consequently, several scholars have recommended future researchers to study paternal involvement by using data from both the father and the mother and not only the mother. The very few research studies that have gathered reports from both parents, consist of sample with more mother respondents and just one or two fathers. It is essential to move beyond this structure of single respondents while studying paternal involvement, especially among married couples. Couples influence each other and are codependent and, gathering data from both partners will give a better understanding of paternal involvement. Thus, the current study focused on studying the interpersonal processes and associations between both parents and their influence on paternal involvement. Most importantly, the current study addressed the above limitations by employing the actor-partner interdependence model (APIM) for dyadic data analysis. It considers the interdependent nature of couples' responses and assesses individual effect and partner effect on the dependent variable simultaneously. APIM is further described in the method chapter.

Theoretical Frameworks

Research on fathering has formed theory and concepts that have contributed to the notion that fathering is multifaceted and varied (Belsky, 1984; Doherty, et al., 1998; Lamb et al., 1985; Pleck, 1997; Stryker, 1980). Bowen's (1978) family systems theory and Doherty et al.'s (1998) responsible fathering model assisted in developing the conceptual framework of this study as well as in the selection of the measures. Bowen's family systems theory views family as a unit and uses systems thinking approach to explain interactions and behavioral exchanges between members over time within a larger system of family, and Doherty and colleagues' (1998) responsible fathering model transcends beyond the mother-child dyad and includes father,

mother, child, contextual, and co-parental factors that influence parenting. In the light of family systems theory (Bowen, 1978) and responsible fathering model (Doherty, et al., 1998), the current study will test the factors associated with Asian Indian immigrant fathers' involvement thus, aid our understanding of the construct.

Family Systems Theory

Bowen (1978) demonstrated that a family is a system of individuals who influence each other. The systems theory includes concepts wherein family members are subsystems and believes that the individual's experience is like "a set of nested structures" each connected to the other. Family systems theory offers four major concepts about family functioning. First, a family is observed as a unit of systematic and codependent individuals. These family members are best understood in a large context of family as a whole and how these members interact and behave with each other within the family. Second, in addition to the independent members of the family, the family also comprises of dyads and interdependent subsystems for example, father-mother dyad, father-child dyad, mother-child dyad. The current study focused on the father-mother dyad and only child's characteristics, and did not include the father-mother-child triad or the child's views of the parenting. Third, family systems theory suggests that family processes display direct and indirect approaches. From a systemic viewpoint, these direct and indirect paths give rise to unique family contexts which might impact the different levels of father involvement. Fourth, socialization patterns and behavioral expectations are guided by the perceptions of the roles individuals have in the family thereby creating meanings within family relationships. The pattern in which husbands and wives function within these interconnected subsystems possibly influences their perceptions of the father involvement, mostly when children are young and parenting roles are still developing (Fox, 2009).

The concept of triangles particularly highlights the father-mother-child triad and how each influence the others' behavior and thinking. Individual's actions among the triad demonstrate their efforts towards the significant other. For example, when marital conflict is low, the father and mother are positive towards each other and the child, but when there is tension in marriage, one parent gets closer to the child more than with the spouse (Brown, 1999). The current study focused on father-mother dyad and how they influence each other in turn influencing their own and each other's reports of father involvement. If the mother is having issues with the father, she would rate father as less competent in parenting and take over the relationship and time with the child. Another concept of internal stressors demonstrates how stress from one-member influences other members, for example marital conflict experienced by mother may influence fathers' involvement with child (Bowen, 1978). When one family member is stressed, it affects the thinking and behavior of another member involved with the child.

Responsible Fathering Model

Building upon research findings, previous theories and ecological frameworks, Doherty and colleagues (1998) proposed a conceptual model of the factors influencing responsible fathering. Detailed explanations of the model can be found elsewhere (see Doherty, et al., 1998), however only the factors pertaining to the focus of the current study is presented here. According to Doherty et al. (1998) "The focus is on the factors that help create and maintain father-child bond. The model attempts to transcend the dyadic focus of much traditional child development theory by emphasizing first the child-father-mother triad and then larger systems' influences." (Doherty, et al., 1998, p. 285). The model (see Figure 1. for complete model) states specific factors within each domain that is, the contextual factors such as "institutional practices, employment opportunities, economic factors, race or ethnicity resources and challenges, cultural

expectations, and social support” (p. 285), the co-parental relationship factors, that is “dual vs. single earner, relationship commitment, cooperation, mutual support, and conflict” (p.285), mother factors, “attitude towards father, expectations of father, support of father, and employment characteristics” (p. 285), father factors, “role identification, knowledge, skills, commitment, psychological well-being, relations with own father, and employment characteristics”, (p. 285) and child factors, such as, “gender, age, temperament, developmental status, and attitude toward father” (p. 285). According to the literature review, mother-child relationship strongly influences the father-child relationship, and this is captured through the mother factors, co-parental and contextual factors. The authors claim that along with these factors predicting the mother-child relationship (see Belsky, 1984), some factors influence responsible fathering differently, with responsible fathering domains conceptualized as “paternity, presence, economic support, and involvement” (Doherty et al., 1998; p. 285). The model specifically focuses on factors pertaining to fathers to guide father-specific research with assertion that although some factors may indirectly affect father-child relationship through fathers’ support for mothers, the focus of the current model is on direct father-child interaction.

According to Doherty et al. (1998), the model outlines multilevel factors that impact fathering, consisting of individual factors (father, mother and child), coparental factors, and contextual factors. Furthermore, they suggest that these factors can be observed additively, such as, low perceived self-efficacy in parental role, along with low marital adjustment levels, would be significantly associated with lower levels of paternal involvement. On the other hand, the model can be employed as interactive. For example, high role identification, high income, good employment characteristics might be enough to compensate role expectations from the mother (Doherty et al., 1998).

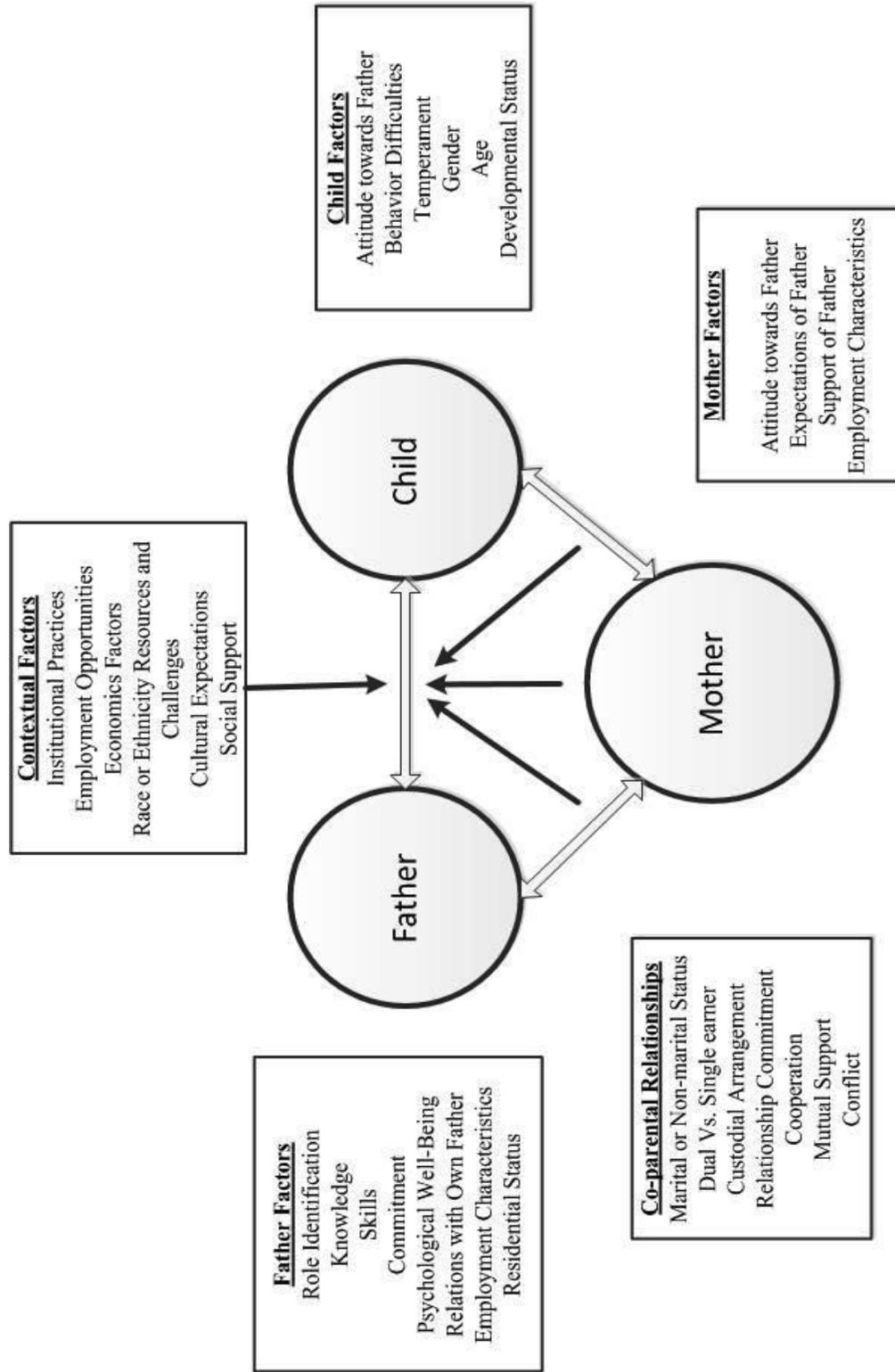


Figure 1. Influences on Responsible Fathering: A Conceptual Model (Doherty, et al., 1998)

The authors assert that the model proposed is dynamic in nature and not systematic wherein, multiple linkages are possible as opposed to linear, deterministic pathways that often run the risk of decreasing the outcome behavior. Thus, by approaching the topic from an ecological perspective, it helps to either apply or discard cultural and contextual meanings, to help developing the fathering identity and parenting self-efficacy, thus parenting competence for fathers.

The current study is focused on building upon the variables that have been previously studied with Asian Indian, or immigrant families and fathers' involvement. Therefore, the conceptual factors consisted of mothers' and fathers' beliefs about parental role; co-parental factor consisted of mothers' and fathers' marital adjustment; maternal factors consisted of mother's parenting self-efficacy and beliefs regarding father's involvement and, her employment status; paternal factors consisted of their perceptions of parenting self-efficacy, and lastly; child factors consisted of child's gender and age.

In summary, research indicates the particular vulnerability of fathering to several factors including contextual, maternal related, coparental factor, and fathers' own factors. Migration scholars confirmed how changing cultural expectations in the U. S. resulted in fathers being more nurturing, such as, more acculturated fathers are more involved with their infants than the least acculturated fathers (Jain & Belsky, 1997). Conceptual model of responsible fathering by Doherty et al. (1998) demonstrates the positive contribution of cultural factors to fathering. Research on Asian Indian fathers in India suggests greater involvement on part by fathers in urban areas, and those who had working wives (Chaudhary, 2013; Roopnarine et al., 2013; Saraff & Srivastava, 2010; Sriram, 2011a; Sriram, 2011b; Tripathi, 2013). Further, research on acculturation and immigrant fathers demonstrate greater capacities of fathers to implement their

role as fathers (Capps, Bronte-Tinkew, & Horowitz, 2010; Roer-Strier, et al., 2005; Tamis-LeMonda et al., 2009). Fathers' perceptions of own competence as fathers is more significant than their partner's perceptions of fathers' competence (Cook, Jones, Dick, & Singh, 2005; McBride et al., 2005). It is expected that when fathers perceived themselves as being more efficient and competent in their parenting role, they would be more involved. Numerous studies have established the associations between higher work-related hours and lower level of paternal involvement (Jacobs & Kelley, 2006; Parke, 2002; Pleck & Masciadrelli, 2004; Saraff & Srivastava, 2010; Volling & Belsky, 1991).

Literature review clearly shows the vital role mothers play in influencing fathers' involvement directly or indirectly through encouraging fathers' involvement, and by working and contributing to the household income (De Luccie, 1995; Simons, Whitbeck, Conger, & Melby, 1990). Also, research reveals that fathers are more involved when the marital adjustment is high. Fathers who do not get along with mothers tend to move away from their child, thereby depicting that fathering is affected by marital or coparental relationship. Numerous studies have reported that coparental relationship quality is correlated with the level of fathers' involvement (Belsky & Volling, 1987; Cox, et al., 1989; Feldman, et al., 1983; Levy-Shiff & Israelashvilli, 1988). Also, working mothers spent less time with children thereby resulting in fathers spending more time compared to when the mothers did not work (Pleck, 1997). Data from a national survey on households suggests that maternal factors were significantly associated with reports of paternal involvement than father related factors. It is believed that fathers' "job description" is determined by the expectations by the child's mother. Family environment consisting of caring, committed and collaborative marriage is the most supportive of fathering (Doherty, et al., 1998, Seery & Crowley, 2000). Parenting literature suggests that when mothers have more egalitarian

beliefs about gender roles expectations they report less maternal gatekeeping and encourage fathers to be more involved in parenting.

Keeping in mind the models and literature review it is proposed that fathers with egalitarian parental role beliefs will be highly involved as fathers. It is further proposed that, when fathers think they are efficient, they will report high paternal involvement. Therefore, father involvement will be high when parents' marital adjustment will be high, and mothers' employment status will be employed or part-time employed over non-employed or stay at home. As expected, father involvement will be high when mothers' beliefs regarding fathering role will be less traditional.

Conceptual Framework

The focus of the current research was on the influence of contextual, co-parental, and father and mother related factors on paternal involvement reports for both mothers and fathers (see Figure 2). Precisely, this investigation studied the associations between mothers and fathers' marital adjustment, parenting self-efficacy, and beliefs about parenting role to examine similarities and differences in paternal involvement (outcome variable) scores.

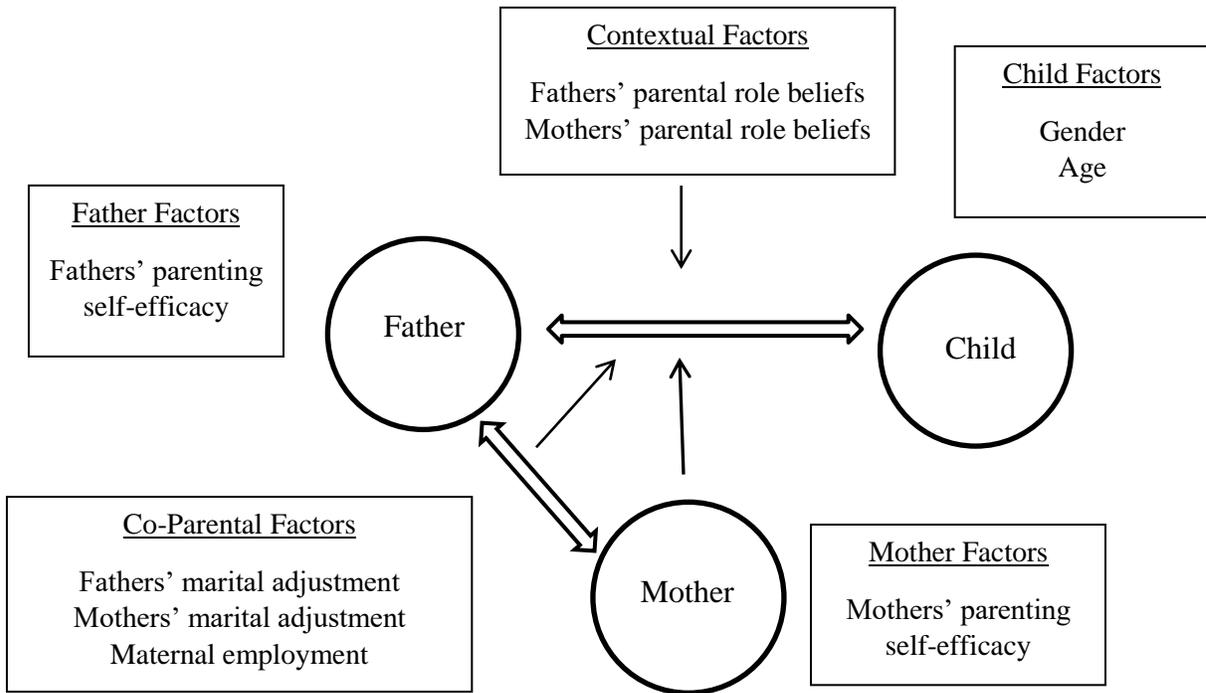


Figure 2: Conceptual model for the study

Three independent variables and one outcome variable were included in the study (see Figure 3). Hence, two major equations were tested with actor and partner effects for fathers' and mothers' reports of paternal involvement respectively. Equation one, for husbands was:

$$Y_{1i} = \beta_0 + \beta_1 (aX_1) + \beta_2 (pX_2) + \beta_3 (aX_3) + \beta_4 (pX_4) + \beta_5 (aX_5) + \beta_6 (pX_6) + E_{1i}$$

Wherein, independent variables associated with husbands' reports of paternal involvement (Y_1) include actor effects (indicated as a) and partner effects (indicated as p) therefore, husbands' marital adjustment (X_1), wives' marital adjustment (X_2), husbands' parenting self-efficacy (X_3), wives' parenting self-efficacy (X_4), husbands' parental role beliefs (X_5), wives' parenting self-efficacy (X_6), constant (β_0), intercepts (for example, β_1), and error term (E). Similarly, equation two for mothers was as follows:

$$Y_{2i} = \beta_0 + \beta_1 (aX_2) + \beta_2 (pX_1) + \beta_3 (aX_4) + \beta_4 (pX_3) + \beta_5 (aX_6) + \beta_6 (pX_5) + E_2$$

		Predictor variables		Outcome variables	Error/ residual	
$r =$ Correlation between $X_1 * X_2$	X_1	Husbands' Marital Adjustment scores (HMA)		Husbands' Reports of Paternal Involvement (HPI)	E_1	Correlation among errors
	X_2	Wives' Marital Adjustment scores (WMA)		Wives' Reports of Paternal Involvement (WPI)	E_2	
$r =$ Correlation between $X_3 * X_4$	X_3	Husbands' Parenting Self-efficacy scores (HPSE)		Husbands' Reports of Paternal Involvement (HPI)	E_1	Correlation among errors
	X_4	Wives' Parenting Self-efficacy scores (WPSE)		Wives' Reports of Paternal Involvement (WPI)	E_2	
$r =$ Correlation between $X_5 * X_6$	X_5	Husbands' Parental Role Beliefs scores (HPRB)		Husbands' Reports of Paternal Involvement (HPI)	E_1	Correlation among errors
	X_6	Wives' Parental Role Beliefs scores (WPRB)		Wives' Reports of Paternal Involvement (WPI)	E_2	

Figure 3: Actor-Partner Interdependence models for each independent and outcome variables.

Actor effects: Partner effects:

Research Questions and Hypotheses

The current study aimed to explore actor effects and partner effects to answer the following research questions for Asian Indian immigrant fathers' involvement based on above mentioned frameworks of influential factors:

Actor effects

Research question 1. Do fathers and mothers with high marital adjustment, high parenting self-efficacy, and egalitarian parental role beliefs, report high level of paternal involvement?

According to Doherty and colleagues (1998), one of the contextual factors such as parental role beliefs is strongly associated with father's involvement with children. When individuals would have egalitarian parental role beliefs, they would report higher paternal involvement. Secondly, coparental factor such as higher marital adjustment was linked with high

involvement. Lastly, least studied phenomenon of parenting self-efficacy was another strong individual factor associated with fathers' involvement, higher the parenting self-efficacy perceived, higher the involvement.

H1. 1. *Fathers with high levels of marital adjustment, high parenting self-efficacy, and egalitarian parental role beliefs will report high level of paternal involvement.*

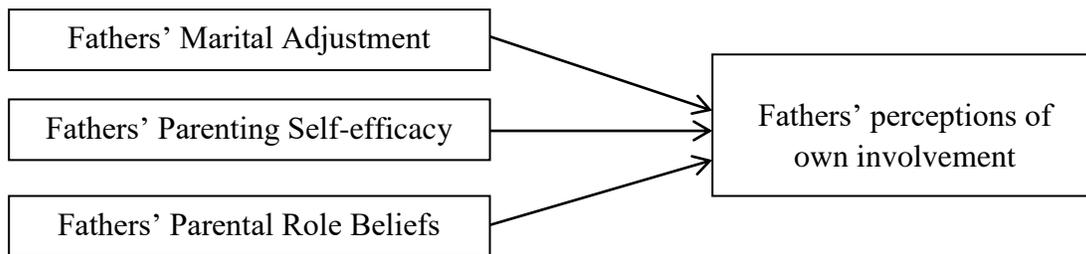


Figure 4: Actor effects predicted for fathers.

H1. 2. *Mothers with high levels of marital adjustment, high parenting self-efficacy, and egalitarian parental role beliefs, will report high level of paternal involvement.*

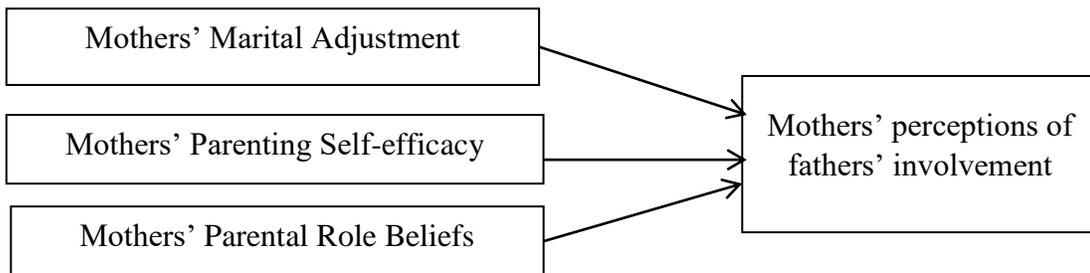


Figure 5: Actor effects predicted for mothers.

Partner effects

Research question 2. Do fathers' and mothers' parental role beliefs, marital adjustment, and own parenting self-efficacy influence spouses' reports of paternal involvement?

According to family systems theory, individuals within family constantly influence other members specifying the dynamic relationship between mother and father dyad and how mother dictates the relationship of the father and child (Bowen, 1978).

H2. 1. *Fathers' marital adjustment, parenting self-efficacy, and parental role beliefs will be linked to mothers' reports of paternal involvement.*

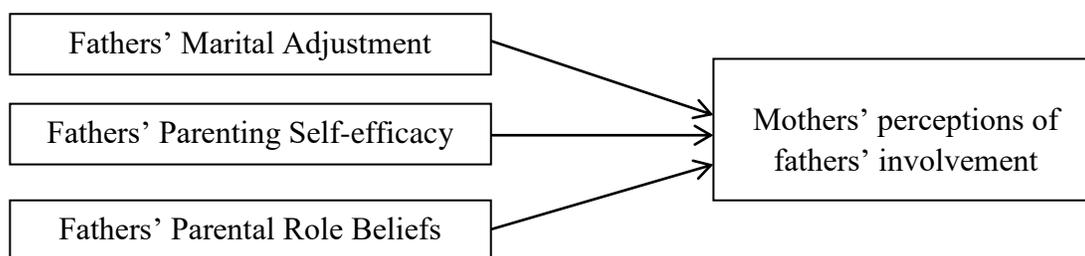


Figure 6: Fathers' partner effect onto mothers' outcome.

H2. 2. *Mother' marital adjustment, parenting self-efficacy, and parental role beliefs will be linked to fathers' reports of paternal involvement.*

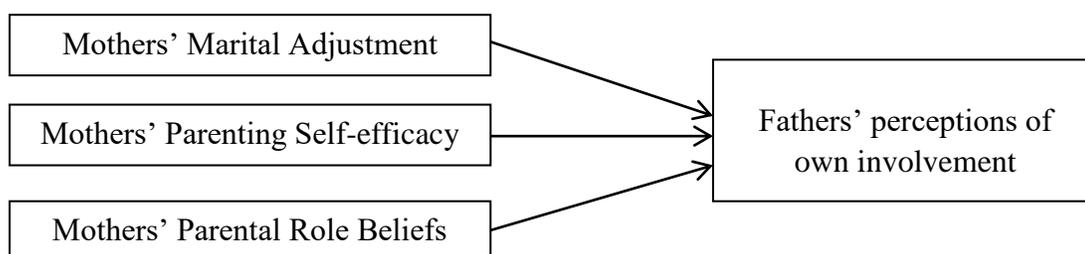


Figure 7: Mothers' partner effect onto fathers' outcome.

Moderation effect

Research question 3. Are there differences in marital adjustment, parenting self-efficacy, parental role beliefs, and paternal involvement reports of fathers and mothers based on maternal employment status?

According to Doherty et al. (1998), fathers are more involved with children when their wives are employed. This was also found in the research with fathers in India wherein

involvement of fathers was high with infants when mothers were working (Saraff & Srivastava, 2010). Thus, mothers' employment status was predicted to moderate the independent variables and outcome variable.

H3. *There will be significant differences in mothers' and fathers' marital adjustment, parenting self-efficacy, parental role beliefs, and paternal involvement reports based on mothers' employment status.*

Chapter 3. Method

Participants

This study used a sample of Asian Indian immigrant families residing in the Southern United States, and the study was approved by the university's Institutional Review Board. Census numbers has shown that from 2000 to 2010, there was a 71.5% rise in Asian population in Southern U.S., going from 49,181 to 106,964 (see Figure 8, U.S. Census Bureau, 2010). Power analysis was applied to calculate the required sample size. A minimum of 35 dyads are necessary to test consequential nonindependence between outcome variables with sufficient power of at least 0.80 (Kenny et al., 2006). Keeping in mind the analytical guidelines, the proposed sample size for the current study was 150 couples with employed fathers, and mothers who were either employed or stay-at-home mothers, with children between the ages six to ten years. Only fathers who resided with the mother and the child were included in the study. Only parents born or raised in India and, who had voluntarily immigrated to the U.S. were included in the study. The final sample consisted of 127 couples.

Fliers about the study were distributed at the local university campuses as well as in communities with Asian Indian population. Online flyers were posted on social media and, interested participants contacted the researcher to participate in the study. Snowball sampling technique was used wherein initial families were contacted at social events at Asian organizations, temples and gatherings to celebrate Indian festivals, and once they understood the study objectives and the process and, depending if they qualified to participate, they either agreed to participate or forwarded the flyer among their social networks of potential participants.

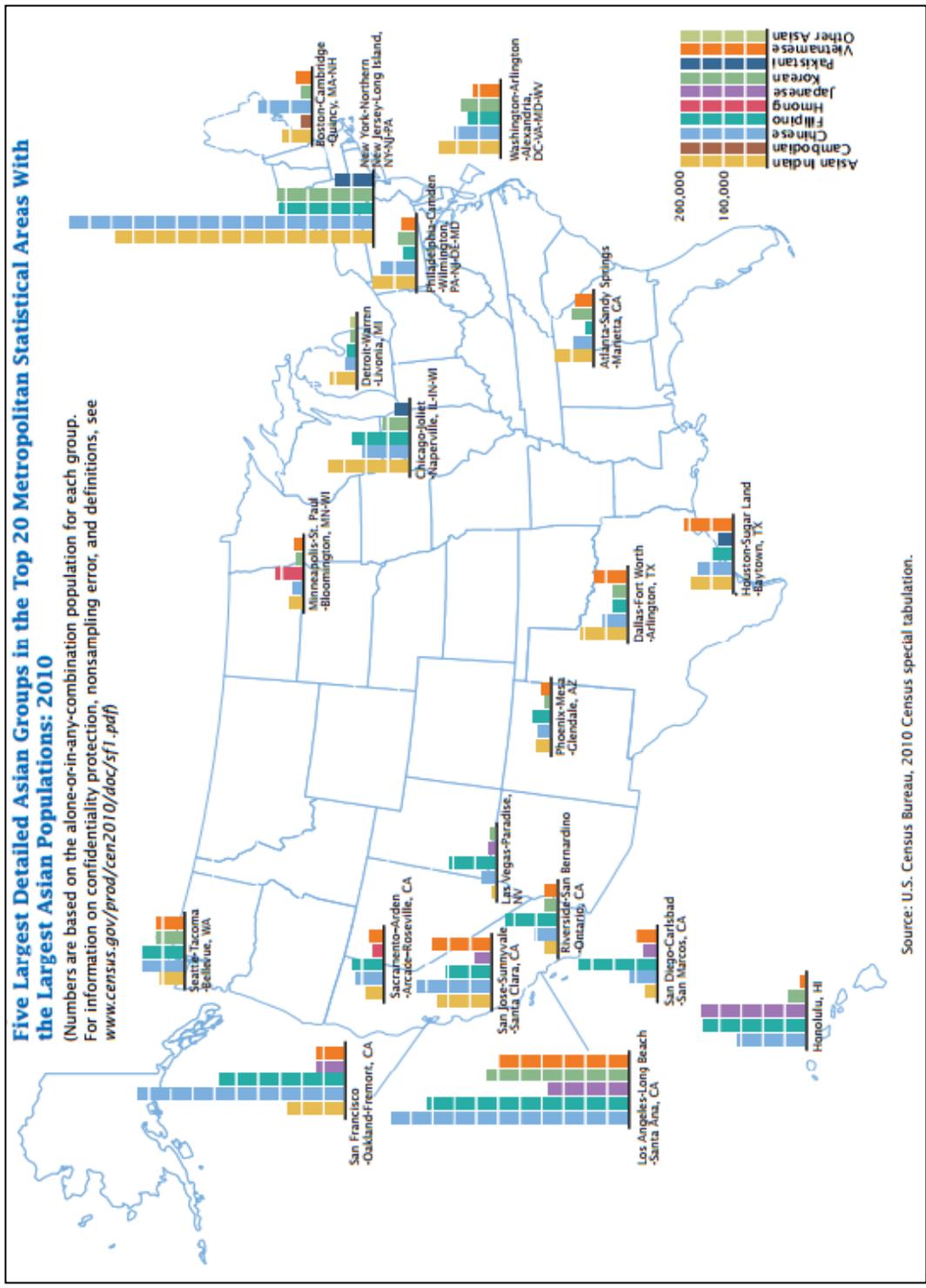


Figure 8: Five largest Asian groups in the United States, 2010.

Participants were informed that the participation was voluntary and that they could withdraw from the study at any point without penalty. Initial families who consented to participate in this study were requested to recommend other possible participants. Because of limited access to many Asian Indian communities, referrals from friends and colleagues were necessary to gain access to Asian Indian families for the purpose of research. As an incentive, all participants with completed surveys were entered in a raffle to win \$50 after data collection was completed.

Fathers' ranged in age between 28 and 48 ($M = 39.10$, $SD = 3.96$) and mothers' mean ranged in age between 29 and 45 ($M = 36.58$, $SD = 3.21$). On an average, fathers had lived in the U.S. for 13 years, and mothers had lived in U.S. for 11 years. Years of marriage for couples ranged between 6 and 20 ($M = 12.22$, $SD = 2.79$). For detailed demographics please see Table 1.

Procedure

Each mother and father were asked to fill out a sociodemographic questionnaire and a series of scales consisting of Hawkins et al.'s (2002) Inventory of Father Involvement (IFI), Bonney and Kelley's (1996) Beliefs Concerning Parental Role scale (BCPR), Busby, Crane, Larson, & Christensen's (1995) Revised Dyadic Adjustment Scale (RDAS), and Gibaud-Wallston and Wandersman's (1978) Parental Sense of Competency Scale (PSOC). Each family member was instructed to fill out the scales in their privacy without consulting each other. Participants who chose to fill out paper surveys were given two separate envelopes to seal their completed surveys and return them to the researcher.

Parents were asked for their consent to participate in the study. Upon receiving consent, both parents were provided respective questionnaires and requested to provide demographic information and a series of above mentioned standardized questionnaires.

Table 1.

Descriptive characteristics of the research participants

	Fathers	Mothers	Range	M	SD
Employment Status					
Full-time	100%	44.10%			
Part-time	0%	21.30%			
Stay at home	0%	34.60%			
Education (highest level completed)					
Post-graduate	63.70%	37%			
College-graduate	33.90%	44.90%			
Some college/technical/ trade school	2.40%	15%			
High-school graduate	0%	3.10%			
Occupation					
IT/ Engineer	83.50%	22 %			
Business	8.90%	10.20%			
Medical	3.20%	4.70%			
Education	2.40%	11%			
Retail/Administration	0%	17.30%			
Homemaker	0%	34.60%			
Household Income					
Below 15,000 – Above 150,000	76%		75,000 – 125,000		
Years in the United States					
Fathers				13	4.43
Mothers				11	4.40
Fathers' Age			28-48	39	3.91
Mothers' Age			29-45	36	3.21
Child Characteristics					
<i>n</i>					
Gender					
Boys	67				
Girls	60				
Age			6-10	8	1.46

Note. *N = 127 couples

Fathers and mothers were instructed through consent form as well as orally to focus on only one child (if they had more than one child between ages six to ten years) while answering

the questions. Previously established validities and reliabilities of the instruments and the validity and the reliability of the instruments for the current study are reported in the following section.

Measures

Demographic variables

Items on sociodemographic information were included in both parents' questionnaires. Items such as age, place of birth, level of education, current employment status (full time, part time or currently stay at home), income, occupation, years of marriage, and number of years in the U.S were requested. Also, child's gender, age, birth order, and school type (public or private) were requested. Family items included information about other children and other members residing together.

Paternal Involvement (see Appendix)

Estimates of paternal involvement were obtained from both mothers and fathers, using the Inventory of Father Involvement (IFI) developed by Hawkins, et al. (2002). The IFI was selected for the current study as the contents of the scale fit well with the theoretical frameworks of father involvement. The original scale consisted 35 items, however, the researchers created a short version of the IFI, which was also employed in the current study, with 26 items. In work conducted in the U.S., the scale consisted of nine order factors that is, *discipline and teaching responsibility, school encouragement, mother support, providing, time and talking together, praise and affection, developing talents and future concerns, reading and homework support, and attentiveness* (e.g., "helping your children with their homework", "telling your children that you love them", and "attending events your children participate in"). The IFI had high reliability with alpha values ranging between 0.69 and 0.87. However, in cross-cultural work with Turkish

fathers, exploratory factor analysis revealed six factors, with high internal consistency of alpha value 0.86 (Unlu, 2010). Consistent with previous studies, exploratory factor analyses using principal components extraction method on the 26 father involvement items for the current study also resulted in the emergence of six factors for both fathers and mothers. Alphas for the present study were 0.92 for fathers and 0.93 for mothers. A modified version of scoring by Unlu (2010) was employed which consists of 5 Likert type scale wherein, 1 referred to “never”, 2 referred to “rarely”, 3 referred to “sometimes”, 4 referred to “frequently” and lastly 5 referred to “every time”.

Marital Adjustment (see Appendix)

The Revised Dyadic Adjustment Scale (RDAS) developed by Busby, et al. (1995) was employed to test marital adjustment between mothers and fathers. Fourteen items tap seven aspects of marital relationship under three primary categories such as *Consensus* in decision making (items 3 & 6), values (items 1 & 5), and in affection (items 2 & 4); *Satisfaction* in their relation with regards to stability (items 7 & 9), or conflict (items 8 & 10), and *Cohesion* experienced through activities (items 11 & 13), and discussion (items 12 & 14; e.g., “how often do you discuss or have you considered divorce, separation, or terminating your relationship”, “how often you and your spouse calmly discuss something”). Highest possible score on the scale was 69 with higher scores showing greater relationship satisfaction and lower scores showing greater relationship distress. A cut-off score of 48 was recommended by the authors wherein scores of 48 and above indicate non-distress and scores of 47 and below indicate marital or relationship distress. The RDAS had high reliability (Cronbach’s alpha 0.90) and construct validity (0.97, $p < .01$) with the original Dyadic Adjustment Scale and with Locke-Wallace

Marital Adjustment Test (MAT; 0.68, $p < 0.01$). Alphas for the current study were fathers = 0.76, mothers = 0.72.

Parenting Self-efficacy (see Appendix)

Fathers' and mothers' perceptions of parenting self-efficacy were measured using the self-efficacy section of the Parenting Sense of Competency Scale (PSOC) developed by Gibaud-Wallston and Wandersman, 1978 (Rogers & Matthews, 2004).

The original scale consists of parental satisfaction (nine items) and seven items assessing the parenting self-efficacy (for example, "I meet my own personal expectations for expertise in caring for my child"). Items were rated from 1= Strongly Agree to 6= Strongly Disagree.

Original scoring pattern of the test indicated higher the total score on these items, lower the fathers' self-efficacy. However, since all other scales employed in the current study indicated higher the score higher the phenomenon, therefore all the items of PSOC were reverse scored to keep uniformity in scoring pattern. Thus, after reverse scoring, higher score on PSOC indicated higher parenting self-efficacy. Previously established reliability for the subscale was 0.75 (Jacobs & Kelley, 2006). Alphas for the current study were noticeably high fathers = 0.90, mothers = 0.95.

Beliefs about Parental Role (see Appendix)

The 26-item Beliefs Concerning Parenting Role (BCPR; Bonney, 1997; Nangle, Kelley, Fals-Stewart, & Levant, 2003) was employed to assess mothers' and fathers' beliefs about parenting role. Both fathers and mothers were asked to rate on items for example, "It is important for a father to spend quality time (one to one) with his children every day" and "It is more important for a father to stay home with an ill child" on a scale from 1 = Strongly agree to 5 = Strongly Disagree. Total possible score was 130 points and mean scores on BCPR were

calculated. Lower scores indicated more traditional views on men's involvement with children. Previously established alpha values for the scale were 0.87 for fathers and 0.80 for mothers (Bonney, Kelley, & Levant, 1999); and .84 for fathers and 0.75 for mothers (Jacobs & Kelley, 2006). Alphas for the current study were fathers = 0.80, mothers = 0.72.

Plan of Analysis

Data were entered in SPSS (version 24.0), followed by data cleaning. To keep uniformity among all measures, items of PSOC measure were reverse coded indicating higher score for higher parenting self-efficacy. Data were cleaned by checking for outliers and out of range data. Data screening revealed no outliers. Minimum and maximum values were checked through descriptives analysis for each item to test for any data entry error and out of range data. Tests of skewness and kurtosis were performed to examine to symmetry and 'peakedness' of data. The distribution of the data on all measures was within acceptable ranges, wherein skewness was less than 3.0 and kurtosis was less than 10.0 (Kline, 2005). Preliminary analyses included descriptive analysis consisting of frequencies, bivariate analysis consisting of means, and correlations, in order to proceed to the analysis of actor-partner effects on the outcome variable of paternal involvement.

Descriptive and bivariate analysis

Frequencies and mean scores were calculated for all independent variables and father involvement reports, as well as total scores were computed. Correlations among individuals' independent variables were sought to understand the respective pattern of relationships between the variables for fathers and mothers. Correlations among mothers' and fathers' reports of paternal involvement were analyzed prior to hypothesis testing. Fathers' and mothers' reports on fathers' involvement were predicted to be significantly correlated. Relationships among fathers'

and mothers' independent variables, that is marital adjustment, parenting self-efficacy, and parental role beliefs, and paternal involvement reports were analyzed.

Actor-Partner Interdependence Model (APIM)

Considering the current study consisted of married couples, it was appropriate to use APIM due to the interdependent and nested nature of relationships. Moreover, the first step of dyadic data analysis is to assess the degree of nonindependence between dyad member reports, which can be done by pooled regression, multilevel modeling, or structural equation modeling. The APIM (Cook & Kenny, 2005; Kenny, et al., 2006), estimates an individual's influence on self (actor effects) and the partners' influence on the individual (partner effects). The model assumes a pairwise data structure wherein, the two individuals in a dyad are not independent but share some commonalities, and data on one level (i.e. individuals) is nested in a second level (i.e. the couple) and can account for error both between and within couples. APIM allows for testing influence of an individual's responses to independent variables on own outcome variable (for example X_1 and Y_1) as well as on partners' outcome variable (for example X_2 and Y_2). Further, the model generates two error terms (for both members of the dyad; E_1 and E_2), and the association between these two error terms represents partial association between dyad variables (for example Y_1 and Y_2) after controlling for previous variables of the dyads (for example X_1 and X_2). It is thus essential to apply APIM while studying couples wherein interdependence in interactive relationships such as mother-father dyads remains evident (Ho, Chen, Cheung, Liu, & Worthington, Jr., 2013).

APIM has been increasingly used by social scientists for a variety of topics such as parenting behavior (Murdock, Lovejoy, & Oddi, 2014), job satisfaction (Liu & Cheung, 2015), interparental conflict and toddler socio-emotional outcomes (Lee, 2016), teacher self-efficacy

among co-teachers (Johnson, 2016), marital satisfaction (Hu, Sze, Chen, & Fang, 2015). For example, a study by Matias and colleagues (2017) in urban areas in Portugal, explored the crossover effects of 90 couples' (parents of preschoolers) perceptions of workplace family support and its influence on theirs' and their partners' parental satisfaction, thus reducing work-family conflict. Findings indicated that fathers' perceptions of family support by workplace had direct influence on their parental satisfaction as well as their level of work-family conflict, whereas for mothers' perceptions of workplace family support had indirect effects thorough their parental satisfaction on both their and their partners' work-family conflict (Martias, et al., 2017). Another study by Galovan and colleagues (2014) investigated the effects of father involvement, quality of father-child relationship, and satisfaction with family work on parents' marital quality. They found that wives' perceptions of father-child relationship quality had both actor and partner effects on their own as well as their husbands' marital quality. Also, wives' reports of higher father involvement were significantly correlated with both spouses' satisfaction with family work (Galovan, Holmes, Schramm, & Lee, 2014). These studies captured the interdependent and systemic nature of couples' variables using APIM.

It is worth mentioning about common fate model (CFM) which is an alternative of APIM that taps the shared influence of external common factors on dyads. According to the CFM there is a possibility that both the members in the dyad are exposed to identical causal factor(s), which influence both the members instead of the members of the dyad influencing each other. CFM assumes that the covariation among dyad scores is due to some unmeasured external factor that influences both the members. For example, the quality of housing situation, household income, government policy and rules, years of marriage, or a family member with disability. It the becomes interesting to use CFM to study the role of this common external third factor on both

the members' reports. A clear distinction of when to use CFM compared to APIM would be for example, CFM is an appropriate choice of analyses when both fathers and mothers report about a third variable such as how happy they think their child is, as opposed to for APIM where both the members report on their own perceptions of how happy they think they are in their marriage. In summary, CFM tests for the causal effect from variable X to variable Y occurring between latent variables. Although it is useful for modeling common-fate variables, it has been not been used often in the research studies. For detailed description, please read Ledermann and Kenny (2011). Since the current study required both members of the dyad to report on respective independent and outcome variables, APIM was the more appropriate choice of analyses.

To test the hypothesized predictions of the current study, first, correlations for the outcome variable (father involvement) were computed with the data from fathers and mothers. Since correlations were significant and high, further analyses were done using APIMs for each independent variable (Kenny, et al., 2006). Second, all possible direct paths (actor and partner effects) from independent variables to the dependent variable were tested. Third, indirect effects were tested from the independent variable to dependent variable with a buffering effect of a moderator (i.e. single versus dual earner dyads). Members were distinguished based on gender, since all the dyads were heterosexual couples. Additionally, tests of distinguishability were performed to further verify the statistical difference between men and women.

APIM analyses were conducted using in SPSS 24.0 using the MIXED model and Fixed Effects command with father involvement as outcome variable. Restricted maximum likelihood (REML) was used to generate unbiased estimates of variance and covariance parameters. Diagrams for each APIM results were produced using Kenny's (2015) multilevel model

APIM_MM software and Microsoft PowerPoint. Gender was included in all models as the distinguishing within-dyad factor.

Two different approaches were utilized to estimate APIM with distinguishable dyads using MLM. First, a two-intercept model introduced by Raudenbush, Brennan, and Barnett (1995) was used to test the main effects of actor and partner variables and if the two variances are equal and if the covariance is statistically different from zero; followed by, an interaction model to test the effect of the distinguishing variable gender, while testing the study's hypotheses (Kenny, et al., 2006). Cohen's (1988) effect size scale for power analysis was used for all APIM results since it does not get influenced by the sample size, thus 0.1 is small effect size, 0.3 is medium effect size, and 0.5 is large effect size. According to Kenny and colleagues (2006), power is needed to be given vital attention in data analysis. Statistical power of the study is the likelihood of rejecting the false null hypothesis, and the recommended power is 0.80. Since the null hypothesis is practically always false, power is considered important in the analysis. In dyadic analysis, the main question regarding the power of the test of interdependence (nonindependence), that is, if the data are nested, will the researcher be able to detect that nonindependence? For the current study, the correlation among outcome variables was 0.54, thus based on the power table estimates given by Kenny et al. (2006, p.49), there was 0.92 power in the study's ability to detect the nested nature of father involvement and rejecting the false null hypothesis.

Chapter 4. Results

The focus of this study was the investigation of the effect of marital adjustment, parenting self-efficacy, and parental role beliefs on father involvement reports for Asian Indian immigrant fathers and mothers. Both the effects of husbands' and wives' independent variables (actor effects) and the effects of their spouses' independent variables (partner effects) on father involvement were studied. Separate actor and partner effects were estimated for fathers and mothers. The dyad members were distinguishable based on their gender. There appeared to be no outliers in the original dataset.

The independent variables were the fathers' and mothers' marital adjustment, parenting self-efficacy and, beliefs about parental role, and the outcome variable was mothers' and fathers' reports of father involvement. All the nondemographic independent variables were grand mean centered prior to these analyses to reduce multicollinearity. For the APIM analysis, there were a total of 127 dyads, that is 127 mothers and 127 fathers and a total of 254 individuals. Mothers were coded as -1 and fathers as 1. The means and standard deviations before centering are presented in Table 2. For all analyses, all independent variables were grand-mean centered.

Centering (Aiken & West, 1991) is essential when testing for interactions and interpretation of main effects (Kenny & Cook, 1999). Centering was done by taking the average of the mean of husbands' scores and wives' scores respectively and then subtracting this average mean score from both husbands' and wives' scores. Standardized scores were also generated for analyses. According to Kenny and colleagues (2006) it is essential that researchers do not report only standardized coefficients in their results because, standardization makes coefficients incomparable across dyads. Instead, the authors suggest reporting both unstandardized and standardized coefficients separately.

This study proposed four major hypotheses. First hypothesis proposed that individuals' marital adjustment will have significant actor and partner effects on father involvement. Second hypothesis proposed that fathers' and mothers' parenting self-efficacy will have significant actor and partner effects on father involvement. Third hypothesis proposed that fathers' and mothers' parental role beliefs will have significant actor and partner effects on father involvement. Finally, fourth hypothesis proposed that mothers' employment status will significantly moderate the independent variables and father involvement for husbands and wives. Means and standard deviations for all variables were computed (See Table 2). Independent sample t-tests were used to test for differences between males and females on all variables. No significant differences were found except for difference between husbands' and wives' parenting self-efficacy, $t_{(254)} = 1.31, p < 0.00$, where husbands' parenting self-efficacy was higher than their spouses' parenting self-efficacy.

Table 2

Descriptive statistics: Means and standard deviations (N = 127 dyads)

Variable	Husbands		Wives	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Marital adjustment	3.71	0.43	3.48	0.54
Parenting self-efficacy	4.63	0.74	4.46	1.20
Parental role beliefs	4.07	0.38	4.16	0.37
Father involvement	4.22	0.48	4.31	0.53

Associations between variables

Actor correlations

Correlations were computed between respective husbands' and wives' demographic, independent and outcome variables (See Tables 3 and 4). For fathers, all independent variables correlated with fathers' involvement. Fathers' parenting self-efficacy correlated with fathers' marital adjustment and parental role beliefs, but there was no correlation between fathers' marital adjustment and parental role beliefs. For mothers, the only correlation among variables was found between marital adjustment and their reports of father involvement.

Table 3

Correlations among demographic, independent and outcome variables for husbands (N = 127)

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Child's gender	-								
2. Child's age	-0.01	-							
3. Husbands' education	0.05	-0.02	-						
4. Maternal employment	0.16	0.19*	0.30**	-					
5. Household income	0.04	0.15	0.32**	0.48**	-				
6. Marital adjustment	-0.09	-0.16	-0.18*	-0.20*	-0.13	-			
7. Parenting self-efficacy	-0.01	-0.07	0.03	-0.03	0.07	0.35**	-		
8. Beliefs about parental role	0.18*	-0.01	0.12	0.08	0.06	0.10	0.19*	-	
9. Father involvement	0.11	-0.07	0.07	-0.17	-0.03	0.39**	0.63**	0.38**	-

Note. ** $p \leq 0.01$; * $p \leq 0.05$

Table 4

Correlations among demographic, independent and outcome variables for wives (N = 127)

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Child's gender	-								
2. Child's age	-0.01	-							
3. Wives' education	0.17	0.03	-						
4. Maternal employment	0.16	0.19*	0.31**	-					
5. Household income	0.04	0.15	0.19*	0.48**	-				
6. Marital adjustment	0.04	-0.05	-0.19*	0.01	0.05	-			
7. Parenting self-efficacy	-0.05	-0.10	-0.03	-0.06	-0.06	0.06	-		
8. Beliefs about parental role	0.18*	-0.09	0.08	0.07	0.02	0.01	0.13	-	
9. Father involvement	-0.00	-0.05	-0.07	0.00	-0.00	0.59**	0.01	0.11	-

Note. ** $p \leq 0.01$; * $p \leq 0.05$

Actor-partner correlations

The correlation between husbands' and wives' outcome variable was significant (See Table 5; $r = .54$ indicating dyadic interdependence and the need to conduct MLM for distinguishable data. According to Kenny (2013), a correlation except for 1 or -1 permits APIM. Fathers' marital adjustment and parenting self-efficacy significantly correlated with mothers' reports of father involvement, but husbands' parental role beliefs did not correlate with mothers' outcome variable. For mothers' marital adjustment and parental role beliefs correlated with husbands' reports of father involvement, but mothers' parenting self-efficacy did not correlate with fathers' reports of father involvement.

Among independent variables, husbands' marital adjustment significantly correlated with mothers' marital adjustment and parenting self-efficacy but not with their parental role beliefs. Fathers' parenting self-efficacy correlated with mothers' parental role beliefs but not with mothers' parenting self-efficacy. Lastly, fathers' parental role beliefs significantly correlated with mothers' parental role beliefs but not with mothers' marital adjustment and parenting self-efficacy.

Table 5

Correlations among actor-partner variables (N= 127 dyads)

Wives' variables	Husbands' variables			
	1.	2.	3.	4.
1. Marital adjustment	0.50***	0.51***	0.00	0.45***
2. Parenting self-efficacy	0.19*	0.14	-0.00	0.02
3. Parental role beliefs	0.13	0.21*	0.49***	0.22**
4. Father involvement	0.37***	0.39***	0.15	0.54***

Note. *** $p < 0.00$; ** $p \leq 0.01$; * $p \leq 0.05$

APIMs for distinguishable dyads were computed for each independent variable and outcome variable for husbands and wives in two stages. First, the two-intercept model was generated with actor effects and partner effects for men, followed by the interaction model to test for any gender differences. For each APIM four major effects were tested, two actor and two partner effects (Garcia, Kenny & Lederman, 2015) specifically, *husbands actor effect*, *wives actor effect*, *husbands partner effect* (wife to husband), and *wives partner effect* (husband to wife).

In all analyses for the first three hypotheses, maternal employment was the control variable since it significantly correlated with fathers' reports of father involvement $r = 0.18$, $p =$

0.04. The covariate employment was a between-dyads variable. Employment was coded as 1 for dual earner couples and -1 for single earner couples. The effect of employment for wives was 0.01 and was not statistically significant ($p = 0.86$), and its standardized effect was 0.014 ($d = 0.02$, less than small). The effect for husbands was -0.08 and was statistically significant ($p = 0.01$), and its standardized effect was -0.22. The test that these two effects were statistically significantly different was significant, $Z = -2.09$ ($p = 0.04$). This test indicates that there is a statistically significant difference in the effects of employment on father involvement for husbands and wives.

Marital Adjustment and Father Involvement

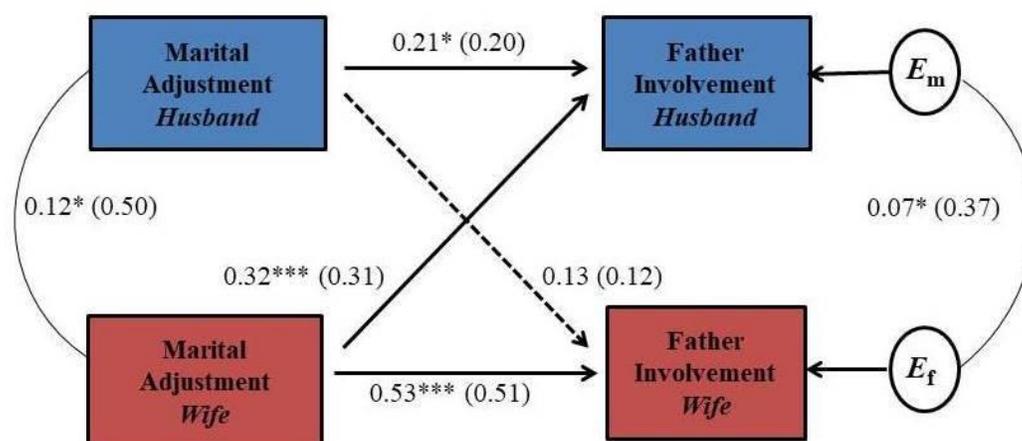


Figure 9. Marital Adjustment: APIM (Standardized estimates)

Results for Hypothesis 1

The first hypothesis proposed that there would be significant actor and partner effects of marital adjustment on father involvement. Strong support was found for this hypothesis. The combined actor effect for husbands and wives was 0.37 and was statistically significant ($p < 0.00$) and the standardized effect was 0.364 ($r = 0.33$ and a medium effect size). The combined partner effect for husbands and wives was 0.22 and was statistically significant ($p < 0.00$) and the

standardized effect equals 0.22 ($r = .21$ and a small effect size). Both the actor effect, $t_{(254)} = 6.20$, $p < 0.00$, and the partner effect, $t_{(254)} = 3.76$, $p < 0.00$, were statistically significant, indicating that individuals higher in marital adjustment reported higher father involvement and that individuals whose partners were higher in marital adjustment also reported higher father involvement. Separate actor and partner effects for fathers and mothers were further tested and results are reported in respective actor effects and partner effects of marital adjustment sections. The gender difference for marital adjustment was statistically significant, $b = -0.06$, $t_{(254)} = -2.77$ ($p = 0.00$). This indicates that the actor and partner effects for fathers statistically differ from the actor and partner effects for mothers.

Error variances and correlations. The standard deviation of the errors for wives was 0.42 and for husbands was 0.43. Using the *pseudo R²* formula suggested by Kenny and colleagues (2006) it was determined that the model with independent variable marital adjustment explained 21.70% of the variance for wives' and 34.20% of the variance for husbands' outcome variable. The partial association for father involvement (i.e. the association between the two error terms for males and females) controlling for actor and partner variables and the control variable was 0.37 and was statistically significant ($p < 0.00$). Thus, the errors of husbands and wives were like one another. The intercept (mean value of the outcome variable when the independent variable value is 0) for wives was 4.35 and was statistically significantly different from zero ($p < 0.00$) and, the intercept for husbands was 4.23 and was statistically significant ($p < .00$). The overall intercept was 4.29 and was statistically significantly different from zero ($p < .00$). Overall, wives scored higher on marital adjustment than husbands. The correlation between marital adjustment for husbands and wives was 0.50.

There are four sub-hypotheses for hypothesis 1 with former two hypotheses about actor effects and latter two hypotheses about partner effects. Hypothesis 1.1a (actor effect for fathers) proposed that fathers with high levels of marital adjustment will report high levels of father involvement. Hypothesis 1.1a. was supported by this study. Hypothesis 1.1b (actor effect for mothers) proposed that mothers with high marital adjustment will rate fathers as high on father involvement. Strong support was found for Hypothesis 1.1b. Hypothesis 1.2a (partner effect of fathers' marital adjustment) proposed that fathers with high levels of marital adjustment will influence mothers' reports of father involvement. This hypothesis was supported by this study. Hypothesis 1.2b (partner effect of mothers' marital adjustment) proposed that mothers with high marital adjustment will influence fathers' reports of their own involvement. Strong support was found for Hypothesis 1.2b.

Table 6

Marital Adjustment Effect Estimates(N= 127 dyads)

Effect	Unstandardized Coefficients		Standardized coefficients	
	b	SEb	β	t
Actor (Mothers)	0.53	0.08	0.51	6.37***
Actor (Fathers)	0.21	0.10	0.20	2.03*
Partner (Fathers to Mothers)	0.13	0.10	0.12	1.25
Partner (Mothers to Fathers)	0.32	0.08	0.31	3.90***

Note. Gender was coded as, females = -1 and males = 1.

*** $p \leq 0.00$; ** $p \leq 0.01$; * $p \leq 0.05$

Actor Effects for Marital Adjustment. The results of this first APIM revealed positive and statistically significant actor effects for both fathers and mothers. The actor effect for mothers was equal to 0.53 ($p < 0.00$), with a large effect size (Cohen, 1988; $\beta = 0.51$, $r = 0.50$), and the actor effect for fathers was equal to 0.21 ($p = 0.04$), with a small effect size (Cohen, 1988; $\beta = 0.20$, $r = 0.18$). See Table 6 for the actor effect estimates. This actor effect indicates that fathers with high marital adjustment reported higher father involvement and mothers with high marital adjustment reported higher father involvement. However, it is to be noted that the actor effect for mothers was more than double the actor effect of fathers. This indicates that one point increase in marital adjustment for fathers will increase father involvement by 0.21 whereas one point increase in marital adjustment for mothers will increase their score of father involvement by 0.53. The test that husbands' and wives' actor effects are statistically significantly different was significant, $Z = -2.22$ ($p = 0.03$).

Partner Effects for Marital Adjustment. The partner effect of husbands' marital adjustment on wives' father involvement reports (*husband partner effect*) is equal to 0.13 and was not statistically significant ($p = 0.21$), with a small effect size ($\beta = 0.12$, $r = 0.11$). The partner effect of wives' marital adjustment on husbands' father involvement (*wife partner effect*) is equal to 0.32 and is statistically significant ($p < 0.00$), with a medium effect size ($\beta = 0.31$, $r = 0.33$). (See Table 6 for the partner effect estimates.) This partner effect indicates that the partner effect of marital adjustment described earlier is not statistically qualified by gender. However, fathers with high marital adjustment female partners reported higher father involvement, but mothers with high marital adjustment male partners were not as affected by their partner's marital adjustment. The test that husbands' and wives' partner effects are statistically significantly different was not significant, $Z = 1.31$ ($p = 0.19$).

Actor-Partner interactions. The effect of the product of actor and partner variables on father involvement for husbands was -0.21 and was not statistically significant ($p = 0.24$). The partner effect for actors who are one standard deviation above the mean on marital adjustment for fathers was 0.21 ($p = 0.08$) and for actors who are one standard deviation below the mean was 0.42 ($p < 0.00$). There was no evidence of an actor-partner interaction for marital adjustment for fathers. The effect of the product of actor and partner variables on father involvement for wives was -0.15 and was not statistically significant ($p = 0.42$). The partner effect for actors who are one standard deviation above the overall mean on marital adjustment for wives was 0.03 ($p = 0.87$) and for actors who are one standard deviation below the mean was 0.17 ($p = 0.14$). There was no evidence of an actor-partner interaction for marital adjustment for wives.

The effect of the absolute difference (i.e., discrepancy score) of the two members of the dyad's scores for the variable marital adjustment on father involvement of wives was equal to 0.26 and was not statistically significant ($p = 0.08$). Thus, if two members have the same score on marital adjustment, the score on father involvement for wives is 0.26 units lower than it is for a dyad whose scores on father involvement differ by one unit. There was no evidence of an actor-partner interaction for marital adjustment for wives. For husbands, the interaction was 0.16 and was not statistically significant ($p = 0.28$). Thus, if two members have the same score on marital adjustment, the husband's score on father involvement is 0.16 units lower than it is for a dyad whose scores on marital adjustment differ by one unit. There was no evidence of an actor-partner interaction for marital adjustment for fathers.

Actor and partner relationship patterns. In order to determine if there were any patterns in the actor and partner effects of marital adjustment for husbands and wives, the

relative size of these actor and partner effects were examined using APIM_MM (Kenny, 2015). For husbands, there is evidence for “couple-oriented model” in that the actor and partner effects are not significantly different. (The sum of the actor and partner variables is a significant factor but the difference is not.) It may make sense to sum or average the two marital adjustment scores (Kenny & Cook, 1999). The value of k for fathers was 1.53 and its 95% confidence interval using the Monte Carlo Method (i.e., the parametric bootstrap) was from 0.32 to 10.70. It can be concluded that the contrast ($k = -1$) and the actor-only ($k = 0$) models are unlikely and that the couple model ($k = 1$) is reasonable. This indicates that husbands’ father involvement is influenced as much by their own marital adjustment as by their spouses’ marital adjustment. It may make sense to sum or average the two marital adjustment scores for husbands.

For wives, there is evidence for “actor-oriented model” (Kenny & Cook, 1999) in that the actor and partner effects are statistically different. The value of k for mothers was 0.25 and its 95% confidence interval using the parametric bootstrap was from -0.12 to 0.80. It can be concluded that the contrast ($k = -1$) and the couple ($k = 1$) models are unreasonable and that the actor-only model ($k = 0$) is reasonable. This indicates that wives’ father involvement report is influenced by only their own marital adjustment and their spouses’ marital adjustment statistically did not influence their reports of father involvement. It would not make sense to sum or average the two marital adjustment scores for wives.

Test of Distinguishability. Distinguishability is considered important when studying relationship data quantitatively. Test of distinguishability determines if the distinguishable variable is theoretically or empirically “meaningful” (Kenny et al., 2006) and if it provides significantly different results for two members of the dyad. Even though members are theoretically distinguishable such as husband and wife, boss and employee, or parent and child,

they may not be statistically or empirically different in their responses. However, if the theoretically distinguishable dyad members are not statistically or empirically distinguishable, then APIM can be conducted considering the dyads as indistinguishable to estimate potential actor-partner effects and patterns (see Kenny, et al., 2006). The test of overall distinguishability produced a chi square statistic with 5 degrees of freedom which was 9.56 ($p = 0.05$). Because the test of distinguishability was statistically significant, it was concluded that members were statistically distinguished as husbands and wives in terms of their marital adjustment.

Parenting Self-efficacy and Father Involvement

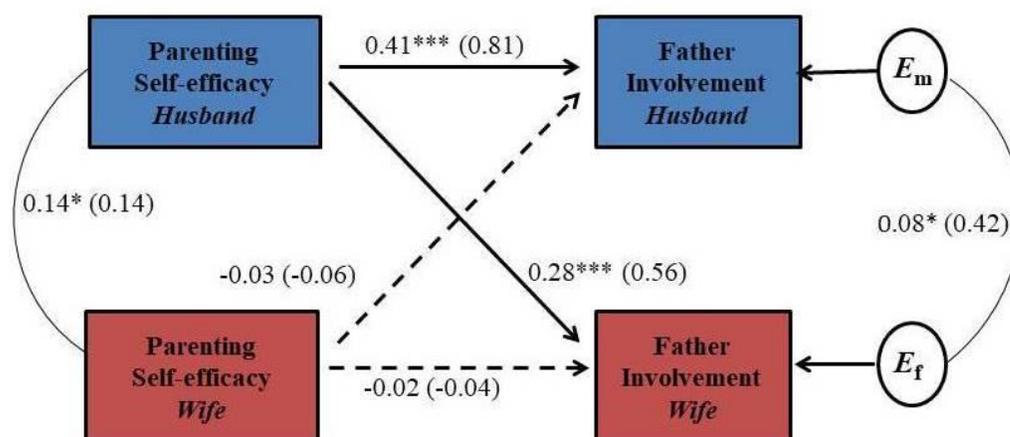


Figure 10. Parenting self-efficacy: APIM (Standardized estimates)

Results for Hypothesis 2

The second hypothesis proposed that there would be significant actor and partner effects of parenting self-efficacy on father involvement. Strong support was found for this hypothesis. The combined actor effect across husbands and wives was 0.20 and was statistically significant ($p < 0.00$) and the standardized effect was 0.40 ($r = 0.39$ and a medium effect size). The combined partner effect across husbands and wives was 0.12 and was statistically significant ($p < 0.00$) and the standardized effect was 0.25 ($r = 0.25$ and a small effect size). Both the actor

effect, $t_{(254)} = 7.08$, $p < 0.00$, and the partner effect, $t_{(254)} = 3.93$, $p < 0.00$, are statistically significant. These effects indicate that individuals higher in parenting self-efficacy reported higher father involvement and those individuals whose partners were higher in parenting self-efficacy also reported higher father involvement. The gender difference for parenting self-efficacy was statistically significant, $b = -0.06$, $t_{(127)} = -2.62$ ($p = 0.00$).

Error variances and correlations. The standard deviation of the errors for wives was 0.37 and for husbands was 0.47. Using the *pseudo R*² formula suggested by Kenny and colleagues (2006) it was determined that the model with parenting self-efficacy explained 40.60% of the variance for wives' and 14% of the variance for husbands' outcome variable. The partial association for father involvement (i.e. the association between the two error terms for males and females) controlling for actor and partner variables and the control variable was 0.38 and was statistically significant ($p < 0.00$). Thus, the errors of husbands and wives are similar to one another. The intercept for wives was 4.29 and was statistically significantly different from zero ($p < 0.00$) and the intercept for husbands was 4.18 and was statistically significant ($p < 0.00$). The difference between the two errors, which is a test of the main effect of gender, was statistically significant ($p = 0.03$). The overall intercept is 4.24 and was statistically significantly different from zero ($p < 0.00$). On average wives scored higher than husbands on parenting self-efficacy. The correlation between parenting self-efficacy for husbands and wives was 0.14.

There are four sub-hypotheses for hypothesis 2 with former two hypotheses about actor effects and later two hypotheses about partner effects. Hypothesis 2.1a (actor effect for fathers) proposed that fathers with high levels of parenting self-efficacy will report high levels of father involvement. Hypothesis 2.1b (actor effect for mothers) proposed that mothers with high parenting self-efficacy will rate fathers as high on father involvement. Hypothesis 2.2a (partner

effect of fathers parenting self-efficacy) proposed that fathers with high levels of parenting self-efficacy will influence mothers' reports of father involvement. Hypothesis 2.2b (partner effect of mothers' parenting self-efficacy) proposed that mothers with high parenting self-efficacy will influence fathers' reports of their own involvement. Strong support was found for Hypotheses 2.1a and 2.2a, and not for Hypotheses 2.1b and 2.2b.

Table 7

Parenting Self-efficacy Effect Estimates (N= 127 dyads)

Effect	Unstandardized Coefficients		Standardized coefficients	
	b	SEb	β	t
Actor (Mothers)	-0.01	0.03	-0.03	-0.41
Actor (Fathers)	0.41	0.04	0.83	9.09***
Partner (Fathers to Mothers)	0.27	0.06	0.55	4.79***
Partner (Mothers to Fathers)	-.03	0.03	-0.06	-1.04

Note. Gender was coded as, females = -1 and males = 1.

*** $p \leq 0.00$

Actor Effects for Parenting Self-efficacy. The results of this APIM revealed significant actor effects for fathers but not for mothers. The actor effect for fathers was 0.41 and was statistically significant ($p < 0.00$) and the standardized effect was 0.83 ($r = 0.63$ and a large effect size). This indicates that one point increase in parenting self-efficacy for fathers will increase their father involvement by 0.41. The actor effect for mothers was -0.01 and was not statistically significant ($p = 0.68$) and the standardized effect was -0.03 ($r = -0.03$ less than small). See Table 7 for the actor effect estimates. These actor effects indicate that fathers with high parenting self-efficacy reported higher father involvement however mothers' parenting self-efficacy did not

statistically predict their reports of father involvement. The test that the two actor effects are statistically significantly different was significant, $Z = 7.23$ ($p < 0.00$).

Partner Effects for Parenting Self-efficacy. The partner effect of husbands' parenting self-efficacy on wives' father involvement reports (*husband partner effect*) 0.27 and was statistically significant ($p < 0.00$) and the standardized effect was 0.55 ($r = 0.39$, and a medium effect size). The partner effect of wives' parenting self-efficacy on husbands' father involvement (*wife partner effect*) -0.03 and was not statistically significant ($p = 0.30$) and the standardized partner was -0.06 ($r = -0.09$, less than small). See Table 7 for the partner effect estimates. This indicates that the partner effect of parenting self-efficacy described earlier is statistically qualified by gender. Mothers with high parenting self-efficacy male partners reported higher father involvement, but fathers with high parenting self-efficacy female partners were not as affected by their partner's parenting self-efficacy. The test that the two partner effects are statistically significantly different was significant, $Z = -4.67$ ($p < 0.00$).

Actor-Partner interactions. The effect of the product of actor and partner variables on father involvement for husbands is equal to -0.03 and was not statistically significant ($p = 0.41$). The partner effect for actors who are one standard deviation above the mean on parenting self-efficacy for husbands was -0.06 ($p = 0.20$) and for actors who are one standard deviation below the mean was -0.00 ($p = 0.96$). There was no evidence of an actor-partner interaction for parenting self-efficacy for husbands. The effect of the product of actor and partner variables on father involvement for wives was -0.08 and was not statistically significant ($p = 0.06$). The partner effect for actors who are one standard deviation above the overall mean on parenting self-efficacy for wives was 0.17 ($p = 0.03$) and for actors who are one standard deviation below

the mean was 0.33 ($p < 0.00$). There was no evidence of an actor-partner interaction for parenting self-efficacy for wives.

The effect of the absolute difference (i.e., discrepancy score) of the two members' scores for the variable parenting self-efficacy on father involvement of wives was 0.06 and was not statistically significant ($p = 0.25$). Thus, if two members have the same score on parenting self-efficacy, the score on father involvement for wives was 0.06 units lower than it is for a dyad whose scores on parenting self-efficacy differ by one unit. There was no evidence of an actor-partner interaction for parenting self-efficacy for wives. For husbands, the interaction was 0.06 and was not statistically significant ($p = 0.15$). Thus, if two members have the same score on parenting self-efficacy, the husband's score on father involvement is 0.06 units lower than it is for a dyad whose scores on parenting self-efficacy differ by one unit. There was no evidence of an actor-partner interaction for parenting self-efficacy for husbands.

Actor and partner relationship patterns. In order to determine if there were any patterns in the actor and partner effects of parenting self-efficacy for husbands and wives, the relative size of these actor and partner effects were examined using APIM_MM (Kenny, 2015). For husbands, there is evidence for "actor-oriented model" (Kenny & Cook, 1999) in that the actor and partner effects are statistically different. The value of k for husbands was -0.07 and its 95% confidence interval using the Monte Carlo Method (i.e., the parametric bootstrap) from -0.21 to 0.06. It can be concluded that the contrast ($k = -1$) and the couple ($k = 1$) models are implausible and that the actor-only model ($k = 0$) is plausible. This indicates that husbands' father involvement report was a function of only their own parenting self-efficacy and their spouses' parenting self-efficacy have no impact on their reports of father involvement. It would not make sense to sum or average the two parenting self-efficacy scores for wives. For wives,

the value of k was -19.02 and its 95% confidence interval using the parametric bootstrap was from -115.42 to 111.16 . The confidence interval for k was very wide and it cannot be determined what model is the most likely.

Test of Distinguishability. The test of overall distinguishability produced a chi square statistic with 5 degrees of freedom which was 55.50 ($p < 0.00$). Because the test of distinguishability was statistically significant, it was concluded that members were theoretically and empirically distinguished as husbands and wives in terms of their parenting self-efficacy.

Parental Role Beliefs and Father Involvement

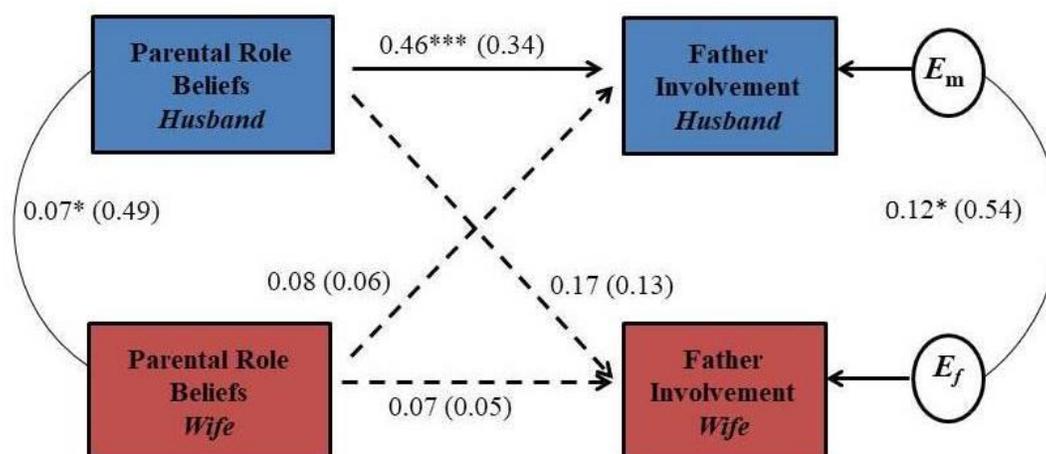


Figure 11. Parental Role Beliefs: APIM (Standardized estimates)

Results for Hypothesis 3

The third hypothesis proposed that there would be significant actor and partner effects of parental role beliefs on father involvement. Partial support was found for this hypothesis. The actor effect of parental role beliefs was 0.26 and was statistically significant ($p = 0.01$) and the standardized effect equals 0.19 ($r = 0.18$ and a small effect size) and the partner effect was 0.13 and was not statistically significant ($p = 0.11$) and the standardized effect equals 0.10 ($r = 0.088$ less than small). Only the actor effect of parental role beliefs was statistically significant $t_{(254)} =$

3.24, $p < 0.00$, and the partner effect was not statistically significant $t_{(254)} = 1.60$, $p = 0.11$. This indicates that, individuals scoring high in parental role beliefs reported higher father involvement but partners' parental role beliefs did not influence individuals' reports of father involvement. The difference between the two, which is a test of the main effect of gender, is statistically significant, chi square (1) = 5.48 ($p = 0.02$).

Error variance and correlations. The standard deviation of the errors for wives is 0.44 and for husbands is 0.53. Using the *pseudo R*² formula suggested by Kenny and colleagues (2006) it was determined that the model with parental role beliefs explained 16.60% of the variance for wives' and 0% of the variance for husbands' outcome variable. The partial association for father involvement (i.e. the association between the two error terms for males and females) controlling for actor and partner variables and the control variable was 0.54 and is statistically significant ($p < 0.00$). Thus, the errors of wives and husbands are similar to one another. The intercept for wives is 4.31 and is statistically significantly different from zero ($p < 0.00$) and the intercept for husbands is 4.24 and is statistically significant ($p < 0.00$). The overall intercept is 4.27 and is statistically significantly different from zero ($p < 0.00$). On average wives scored higher than husbands on gen parental der role beliefs. The correlation between parental role beliefs for husbands and wives was 0.49.

There are four sub-hypotheses for hypothesis 3 with former two hypotheses about actor effects and later two hypotheses about partner effects. Hypothesis 3.1a (actor effect for fathers) proposed that fathers with high levels of parental role beliefs will report high levels of father involvement. Strong support was found for this hypothesis. Hypothesis 3.1b (actor effect for mothers) proposed that mothers with high parental role beliefs will rate fathers as high on father involvement. Hypothesis 3.2a (partner effect of fathers parental role beliefs) proposed that

fathers with high levels of parental role beliefs will influence mothers' reports of father involvement. Hypothesis 3.2b (partner effect of mothers' parental role beliefs) proposed that mothers with high parental role beliefs will influence fathers' reports of their own involvement. Hypotheses 3.1b, 3.2a and 3.2b were not supported by this study.

Actor Effects for Parental Role Beliefs. The results of this APIM revealed significant actor effects for fathers but not for mothers. The actor effect for fathers is equal to 0.46 and was statistically significant ($p < 0.00$) and the standardized effect was 0.34 ($r = 0.33$ and a medium effect size). (See Table 8 for the actor effect estimates.)

Table 8

Parental Role Beliefs Effect Estimates (N= 127 dyads)

Effect	Unstandardized Coefficients		Standardized coefficients	
	b	SEb	β	t
Actor (Mothers)	0.07	0.15	0.05	0.48
Actor (Fathers)	0.46	0.12	0.34	3.85***
Partner (Fathers to Mothers)	0.17	0.14	0.13	1.24
Partner (Mothers to Fathers)	0.08	0.12	0.06	0.50

Note. Gender was coded as, females = -1 and males = 1.

*** $p \leq 0.00$

This indicates that one point increase in parental role beliefs for fathers will increase their father involvement by 0.45 points. The actor effect for mothers is 0.07 and was not statistically significant ($p = 0.63$) and the standardized effect was 0.05 ($r = 0.04$ less than small). These actor effects indicate that fathers with egalitarian parental role beliefs reported higher father involvement however mothers' parental role beliefs did not statistically predict father

involvement. The difference between the two actor effects for parenting self-efficacy was statistically significant ($p = 0.04$).

Partner Effects for Parental Role Beliefs. None of the partner effects for parental role beliefs were significant. The partner effect of husbands' parental role beliefs on wives' father involvement reports (*husband partner effect*) was 0.17 and was not statistically significant ($p = 0.22$) and the standardized effect was 0.13 ($r = 0.11$ and a small effect size). The partner effect of wives' parental role beliefs on husbands' father involvement (*wife partner effect*) was 0.08 and was not statistically significant ($p = 0.50$) and the standardized partner was 0.06 ($r = 0.06$ less than small). See Table 8 for the partner effect estimates. The test that the two partner effects are statistically significantly different is not significant, $Z = -0.44$ ($p = 0.66$). This partner effect indicates that the partner effect of parental role beliefs described earlier is not statistically qualified by gender. Both fathers and mothers' parental role beliefs did not statistically predict their partners' father involvement.

Actor-Partner interactions. The effect of the product of actor and partner variables on father involvement for husbands is equal to -0.02 and was not statistically significant ($p = 0.92$). The partner effect for actors who are one standard deviation above the mean on parental role beliefs for husbands is 0.07 ($p = 0.71$) and for actors who are one standard deviation below the mean is 0.09 ($p = 0.49$). There is no evidence of an actor-partner interaction for parental role beliefs for husbands. The effect of the product of actor and partner variables on Father Involvement for wives is equal to -0.17 and was not statistically significant ($p = 0.53$). The partner effect for actors who are one standard deviation above the overall mean on parental role beliefs for wives is 0.08 ($p = 0.71$) and for actors who are one standard deviation below the

mean is 0.20 ($p = 0.17$). There is no evidence of an actor-partner interaction for parental role beliefs for wives.

The effect of the absolute difference (i.e., discrepancy score) of the two members' scores for the variable parental role beliefs on father involvement of wives is equal to 0.01 and is not statistically significant ($p = 0.95$). Thus, if two members have the same score on parental role beliefs, the score on father involvement for wives is 0.01 units lower than it is for a dyad whose scores on father involvement differ by one unit. There was no evidence of an actor-partner interaction for parental role beliefs for wives. For husbands, the interaction was 0.09 and was not statistically significant ($p = 0.64$). Thus, if two members have the same score on parental role beliefs, husband's score on father involvement is 0.09 units lower than it is for a dyad whose scores on parental role beliefs differ by one unit. There was no evidence of an actor-partner interaction for parental role beliefs for husbands.

Actor and partner relationship patterns. To determine if there were any patterns in the actor and partner effects of parental role beliefs for husbands and wives, the relative size of these actor and partner effects were examined using APIM_MM (Kenny, 2015). For husbands, there is evidence for “actor-oriented model” (Kenny & Cook, 1999) in that the actor and partner effects are statistically significantly different. The value of k for husbands equals 0.18 and its 95% confidence interval using the parametric bootstrap from -0.29 to 1.13. It can be concluded that the contrast model ($k = -1$) and the couple ($k = 1$) models are unreasonable and that actor-only ($k = 0$) model is plausible. This indicates that husbands' father involvement report is a function of only their own parental role beliefs and their spouses' parental role beliefs have no impact on their reports of father involvement. It would not make sense to sum or average the two parental role beliefs scores for wives. For wives, the value of k was 2.50 and its 95% confidence interval

using the parametric bootstrap is from -21.61 to 20.56. The confidence interval for k is very wide and it cannot be determined what model is the most likely.

Test of Distinguishability. The test of overall distinguishability produced a chi square statistic with 5 degrees of freedom which equals 13.08 ($p = 0.01$). Because the test of distinguishability was statistically significant, it was concluded that members were theoretically and empirically distinguished as husbands and wives in terms of their parental role beliefs.

Summary for full model

The standard deviation of the errors for wives was 0.34 and for husbands was 0.42. Using the *pseudo R²* formula suggested by Kenny and colleagues (2006) it was determined that the full model with marital adjustment, parenting self-efficacy, and parental role beliefs explained 50.90% of the variance for wives' and 34.80% of the variance for husbands' outcome variable. The proportion of total variance in the outcome variable explained by employment after controlling for actor and partner variables for wives was 0.02 and for husbands was 0.00. The proportion of total variance explained by the actor and partner variables after controlling for employment for wives was 0.49 and for husbands was 0.35. The partial association for father involvement (i.e. the association between the two error terms for males and females) controlling for actor and partner variables and the control variable was 0.34 and was statistically significant ($p < 0.00$). Thus, the errors of husbands and wives are similar to one another. The overall intercept for wives was 4.35 and was statistically significantly different from zero ($p < 0.00$) and the overall intercept for husbands was 4.21 and was statistically significant ($p < 0.00$). Overall, wives scored higher than husbands on marital adjustment and parenting self-efficacy, and were more egalitarian in their parental role beliefs than husbands.

Test of Distinguishability. The test of overall distinguishability produces a chi square statistic with 9 degrees of freedom which was 53.80 ($p < 0.00$). Because the test of distinguishability was statistically significant, it was concluded that members can be theoretically as well as statistically distinguished as husbands and wives in terms of their marital adjustment, parenting self-efficacy, parental role beliefs, and father involvement reports.

Break up of Nonindependence

The correlation between the two members' scores on father involvement ignoring all the independent variables is 0.54. The proportion of this correlation explained by the current study's APIM was determined using APIM_MM (Kenny, 2015).

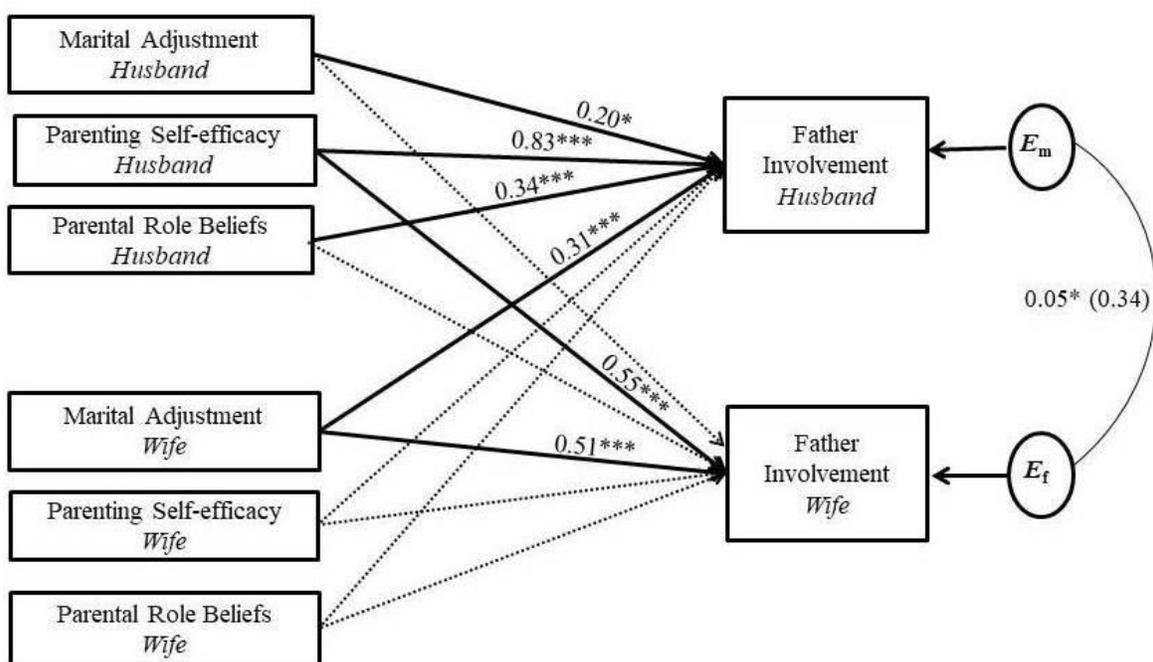


Figure 12. Integrated Model: APIM (Standardized estimates)

Overall the current study's integrated model explains 0.36 or 66.75 percent of the total nonindependence (green colors, see Figure 13). Firstly, due to the combination of an actor and partner effect for each mixed variable, which explained a correlation of 0.17 (31.13 percent of

the total). Secondly, due the correlation of the actor and partner variables with actor or partner effects, which explained a correlation of 0.03 (6.24 percent of the total). Thirdly, due the correlation between different mixed variables and their actor and partner effects, which explained a correlation of 0.16 (29.39 percent of the total). Overall, the control variable employment explained a correlation of 0.01 or 1.08 percent of the total nonindependence. This overall explained correlation due to the covariate was firstly, due to the effects of the individual covariate on the two members, which explained a correlation of -0.00 (-0.41 percent of the total) and secondly, due to the correlation between the covariate with the mixed variables and their effects, which explained a correlation of 0.01 (1.49 percent of the total).

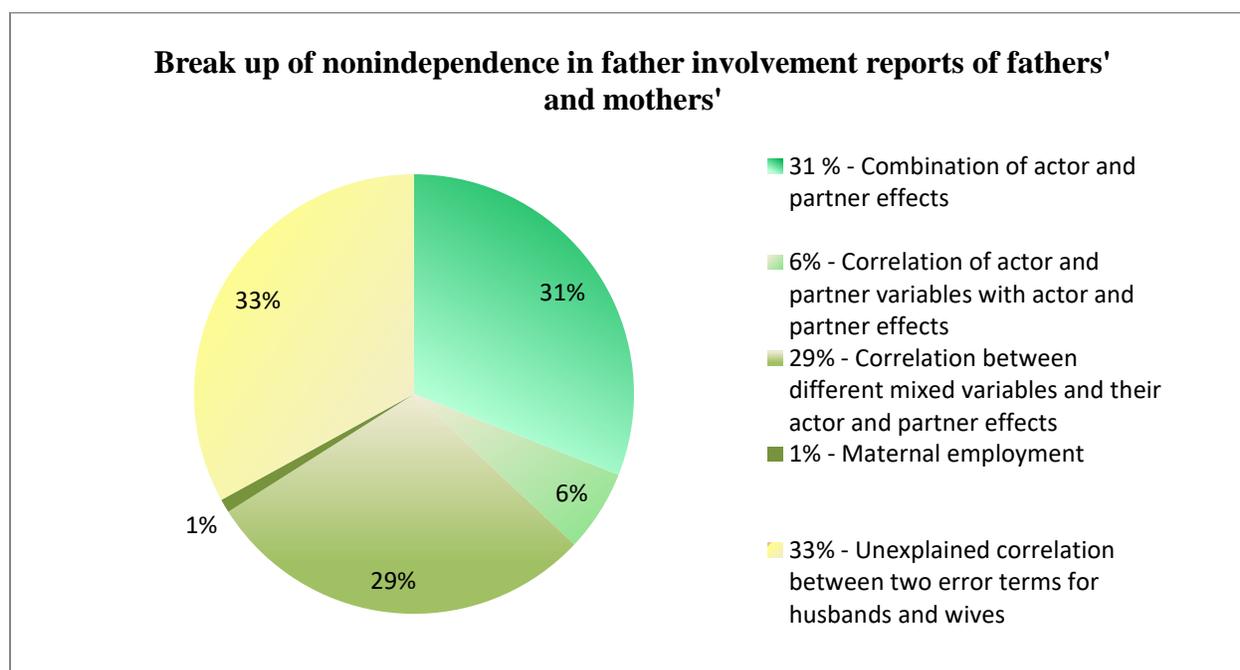


Figure 13: Breakup of the nonindependence or interdependence among fathers' and mothers' father involvement reports.

Moderating Role of Maternal Employment

Through initial analyses it was found that maternal employment significantly correlated with father involvement for husbands but not for wives. Also, it was found that employment explained a total of one percent of interdependence in the outcome variable. Basic moderation effects of maternal employment on independent and outcome variables for husbands and wives were sought in the current study.

Results for Hypothesis 4

The fourth hypothesis proposed that maternal employment will significantly moderate mothers' and fathers' marital adjustment, parenting self-efficacy, and parental role beliefs and their father involvement reports. To test these, differences among husbands' and wives' scores were tested. Several analyses were employed to test gender differences among husbands' and wives' study variables: Multivariate analysis of variances (MANOVAs), independent-samples t-tests, and two-way between groups analysis of variances (ANOVAs) for graphic representations. Two separate datasets were created with only men's scores, only wives' scores. Moderation analyses were repeated with these two datasets in order to see differences in the influence of employment on the three independent variables and outcome variable of father involvement reports. Partial support was found for this hypothesis. Results are presented separately for husbands and wives.

Moderation effects for husbands. A one way between-groups multivariate analysis of variance was performed to investigate employment differences in men's independent variables and father involvement reports. Four dependent variables were used: men's marital adjustment, parenting self-efficacy, parental role beliefs, and father involvement. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers,

homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was a statistically significant difference between dual earner and single earner families on the combined dependent variables for men: $F_{(4, 12)} = 2.70$, $p = 0.34$; Wilks' Lambda = 0.92; partial eta squared = 0.08. When the results for the dependent variables were considered separately, two variables reached statistical significance using Bonferroni adjusted alpha level of 0.03, were marital adjustment: $F_{(1, 125)} = 4.67$, $p = 0.03$, partial eta squared = 0.04 and; Bonferroni adjusted alpha level of 0.03, was father involvement $F_{(1, 125)} = 4.05$, $p = 0.05$, partial eta squared = 0.03. An inspection of the mean scores indicated that men from single earner families reported higher father involvement ($M = 4.34$, $SD = 0.72$) than men from dual earner families ($M = 4.16$, $SD = 0.52$).

An independent samples t-test was conducted to compare the mean scores for men from dual and single earner families. There were significant differences in marital adjustment scores for men from dual earner families ($M = 3.65$, $SD = 0.42$) and men from single earner families [$M = 3.82$, $SD = 0.44$; $t_{(125)} = 2.16$, $p = 0.03$]. The magnitude of the differences in the means was small (eta squared = 0.04). Significant differences were also found in father involvement scores for men from dual earner families ($M = 4.16$, $SD = 0.48$) and men from single earner families [$M = 4.37$, $SD = 0.48$; $t_{(125)} = 2.01$, $p = 0.05$]. The magnitude of the differences in the means was small (eta squared = 0.03). There were no significant differences in parenting self-efficacy scores for men from dual earner families ($M = 4.60$, $SD = 0.74$) and men from single earner families [$M = 4.67$, $SD = 0.74$; $t_{(125)} = 0.48$, $p = 0.63$]. There were no significant differences in parental role belief scores for men from dual earner families ($M = 4.09$, $SD = 0.34$) and men from single earner families [$M = 4.04$, $SD = 0.45$; $t_{(125)} = -0.77$, $p = 0.44$].

Moderation effects for wives. A one way between-groups multivariate analysis of variance was performed to investigate employment differences in wives' independent variables and father involvement reports. Four dependent variables were used: wives' marital adjustment, parenting self-efficacy, parental role beliefs, and father involvement. Preliminary assumption testing was conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, with no serious violations noted. There was no statistically significant difference between dual earner and single earner families on the combined or separate dependent variables for wives. An inspection of the mean scores indicated that wives from dual earner families reported slightly higher marital adjustment ($M = -0.12$, $SD = 0.06$), parental role beliefs ($M = 0.06$, $SD = 0.04$) and father involvement reports ($M = 4.31$, $SD = 0.06$) than wives from single earner families' marital adjustment ($M = -0.13$, $SD = 0.08$), parental role beliefs ($M = 0.10$, $SD = 0.05$) and father involvement reports ($M = 4.30$, $SD = 0.08$). For parenting self-efficacy, wives from single earner families reported higher parenting self-efficacy ($M = 0.15$, $SD = 0.18$) than wives from dual earner families ($M = 0.00$, $SD = 0.13$).

An independent samples t-test was conducted to compare the mean scores for wives from dual and single earner families. There were no significant differences in marital adjustment scores for wives from dual earner families ($M = 3.48$, $SD = 0.50$) and wives from single earner families [$M = 3.47$, $SD = 0.60$; $t_{(125)} = -0.08$, $p = 0.94$]; parenting self-efficacy scores for wives from dual earner families ($M=4.41$, $SD= 1.22$) and wives from single earner families [$M = 4.56$, $SD = 1.17$; $t_{(125)} = 0.66$, $p = 0.51$]; parental role beliefs scores for wives from dual earner families ($M = 4.18$, $SD = 0.36$) and wives from single earner families [$M = 4.13$, $SD = 0.37$; $t_{(125)}$]

= -0.73, $p = 0.46$]; and father involvement scores for wives from dual earner families ($M = 4.31$, $SD = 0.51$) and wives from single earner families [$M = 4.30$, $SD = 0.55$; $t_{(125)} = -0.11$, $p = 0.91$].

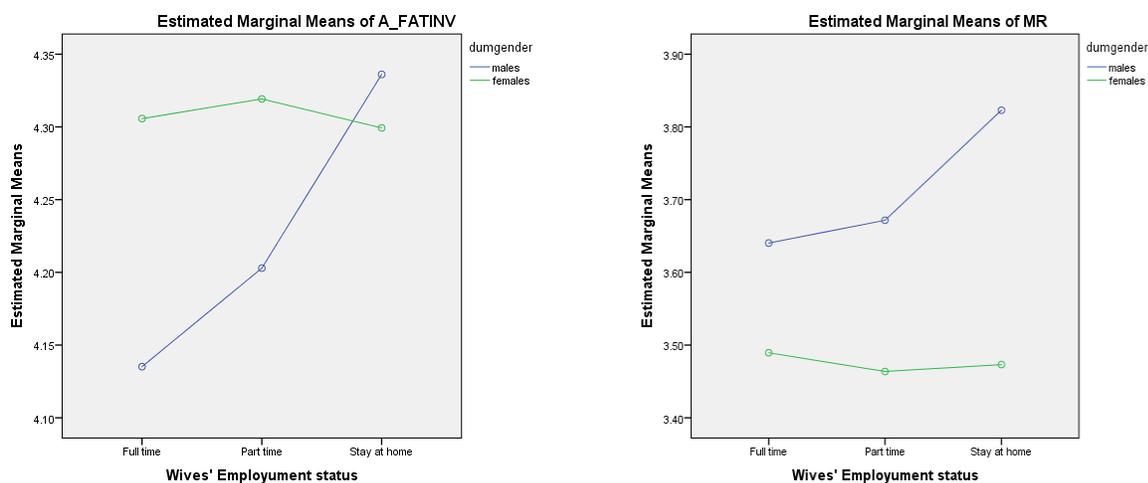


Figure 14: Moderation effects of maternal employment on fathers' marital adjustment and father involvement.

The above plots produced through two-way ANOVA, clearly indicates that husbands' father involvement (A_FATINV) and marital adjustment (MR) were moderated by maternal employment. Men with stay at home wives reported higher father involvement than men with wives who were full time and part time employed. Wives' reported fairly consistent and high father involvement scores and, their own employment status did not indicate vast differences in their father involvement reports.

Chapter 5. Discussion

The purpose of the current study was to advance the understanding of the factors influencing Asian Indian immigrant fathers' involvement with school going children in the U.S. Specifically, the study sought to examine associations between both fathers' and mothers' marital adjustment, parenting self-efficacy, and parental role beliefs' with their own reports of father involvement (intrapersonal or spillover effects) as well as influence their partners' reports of father involvement (interpersonal or crossover effects).

Actor-Partner Interdependence Model was used to examine the associations among fathers' and mothers' marital adjustment, parenting self-efficacy, parental role beliefs, and outcomes fathers' and mothers' reports of fathers' involvement in Asian Indian families in the United States. Five important findings from this study are discussed:

1. The relationship between fathers' marital adjustment and father involvement (actor effects).
2. The associations between mothers' marital adjustment and their reports of father involvement (actor effect), and fathers' reports of father involvement (partner effect).
3. The association between fathers' parenting self-efficacy and their father involvement (actor effect) and mothers' reports of father involvement (partner effect).
4. The relationship between fathers' parental role beliefs and their father involvement (actor effects).
5. The moderating role of maternal employment on fathers' marital adjustment and father involvement.

APIM successfully helped support the family systems theory and how couples' marital adjustment, parenting self-efficacy, parental role beliefs contribute to each other's father involvement reports. The nested nature of the family system proposes that a father's experiences

within the family as a whole system would impact both his own views as well as mother's views, and vice versa. The current study's investigation of the multiple independent variables on both fathers' and mothers' reports of father involvement echoed this assumption. Dyadic analysis addressed the nonindependence in the family subsystem and explained the strength of indirect and direct paths from independent variables on the father involvement reports.

Marital Adjustment

The actor effect for fathers' marital adjustment on their level of involvement was found to be significant and positive. This indicates that higher the fathers reported being adjusted in their marriage, the more they were involved with children. This finding supports family systems theory's concept of how individuals assign meanings to relationships and then function according to these set meaning. This finding supports previous investigations on the significance of the spousal relationship, wherein fathers who were romantically involved with mothers had higher level of paternal involvement than men who did not (Cabrera et al., 2004). Fathers who enjoyed a stable marriage were more involved in their children's lives (Cummings, et al., 2010). Several researchers have found comparable associations between higher marital satisfaction and competent fathering behavior, in turn leading to higher marital stability in later life (Belsky, 1984; Cowan & Cowan, 1992; Heath & Heath, 1991). Like previous research (Belsky & Volling, 1987; Cox, et al., 1989; Feldman, et al., 1983; Levy-Shiff & Israelashvilli, 1988) this study found that coparental relationship is correlated with the level of fathers' involvement. Contrary to previous findings (Belsky, 2008) this study indicated that Asian Indian men did not compensate for an unsatisfactory marriage by being more involved with their child, since positive associations between marital adjustment and father involvement were found. It also reflects the manner in which transnational families function, by strengthening their marital bond and co-

parenting due to the lack of support from grandparents extended family members, changing the traditional stereotype of gendered parenting in terms of the provider's role of father and the caretaker's role of the mother.

Mean comparisons also revealed that fathers reported higher marital adjustment compared to mothers. One possibility, that parenting for fathers is mostly dependent or susceptible to the co-parental relationship is that the expectations and standards for fathering seem to be more inconsistent than those for mothers. There is more concession in Asian Indian families about what fathers are expected to do than over what mothers are expected to do in terms of parenting, for example, the father is not expected to feed the child, if the child is hungry the mother will feed the child once she is available, or if the child is crying, the mother is the one to know and solve the problem, therefore there is more reliance among fathers on what they are expected to do and how much can they get involved (Doherty et al., 1998). An implication of the review of the literature is that for Asian Indian fathers in nuclear families, the family environment most auxiliary to fathering is a caring, loyal, and cooperative marriage where the father lives with his children and has a good relationship with their mother (Doherty et al., 1998). Moreover, among transnational families (Treas, 2008), being in a different environment, along with the lack of support and resources available back home, gives opportunities to focus on marital relationship thus strengthening marriage or bringing the couple together in order to fulfill the role of parenting even more compared to this role that was usually shared by grandparents or extended family members in the home country (Ramadoss, 2017).

Mothers' marital adjustment (actor effect) also significantly predicted their perceptions of how involved their spouses were in the role of father. Higher the marital adjustment of mothers, the more they perceived fathers as involved. Also, mothers' marital adjustment (partner effect),

significantly influenced fathers' reports of their own involvement. The more the mothers were adjusted in marriage, the more involved fathers were. This partner effect is consistent with father involvement theoretical framework (Doherty, et al., 1998), Bowen's (1978) family systems theory, and previous findings about the direct and indirect consequences of quality of co-parental association for paternal involvement and child outcomes (Jacobs & Kelley, 2006). According to family systems theory, the relationships operate in terms of direct and indirect influences. Indirect paths, wherein individuals have an impact on their partners is what this study aimed to capture. APIM aided our understanding that the outcome is not solely determined by the individual reporting it, but other member of the family also impacts their outcome. The current study did not include children's views of fathers' involvement which would further help us understand the nature of father involvement and if such an involvement is reciprocal and determined in a demand and supply fashion as to how much the child demands the father to be involved and its correlation with the level of actual involvement.

Consistent with literature review clearly mothers' influenced fathers' involvement (De Luccie, 1995; Simons, et al., 1990). The current study not only found a positive correlation between fathers' and mothers' marital adjustment and father involvement (Bouchard & Lee, 2000; Harris & Morgan, 1991; McBride & Mills, 1993), but also with each other's parenting self-efficacy (Bouchard & Lee, 2000). These associations are consistent with the previous claims of the crucial role of marital relationship as a context in determining the quality of fathers' experiences and involvement (Bouchard & Lee, 2000) as well as family systems theory.

Mean comparisons revealed that mothers reported fathers were more involved compared to fathers' own reports of involvement. This indicates that mothers perceived fathers were doing a good job based on the inventory of father involvement measure. Whereas, fathers indicated

they were less involved compared to mother reports and they could do better. It is possible that immigrant fathers are observing other American fathers and think they need to be more involved, challenging their own cultural socialization pattern. According to Chaudhary (2013) Asian Indian fathers are distant from their children. She identified two forms of emotional distancing being, horizontal and vertical distancing which are “systematic and socially acceptable” behaviors for fathers. Horizontal distancing is evident during child’s younger years when fathers suppress their overt emotional expressions such as hugging or kissing the child, while vertical distancing is the opposite of horizontal distancing wherein, as fathers grow older they start to feel confident and comfortable in expressing love and emotions towards children. In the western culture, father involvement is expected and encouraged since conception, during delivery, post-delivery, and beyond. Medical experts and American peers encourage fathers to participate in child birth classes such as prenatal care and support to the mother, preparing for labor and delivery, breastfeeding class and infant development and stimulation classes with the child. Thus, upon migration, new migrants who are undergoing the process of assimilation with the host culture might imitate their American peers.

Relationship patterns through APIM indicated that husbands were couple-oriented whereas wives were actor-oriented. This indicates that husbands’ father involvement is influenced as much by their own marital adjustment as by their spouses’ marital adjustment whereas, wives reports of fathers’ involvement were a function of only their own marital adjustment and their spouses’ marital adjustment have no impact on their reports of father involvement. It may be interesting to further investigate what moderates this relationship to differ among couples.

In summary, fathers' and mothers' own marital adjustment significantly influenced their reports of fathers' involvement, but this study added a valuable finding that mothers' (partners') marital adjustment significantly predicted fathers' reports of their involvement. This finding strongly supports Bowen's (1978) family systems theory's concept of direct and indirect pathways with family members. Often, these valuable findings get ignored when studying single source data and only one member of the dyad. Investigations of immigrant fathers have often judged them critically compared to peers who do not migrate, but in Strier and Roer-Strier's (2005) opinion, immigrant men have displayed strengths by overcoming and handling challenges not only in work culture, host country culture but also in couple relationships, marital satisfaction, and marital expectations (see Madathil & Benshoff, 2008; Myers, et al., 2005).

Parenting Self-efficacy

Strong support was found for the influential role of motivation and self-efficacy on fathers' involvement as specified in the paternal involvement frameworks by Lamb et al. (1985) and Pleck (2010). The current study found that fathers' parenting self-efficacy was the strongest factor associated with their own reports of involvement which was consistent with previous research (Beital & Parke, 1998; Ehrenberg, et al., 2001; Sanderson & Thompson, 2002). Like Lamb and colleagues' (1985) opinion, that optimal father involvement is a result of high level of confidence in parenting skills, the current study echoes this finding. According to Lamb (1997) fathers' motivation which includes his perception of competence and self-efficacy, is one of the major factors in determining how much the father will be involved with his child. Also, Bowen's (1978) family systems theory's concept of how the meanings individuals assign to their relationship influences their conduct was supported by this finding. When fathers perceived themselves to be going a good job and being efficient, they were more involved.

Secondly, fathers' parenting self-efficacy indicated not only an actor effect but also a partner effect on mothers' reports of their involvement. The more fathers perceived they were efficient, the higher mothers perceived them being involved. This finding supports Bowen's (1978) family systems theory wherein members of the family do not function in isolation, but in fact one family member influences other family members. Fathers' parenting self-efficacy has received very little attention in research and comparison of this partner effect on mother reports of father involvement are not possible to make. However, it can be assumed that if the mothers had issues with fathers, and perceived fathers as less efficient in parenting, they would have rated fathers' low on involvement and expressed anticipations to take over the relationship and time with the child (Fagan & Barnett, 2003). This was in line with Seery and Crowley's (2000) qualitative study wherein mothers appreciated fathers' efforts towards involvement with children.

Contrary to previous research, by Hudson and colleagues (2001) who found that fathers tend to report lesser levels of parenting effectiveness compared to mothers (Hudson, et al., 2001), mean comparisons of the current study indicated that there was significant difference between fathers' parenting self-efficacy which was higher compared to mothers' parenting self-efficacy. This is in line with Johnston and Mash's (2010) research wherein fathers scored higher than mothers on parenting self-efficacy. Therefore, this is an indication that if fathers were given the opportunity to assess their own parenting competence and their self-efficacy was built up they would be more involved not only in quantity but also in their quality of involvement. When research is built upon single source respondents such as mother reports only, it fails to tap the nested nature of partner effects, such as fathers' independent variable's influence on the outcome. Findings revealed that men's father involvement report was a function of only their

own parenting self-efficacy and their spouses' parenting self-efficacy have no impact on their reports of father involvement.

An interesting finding of this APIM revealed that Asian Indian men functioned through an "actor-oriented model" with regards to parenting self-efficacy unlike their marital adjustment (Kenny & Cook, 1999). This is consistent with paternal involvement frameworks (Lamb et al., 1985; Pleck, 2010) and previous research on how fathers' perceptions of own competence as fathers is more significant than their partner's perceptions of fathers' parenting self-efficacy (Cook, et al., 2005; McBride et al., 2005). It is expected that when fathers perceive being more efficient in their parenting they would be more involved. This is a positive finding because, if research suggests that fathers should be more involved then boosting men's self-efficacy and building their competence would be the right direction towards increasing their involvement. The pattern for mothers' parenting self-efficacy could not be determined.

Parental Role Beliefs

The parental role beliefs APIM revealed that only fathers' own beliefs about parenting influenced their own outcome and mothers' parental role beliefs did not influence their involvement. Consistent with the findings of Jain and Belsky (1997), the more Asian Indian fathers were egalitarian in their gender beliefs the more they reported being involved in childcare. This also supports the Ogbu's (1992) acculturation theory wherein immigrants shed traditional belief systems as well as adapt to the host culture. Traditional parental role beliefs, especially in the Asian Indian culture set boundaries as to what fathers would do and what mothers are expected to do. For example, it is primarily the mother's duty to feed, bathe, and get the child ready, whereas a father would play with the child and take the child out for a walk. Although this is still true in several parts of India, there is evidence that family dynamics are

changing as people are getting better education, and well-paid jobs, migration to the cities are resulting in nuclear families and fathers' and mothers' role are merging, with more mothers entering the job market and contributing to the financial condition of the family and fathers' helping with childcare and child development.

Mothers' parental role beliefs did not significantly predict their reports of fathers' involvement. Mean comparisons revealed that mothers were more egalitarian compared to fathers. A possible explanation for this insignificant effect could be the loss of power in relationship upon migration (Hirsch, 2002; Ramadoss, 2017). Mostly, among immigrants, men are the anchor migrant, while women often accompany or follow them leaving their careers and migrate on a "dependent visa", which in turn makes them lower their relationship control (Ramadoss, Natrajan-Tyagi, & Myers-Walls, 2014) and sexual negotiations (Emilio, Chenoa, & Chris, 2005) making them more vulnerable, accommodating and empathetic towards their marital relationship as well as, the life in host culture, its laborious legal processes and work demands in the U.S. which in turn make them less stringent with what they expect from their spouse. This is consistent with research among Asian Indian families in India (Chaudhary, 2013; Pattnaik & Sriram, 2010; Sriram, 2011a; Sriram & Sandhu, 2013; Verma, 1995), in which scholars continue to advocate the change from conventionally stereotyped roles to more egalitarian roles typically amongst metropolitan, high income, well-educated double income families and the shifting beliefs about parenting roles from independent male-female distinctions towards increased interchangeable and mutual responsibilities, with men realizing the need to be more involved by attending to children's needs, as well as being a friend and a guide to them (see Chaudhary, 2013; Pattnaik & Sriram, 2010; Saraff & Srivastava, 2010; Sriram, 2011b; Sriram & Navalkar, 2012; Sriram & Sandhu, 2013). Regarding relationship patterns, this model

revealed an actor-oriented pattern for fathers and no pattern emerged for mothers. In general, both mothers and fathers were more egalitarian than traditional in their gender beliefs, which is in line with opinions of cultural psychologists (Super & Harkness, 1997), anthropologists (Weisner, 1998; Gallimore, et al., 1993) and cultural ecological theorists (Ogbu, 1981, 1992) about how cultural factors and the context influence the lives of individuals.

Maternal Employment

Among immigrant families, it is common that women take up work outside home and men take up more domestic and childcare responsibilities (Glick, 2010). This was also evident in the current study wherein majority of the mothers were employed (44.10% full-time, and 21.30% part-time) compared to unemployed or stay at home mothers (34.60%) . Contrary to a study in India by Saraff and Srivastava (2010), that did not find differences in paternal involvement levels among dual versus single earner families, the current study found significant differences in men's involvement. Most previous research on maternal employment has revealed that fathers are more involved in childcare when mothers are working (Raley, Bianchi, & Wang, 2012). Contrastingly, the current study revealed, that Asian-Indian immigrant men in single income families reported significantly higher father involvement and higher marital adjustment than men with wives who were full-time and part-time employed. This finding challenges previous finding of fathers being more involved because mothers are working (Brayfield, 1995; Volling & Belsky, 1991; Yeung, et al., 2001) by pointing out that fathers in single income families are more involved. It is suspected that this discrepancy is echoing the restructuring of family upon migration wherein the government policies dictate and control the opportunities these incoming immigrants can pursue. Although dual-earner families that are becoming a norm in India, upon migration many women have to go back to being homemakers due to work visa restrictions

which leaves them frustrated and helpless. In order to maintain balance, it is suspected that men offer more help in childcare and thus the high level of involvement.

It is possible that compared to single-earner families, when both the parents are employed there is dual-income and external help for childcare is affordable, explaining the comparatively lower level of involvement than those in single-earner families. Another possible explanation for this finding could be viewed in terms of the impact of parental role beliefs on maternal employment status. According to cultural scholars, individuals transform their values and beliefs upon migration, and this could be the possible explanation for why husbands with unemployed wives may be more involved with the child by practicing egalitarian parenting ideologies and attempting to pass on the bicultural values of the host culture. It is worth speculating if such a contrasting outcome is associated with men's perceptions of women bearing the extra load of childcare and household chores as opposed to in India where childcare by extended families and domestic help is common or, if men are compensating for their perceptions of women's low level of exposure to the host culture.

Consistent with previous research (Jain & Belsky, 1997), mean scores examination depicted men in single income families reported higher parenting self-efficacy compared to men from dual-earner families. Several unmeasured factors could influence the high parenting self-efficacy of fathers in single earner families such as fathers' personality, perceptions of fathering received from own father, the status of mother if she is a student or on a dependent H4 visa with work restrictions, his own parenting style, and so on. Based on the current study, a possible explanation for this could be that fathers in dual-earner families have more disposable income they can use towards outsourcing childcare services such as enrolling their child in after school programs or hiring full-time or part-time nanny, thus making them less involved compared to

fathers from single-earner families. Consistent with previous studies in India and the U.S., on parental role beliefs, men from single income families were found to be more traditional in their parenting gender beliefs compared to men from dual income family. Men from single earner families were found to be both more traditional as well as more involved, this clearly indicates that immigrant fathers retain their Asian Indian cultural values as well as are more involved. For women, an inspection of the mean scores indicated that wives from dual-earner families reported slightly higher marital adjustment, parental role beliefs and father involvement reports than wives from single-earner families' marital adjustment, parental role beliefs and father involvement reports. For parenting self-efficacy, wives from single earner families reported higher parenting self-efficacy than wives from dual earner families. It is possible that stay-at-home mothers are more accessible, aware and responsive to child's needs compared to working mothers who may rely on fathers, family members, and other external help such as babysitters or after school programs for childcare. It is interesting that both fathers and mothers from single earner families reported higher parenting self-efficacy. Literature on transnational families reveals that when families are away from their country of origin, they take up more responsibilities. Also, with increased communication among transnational families, grandparents may be just a phone call or video chat away and may be available to empower and assist in childcare strategies, and dealing with the problems on a daily basis.

According to common fate model, a third external common factor influences both the members of the dyad which in turn moderate the relationship between their independent variable and the outcome variable. It would be interesting to see how factors such as years of marriage, parents views of child's personality and temperament moderate the relationships between their independent and outcome variables.

To my knowledge, this is the first research study to consider factors influencing Asian Indian immigrant fathers' involvement using dyadic data analyses. In conclusion, the current study not only answers *what* fathers do, but *why* fathers are involved and what shapes and aids their involvement. This study successfully examined what factors influence fathers' perceptions and helped in getting a better understanding of Asian Indian immigrant fathers' role which is less culturally scripted and unwavering as mothers' role.

Strengths

The current study has several strengths. First, the present study focused on immigrant Asian Indian fathers' level of involvement with school-going children of 6-10 years of age while there is very little data on Asian immigrant fathers and in comparison, to the success of Asian Indians model minority group. Majority of the fathering studies have either studied fathers of infants and preschoolers or fathers of adolescents, with almost no studies focusing primarily on school-going children. Secondly, the current study has attempted to address a major challenge facing fatherhood research i.e., how to effectively measure father involvement by collecting data from multiple sources that is, both mothers and fathers who reported their perceptions of father involvement as well as the independent variables marital adjustment, parenting self-efficacy and parental role beliefs. Since majority of data on father involvement is gathered from only single source such as only mother reports or only father reports, this study is an important contribution to the fathering literature as it collected data from couples. Thirdly, this was a quantitative study that used sophisticated statistical technique of actor-partner interdependence model that compared the influence of fathers' own independent variables' (actor effects) as well as their spouses' independent variables' (partner effects) influence on father involvement. Most of the existing father involvement reports are obtained through qualitative inquiry or from secondary

data sets which is rich, yet limited in applying to majority of the population. Furthermore, studies analyzing data from couples on father involvement have used individual-level analysis such as ANOVA and regression. This study analyzed data at the couple-level thereby considering the interdependent and nested nature of the data structure. It is important to point out that the actor-partner interdependence model used in this study has advanced our understanding of the nested nature of paternal involvement, the influence people have on their own outcomes as well as how partners influence each other's outcomes.

Limitations

There are several limitations in the present study. First, the sample data was convenience sample with economically privileged and two-parent families, thus the generalizability of the findings is limited to similar populations. Only father-mother dyads within the family system were studied and children's views on the topic were not studied. Second, the study employed cross-sectional design, thus causal conclusions should not be made. Furthermore, self-reports were used in the current study. There are several limitations with this method such as social desirability, common method variance, and the influence of the current marital and family situation in the respondents lives. Third, although grand mean centering claims to reduce multicollinearity, caution is needed when interpreting the results of study of dyads as problems about collinearity and shared variance are limitations when studying couples. Lastly, the current study did not measure parents' acculturation level and actual work hours which is a limitation and future researchers should include these in their study on immigrants. Specifically, a recent study on acculturation (Yoshida, 2015) found that among Latino and Chinese immigrant fathers, having a U.S. citizenship was positively associated with their level of caretaking and involvement, and, mothers' ability to speak English language was significantly associated with

increased caretaking behavior of fathers' of two year old children. Unequivocal findings have revealed the negative impact of fathers' long work hours and low father involvement (Allen & Daly, 2007), and increase father involvement associated with employed mothers and long work hours of mothers (Pleck & Hofferth, 2008).

Future directions of the research

Further research is needed to explore the impact of job stress and work-life balance on father involvement. Also, the impact of hours of work, physical and emotional health and other factors such as role of peers, immigrants' perceptions of fathering they received and, if they are modeling or compensating for the nature of fathering they received and, spousal and social support as potential factors associated with fathers' involvement, thus aid in contributing towards a better understanding of additional factors that boost and help immigrant families' quality of life and parenting in the U.S. (Glick, 2010).

Methodologically, longitudinal research to study the changes in marital adjustment with years of marriage, changes in parenting self-efficacy with years of being a parent and change in gender beliefs with years of acculturation during the residence period, along with the impact children may have on parents to study a three way actor-partner design would give interesting insights on this subject. This would provide the thrust necessary for the success of the policies and educational programs planned for Asian Indian immigrants in the U.S. Also, mixed method study including both quantitative and qualitative responses would provide a good understanding of immigrant families' experiences and challenges in the U.S. Experimental studies examining the impact of interventions such as implementing confidence building skills and strengthening marital relationships programs on immigrant families would provide better understanding of this group. Cross-national study comparing families in India with immigrants in the U.S. and other

parts of the world is recommended. Use of observations and interviews could address the above mentioned limitations of self-reports. Lastly, research in this area could even go beyond the dyad, and consider studying the mother-father-child triad and their relational effects, as well as the common fate model wherein common external factors influence couples and their parenting.

Implications

Findings of this study have several implications. A major finding from the parenting self-efficacy APIM was that fathers had strong actor effect on their involvement with children, as well as partner effect on mothers' reports of their involvement. This means that if fathers and men are empowered to be an involved father, they can be highly involved fathers. Not only among the Asian-Indians, this finding could prove helpful while working with other ethnicities of immigrants and refugees. Thus, practitioners seeking to help immigrant parents and families could focus on increasing fathers' self-efficacy. Practitioners and family life experts need to consider the significance of mothers' marital adjustment when planning family strengthening workshops. As suggested from the current study's finding, mothers' marital adjustment strongly influenced fathers' reports of their own involvement with school children. Relationship stress may exist among the immigrant and transnational families while the couple lives alone away from the extended family. Life in the country of origin may be more comfortable and routine as opposed to life in the host country, giving rise to couples learning new things about each other's behavior which they may have not displayed back home but may display in the host country due to freedom, autonomy and individual space. Thus, practitioners could help couples with handling marital conflict and work towards marital adjustment and marital communication. Both mothers and fathers need to have access to and attend any educational programs or interventions within their community, and help each other. Also, practitioners and family experts need to be aware of

new advances in child and family research when developing specific intervention strategies to reduce and deal with challenges such as marital conflict, work stress, and empower immigrant fathers and mothers in their parenting behaviors keeping in mind their cultural background.

Organizations such as workplaces should promote family-friendly work culture and employer sponsored childcare, which would empower employees to accomplish their family responsibilities better, which in turn would reduce their work stress. Government policies such as a nation-wide standardized paternity leave, and family strengthening programs and seminars for healthy marital communication, encouraging father involvement and work-life balance need to be offered. The government should also make sure that employers do not take undue advantage of the work visa policies and exploit immigrant workers by threatening them of job insecurity (Treas, 2008). As work visa policies tend to change with new administration, constant uncertainties for the ethnic minorities arise. In order to build stronger and healthier families, work places, and communities it is essential that employers provide benefits that would encourage flexible work schedules thereby providing more time with family. Lastly, provisions for bridging the work-family gap and encouraging healthy psychological, emotional, and social lives for families will help build strong work-places, communities, and nation. It is thus crucial that father-friendly governmental and work-place policies are available in order to build healthy communities with the existing and increasing number of incoming immigrants.

Conclusion

It is not only important to get views on fathers' involvement but get both fathers' and mothers' views on fathers' involvement in order to compare the influence of each other's factors influencing father involvement and the correlation amongst such reports as well as, to test if it is appropriate to sum the two scores or leave it independent. The current study strongly supported

family systems theory and the responsible fathering model by utilizing dyadic data analysis technique APIM. These results support the premise that Asian Indian immigrant men's involvement with school-aged children is multifaceted and, influenced by their own as well their spouses' perceptions. The findings from this study also underscore a major discovery in immigrant fathers research i.e., Asian-Indian immigrant fathers feel quite competent in their involvement. Experts of family strengthening programs can help immigrant families deal with challenged and empower them to live their lives to the fullest in the host country, thus taking steps towards improving immigrant families', children's and future citizens' quality of life in the U.S.

Appendix

Marital Adjustment

Revised Dyadic Adjustment Scale – 14 items from Busby, Crane, Larson, & Christensen (1995)

How often would you say the following events occur between you and your mate?

1. Religious matters
2. Demonstrations of affection
3. Making major decisions
4. Sex relations
5. Conventionality (correct or proper behavior)
6. Career decisions
7. How often do you discuss or have you considered divorce, separation, or terminating your relationship?
8. How often do you and your partner quarrel?
9. Do you ever regret that you married (or lived together)?
10. How often do you and your mate “get on each other’s nerves”?
11. Do you and your mate engage in outside interests together?

How often would you say the following events occur between you and your mate?

12. Have a stimulating exchange of ideas?
13. Work together on a project
14. Calmly discuss something

Perceptions of Parenting Self-efficacy

Parenting Sense of Competence Scale – Seven items from Gibaud, Wallston, & Wandersman (1978)

1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.
2. I meet my own personal expectations for expertise in caring for our child.
3. I would make a fine model for a new father to follow in order to learn what he would need to know to be a good father.
4. Being a father is manageable for me, and any problems are easily solved by me.
5. If anyone can find the answer to what is troubling my child, I am the one.
6. Considering how long I have been a father, I feel I am thoroughly familiar with this role.
7. I honestly believe I have all the skills necessary to be a good father to our child.

Beliefs about Parenting Role

Beliefs Concerning Parental Role - 26 items from Bonney (1997)

1. A father should pursue the career of his choice even if it cuts into the time he has to spend with his family.
2. Responsibility for the discipline of the children should be equally divided between the mother and the father.
3. It is more important for a mother rather than a father to stay home with an ill child.
4. With women being employed outside the home, men should share with child care such as bathing, feeding, and dressing the child.
5. The mother and father should equally share in toilet training.
6. It is mainly the mother's responsibility to make sure that the children get ready for daycare/school in the mornings.
7. In general, the father should have more authority than the mother in deciding what extra-curricular activities are appropriate for the child.
8. It's better for women with children not to work outside the home if they don't have to financially.
9. Fathers should attend birthing classes with their pregnant wives (partners).
10. Divorced men should share joint custody of their children.
11. Fathers should participate in the delivery (birth) of their children.
12. Mothers should be more involved than fathers in the physical care of the children (e.g., dressing, feeding, bathing).
13. Fathers should attend parent-teacher conferences/meetings.
14. A father's primary responsibility is to financially provide for his children.
15. It is important for a father to spend quality time (one to one) with his children every day.
16. Fathers should attend prenatal doctor's visits with his partner (wife) (e.g., ultrasound appointment).
17. Fathers should take the majority of responsibility for setting limits and discipline children.
18. A father should be emotionally involved with his children (e.g., nurturant, supportive, understanding).
19. It is mainly the mother's responsibility to change diapers.
20. It is equally as important for a father to provide financial, physical, and emotional care to his children.
21. Mothers and fathers should share equally with the late night feedings during infancy.
22. It is mainly the mothers responsibility to toilet train the children.
23. Mothers and fathers should equally share the responsibility of taking care of a sick child in the middle of the night.
24. When a child becomes ill at daycare/school it is primarily the mothers responsibility to leave work or make arrangements for the child.

25. A mother should pursue the career of her choice even if it cuts into the time she has to spend with her family.
26. It is more important for a father to have a successful career than it is to have a family that is closely knit.

Father Involvement

Inventory of Father Involvement – 26 items from Hawkins, Bradford, Palkovitz, Christiansen, Day, & Call (2002)

Discipline and Teaching Responsibility

1. Disciplining your children.
2. Encouraging your children to do their chores.
3. Setting rules and limits for your children's behavior.

School Encouragement

4. Encouraging your children to succeed in school.
5. Encouraging your children to do their homework.
6. Teaching your children to follow rules at school.

Mother Support

7. Giving you encouragement and emotional support.
8. Letting your children know that you are an important and special person.
9. Cooperating with you in the rearing of your children.

Providing

10. Providing your children's basic needs (food, clothing, shelter, and health care).
11. Accepting responsibility for the financial support of the children you have fathered.

Time and Talking Together

12. Being a pal or a friend to your children.
13. Spending time just talking with your children when they want to talk about some-thing.
14. Spending time with your children doing things they like to do.

Praise and Affection

15. Praising your children for being good or doing the right thing.
16. Praising your children for something they have done well.
17. Telling your children that you love them.

Developing Talents and Future Concerns

18. Encouraging your children to develop their talents.
19. Encouraging your children to continue their schooling beyond high school.

20. Planning for your children's future (education, training).

Reading and Homework Support

21. Encouraging your children to read.

22. Reading to your children.

23. Helping your children with their homework.

Attentiveness

24. Attending events your children participate in (sports, school, church events).

25. Being involved in the daily or regular routine of taking care of your children's basic needs or activities (feeding, driving them places, etc.).

26. Knowing where your children go and what they do with their friends.

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VITA

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