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Sons, daughters, and arab-american family dynamics: does a child's gender matter?

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SONS, DAUGHTERS, AND ARAB-AMERICAN FAMILY DYNAMICS: DOES A CHILD'S GENDER MATTER?

by

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DEDICATION

I dedicate this work to my husband Wasfi Almeshagbeh, for his unconditional love, support, and encouragement. To my children, the light and the love of my life. To my parents, for their continuous love, support, prayers, and inspiration. To my sisters and brothers for all the support and encouragement. To Dr. Mary Sengstock, for her continuous guidance, advice, outstanding professionalism, and support.

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CHAPTER 1

Introduction

1.1 Statement of the problem

Differences in gender roles exist in families in all societies and cultures, but expectations are often different. The Arab society is no exception. Differences may be found in Arab homes situated in the United States or another culture or country. Societies and cultures expect different things of women and men. In every society and culture, a set of learned or socially-constructed norms, values, ideas, and guidelines affect views, attitudes, behaviors, roles, and expectations. (Greenglass, 1982; Lorber, 1994; Bonvillain, 2001; Kramer, 2001). These norms and guidelines, especially ones tied to gender and the equivalent gender role that society assigns to individuals are established through the process of socialization in early childhood. Society nudges boys and girls in different directions from an early age by expecting different behaviors of males and females. These expectations carry over into adulthood. Parents are the first significant role models for their children in how to follow the gender map within the home environment. Parents may reinforce gender stereotypes even though they may not be aware they are doing so. Newborns do not know their gender. Yet children quickly develop a gender identity and learn their gender roles as influenced by their parents. From birth, babies are treated according to their gender. In many cultures boys are taught to behave like men, while girls are taught to be polite, genteel, and to rely on males for help (Thio, 2007).

Existing evidence suggests that parental behavior is affected by the genders of their children (Raley & Bianchi, 2006). For instance, boy preference is very common in a number of developing countries, including the Arab society (William, 1976; Arnold & Kuo, 1984; Cleland, Verrall, & Vaessen, 1983), whereas preference for more balanced gender composition (at least

one child of each gender) is more common in more developed countries (Kippen, Evans, & Gary, 2007; Raley & Bianchi, 2006; Andersson, 2006; Hank & Kohler, 2000; Arnold Kuo, 1984; Arnold, 1997). Children of a particular gender are often preferred to provide certain utilities, such as economical, social, or psychological benefits. For example, in traditional societies sons are presumed to have greater economic net utility than daughters, since male offspring are able to serve as a form of social security and provide assistance in agriculture production and wage earning (Arnold & Roy, 1998; Baedhan, 1988; Basu, 1989). In patrilineal society, sons are also prized for carrying on the family name (A El-Gilany & Shady, 2007; Hank & Kohler, 2000). On the other hand, parents may wish for a gender mix of children because of the different benefits that accrue from each gender (Hank & Kohler, 2000; Fawcett, 1977). Each partner, for example, might prefer to have at least one child of his or her own gender for the purpose of companionship (Jacobsen, Moller, & Engholm, 1999) and for the idea that the genders will have different traits, strengths, leisure activities, and interests (Williamson, 1976).

These gender preferences may have significant influence on a couple's childbearing behavior and their family size. A strong son preference may influence additional childbearing efforts if couples are not happy with the gender composition of their current family (Arnold & Roy, 1997; Al-Qudsi, 1998). Some studies show an effect of gender preferences on a couple's reproductive behavior and ultimate family size, even in industrialized countries (Marleau & Saucier, 1996). Moreover, some studies show that the birth of a son, rather than a daughter, increases both the quality and stability of marriage (Lundberg, 2007, 2003). Parents with sons report higher levels of marital satisfaction and happiness than do parents who have only daughters (Barnett & Baruch, 1987; Katzev, Warner, & Acock, 1994; Cox, Paley, Burchinal, & Payne, 1999; Mizell & Steelman, 2000; Lundberg, 2007, 2003).

The gender of a child also has an impact on the ways in which parents treat children, invest their time, and allocate household chores. (Raley & Bianchi, 2006). Men tend to spend more time with sons and women spend more time with daughters (Bryant & Zick, 1996; McHale, Crouter, & Tucker, 1999; McHale & Updegraff, 2000; Yeung, 2001). Most of the time men spend with their children is in the form of interactive activities, such as play activities or helping with homework rather than in the "custodial" cleaning and feeding that are seen as the mother's domains (Robinson & Godbey, 1997). Gender typing further occurs in the allocation of household work for children (Raley & Bianchi, 2006; Blair, 1992; Cogle & Tasker, 1982; White & Brinkerhoff, 1981); girls do more household chores than boys (Bianchi & Robinson, 1997; Gager & Sanchez, 2004). Boys generally do the traditional male jobs, such as taking out the trash and household repairs, whereas girls are typically assigned traditional female activities, such as washing the dishes and cooking (White & Brinkerhoff, 1981; Gager, 1999; McHale, 1990). This differential treatment is also evident in Arab societies. Girls are usually raised and taught to be the source of love and to provide emotional support. They are encouraged to be companions to their mothers, go on shopping trips and other kinds of outings, help with the household work, and talk with their mothers about what is going on in their lives (Al-Sabt, 2006). On the other hand, male children are taught to be protectors of their female siblings and relatives and to help their fathers with their duties. Additionally, boys may enjoy being involved in sporting activities with their fathers or by participating in some way in their fathers' professional lives (Al-Sabt, 2006; Aswad & Bilge, 1996). Although these trends are changing, Arab children are encouraged, as Westerners are, to be individuated and separate from their parents. Children who disobey and/or shame their parents are likely to be disowned by them (Abudabbeh, 2005).

This raises a question as to whether early gender differential treatment is a channel to differential adult outcomes. Many issues in adulthood have their roots, at least partially, in gender constructions that begin in early childhood. For instance, women around the world have made considerable progress in several arenas yet they are still unequal to men in many ways. Women still devote more time to childrearing and unpaid housework while men continue to give more time to work (Giddens, Duneier, Appelbaum & Carr, 2009; Macionis, 2010; Raley & Bianchi, 2006; Baxter & Western, 1998; Brines, 1994; Gill, 1993; Gregson & Lowe, 1993; Layte, 1993; Lennon, 1994; Seymour, 1992; Speakman & Marchington, 1999; Warde & Hetherington, 1993). Women are poorly paid, work in the lowest-wage jobs, and are likely to make less than men doing similar work despite their increased participation in paid employment nationwide. Even women who are successful in the corporate world face discrimination in the form of deeply held cultural expectations about the proper role of women in society. In developing countries, women are likely to experience unequal job conditions. However, at the same time, their enhanced economic role has sometimes resulted in increased economic independence and greater social status (Giddens, Duneier, Appelbaum & Carr, 2009; Macionis, 2010). In addition, women throughout the world do not share the same political power as men, even though thirty-eight countries have been headed by a woman since World War II. The United States is about average among countries in terms of women's representation in the national legislature, but has never had a female president (Giddens, Duneier, Appelbaum & Carr, 2009; Macionis, 2010).

Gender role differences in adulthood are a common phenomenon in Arab societies regardless of the social, economical, technological, and educational changes, etc. that have taken place in them. The social structure of the family is patriarchal. The male is the leader and highest

authority in the household, the economy, and polity, while Arab women have primary responsibility for childbearing, childrearing, and instilling future generations with Arab values (Al-Sadawi, 1995). Arab-American communities in the United States continue these gender norms regardless of the progress that women have achieved worldwide. As viewed by Read (2004a, 2003) and Read & Oselin, (2008), Arab-born American female employment rates have been found to be among the lowest of any immigrant group even though the women are highly educated. This is due to traditional cultural norms and ethnic and religious social networks that encourage the maintenance of traditional gender roles. Yet, the influence of a child's gender on Arab-American family dynamics has not been investigated.

This study is designed to quantitatively examine the influence of a child's gender on selected family dynamics in Arab-American families. Specifically, the goals are: 1) to investigate the relationship between parental gender preference regarding children , gender composition and Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, work status, income, education, and gender ideology; 2) to investigate the relationship between gender ratio and gender composition of the children and parental involvement with children when holding constant parents' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth; 3) to investigate the relationship between gender ratio and gender composition of the children and children's participation in the household work while holding constant parents' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth; and, 4) to investigate the relationship between gender ratio, children's gender composition, parental gender preferences and marital quality when parents' age, number of children, average age of children, gender, work status, income, education, gender ideology, place of birth, and fathers'

involvement are held constant. Thus, this study attempted to answer one overall question: what is the impact of the gender of children on Arab- American family dynamics?

1.2 Significance of the study

This study is significant because recent worldwide events have drawn attention to Arab or Middle Eastern populations in American society which are moving toward a mosaic of different cultures. As originally concluded by the "melting pot" theory, "America [is] not going to continue as an Anglo-based society but [will] become an amalgamation of all of the cultures entering it" (Sengstock, 2006, p. 2). The Arab-American community, like other minority groups, is becoming a functioning part of American society. They have an impact demographically, economically, politically, socially, and culturally. For a better understanding of the influence of the Arab-American community on American society, we have to start with the family, considered the basic unit of society, where interaction is embedded and from which the social behavior of individuals emerges.

Gender differences in adulthood are well documented in family studies. A significant body of literature describes and theorizes about the differences between husbands and wives in relation to household labor, income, and the power they have. But the influence of a child's gender has not been a major factor in the literature on gender, family, and work in the United States (Raley & Bianchi, 2006). In addition, there is no noteworthy body of literature investigating the influence of a child's gender on Arab-American family dynamics. This fact illustrates the lack of information/knowledge on this topic and the need for additional studies in order to fill the research gap.

Understanding and knowing how the gender of a child influences various Arab-American family processes can help sociologists gain a better understanding of Arab-American family

dynamics. In addition, family counselors, social workers, etc., will be able to provide services that are more effective to Arab-American families. This, in turn, will improve social relationships and well-being of children, families, and society as a whole. Additionally, this research can reinforce and spread egalitarian gender norms in our society by studying and analyzing how the gender of a child affects diverse family outcomes. It will help advance the conceptualization of gender, family, and children as well as enhance the body of knowledge in this field as a whole. Many aspects of society can be improved through a better understanding of the relationships between the gender of a child and various family dynamics. Such research could help improve marriage relationships and the relationships between parents and their children. This, in turn, will contribute greatly to the development of children and improve the well-being of families and society.

For this study, a cross-sectional quantitative research survey design was used to investigate the influence of a child's gender on family processes within Arab-American families. Data was gathered using a self-administered questionnaire given to a convenience sample of Arab-American parents in families who have children under 18 years old at home and reside in the Tri-County area (Wayne, Macomb, and Oakland counties) of Greater Metropolitan Detroit, Michigan. In addition, descriptive, bivariate, and multivariate statistics analyses were used to assess the overall trends and patterns of the data and the relationship among gender composition, gender ratio, and parental gender preferences of the children and Arab-American family dynamics.

This dissertation consists of five chapters. Following this introduction to the study, Chapter 2 is a review of pertinent literature about Arab families, gender differentiation regarding children, including the gender preference of parents regarding children, reason for gender

preference, gender preferences and family size, parental involvement with children, children's participation in household work, and marriage quality. Also included in this chapter is the theoretical framework which is the basis of this study. Chapter 3 presents the methodology employed, including research hypotheses, design, sample and setting, measurement, instrument and procedure, and statistical analyses techniques. Chapter 4 presents exclusively the results of the data analysis, including presentation of the univariate, bivariate, and multivariate results. Finally, Chapter 5 discusses the major research findings for each of the specific family dynamics and their relations to symbolic interactionist theory, followed by outlining the conclusion, the strengths and limitations of the study, the directions for future, and the implications of the results.

CHAPTER 2

Literature Review and Theoretical Perspectives

An overview of the pertinent literature about Arab families, gender differentiation regarding children, including the gender preference of parents regarding children, reasons for gender preference, gender preferences and family size, parental involvement with children, children's participation in household work, and marriage quality has been reviewed and will be presented in this chapter. The focus of the literature is primarily on the United States, with limited references to research in other developing and developed countries. This review is essential to learn about and understand the relationship between the gender of the child and selected family dynamics; to help recognize trends and methodology used in the reviewed research; to help identify appropriate variables that can be utilized to derive conclusions about gender differences in the family; to outline the gaps; and to provide directions for future research. Finally, the theoretical framework and the research hypotheses that inform this study are presented.

2.1 Arab Families

2.1.1 Who are Arab-Americans? Arab-Americans are those who immigrated to North America from one of 22 Arabic speaking countries stretching from Morocco in the West to the Arabian Gulf in the East (Suleiman, 1999; Samhan, 2001). Arab-Americans began arriving to the United States during the late 19th century and early 20th century in three distinct waves. The first wave, which came between 1890 and 1940, consisted mostly of merchants and farmers who emigrated for economic reasons from regions that were then part of the Ottoman Empire. The majority of them were Christians, originating from Syria and Lebanon. The second wave began after World War II and was composed mostly of people with college degrees or those seeking to earn them.

Unlike the first wave, the second wave differed in that its people came from regions of post-European colonization and from sovereign Arab nations. They arrived with an Arab identity that was absent in the first wave and the majority were Palestinians and Muslims. The third wave of immigration occurred after 1967 and they were Arab-Israelis seeking refuge to escape the political unrest in their countries of origin. This wave included Lebanese immigrants feeling the unrest of civil war in their country, and Iraqis following the Gulf War (Abudabbeh, 2005). The ethnic roots of the majority of Arab-Americans can be traced to five groups, including Lebanese (47%), Syrians (15%), Palestinians (6%), Egyptians (9%), and Iraqis (3%) (Samhan, 2001). Arab-Americans today can be portrayed as a heterogeneous, multicultural, multiracial, and multiethnic group, currently estimated at nearly 3.5 million people (U.S. Census Bureau, 2000; Samhan, 1999; Zogby, 2001). However, due to the census classification of Arabs as white, no firm demographic data exist that provide descriptive statistics about Arab-American residents in the United States. Arab-Americans reside in all 50 states, but 66% are concentrated in 10 states (Zogby, 1990, 2001). The largest concentrations of Arab-Americans are in and around Detroit (219,765), Los Angeles (300,000), and New York (162,692). Arab-Americans make up 20% of Dearborn, Michigan, which is the most densely populated community (Samhan, 2001). The majority of Arab-Americans are Christian (Catholic 42%, Protestant 12%. Orthodox 23%), and 23% are Muslim (Zogby, 2003). Approximately 85% of Arab-Americans have a high school diploma, more than 4 out of 10 hold a bachelor's or higher degree (as compared with 24% of the American average). Twice as many Arab-Americans have postgraduate degrees. Nearly, 64% of Arab-Americans are in the labor force, mostly in professional and managerial posts, with only 12 % in government jobs (Abudabbeh, 2005).

Compared to non-Arab populations, self-employment is more common among Arab-Americans with 72% working in managerial, professional, technical, sales, or administrative jobs (Samhan, 2001; U.S. Bureau of the Census, 1990). About 66% of adult Arab-Americans are in the labor force and 5.9% are officially considered unemployed. There is great diversity in the economic status of Arab-Americans. On one hand, the older cohort tends to be rich. The income level of Arab-Americans as a group is about $5,000 above the median U.S. income. For all Arab-Americans, the poverty rate is about 11%, but for recent immigrants, 20% (Samhan, 2001).

Educational achievement is valued very highly by Arab-Americans. According to statistics from the U.S. Bureau of the Census (1990), more than one third hold bachelor's degrees and 15% have earned graduate degrees. Nearly 50% of Arab-Americans over 18 speak a language other than English at home, yet only 10% reported not speaking English well. Preservation of the Arabic language is important for reading the Qur'an and practicing Islam. Arabic classes and schools have been created to teach the language to immigrant descendants (Samhan, 2001; U.S. Bureau of the Census, 1990, 2000). Despite economic and educational contributions, Arab-Americans tend to lack recognition and remain unknown to many Americans (Suleiman, 1999).

2.1.2 Arabic family structure and gender roles

The family is considered the foundation of the Arab community, and there is a strong emphasis on traditional gender roles (Esposito, 1998; Haddad, 1994; Bilge & Aswad, 1996; GhaneaBassiri, 1997). The family unit in Arab societies has different types (Al-Sabt, 2006). First, the nuclear unit is the most familiar structure that encompasses the father, mother, and children (Hammad, Kysia, Rhbah, Hossoun, & Connelly, 1999). Second, the extended family *'aila* or *usra* unit that consists of the married couple, unmarried children, married male children

and their wives and children, unmarried paternal aunts and uncles, and, sometimes, grandparents (Barakat, 1993; Hammad et al., 1999). Traditionally, the *'alia or usra* represents an economic and social unit in society and is usually governed by eldest male in the family (e.g., grandfather, or eldest paternal uncle) (Barakat, 1993; Hammad et al., 1999). The '*hammula*" (clan) is the third type of family unit in the Arabic society and usually comprises all individuals who descended from the same paternal ancestor (Hammad et al., 1999).

The Arab family can be described as patriarchal, a hierarchal pyramid with regard to age, gender, and extended family in terms of its functions. It is typically patrilineal, and the cultural ideal emphasizes that men should earn enough money so their wives are not expected to work in the labor force. The wife's primary role is raising children and taking care of the house. Arab societies tend to be *father dominant* (patriarchal). The father is the head of the family and is considered a powerful and charismatic figure. He commands respect as the legitimate authority for all matters of the family (El-Islam, 1983; Barakat, 1985). The patriarchal structure extends throughout all levels of society. The father of the nuclear family is subordinate to his own father, who in turn defers to the authority of the head of the clan. All clan heads are subordinate to the head of the tribe or *hamula*. The tribal or clan leader also serves as the spiritual and practical father of the whole group. He represents the collective leader to the outside world, oversees the rules for the clan or tribe, and guides their actions. In effect, the patriarchal structure creates a complete and autonomous society within a society, functioning as a single unit (Abudabbeh, 2005; Barakat, 1985).

Today, due to factors such as industrialization, urbanization, war/conflict, and Westernization, there are many signs of strain on the traditional family system. Despite these pressures, the family remains the main system of support throughout the Arab world and Arabs

living elsewhere. For a majority of Arabs, as for virtually all other cultural groups, no institution has yet replaced the family as a system of support (Fernea, 1985). In addition, despite the reduced prevalence of the extended family, they remain important. Relatives generally remain closely interlocked in a web of intimate relationships that leaves limited room for independence and privacy. They continue to live in the same neighborhood, to intermarry, to socialize on a kinship basis, and to expect a great deal from one another. Such relationships and expectations are not often changed by emigration or by forced separation resulting from war or political upheavals (Barakat, 1985).

In Arab families, elders are to be cared for by the other family members. Their place in the family requires respect and payback for their roles as good parents (Abudabbeh, 2005). For example, Durrani (2000) as cited in Salari (2002, p. 583-584) writes, "Children learn from an early age to respect and care for their parents far into their elder years. For many Arabs, the concept of placing 'burdensome' parents into nursing homes for strangers to care for violates their family values. We Arab mothers raise our children to care for one another and most importantly, care for us when we are older. This is something very important to us in our culture." However, not a lot is known about the care of elderly persons in Arab-American communities (Azaiza et al., 1999).

Son preference is a prevalent phenomenon in Arabic countries, but differences are noted from one country to another (Cleland, Verrall, & Vaessen, 1983; Arnold & Zhaoxiang, 1986; Williamson, 1976). Having a son in the family means a lot. The birth of a boy causes more joy than that of girls. Having a boy could contribute to the family protection and maintenance (Schvaneveldt, Kerpelman, & Schvaneveldt, 2005). Therefore, family size and childbearing behavior in many Arab countries are strongly influenced by the gender of the offspring. A strong

son preference may be a barrier to fertility decline if couples persist in having children after reaching their overall family size goal because they are not satisfied with the gender composition of their current family (Al-Qudsi, 1998; Arnold & Roy, 1997).

Moreover, gender differences in adulthood tend to remain strong in Arab societies, and the social structure of the family is male dominant regardless of the social, economical, technological, and educational changes, etc. that have taken place in Arab societies. In Libyan society for example, women are perceived as "physically and mentally weak in comparison to men" (Attir, 1985, p, 121). Traditionally, ethnic Arab women have been viewed as "powerless and submissive" (Al-Haj, 1987, p, 103). The male is the leader and highest authority in the household, the economy, and the polity (Al-Krenawi, 1996; Morsy, 1993). In many Arab societies, women's social status is strongly dependent on being married and rearing children, especially boys (Al-Sadawi, 1995). Arab women have primary responsibility for childbearing, childrearing, and socializing future generations with Arab values. It is common for women not to have careers outside the home (Grossbard-Shechtman & Neuman, 1998). Many female professionals, even those attaining high degrees of success, defer to spouses or families for major decisions (Hoodfar, 1997; Shalhoub-Kevorkian, 1997).

Even in Arab-American communities, gender norms are still taking place regardless of the progress that women have achieved worldwide. As a group, Arab-Americans are highly educated, have higher labor force participation rates, and earn higher incomes than the U.S. adult population, all of which suggest an assimilated and progressive ethnic population (Samhan, 2001; U.S. Bureau of the Census, 1990). Arab cultural and religious customs reinforce traditional gender roles, especially those regarding women's responsibilities in the home and family (Bilge & Aswad, 1996; Haddad & Smith, 1996). Arab-born American female employment rates are

among the lowest of any immigrant group. This is due in part to traditional cultural norms and ethnic and religious social networks which encourage the maintenance of traditional gender roles (Read, 2004b, 2003; Read & Oselin, 2008; Ajrouch, 1999; Aswad & Bilge, 1996; Haddad & Lummis, 1987). On the other hand, American-born Arab women have employment rates resembling those of U.S. born white women, 71.7 and 73.2 %, respectively (U.S. Bureau of Census, 1990).

Drawing on ethnographic field notes and in-depth interviews with Arab-Americans, Read & Oselin (2008) found that compared to other ethnic women in U.S., Arab-American women have higher educational attainment but lower employment rates. This is due mostly to cultural preferences for traditional gender roles, which are maintained through religious and ethnic network. Female education is a collective family resource to be invested in the home to ensure the proper socialization of children, solidarity of the family, and, ultimately, the maintenance of ethnic and religious identity rather than for use in the marketplace (Read & Oselin, 2008). Similarly, Aswad (1991), in her study based on an intensive interview with 40 married immigrant women, half from South Lebanon, and half from the Yemen Arab Republic, also found that women in the study did not gain employment in the U.S. because of culture preferences for traditional gender roles.

These gender differences in adulthood where men continue to give more time to work and women devote more time to childrearing and unpaid work have their roots, at least partially, in gender constructions that begin early in life as parents treat sons and daughters differently (Raley & Bianchi, 2006). Within Arab families, children are usually taught to follow the inherited traditions and are given responsibilities that correspond with their age and gender (Al-Sabt, 2006). Children are raised to be responsible for the customs and traditions of the family.

Differential treatment of boys is not uncommon, and the instilling of traditional expectations in girls is common practice. Although these trends are changing, Arab children are encouraged, as Westerners are, to be individuated and separate from their parents. Children who disobey and/or shame their parents are likely to be disowned by them (Abudabbeh, 2005). However, gender differentiation in the early childhood of Arab-American families has not been a major emphasis in the literature on gender and family studies in the U.S. Also, there is no significant body of literature investigating the influence of a child's gender on Arab-American family dynamics. This demonstrates the need for additional research on this topic.

2.2 Gender Differentiation Regarding Children in Families

In this next section, the focus is on gender differentiation regarding children, primarily in the United States, with limited references to research in other developing and developed countries.

2.2.1 Gender preference of parents regarding children

Son preference is commonly believed to be prevalent in a number of developing countries, particularly in South Asia, East Asia, and parts of the Middle East and North Africa (William, 1976; Arnold & Kuo, 1984; Cleland, Verrall, & Vaessen, 1983). But the degree of such preference differs noticeably from one country to another depending on such factors as the level of economic development, cultural and religious practices, marriage and family systems, social norms, the nature of social security systems, and the degree of urbanization (Arnold & Zhaoxiang, 1986). Even though preferring sons over daughters is still widespread in many developed countries (Benntt, 1983), this preference often exists side by side with the desire for having at least one child of each gender (Arnold & Zhaoxiang, 1986). Evidence from various parts of non-western societies about gender preference is well documented. Using data from the

National Family Health Survey, the analysis indicates that son preference fundamentally affects demographic behavior in India, Lesotho, Sudan, and very strongly in Jordan and Syria. In the Philippines, sons were preferred for the first child, but daughters were preferred slightly more at every other parity. A moderate degree of son preference was found in Malaysia, Thailand, and Sri Lanka, and son preference was extremely strong in Bangladesh, Pakistan, and South Korea (Cleland, Verrall, & Vaessen, 1983; Arnold & Zhaoxiang, 1986; Arnold & Roy, 1998). The World Fertility Survey (WFS) results for Asia generally agree quite closely with the findings of Williamson (1976), who reviewed the literature on gender preferences throughout the world in the mid-1970s. Son preference has been found to be prevalent in all of East Asia and among groups outside of that region that share a heritage of Confucian patriarchal traditions (Arnold & Zhaoxiang, 1986). Similarly, Park (1983) indicated that Koreans have a strong preference for sons and the gender of the most recent child strongly influences a couple's decisions regarding additional births.

In Nepal there is a strong preference for sons as well. For example, Niraula & Morgan (1996) quote an elderly woman as saying, "I could not bear a son. God has punished me and will continue to punish me even after my death because there is no son to look after this state of mine and also no son for the salvation of my soul after death. So I am a living dead [person]" (p. 256). This statement reveals the common reasons for wanting sons in Nepal: to support parents in their old age and to perform religious rites for deceased parents (Pollard & Morgan, 2002). Consistent with these findings, Karki (1988) found strong evidence of the preference for a son in Nepalese society. Nepalese parents prefer sons to daughters because of the culture and the various roles that sons play in family life.

Son preference is also a prevalent phenomenon in the Arab culture, but differences are noted from one country to another. In world fertility surveys (WFS), asking about the preferred gender of the next child, Arab countries with the strongest son preference were Jordan and Syria. Sudan, Egypt, Tunisia, Algeria, Lebanon, Yemen and Morocco were among countries with moderate son preference (Cleland, Verrall, & Vaessen, 1983; Arnold & Zhaoxiang, 1986; Williamson, 1976). Yount (2005) and A El-Gilany & Shady (2007) further indicated that in Egypt there is also preference for sons over daughters. Even educated women tend to prefer sons. The reasons for the preference for a male child were mainly psychological and social.

While the common preference in developing countries is for sons, some couples reveal little or no son preference, and there are some instances in which a preference for daughters has been documented. For example, the WFS found that considerably more women wanted a daughter for their next child than a son in Jamaica and Venezuela, and little or no preference in most of South America, parts of the Caribbean, and Kenya. In Asia, son preference was found to be weak among women from Indonesia (except for the first child) (Cleland, Verrall, & Vaessen, 1983). Chi Lin (2009) further indicated that in Taiwan there was a significant decline for son preference and a rise of gender indifference. Results show that at the individual level, the amount of female education was the strongest predictor for the preference. Education was negatively associated with son preference and positively with gender indifference. While employment status or occupation is generally not a predictor, an increase in education reduces son preference and leads to a higher degree of gender neutrality. Cohort difference was noticeable as well. Younger cohorts were better educated than older ones; hence, they were more neutral about gender and less adherent to the traditional male preference.

There is also rich demographic literature describing how a rise in women's education, social status, and social development greatly impacts the gender preference for children. By examining two cross-sectional surveys in Korea, Chung and Das Gupta (2007) found that female education was negatively associated with son preference, and female occupation/employment reduced son preference. Women with white-collar jobs showed significantly lower odds of strong son preference. The husband's occupation did not show a significant association in either survey year. Clark (2000) also showed that Indian women's schooling significantly reduced their preference for sons. Leone, Matthews, & Dalla Zuanna (2003) found partial evidence that years of schooling reduced son preference of Nepalese women. These results, considering a couple's education and occupations, indicated that, over time, women's educational level became the dominant socioeconomic factor associated with the level of son preference.

Although preference for sons over daughters tends to be particularly pronounced in developing countries, preference for balanced gender composition (at least one child of each gender) is a much more frequent pattern in economically developed countries. Most empirical evidence suggests an almost universally dominant pattern of parental gender preferences favoring at least one child of each gender in the U.S. and Europe (Kippen, Evans, & Gary, 2007; Raley & Bianchi, 2006; Andersson, 2006; Hank & Kohler, 2000; Arnold Kuo, 1984; Arnold, 1997). Williamson (1976) argues that although there is slight evidence of parental preference for sons over daughters in the United States, the tendency toward a preference for a mixed gender composition (at least one son and one daughter) remains very strong among parents. Examination of the U.S. data views such a gender composition effect on fertility behavior and reproductive decisions. American parents with two children of the same gender were more likely to want a third child (hoping their offspring would be the opposite gender) than were parents

who had one son and one daughter (Sloane & Lee, 1983; Yamaguchi & Ferguson, 1995; Teachman & Schollaert, 1989). In accordance with these findings, Hank and Kohler (2000), in their comparative study of 17 European countries with a Fertility and Family Survey in the 1990s, found that despite substantial regional heterogeneity across Europe, there was a strong tendency towards a preference for mixed gender composition (if there was any preference at all).

The preference for a mixed gender composition, instead of a preference for sons, is consistent with the view of children as consumer goods in the sense that parents may favor a variety of children rather than children of the same gender. This preference may be a trait of more modern societies in which parents reproduce mainly for the purposes of receiving satisfaction from having children, rather than for traditional purposes, such as investment or old age support (Okun, 1996).

In recent decades, the association between the gender of previous children and the likelihood of the occurrence of a third birth has been weakened in the U.S. and in some European countries. Changes in American and European societies may have led to parental gender indifference, resulting in the decreasing impact of a child's gender on parental reproductive decisions (Pollard & Morgan, 2002; Bergqvist, 1999). In agreement with these findings, Hank and Kohler (2000) found that despite the strong tendency toward a preference for a mix of genders in Europe, there is no evidence of gender preference in Norway, West Germany, Poland, France, and Finland. One explanation is that recent U.S. and European parents are less concerned about the gender of their children than in the past and may even be less interested in achieving the one girl, one boy norm that tended to dominate U.S. fertility behavior for many years (Raley & Bianchi, 2006).

Even though there is a strong tendency toward a mixed gender preference in developed countries**,** some evidence suggests a continuation of son preference in the U.S. and Europe. Dahl & Moretti (2004) argue that parents in the U.S. who have two girls are somewhat more likely to have a third child than are parents who have two boys. Further, they found that men are approximately 23% more likely to indicate a preference for a son, controlling for covariates. Age seems to be a statistically significant factor in preferences. As individuals get older, they prefer boys less, perhaps indicating that life's experiences (including raising girls) help alleviate bias. However, education level, region, income, and marital status have no statistically significant impact.

Andersson (2006) and Hank & Kohler (2007) also found that in some parts of Europe (e.g. Finland), parents are more likely to have a third child if the first two siblings are girls. However, parents may not prefer sons to daughters, but may assume that daughters are more costly to raise. It is also possible to interpret different tendencies for a third birth in the opposite way: parents with two girls may be more likely to have an additional child not because they desire a son but because they so enjoy their children that they desire another child (Raley & Bianchi, 2006). The evidence of preferring a child of a particular gender is probably more compelling in developed countries. In answer to the hypothetical question: "Suppose you could only have one child. Would you prefer that it be a boy or girl?" in a Gallup Poll survey, men are more than twice as likely to report a preference for a son over a daughter (Raley & Bianchi, 2006, p. 404). Some researchers have documented in the last few decades that many women and/or men prefer a boy rather than a girl as a first-born child in Western societies (Choi, 1986; Steinbacher & Gilroy, 1990; Dixon & Levy, 1985; Gustavus, 1980; Marleau & Saucier, 1993;

Pebley & Westoff, 1982). These findings give the impression that favoring a boy as a first-born child is common among parents, especially women in Western societies.

In contrast, a scarce hint for girl preference is observed in U.S and European societies. Some indication for a girl preference in the Czech Republic, Lithuania, Denmark, Sweden, and Portugal was observed by Jacobsen, Moller, and Engholm (1999), and Hank and Kohler (2000). Such a finding might be explained by a new and more positive assessment of the role of women in society in recent decades. A study conducted in the U.S. during the Vietnam War suggested that in times of military disasters, there was a small preference towards daughters to avoid losing a son to war (Peterson, 1978).

Preferring a child of a particular gender may be manifested in a variety of ways according to Arnold (1992). First, parents may state their attitudes about the benefits and the costs of having sons or daughters. Second, parents may actually adjust their fertility and family planning behavior based on gender preferences. Finally, female and male children may be treated differently in terms of the distribution of household resources, nutrition, health care, or educational opportunities.

2.2.2 Reason for gender preference

The bulk of literature on gender preferences indicates that son preference tends to be particularly pronounced in developing countries, while a balance of daughters and sons (or at least one child of each gender) is very common in developed countries. The question here is motivation. What motivates parents to prefer one gender or the other? Perhaps it can be understood by broadening the concept of the value of children to the two genders independently. If the benefits of having a son outweigh that of daughter, parents are likely to prefer sons to daughters (Arnold & Roy, 1998). Compound interactions of economic, socio-cultural, and

psychological factors determine the cost and benefits of a child (Arnold & Roy, 1998; Bulatao, 1981; Vlasoff, 1990; Pollak & Watkins, 1993; Friedman, Hechter, & Kanazawa, 1994; Cleland, Verrall, & Vaessen, 1983; Marleau, & Saucier, 2002). Several studies indicate that children of a particular gender are often preferred to provide certain utilities, such as economical, social, or psychological benefits. In traditional societies, for example, sons are presumed to have greater economic net utility than daughters, since male offspring are able to provide assistance in agriculture production, wage earning, and to serve as a form of social security (Arnold & Roy, 1998; Baedhan, 1988; Basu, 1989). In patrilineal society, sons are also prized for carrying on the family name (A El-Gilany & Shady, 2007; Hank & Kohler, 2000).

Williamson (1976) further argued that gender preferences favoring sons over daughters is a pattern consistent with the cross-cultural predominance of patriarchy. Institutionalized gender differentiation implies that the benefits and costs of sons and daughters differ (i.e., what one anticipates from a son may differ from what one anticipates from a daughter). When gender roles are highly distinct, sons and daughters are not substitutable. Economic, social, and psychological reasons to prefer sons exist given patriarchy and the non-substitutability of sons and daughters. The same economic, social, and emotional/psychological causes of son preference were also reported in several different studies and from different cultures (Leone, Matthews, & Zuanna, 2003; Greenhalg, 1985; Hussain, Fikree, & Berendes, 2000; Sabir & Ebrahim, 1980; Nag, 1991; Morgan & Condran, 1988).

In some circumstances, daughters are thought to be more reliable in providing assistance to old people, particularly emotional support. In addition, daughters are often preferred in order to help with household tasks or to care for younger children. There is some evidence that the desire for additional children (if there is any at all) is reduced once the minimum number of

existing male children is achieved. However, even in societies with persistent son preference, many families consider it important to have at least one daughter among their children (Arnold, 1997; Cleland, Verrall, & Vaessen, 1983; Hank & Kohler, 2000; Marleau & Saucier, 2002).

As a society develops, son preference, if present, should decline and girls should be treated increasingly with more equality. However, Brockman (2001) showed that modernization does not necessarily counteract gender preference. In modern societies, why should there be gender preferences when children no longer provide economic net utility, but rather become a source of significant time and monetary costs? Debatably, children today are likely to be prized more for social and psychological reasons (A El-Gilany & Shady, 2007; Hank and Kohler, 2000). Hoffman (1975) developed a thorough theory of the value of children by meticulously compiling a list of categories, describing possible values that parents might attribute to their children such as the expansion of the self, affiliation, accomplishment, social comparison, stimulation, economic utility. Therefore, parents may wish for a gender mix because of the different benefits that accrue from each gender for each of the categories (Hank & Kohler, 2000; Fawcett, 1977). Each partner, for example, might prefer to have at least one child of his or her own gender for the purpose of companionship (Jacobsen, Moller, & Engholm, 1999) and for the idea that the genders will have different traits, strengths, leisure activities, and interests. If boys are seen as having a special tie to their fathers and girls to their mothers, then parents may desire at least one of each, allowing for parent-child gender balance within the family (Williamson, 1976).

2.2.3 Gender preferences and family size

Gender preferences may have significant inferences for a couple's fertility behavior and thus family size. One might assume that parents who want one or more children of a certain

gender may have larger families than would otherwise be the case. Parents who fail to achieve a balanced number of daughters and sons (or at least one child of each gender) by the time they reach the number of children planned, might tend to increase their family size upward (Gray & Morrison, 1974). Even for industrialized countries, some studies show an effect of gender preferences on a couple's reproductive behavior and ultimate family size (Marleau & Saucier, 1996), while others have found no impact of gender preferences on ultimate family size (Ayala & Falk, 1971; Repetto, 1972), and that decisions on fertility more likely derive from economic considerations (Repetto, 1972).

Family size and childbearing behavior in many developing countries are strongly influenced by the gender of the offspring. A strong son preference may be a barrier to fertility decline if couples persist in having children after reaching their overall family size goal because they are not happy with the gender composition of their current family (Arnold & Roy, 1997). Arnold (1992) analyzed data from the Demographic and Health Survey from 26 countries and pointed out that the stated desire by mothers to continue reproducing if they did not have at least one son and one daughter is now the most common preference by parents from a large sample of developing countries. Parents who prefer sons to daughters may be unwilling to stop childbearing until their preferred number of sons has been achieved. Rahman and Da Vanzo (1993) have argued further that if couples want to have one or more sons then they might have a larger family than would otherwise be the case, which could create a considerable obstacle to future fertility decline.

In Arab countries, the single, most notable demographic aspect of the Arab region is the average number of children as 6 children per woman (Al-Qudsi, 1998). While fertility levels are high in the Arab region, differences exist across countries. In mid-1994 the total fertility rate

(TFR) was less than 4 in Egypt and less than 3 in Lebanon, while Kuwait, Oman, Saudi Arabia, the West Bank, Gaza, and Yemen maintained a TFR of between 6 and 7.5 births per female national. Disparities are also noted within the same country. In Egypt, for example, the average family numbers only 3.6 children in Port Said but 8.2 in Fayoum. In Algeria, women still gave birth to more than six children in the southern part of the country but less than four in the north. While urban Yemen had a TFR of 5.6 in 1992, its rural areas had a higher rate, 8.2 **(**Fargues, 1994; Al-Qudsi, 1998).

Based on fertility trends, Arab countries can be divided into three broad categories. The first group is countries with continually high fertility rates and declining mortality. This group includes Jordan, Oman, Syria, Yemen, the West Bank, and Gaza where the per capita income level is low to moderate. The birth rate among these countries was 44 births per 1,000 people in 1990, well above the birth rate of 30 for all developing countries in that year. In the second group, fertility is declining at rates that are faster than the rate of decline in mortality rates leading to a deceleration in the natural growth rate. This group includes Morocco, Egypt, and Lebanon whose socioeconomic development is at an intermediate level. The Gulf countries are the third group and are characterized by high fertility and rapidly declining mortality rates. The group includes Saudi Arabia, the United Arab Emirates, Bahrain, Iraq, Kuwait, and Qatar. In the early 1950's, the birth rate for this group of countries was 49 births per 1,000, the death rate was 23 deaths per 1,000. During the next few decades, the producing of oil caused the arrival of waves of immigrants and contributed to the rapid progress in health standards and socioeconomic development in general. The average birthrate for these countries (which includes substantial numbers of immigrants) dropped to 36 by 1990, while the death rate plummeted to 6 per 1,000 **(**Omran & Roudi, 1993; Al-Qudsi, 1998).

Existing evidence pointed to the impact of cultural, economic, and educational forces on fertility in Arab countries. A study done by Al-Qudsi (1998), for example, provides empirical evidence on fertility determinants in Arab countries. The study results indicate that son preference and religious beliefs positively influence fertility and family size. Female education and employment status have a negative impact on fertility. Increasing women's employment opportunities and 'exogenous' increases in their wages increase the cost of having children and lower fertility. There is an inverse relationship between female age at marriage and fertility. Women who enter into their first marriage at a young age have a higher expected fertility rate than women who marry later in life. However, in all countries studied, younger cohorts do not marry as young as did their older cohorts and their expected fertility is lower, hence a demographic transition is taking place across generations.

In line with Al-Qudsi's study (1998), some research showed that couple's work status and education have an impact on fertility in several developing countries. Rodriguez and Cleland (1981), in their study about the impact of socioeconomic factors on marital fertility in 20 developing countries participating in the WFS showed that the wife's educational level has a greater influence on fertility than the husband's education. A wife's work status, however, has a large and extensive impact on fertility, with statistically significant independent effects found in 19 of the 27 populations studied, while a husband's work status has almost no independent impact on marital fertility. This finding provides strong evidence that employment opportunities for the wife represent a genuine alternative to continual childbearing for many couples, and can make a major contribution to reducing fertility.

Empirical studies revealed that the relationship between son preference and fertility is often rather weak in some developing countries (Arnold, 1997, 1992; Bairagi & Langsten, 1986;

Das, 1989; Koenig & Foo, 1992; Park, 1986). Even in countries such as China, South Korea, and Indian states such as Punjab, where son preference is still frequent, fertility has declined dramatically. This may be due to the fact that the forces of changed socioeconomic conditions rapidly affected patterns of fertility and family planning (Okun, 1996).

There is widespread agreement among scholars and policy-makers that Western societies have been experiencing primary changes in social and demographic aspects. Birth rates have reached an all-time low throughout the industrialized world, with many European countries now experiencing levels of fertility that are below replacement (Alwin, 1996). The single, most notable demographic aspect of Western societies is the low fertility level. The TFR in the U.S. is 2.10. While fertility levels are low in this region, differences exist across Western countries. In 2005 and 2006, the TFR was 1.98 in France, Sweden, and Denmark, while Australia, Finland, United Kingdom, Belgium, Netherlands, Canada, Switzerland, Portugal, Bulgaria, Austria, Italy, Hungary, Spain, Germany, Russia, and Japan maintained a total fertility rate of between 1.81 and 1.25 births per female national (Preston & Hartnett, 2008).

The impact of gender preference, economic, and education forces on fertility in Western societies is also documented in several studies. Ben-Porath and Welch (1978) find that gender preferences have a statistically significant effect on fertility, and in U. S. data there is a U-shaped relationship between the tendency to have more children and the ratio of boys to total children. They interpret this relationship as evidence that parents have a taste for balance in the gender composition of their children, rather than a difference in the economic costs and benefits of boys and girls, which would suggest a monotonic relationship. In accordance with these findings, Hank & Kohler (2000), Sloane & Lee (1983), Yamaguchi & Ferguson (1995), and Teachman & Schollaert (1989) showed that a preference for balanced gender composition is found in the

parity progression data in many Western countries. Parents with same-gender children are more likely to have an additional child. Consistent with these findings, evidence from Nordic countries indicated that parents with same-gender children are more likely to have a third child. In Sweden, Denmark, and Norway parents are more likely to have a third child if the first two children are boys, while in Finland, parents are more likely to have a third child if the first two children are girls. This means Danish, Norwegian, and Swedish parents prefer having a daughter, whereas Finns display a noteworthy preference for having a son (Andersson, et al., 2006). However, the very large samples in U.S. Census data reveal a small degree of boy preference. Women with two girls are 2.4 percent more likely to go on to have a third child (Dahl & Moretti, 2004). One possible (but untested) interpretation of these cross-country differences in child gender preferences effects on parity progression attributes them to differences in the relative bargaining power of men and women. If women have a stronger preference for at least one daughter than do their partners (and vice versa), then we may see obvious daughter preference in data from countries in which women have relatively greater influence on fertility decisions (Lundberg, 2005).

While some studies showed an effect of gender preferences on a couple's reproductive behavior and ultimate family size, others have found no impact of gender preferences on ultimate family size (Ayala & Falk, 1971; Repetto, 1972), and that decisions about fertility are more likely to derive from socioeconomic considerations (Repetto, 1972; Hoffman, 1975). Preston and Hartnett (2008) in their study about the major social and demographic forces influencing American fertility levels, found that increases in the educational attainment and higher relative wages for women was expected to affect fertility levels. In agreement with these results, Billari and Philipov (2004), and Jones and Tertilt (2006) found that women's educational attainment is

negatively associated with fertility in many societies, including historically, in the U.S. Prominent interpretations of this negative relationship are that better-educated women have better access to contraceptives. In addition, the increase in the female labor force has been found to have an inverse relationship with fertility level. Fertility levels will fall as female labor force participation rates rise because of the difficulties of accommodating the demands of child rearing to the requisites of employment (Cramer, 1980; Bettio & Villa, 1998; Rindfuss, et al., 2000; Waite & Stolzenberg, 1976; Smith-Lovin & Tickameyer, 1978).

In reviewed studies, the relationship between son preference and fertility is confounded by the observation that the link is weak in both high-fertility and low-fertility populations. In high-fertility societies, most couples continue to have children regardless of the number of sons and daughters they already have. In low-fertility societies, the influence of son preference is also weak because few couples want to have more than one or two children even if they do not achieve their ideal number of sons and daughters (Arnold & Roy, 1997).

2.2.4 Parental involvement with children

In recent years, social science research in the United States and other developed countries has focused increasingly on parental involvement and emphasized its importance to children. Increased parental involvement may contribute to children's overall development, their economic outcomes in adult life, and improvements in a family's overall well being (Aldous, Mulligan, & Bjarnason, 1998; Lundberg, 2006).

Several studies that investigated the relationship between parental involvement and children's overall development argued that high levels of parental involvement and a close father-child bond play an important role in the social, emotional health, and intellectual development of children (Aldous, Mulligan, & Bjarnason, 1998; Almeida, Wethington, &

McDonald, 2001; Sayer, Gauthier, & Furstenberg, 2004; Lamb, 1987; Acock & Demo, 1994; Dornbusch, 1989; Jessor & Jessor, 1977; Steinberg & Silverberg, 1986). Increased paternal interaction with children is a crucial factor that promotes children's healthy development (Parke, 1996), creates greater satisfaction with parenting, and enhances closeness to the child (Russell, 1982; Sagi, 1982). Children with highly involved parents are found to develop better self-confidence, self-esteem, verbal intelligence (Deutsch, Servis, & Payne, 2001; Easterbrooks & Goldberg, 1984), and higher scores on measures of psychological and social competence compared to those who do not experience such close relationships (Lamb, 1997; Lamborn, Mounts, Steinberg, & Dorbusch, 1991; Almeida, Wethington, & McDonald, 2001). Moreover, parental involvement in children's school activities, such as attending parent-teacher conferences, monitoring children's progress, and helping with homework are found to be positively associated with children's academic success (Baker & Stevenson, 1986; Steinberg, Lamborn, et al., 1992; Stevenson & Baker, 1987). In contrast, other research suggests a minimum impact of fathers beyond contribution to the economic well-being of the family (Crockett, Eggebeen, & Hawkins, 1993; Kandel, 1990; Peterson & Zill, 1986), and that mothers still shoulder the lion's share of parenting by managing, supervising, and organizing childrearing activities (LaRossa, 1988).

Sociologists and developmental psychologists have long recognized that parental involvement with children varies according to certain characteristics of children and parents. Pleck (1997) reviewed studies of parental involvement by the child's versus parents' characteristics and noted a rather complex picture. Existing research reveals that parental involvement with children varies by a child's gender, gender composition, child's age, and the number of children in the household. Time-allocation data from the U.S. shows that men spend

more time with sons and women spend more time with daughters (Bryant & Zick, 1996; McHale, Crouter, & Tucker, 1999; McHale & Updegraff, 2000; Yeung, 2001). Recent data from the Fragile Families and Child Well-being Study further examined the impact of children's gender on the involvement of both married and unmarried fathers with their sons and daughters one year after the child's birth. The study indicated that both unmarried and married fathers engage in significantly more caretaking of sons than daughters in activities, such as diapering, feeding, and playing. Mothers' reported interactions with one-year-old sons and daughters, on the other hand, are basically equal (Lundberg, McLanahan, & Rose, 2007).

Tucker (2003) in his investigation of two-parent families with two adolescent siblings furthermore viewed that mothers spent more time with daughters than with sons and that fathers spent more time with sons than with daughters. Yet, both mothers and fathers feel just as much affection for adolescent daughters as for sons. However, Starrels (1994) found that although mothers report being just as close to their sons as to their daughters, fathers report a greater emotional attachment and closeness to their sons than to their daughters. To some degree, these patterns reveal greater parental involvement with same-sex children. Nevertheless, Hofferth (2003), Sandberg & Hofferth (2001), Hossain & Roopnarine (1993), Sanderson & Thompson (2002), and Snarey (1993) found that a child's gender had no effect on fathers' total engagement time with children.

Evidence from the 1987–1988 National Survey of Families and Households found that children's gender composition, such as all boys or a fraction of boys, positively affects the frequency of fathers' activities with their children (Cooksey & Fondell, 1996; Marsiglio, 1991; Wilcox, 2002; Zick et al., 2001). When all children in the family are boys, fathers spend more time in solo interaction with their children than when a girl is present among the siblings (Barnett

& Baruch, 1987). Additionally, Fathers with sons are more involved with their children's discipline, schoolwork, and other activities than are the fathers of daughters (Lamb, 1987; Morgan, 1988). Harris and Morgan (1991) in their study about parental involvement with adolescents, using the 1981 National Survey of Children, also found positive and significant results of the influence of gender (being a boy) and of gender composition (number of boys) on parental involvement. Children of both genders (mixed gender) receive greater attention from their father when there is a son present in the family.

Research on the relationship between age of the child and parental involvement has been mixed. Several studies found that lower level of parental involvement, in absolute terms, with older children (Barnett & Baruch, 1987; Marsiglio, 1991; Pleck, 1985; Yeung, 2001). However, Anderson (2003) and Aldus (1998) found greater father involvement with sons compared to daughters when children are older than five years. Yet, Cooksey (1996) indicated that the presence of young children in the household tended to reduce a father's involvement for all activities. Similarly, mixed findings were evident regarding the impact of number of children. Yeung (2001), Marsiglio (1991), and Gauthier et al. (2004) found that the number of children associates negatively with parental involvement with children. In contrast, Milkie et al. (2004), Sayer, Bianchi et al. (2004), and Nock & Kingston (1988) pointed out that the number of children has a positive relationship with mothers' investment of time.

Parents may gender-type their time investment in children because they think that fathers have particular knowledge to share with sons while mothers need more time with daughters in order to properly model motherhood and foster female behavior in their daughters. Also, there may be a greater similarity of interests between the genders. Children themselves may contribute to this process by seeking out the parent they feel is most gender suitable for the activity they

want to do. For instance, boys may be more likely to approach their father than their mother when they want something they see as masculine, and girls may be more likely to approach their mothers to fulfill needs such as the desire to go shopping (Raley & Bianchi, 2006). Furthermore, Lundberg (2006) noted several factors that might influence parents to gender-type their time investment in children. Same gender parents and children may more easily develop a unity of interests. Parents may believe that boys, more than girls, need fathers as role models. This may affect the amount of interaction between fathers and sons versus the time between fathers and daughters. In fact, most research on parents' time with children showed that mothers do not spend more extensive amounts of time with daughters than with sons (Brody & Steelman, 1985; Crouter, 1993; Siegal, 1987; Raley & Bianchi, 2006). This is due to the fact that mothers spend much more time engaged in childrearing than fathers and are usually responsible for meeting the day-to-day needs of their children such as ensuring that children are dressed, fed, bathed, etc. (Raley & Bianchi, 2006). Fathers are more likely to focus on breadwinning as their primary parenting role (Townsend, 2002).

Even though the majority of research found that, overall, fathers spend more time with sons than with daughters (Bryant & Zick, 1996; Yeung, 2001; Lamb, 1987; Morgan, 1988; Tucker, 2003; Hofferth & Anderson, 2003), other research proposes that parental time investment in children can vary according to certain parental characteristics. Parental education was positively associated with the amount of time parents spent with children. Parents with more education invested more time and did more enriching activities with their children than less educated parents. Highly educated mothers were more positively engaged and invested more time in children than less educated mothers did (Sayer, Bianchi, & Robinson, 2004; Hill & Stafford, 1974, 1985; Leibowitz, 1974, 1977). Research emphasizes this by showing a positive

relationship between a mother's education and her child's achievement of cognitive skills (Moorehouse, 1991; Mumane, May-nard, & Ohls, 1981; Bogenschneider, 1997). However, other research reports no such association between mothers' education and time with children (Sandberg & Hofferth, 2001). For fathers, several studies indicate that paternal education is positively related to children's time with their father (Aldous, et al., 1998; Marsiglio, 1991; Yeung, et al., 2001), especially in playing, reading, or going on outings. These results suggest that parents with a higher level of education, in particular college-educated parents, may perceive greater benefits from spending time caring for their children. They are thought to be more aware of the importance of the investment of time in cultivating children's human and social capital, and more strongly motivated to conform to the norms of involved parenting (Coleman, 1988; Daly, 2001; Kitterod, 2002).

Employment and work hours, on the other hand, may have a negative association with the amount of time parents spend with their children (Bryant & Zick, 1996a, 1996b; Nock & Kingston, 1988; Robinson & Godbey, 1999), but the effects of employment are much stronger for mothers than fathers (Coltrane, 2000; Shelton & John, 1996). Fathers who work longer hours are less involved in engagement activities with their children (Blair, Wenk, & Hardesty, 1994; Marsiglio, 1991; Cooksey, 1996; Muller & Kerbow, 1993; Freese & Powell, 1999) and fun activities, such as visiting, chatting, and being entertained (Nock & Kingston, 1988). Data from time-diary studies investigated the relationship between mothers' employment and parental time spent in the direct care of children and found that employed mothers spent less time in physical and nonphysical family care (Bryant & Zick, 1993; Dolan & Scannell, 1987; Gershuny & Robinson, 1988; Hill & Stafford, 1985; Sanik, 1981; Walker & Woods, 1976). The negative effect of mothers' employment on caring for children is also well documented (Kendig &

Bianchi, 2008; Bainchi, et al., 2006; Gauthier, et al., 2004; Milkie, et al., 2004; Aldous et al., 1998; Coverman, 1985; Coverman and Sheley, 1986; Marsiglio, 1991). Mothers' work and wages, in contrast, do not have the same impact (Yeung, 2001; Marsiglio, 1991). Other studies, in contrast, found that mothers' employment is associated positively with time investment in children (Bryant & Zick, 1996; Zick, Braynt, & Osterbacka, 2001). Hass (1988) further found that parents with higher incomes engaged in less physical care. However, in a study of black married parents with children ages 3-5, Ahmeduzzaman & Roopnarine (1992) concluded that parents with a higher income had more positive engagement with their children. Similarly, Cooksey (1996), Muller & Kerbow (1993), Freese & Powell (1999), and Bryant & Zick (1996) found that income is positively related to the time that parents spend with their children. The age of fathers was found to have a negative association with the amount of time fathers spend with their children, especially in personal care and play/companionship activities. Mothers' age was also found to have a negative relationship with time invested in children (Sayer, Bianchi, et al., 2004; Sayer, Gauthier, et al., 2004; Zick & Bianchi, 1996). However, age was found to have a positive association with the amount of time mothers spend with their children (Powell, Steelman, & Carini, 2006), or was not statistically significant (Sandberg & Hofferth, 2001).

Gender ideologies represent what individuals view as appropriate roles for men and women, which in turn affect their own behavior (McHale & Huston, 1984) as demonstrated by how husbands with egalitarian beliefs do more housework than those with traditional views (Coltrane & Ishii-Kuntz, 1992). Parents who have egalitarian gender role attitudes are more likely to play an active role in parenting, including engagement activities. Deutsch et al. (1993) and Bulanda (2004) offer support for the notion that a father's nontraditional gender ideology predicts greater paternal involvement than traditional fathers do. However, Bulanda (2004) found

that the gender ideology of the mother is not associated with the breadth of paternal involvement with children. On the other hand, Marsiglio (1991) found that gender role attitudes were seldom, if ever, related to various models of fathers' engagement activities with their children.

Other studies concerning the types of activities in which parents are involved are more consistent. In examining trends in parental use of time, existing research studies concluded that most of the time men spent with their children was in the form of interactive activities, such as play/companionship activities or helping with homework, rather than in the "custodial" cleaning and feeding that are the mother's domains (Robinson and Godbey, 1997), and overall, fathers spent more time engaged in activities with boys (Hofferth & Anderson, 2003). Data from time-diary studies that examined the association of parental time spent in the physical and nonphysical care of children further found that mothers spend significantly more time in direct physical and nonphysical care. However, fathers spend more time with their boys than girls in play activities, and married fathers with sons spend more time in shared leisure family activities than do fathers with daughters (Yeung, 2001; Zick & Bryant, 1996; Gershuny & Robinson, 1988; Kooreman & Kapteyn, 1987; Sanik, 1981; Walker & Woods, 1976; Bonney, Kelley, & Levant, 1999; Bryant & Zick, 1996, Katzev, 1994; Fish, New, & van Cleave, 1992;). Marsiglio (1991) further found that fathers are more likely to take children on outings and are more involved in leisure activities such as playing, doing projects, and talking with children when the children are boys.

Studies conducted in the 1980s and 1990s, focusing on the involvement of fathers relative to that of mothers found that the relative engagement of fathers was more than two-fifths of that of mothers (43.5%), and fathers' accessibility was nearly two-thirds that of mothers (65.6%) Pleck, 1997). Comparing these figures with estimates averaging across studies in the 1970s and in the1980s, Pleck concluded that there has been a clear increase in paternal involvement over

the past three decades. Other studies further indicated that fathers have a higher level of involvement relative to that of mothers (Yeung, et al., 2001) and have an engagement ratio of 0.45 and accessibility ratio of 0.43 in two parent families with school age daughters (Levant, Slattery, & Loiselle ,1987). Estimates in McBride and Mill's study (1993), based on a middle-class sample, and representing an extreme high end in the literature, showed that fathers had an engagement and accessibility level of about 83% and mothers had levels of about 82%. In contrast, other studies reported that mothers continue to invest considerably more time in childcare tasks than fathers do (Ahmeduzzaman & Roopnarine, 1992; Aldous et al., 1998; Bryant & Zick, 1996; Bittman, 1999; Gauthier et al., 2001; Sayer, Bianchi, & Robinson, 2004).

Although previous research on parental involvement with children showed that parents' time investment with children varies according to the gender of the child, some studies argued that fathers are becoming more egalitarian in their time investment with their children. As suggested by Morgan & Pollard (2002), parents and children face increased social pressure to adopt more equal roles, and pressure in support of traditional gender behavior is gradually breaking down. Women have entered occupations that were for a long time held by men, the wage gap has narrowed, and men are assuming a greater share of the household work (Bianchi, 2000; Bianchi & Spain, 1996).

From reviewed studies, it is clear that in many ways parents tend to treat sons and daughters differently. This differential treatment may be due, in part, to stereotypes that parents hold about what is appropriate behavior for a child of a given gender, or to different aspirations they have with regard to what they want the child to become (Maccoby, 2003).

2.2.5 Children's Participation in Household Work

For several decades, research concerning the division of household labor focused only on the gendered allocation of adult household work, while ignoring children's contributions. A considerable body of literature describes and theorizes about the differences between husbands and wives in relation to household labor and the continuing inequality of the domestic division of labor despite women's increased participation in paid employment (Baxter & Western, 1998; Brines, 1994; Gill, 1993; Gregson & Lowe, 1993; Layte, 1993; Lennon, 1994; Seymour, 1992; Speakman & Marchington, 1999; Warde & Hetherington, 1993). Following a lack of attention in the literature, children's contribution to the household work has recently become the focus of a number of investigations (e.g., Gager & Sanchez , 2004; Bianchi & Robinson, 1997; Blair, 1992a, b; Peters & Haldeman, 1987; Brody & Steelman, 1985; Lamb & Sutton-Smith, 1982; Cogle & Tasker, 1982; White & Brinkerhoff, 1981). There are an increasing number of recent studies that are starting to focus on the amount of household labor and the contributions children make to family. Children have been shown to consistently perform chores within the home (Cogle & Tasker, 1982) and represent a significant portion of total amount of labor performed by all persons within the household (Blair, 1992a, b; Peters & Haldeman, 1987). Yet, the overall amount and kinds of work they do vary according to certain characteristics of children and parents.

Studies have shown that gender typing occurs in the allocation of household work for children (Raley & Bianchi, 2006; Blair, 1992; Cogle & Tasker, 1982; White & Brinkerhoff, 1981). In the time-diary studies examining the household tasks that children actually perform, not just what they are assigned, both Bianchi & Robinson (1997) and Gager & Sanchez (2004) suggest that overall, girls do more household labor than boys. Differentiation by gender in housework persists even among highly educated parents who pledge their allegiance to

egalitarian gender ideology (Gager & Sanchez, 2004). Timmer, Eccles, & O' Brien (1985) found that teenage girls (ages 12-17) spent twice as much time as teenage boys on household work during weekdays. On weekends, girls spent almost three times as much time performing household labor. Berk and Berk (1978) also found that in households where there are female children between the ages of 16 and 20, children's proportion of household labor is higher than in households with younger children (Bird & Ratcliff, 1990), but that having boys between 16 and 20 is not associated with any increase in children's housework time. Other studies further suggest that girls are more likely to participate in household labor and/or spend more time on housework than boys (Blair, 1992b; Bloch, 1987; McHale et al., 1990), especially among adolescents (White & Brinkerhoff, 1981), adult children (Spitze & Ward, 1995) or when sibling groups are of mixed genders (Brody & Steelman, 1985). Tucker et al., (2003), however, in their examination of parents in married-couple families, indicated that parents assign household tasks for adolescent sons and daughters evenly.

Children are allocated chores differently by gender in terms of both the amount and kinds of work they do. Boys generally do the outdoor jobs, such as taking out the trash and household repairs, whereas girls are typically assigned indoor activities, such as washing the dishes and cooking. In addition, girls devote more time to such activities than do boys (White & Brinkerhoff, 1981; Gager, 1999; McHale, 1990), and even among adult children who live with their parents, sons do less housework than daughters (Ward & Spitze, 1996). Brody & Steelman, 1985, in their examination of married parents' assignments of their children's work, found that more daughters are associated with more gender typing in household activities (i.e., with traditionally feminine work such as cooking, washing dishes, shopping, food preparation, and vacuuming). Indeed, what children do in the home is suggestive of early socialization in the

gender-specialized housework and caregiving that characterizes adulthood (South & Sitze, 1994; Raley & Bianchi, 2006).

This gender segregated pattern corresponds closely to the division of responsibilities commonly observed among adults (Blair, 1992a, b; Burns & Homel, 1989; Cogle & Tasker, 1982; White & Brinkerhoff, 1981; Zill & Peterson, 1982). That is, women are more likely to perform greater total amounts of household work and perform qualitatively different types of household chores. Lawrence & Wozniak (1987) reported that girls do significantly more labor than boys do, with girls averaging 77 minutes per day in total household work, as compared to an average of 55 minutes per day among boys. Girls were also found to spend more time than boys in household activities, such as housecleaning, shopping, food preparation, dishwashing, clothing care, and clothing construction, while boys spend more time in outdoor household activities, such as maintenance of the house and yard work (Lawrence & Wozniak,1987). Such results have been confirmed by other studies (Cogle & Tasker, 1982; Munroe et al., 1983; Oldham, 1979; Whiting & Whiting, 1975). However, Hilton & Haldeman (1991), Gager, Coony, & Call (1999), and Dodson & Dickert (2004) found that children's household labor is less gender segregated than that of adults.

The extent to which the gender typing of children's household chores is endorsed also seems to vary by age, number of children, and several parental characteristics. Cogle and Tasker (1982) found that the age of children has a strong effect on the extent of gender typing in their household chores. Young children (aged 6-11) were less likely to occupy gender-typed tasks than were older children. This trend, in particular, tends to be stronger among girls than among boys. White & Brinkerhoff (1981) reported similar findings; between the ages of 6 and 9, 33% of boys and 61% of girls assisted their parents in meal preparation. Between the ages of 14 and 17, only

22% of boys versus 72% of girls performed kitchen-oriented chores. Blair (1992a, b) also found that the age of daughters is strongly associated with performing household chores. As daughters increase in age, they do more total labor, contribute a greater percentage of all labor in the home, and spend more time in female-dominated chores. As with daughters, sons take on greater total amounts of household work as they age but to a lesser degree. In addition, the number of children in a household was found to be associated with children's labor time. White and Brinkerhoff (1981) examined the effects of the number of children and to the degree at which children's tasks were differentiated by gender. They found that the larger the numbers of siblings, the more "feminine" were the task assignments of both boys and girls, resulting in a constant gender difference across varying sizes of sibling groups. Bianchi & Robinson (1997) report a positive relationship between the number of siblings in a family and the time a child spends on household chores. The same findings were reported by Blair (1992a), who also found that the number of children in the family is one of the strongest predictors of children's labor time. Brody & Steelman (1985) found the opposite; namely, that the number of children did not have a significant effect on children's household work.

Women's paid work hours are positively associated with children's proportional share of housework in dual earner households or with daughters' time spent on housework, perhaps partially accounting for the weak association between women's employment and husbands' household labor time (Blair, 1992a, b). Benin & Edwards (1990) reported that boys in dual earner families, with mothers who are employed full-time, spend less time on housework than do boys in single-earner families, although the opposite is true for girls. These conclusions have been found by other studies (Hedges & Barnett, 1972; Rubin, 1983; Cogle & Tasker, 1982; White & Brinkerhoff, 1981). However, Peters and Haldman (1987) found that the employment

of the adults in the home actually has no significant relationship to the amount of labor spent by children on specific tasks, but they found that employment of adults in the family does lead to an increase in the children's share of the total workload in the household. Further, Gager, Coony, and Call (1999) found that mother's employment status does not predict time spent on household chores by teens.

Level of parent's education is inversely associated with the acceptance of a traditional gender-typed division of labor for children (Blair, 1992b; Duncan & Duncan, 1978; White & Brinkerhoff, 1981). That is, parents with a high level of education were less likely to support a gender-typed division of chores for their children, favoring instead a more egalitarian allocation of tasks, whereas parents with low educational attainment were more likely to prefer traditional segregation of chores by gender of children. Nevertheless, parental education was not predictive of the amount of time children spend doing household chores (Cogle & Tasker, 1982; Bianchi & Robinson, 1997; Blair, 1992a). Older parents, and those who express traditional gender role attitudes, are more prone to agree with the strict gender typing of children's tasks than are their opposites (Duncan & Duncan, 1978; White & Brinkerhoff, 1981; Blair, 1992b). In addition, parental income and respondent's gender were not predictive of the amount of time children spend doing household chores (Cogle & Tasker, 1982; Bianchi & Robinson, 1997; Blair, 1992a; White & Brinkerhoff, 1981).

2.2.6 Marital quality and gender of the child

To date, researchers have not completely fleshed out potential effects of the gender of children on marital relationships. Existing evidence shows the association between the gender of children and their parents' marriage extends to parents' reports of happiness and satisfaction within marriages. When married couples transition to parenthood, they are more likely to report

being satisfied with their marriage and to report positive marital interactions following the birth of a son compared with the birth of a daughter, although these gender-of-child differences are small **(**Raley & Bianchi, 2006;White & Brinkerhoff, 1981).

The birth of a son, relative to a daughter, increases both the quality and stability of marriage (Lundberg, 2007, 2003). Parents with sons report higher levels of marital satisfaction and happiness than do parents who have only daughters (Barnett & Baruch, 1987; Katzev, Warner, & Acock, 1994; Cox et al., 1999; Mizell & Steelman, 2000; Lundberg, 2007, 2003). A study done by Kohler et al. (2005) investigated the contributions of partnerships and children to subjective well-being or happiness. A sample of Danish twins found that the birth of a first child increases reported happiness, and that men enjoy an almost 75% larger happiness gain from a first-born son than from a first-born daughter. The presence of boys in the family also increases the likelihood that a marriage will remain intact (Spanier & Glick, 1981; Morgan, Lye, & Condran, 1988; Heaton & Albrecht, 1991; Mott, 1994; Katzev et al., 1994). This may be because boys continue to be more valued in society. Mothers with sons may feel more satisfied in their marriage and hence be less disposed to consider separation from their spouse.

Having all boys is associated with higher levels of happiness and satisfaction than having more daughters than sons or having an equal number of sons and daughters (Dahl & Moretti, 2004, Mizell & Steelman, 2000, Raley & Bianchi, 2006**).** If the presence of (all) sons invites active involvement from fathers, this may make mothers happier (Raley & Bianchi, 2006). According to Katzev et al. (1994), mothers perceived fewer disadvantages in their marital relationships when they had sons, and this was associated with fathers' engagement with children. Yet, Mizell and Steelman (2000) did not find that paternal involvement mediated the association between sons and marital happiness. Instead, they suggest that mothers may enjoy

the attention or status as the lone female in a family of boys. On the other hand, some researchers have found higher marital satisfaction and happiness among wives with daughters compared to wives with sons (Abbott & Brody, 1985). Girls have been found to help their mothers in the hardships of domestic life more than boys do (Brody & Steelman, 1985).

Even though the majority of research found that the presence of a son, relative to a daughter, in the family increases the levels of marital satisfaction and happiness, other research proposes that marital quality will vary according to certain factors such as children and parent characteristics, fathers' level of involvement with children, and gender role attitudes. Folk wisdom suggests that babies bring couples closer together, and some couples claim greater closeness as a reason for having a baby (Brinley, 1991). Unfortunately, some researchers suggest that couples became less satisfied with their marriage relationship after having children (Belsky & Pensky, 1988). The number of children was found to be inversely related to marital satisfaction. People with more children report greater marital dissatisfaction than people with fewer children (Twenge, Campbell, & Foster, 2003). The increasing of the family size may decrease the amount of time or opportunity spouses have to do things together and in turn affect marriage relationships (Feldman, 1981; Houseknecht, 1975; Luckey & Bain, 1970). In addition, children are expensive and can place significant stress on family finances, which in turn may lead to dissatisfaction with the marriage (Twenge, Campbell, & Foster, 2003). In fact, children have the paradoxical effect of increasing the stability of marriage, at least when the children are relatively young, while decreasing its quality (Belsky, 1990; Waite & Lillard, 1991). Others may argue that children will have no effect on marriage quality **(**Marini, 1980; Aldous & Ganey, 1999). The age of a child was also found to affect marriage satisfaction. Several studies showed that the presence of young children is associated with decreased marital satisfaction of wives

(Glenn & McLanahan, 1982; Houseknecht, 1979; Ryder, 1973; Sollie & Miller, 1980). In studies comparing parents with non-parents, mothers of infants are significantly more dissatisfied with their marriages than men with infants as are men with older children and women with older children (Twenge, Campbell, & Foster, 2003).

In every society, age is a socially standardized and evaluated category. In our society, youth is generally evaluated higher than old age, while persons in the middle age categories are most involved in work and family. Several studies have shown that the relation of happiness to age is u-shaped: the younger, but also the older people tend to be happier (Michalos, Hubley, Zumbo, & Hemingway, 2001; Hayo & Seifert, 2003; Christoph & Noll, 2003; Haller & Hadler, 2006).

In studies of the relation between marriage happiness and gender differences, women are favored. The results from such studies have shown that women appear to be generally happier than men (Wood, Rhodes, & Whelan, 1989; Aldous & Ganey, 1999). Other factors may also contribute to marriage happiness, such as income and education. The more one has in terms of such characteristics as income and education, the happier one supposedly will be (Aldous & Ganey, 1999; Kohler, Behrman, & Skytthe, 2005).

Studies of the effect of child gender on marriage and divorce have suggested a positive relationship between paternal involvement and marital satisfaction and stability. When fathers participate more in family activities, including childcare, mothers perceive less disadvantage in their marital relationship and are more satisfied (Blair & Johnson, 1992). Paternal involvement in parenting can be related to marital satisfaction and stability in two ways. First, if fathers are more involved with sons than with daughters (perhaps because fathers play a crucial role in the emotional and social development of boys), then having a son increases marital surplus, or the

value of marriage relative to single parenthood. Second, fathers may simply place a higher value on marriage and family if they have a son (Lunderberg, 2003; Kalmun, 1999; Amato & Booth, 1997; Katzev et al., 1994; Harris & Morgan, 1991; Marsiglio, 1991).

Measures reflecting gender ideology, especially attitudes toward women's employment and child rearing, have been found to be associated with both marital quality and marital stability (Amato & Booth, 1997; Sayer & Bianchi, 2000). A number of studies have found that gender ideology is related to marriage quality. Amato & Booth (1997), Davis and Greenstein (2009), and Mickelson et al. (2006), for instance, showed that nontraditional wives tended to report lower levels of marital quality, whereas nontraditional men tended to report higher levels.

When partners hold more nontraditional attitudes regarding marriage, family, and gender relations, marriages are less likely to be stable and satisfying (Heaton & Albrecht, 1991; Lye & Biblarz, 1993). In a study of American married couples, Greenstein (1996) found that the effects of perceptions of inequity on reported marital quality were much stronger for nontraditional wives than for traditional wives. Lavee & Katz (2002) noted similar findings with a sample of Israeli couples. Holding nontraditional attitudes about marriage and family relations decreases marital satisfaction because these attitudes place an equal or greater emphasis on individual satisfaction as compared to the value of maintaining relationships in the face of personal costs (Lueptow, Guss, & Hyden, 1989; Lye & Biblarz, 1993). Blair (1993) and Xu & Lai (2004) however, found no direct effects of gender ideology on marital quality.

2.3 Summary

The reviewed literature suggests that the gender of children has an influence on family processes, and especially has implications for the ways in which parents spend time with, allocate household work, and marriage relations as well as their fertility behavior. Although

some of the evidence is questionable, boys, on average, do less housework than girls, have more engaged and committed fathers, and have parents with greater marital happiness. Variations in the results are easily noticeable in the literature and this might be due to the variation in the samples, the measurements, and the method design. For example, although the United States is far from having the kind of son preference observed in developing countries, a few studies indicated that there is still some kind of gender preference.

Although the innovative ways in which the gender of child has been analyzed in family research have advanced our conceptualizations of gender, children, and family, the social science research is packed with a number of evocative relationships, but the pathways through which the gender of a child affects various family outcomes are not yet well understood (Raley & Bianchi, 2006). Further, much of the research addressed parental involvement with children in terms of its quantity rather than its quality, which in turn necessitates developing a measure that represents both the quantity and quality of the relationship between parents and children. Even so, there is not a noteworthy body of literature investigating the influence of a child's gender on Arab-American family dynamics. This factor illustrates the lack of information/knowledge on this topic and the need for future research in order to fill the research gaps on the influence of gender in Arab-American family dynamics.

2.4 Theoretical Framework

Sociologists approach the study of gender differences in society in various ways. Some use a macro view which focuses on the large social forces that influence people. Others take a micro view, focusing on the specific social situations in which people interact with one another. For this study Structural Functionalism and Symbolic Interaction theories are used to help explain gender roles and differences in Arab-American families. Symbolic Interaction theory

guided this study while Structural Functionalism was used as an explanatory framework to support the foundation for the study.

2.4.1 Symbolic Interaction Theory

Symbolic interaction is one of the major theoretical perspectives in sociology. This theory traces its roots to George Herbert Mead , Charles Cooley, and Herbert Blumer, and others (Wallace & Wolf, 2006). Representing the micro level perspective, symbolic interactionism focuses on face-to-face interaction, and how people define and construct personal reality (Ritzer & Goodman, 2006; Wallace & Wolf, 2006). Herbert Blumer (1969) coined the term symbolic interaction to refer to the process of interpersonal interaction. He set out three basic premises of the perspective:

1. "Humans act toward things on the basis of the meanings that the things have for them"
2. "The meaning of things arises out of the social interaction that one has with fellows."
3. "These meanings are handled in and modified through an interpretative process used by the person in dealing with the things he encounters." (Wallace & Wolf, 2006, p 217-219).

According to this perspective, people live in a symbolic world where they assign meaning to each other's words and actions. Consequent interaction is the subjective interpretation of these meanings. Consequently, people do not respond directly to words and physical actions. Instead, they respond to their own interpretations of them (Williams, Sawyer & Wahlstorm, 2009; Nelson & Robinson, 2002; Renzetti & Curran, 2003). As sociologists William I. Thomas & Dorothy. S. Thomas revealed, "If people define situations as real, they are real in their consequences" (Thomas & Thomas, 1928, p 572).

Children learn their gender identity as a ‘boy’ or ‘girl’ and the meaning of gender-appropriate behavior through interaction with others, especially parents. People try to act according to their own internalized gender definition, which may be modified through interactions and from situation to situation (Nelson & Robinson, 2002; Renzetti & Curran, 2003; Ritzer & Goodman, 2006).

Several studies have shown that the gender of a child has an implication for parents’ behavior from birth. Raley and Bianchi (2006) indicated that U.S. society is more likely to have a mixed gender preference. Fathers are more involved with their sons than daughters are, and mothers spend more time with daughters than sons. Overall, girls do more household labor than boys do and parents are more likely to display gender-stereotype when allocating household to children. The birth of a son, relative to a daughter, increases both the quality and stability of marriage. In addition, gender preferences were found to have significant inferences for a couple’s fertility behavior and thus family size. One might assume that parents who want one or more children of a certain gender may have larger families than would otherwise be the case. Parents who fail to achieve a balanced number of daughters and sons (or at least one child of each gender) by the time they reach the number of children planned, might tend to increase their family size upward (Gray & Morrison, 1974).

Symbolic Interactionist researchers investigate how people create meaning during social interaction, how they present and construct the self (or "identity"), and how they define situations of co-presence with others. They determined that people act as they do because of how they define their present situation (Renzetti & Curran, 2003). However, this perspective ignores the influence of the large social structure on gender differences (Williams, Sawyer, & Wahlstorm, 2009).

2.4.2 Structural Functionalist Theory

Structural Functionalist Theory, a macro-level orientation, evolved from the work of Emile Durkheim, though it was shaped by Harvard sociologist Talcott Parsons and others during the mid-20th Century. According to the Functionalist perspective, society is composed of interrelated parts, in which each part of society (the family, the school, the economy, and the state) performs certain functions. If all goes well, the parts of society produce order, stability, and productivity. If all does not go well, the parts of society must then adapt to recapture a new order, stability, and productivity. For example, this perspective views the family as a social institution that performs essential functions such as socialization, reproduction, economic support, sex regulation, and emotional support (Williams, Sawyer, & Wahlstorm, 2009; White & Klein, 2008; Ritzer & Goodman, 2006; Wallace & Wolf, 2006).

The Functionalist perspective achieved its greatest popularity among American sociologists in the 1940s, 1950s, and 1960s. The leading proponent of the Structural Functionalist perspective was sociologist Talcott Parsons, who held that in order to maintain the stability of the family and society as a whole, there are two types of roles that must be fulfilled in any group. One is an instrumental role, where the male is the breadwinner, hard working, self-confident, and competitive. The other one is the expressive role, which the wife carries out and includes nurturing and housekeeping tasks (Williams, Sawyer, & Wahlstorm, 2009; White & Klein, 2008; Parsons & Bales, 1955).

Structural Functionalist perspective was further developed by Robert Merton who expanded Parsons' understanding of structural functionalism by explaining not only the function of social structures, but also their dysfunction. He pointed out that not all parts of a modern, complex society work for the functional unity of society. Some institutions and structures may

have other functions, and some may even be generally dysfunctional, or be functional for some while being dysfunctional for others (Williams, Sawyer, & Wahlstorm, 2009; Ritzer & Goodman, 2006).

The Structural Functionalist Theory allows family relations to be examined in terms of their positive functions for the family and society as a whole. Preferring one gender over the other (i.e., boy over girl) or achieving balance of daughters and sons (or at least one child of each gender) can provide economic, social, or psychological functions that contribute, in turn, to family solidarity and increase marriage stability. Functionalist perspective suggests that the participation of children in household tasks may also have important functional, integrative, and developmental implications, both for the child and for the family. Mainly, it helps teaching children to be responsible, independent, and prepared for paid work in the future. However, the differential treatment based on gender of the child, such as being involved with one gender more than the other or allocating the household work to children based on gender of the child might also be dysfunctional, especially for girls who become disadvantaged, affecting their overall well being. In addition, preferring boys over girls can also be dysfunctional for the family and society in the long run. For example, if families want boys, they might impoverish themselves by having a larger family size. Preference for boys over girls might result in gender imbalance in the future (i.e., more men than women), which in turn could alter the structure of marriage in society, by creating a lack of marriage partners. Research suggests this is apparently occurring in China (Westley & Cho, 2007). Also, an increasing number of boys over girls can lead to concerns that a shortage of women will make difficult for men to find wives in the future. This may lead men to marry women from other groups or cultures. Further, a shortage of women in the long run—as a

result of boys' preference—might give women more power and thus more influence within the family, such as making important decisions, or selecting the future marriage partner.

This theory has been criticized for overstressing stability and solidity; not focusing enough on individuals' everyday interaction; and, for not providing a sound clarification for the origin of gender role differentiation (Lindsey, 1990; Renzetti& Currant, 2003; Williams, Sawyer, & Wahlstorm, 2009).

2.4.3 Research Hypotheses

According to Symbolic Interactionism Theory, we live in a world in which people assign value and meaning to each other's words and actions and our interaction is determined by our subjective interpretation of the action (Williams, Sawyer & Wahlstorm, 2009).Therefore, the gender of the child is a symbol to which parents attach a meaning and act according to their internalized definition. The literature review supports this point of view and indicates that the gender of a child has implications for parental behavior. Gender preferences have significant inferences for a couple's fertility and family size behavior (Gray & Morrison, 1974; Marleau & Saucier, 1996, Arnold & Roy, 1997). In addition, having boys tends to increase marital stability and marital satisfaction relative to girls (Raley & Bianchi, 2006; Dahl & Moretti, 2004); fathers spend more time with, and are more involved with, sons rather than daughters (Raley & Bianchi, 2006; Tucker, 2003); and parents use sex-typing when allocating household work to their children (Bianchi & Robinson, 1997; Gager & Sanchez, 2004; Gager, 1999). In addition, the literature pointed out that other factors, including average age of children, number of children, parents' gender and age, income, work status, education, age at marriage, place of birth, and gender ideology, were significant predictors of family size, parental involvement with children,

allocating household duties to children, and marital quality. Those factors were used as control variables in the current study.

Figure 1 presents the conceptual model and the hypothesized relationships between the gender ratio, gender composition, and parental gender preferences regarding children and various family dynamics. Four dependent variables were used: family size, parental involvement with children, allocating household work, and marriage quality. The other variables in the model are independent variables. They include gender preferences, gender ratio, and gender composition**.**

Based on the literature findings and the symbolic interaction theory's view, the following hypotheses are proposed:

Hypothesis I

Parental gender preference regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, income, work status, education, and gender ideology.

Specific Hypotheses

1. Parents with a strong boy preference are more likely to have a larger family size than those with a girl preference, balanced preference or no preference.
2. Parents with same-gender children (all boys or all girls) are more likely to have a larger family size than parents with mixed-gender children.

Hypothesis II

Gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of children, work status, income, education, average ages of children, gender ideology, and place of birth.

Specific Hypotheses

1. Gender ratio significantly predicts parental involvement (behavioral involvement) with children. As the number of boys relative to girls in the family increases, fathers' involvement with children relative to mothers' involvement will increase.
2. Gender ratio significantly predicts parental emotional involvement with children. As the number of boys relative to girls in the family increases, fathers' emotional involvement with children relative to mothers' involvement will increase.
3. As the number of boys relative to girls in the family increases, fathers' involvement with children's interactive activities (e.g., leisure, play, school work, etc.) relative to mothers' involvement will increase.
4. As the number of boys to girls in the family increases, fathers' involvement in childcare activities (e.g., changing diapers, bathing, feeding, etc.) with children relative to mothers' involvement will increase.
5. Of the three sibship gender compositions (e.g., all boys, all girls, or mixed), fathers with only boys or mixed gender children are more likely to be involved (behavioral involvement) with children's activities than fathers with all girls.
6. Of the three sibship gender compositions (e.g., all boys, all girls, or mixed), fathers with only boys or mixed gender children are more likely to be emotionally involved with children than fathers with all girls.
7. Fathers with only boys or mixed gender children are more likely to be involved in interactive activities with children than fathers with all girls.

Hypothesis III

Gender ratio and gender composition of the children will significantly predict children's participation in household chores when holding constant parents' age, number of children,

average ages of children, gender, work status, income, education, gender ideology, and place of birth.

Specific Hypotheses

1. Boys are less likely than girls to do household chores.
2. Parents with mixed-gender children are more likely to use gender stereotyping when assigning household work to children than parents with all boys or all girls.
3. Boys are less likely than girls to do indoor work (traditional female tasks).
4. Boys are more likely than girls to do outdoor work (traditional male tasks).

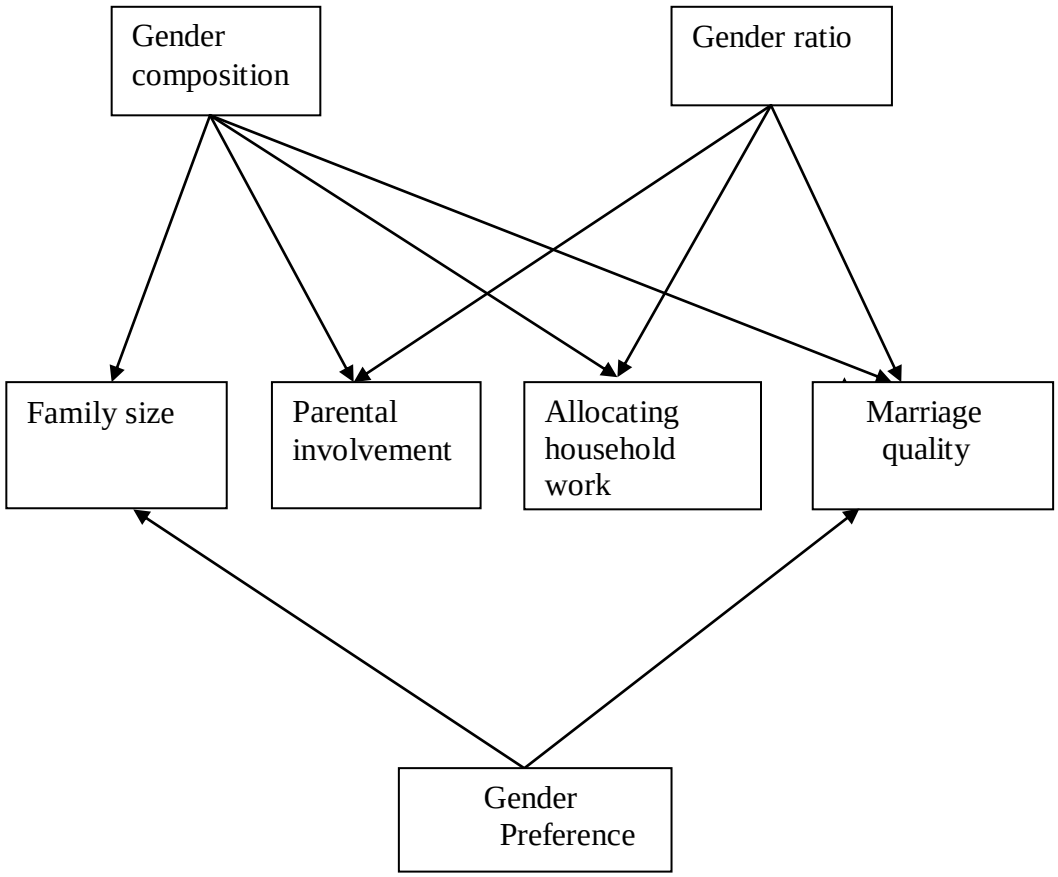
Hypothesis IV

Gender ratio, children's gender composition, and parental gender preference regarding children will significantly predict marital quality when holding constant parents' age, number of children, average ages of children, age at marriage, gender, work status, income, education, gender ideology, and place of birth as well as level of fathers' involvement.

Specific Hypotheses

1. Boys are more likely than girls to boost marital quality. As the number of boys, relative to girls, increases, marital quality will increase.
2. Of the three sibship gender compositions (e.g., all boys, all girls, mixed), parents with all boys and mixed gender sibships are more likely to report positive marital quality than parents with only girls sibships.
3. Gender preference will significantly predict marital quality. Parents with a strong boy preference are more likely to report positive marital quality than parents with a girl preference, balanced gender preference, or no preference.

Figure 1: Theoretical Model



KEY

Dependent variables

Family size	**Total number of children at home**
Parental involvement	**Behavioral & emotional involvement**
Allocating household work	**Indoor and outdoor household work**
Marriage quality	**ENRICH scale**

Independent variables

Gender Ratio	**Actual proportion of boys to girls in the family**
Gender Preferences	**Boy's preference, girl's preference, Balance, or no difference**
Gender composition	**The structure of gender in the family: All boys, all girls, or mixed**

CHAPTER 3

Methodology

The purpose of this study is to assess the association between the gender of a child and various Arab-American family dynamics. In particular, this study assessed the relationships between gender ratio, gender composition, and parental gender preferences regarding their children and family size, parental involvement with children, allocating household work to children, and marital quality. Given the disparate findings associated with past empirical research concerning the relationship between gender of the child and family dynamics, the following question was investigated: What is the effect of a child's gender on Arab-American family dynamics?

This chapter describes the research methodology used to achieve the research aim, and addresses the research's main question. This includes a description of the research design, sampling technique, measurements, instrument procedures, and statistical analyses and techniques employed.

3.1 Design

A cross-sectional quantitative survey design with a convenience sample was used to assess the relationship between gender ratio, gender composition, and parental gender preferences regarding children and Arab-American family dynamics (family size, parental involvement with children, allocating household work to children, and marital quality). Data collection began November 10/ 2010 and ended February 25/ 2011.

3.2 Sample and Setting

In this study, the target population was Arab-American married parents (male or female) who have at least two children under 18 years old living at home and who reside in **Southeast Michigan.** Since the number of people who would meet these criteria was unknown, a convenience sample of 200 parents was recruited to participate. To ensure participants would meet the criteria for the study, they were pre-screened by the researcher. Targeted participants were asked if they were Arab-American, married, had children under 18 years of age at home, and resided in Southeast Michigan**.** Only the participants who met these criteria were included in the study. Participants were recruited from a Community Center, an Islamic Center, a local social Organization, an elementary school, and an Orthodox Church in Southeast Michigan. Parents were asked to complete a survey about Arab-American family patterns.

3.3 Measurements

Dependent Variables

The primary dependent variable in this study was *family dynamics*. For the purpose of this study, family dynamics is defined as family size, parental involvement with children, allocating household chores to children, and marriage relationship quality.

***Family size*.** Family size refers to the number of children living in the home, including natural, adopted, and step-children. Family size was measured in this study with the following survey questions: How many of the children (now living) were born to you and your spouse? How many adopted children do you have? How many step-children do you have?

Parental involvement. Parental involvement represented both the quality and the quantity of relationships between parents and children by capturing both emotional and behavioral levels of involvement. The emotional level represented parents' level of closeness and affection in the

parent/child relationship. It reflected the affective quality of the relationship. It was measured with the questions 29-30 and 41-42 in the survey (See Appendix D) .The formats of these questions were adopted from Harris, Furstenberg, & Maramer's study (1998). From these questions a single additive measure was used to measure emotional involvement with children. The behavioral involvement was assessed in terms of the frequency with which parents spent time in several types of activities with their children, such as interactive activities (play, leisure activities, school work, etc) and childcare activities (changing diapers, bathing, feeding, etc).

It was constructed from respondents' responses to the questions 19-22, 24-25, 31-34, 36-37, 43-44, 46-49, 51-54, 56-59, and 61-62 in the survey (See Appendix D) [1]. Responses to these questions were on a 6-point Likert scale from (6) every day to (1) never. Then, an additive measure was developed to represent parental behavioral involvement as a whole. In an attempt to look at the types of involvement in activities with children, two separate additive measures were developed. The *interactive activities* measure was developed by adding the responses from the survey questions 19-22, 24-25, 31-34, and 36-37 (See Appendix D) and the *childcare activities* measure was developed by adding the responses from the questions 43-44, 46- 49, and 51- 52 in the survey (See Appendix D). These computed scales were later used in bivariate and multivariate analyses.

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[1] More than 85% of participants do not currently have babies at home. Therefore, items that measure how much participants are currently involved with babies in childcare activities (items 53-62 in the survey) were omitted from the analysis. They also were not included in the additive composite measure of parental involvement with children. For more information, see table 25.

Participation in household work: Participation in household work refers to unpaid work that children (girls/boys) may be asked to do at home, including indoor and outdoor work. This variable was measured with questions 63-78 in the survey (See Appendix D). Responses to these questions were on a 6-point Likert scale from (6) every day to (1) never. Then, an additive measure was developed by adding the responses from these indicators to represent children's participation in household work as a whole. In addition, two separate additive measures were developed to represent *indoor work* and *outdoor work*. The indoor work measure was developed by adding the responses from survey questions 63-66 and 71-47, and the outdoor work measure was developed by adding the responses from survey questions 67-70 and 75-78 (See Appendix D)**.** These computed scales were later used in bivariate and multivariate analyses.

Marriage quality: Marriage quality in this study reflects a parent's global evaluation of the marriage relationship by capturing spouse's personal traits, communication skills, conflict resolution, financial management, leisure activities, sexuality, parenting, relationship with the extended family, division of household labor, and religious practice. Marital quality is measured by the short version of *Enriching Relationship Issues, Communication, and Happiness* (Fowers & Olson, 1992), a 10-item Likert-type scale that assesses the perceived quality of one's marriage across 10 dimensions of the relationship (See Appendix D questions 82-91). Fowers and Olson (1992) report good reliability estimates of the short ENRICH scale as well as high concurrent and predictive validity. The internal consistency reliability (Cronbach's alpha) of the marital quality scale was .86. Responses to these items were on a 5-point Likert scale from (1) strongly disagree to (5) strongly agree. For the purpose of this study, all the negative statements in the marital quality scale (items 82, 84, 86, and 89 in the survey) [Appendix D] were reverse-coded first in order to reduce response bias. Also, in the reliability analysis, these reverse-coded items

make a difference; in the extreme they can lead to a negative Cronbach's alpha (see Field, 2005 for more detail). An additive measure was then created by adding the previous ten items. This additive measure was then later used in bivariate and multivariate analyses.

Independent Variables

There are three independent variables in this study: gender ratio, children's gender composition, and parental gender preferences regarding children. The gender ratio variable refers to the actual proportion of boys to girls in the family as a whole. Respondents were asked to provide the gender of each child at home starting with the oldest and, based on the results, gender ratio was constructed by calculating the number of boys to girls in the families studied using the transform compute function in SPSS. Ratio with less than one (ratio < 1) means more girls were born to a family than boys, ratio with one (ratio = 1) means an equal number of boys and girls were born to a family, and ratio greater than one (ratio > 1) means more boys were born to a family than girls. The gender composition refers to the children's gender distribution (structure) in the family and represents those families with all boys, all girls, and mixed-gender sibships. This variable was also constructed from the participants' responses providing the gender of each child at home starting with the oldest (See Appendix D question 13). Gender preferences in this study refer to desiring one gender more than the other (boy preference, girl preference), gender indifference, or gender balance. Gender balance is defined as desiring an equal number of boys and girls, in which the gender is still a main consideration. By contrast, gender indifference indicates a situation in which parents feel that either gender is acceptable (a boy is as desirable as a girl or vice versa). Therefore, no particular sex combinations are desired (Tin-chi Lin, 2009). This variable was constructed from responses to the survey questions 14-16 (See Appendix D). These questions were adopted from the 1992 and 1998 (Knowledge,

Attitudes, and Practice of Contraceptives) Survey (KAP). Based on the responses to these questions, respondents would have a boy preference if the desired number of boys is more than girls; a girl preference if the desired number of girls is more than boys; a balanced preference if the desired number of number of boys and girls is equal; and gender indifference if the respondent indicated that either gender is acceptable.

Control Variables

Because previous studies show that several other factors besides gender of the child impact family process, the following variables were controlled in the multivariate analysis; parents' age, gender of parents, income, work status, education, age at marriage, place of birth, and gender ideology as well as father involvement, number of children, and ages of children.

Age was measured by asking respondents the open-ended question: how old were you on your last birthday? Gender was measured by the following question: what is your gender? Responses to this question are (1) male and (2) female. Income was measured with the following question: what is your total annual family income from all sources, before taxes? Responses to this question included six categories (1) less than $25,000; (2) $25,000-$44,999; (3) $45,000-$64,999; (4) $65,000-$74,999; (5) $75,000-$94,999; and (6) $95,000 or more. Work status was measured by the question: Are you currently working outside the home? Responses to this question required a response of (1) yes or (2) no. Education was measured by the question: What is the highest level of education you have completed? Responses included six categories (1) less than high school, (2) a high school diploma or GED, (3) associate degree (a two year college degree), (4) bachelor's degree, (5) master's degree, and (6) professional degree (M.D., DDS. Ph.D. or other doctorate degree) (See Appendix D).

Gender ideology refers to the extent to which men and women adhere to traditional gender ideologies. It represents what individuals viewed as appropriate roles for men and women. It was constructed form the survey questions 92-95 (See Appendix D). These items were adopted from the National Survey of Family and Household wave II (NSFH2) 1992-1994.

Responses to these questions were on a 5-point Likert scale from, (1) strongly agree, to (5) strongly disagree. For the purpose of this study, items 94 and 95 in the survey were reverse-coded first. Then, an additive measure was created by adding all the previous items, which was later used in the regression analyses. The age at marriage was measured by asking the following open-ended questions: (1) How old were you when you got married? Place of birth was measured by the following question: Where were you born? Responses to this question are (1) In the U.S. (2) Outside the U.S. (specify the country). Number of children was also used as a control variable and was measured by the same questions indicated earlier with regard to family size. The ages of children was measured in years. Respondents were asked to provide the age of each child in the house starting from the oldest. Then, the average age was computed from all children's ages who were under 18 years (See Appendix D).

3.5 Instrument and Procedures

This is a quantitative study that used a self-administered questionnaire. The questionnaire had 97 questions and contained 5 main sections: 1) background information (9 items), (2) background information about children assessed with questions (10 items), (3) parental involvement with children (44 items), (4) allocating household work (16 items), (5) and family relationships (19 items) (See Appendix D for a copy of the survey instrument). The questionnaire was structured with closed-ended and some open-ended questions with the majority of responses set up on a Likert scale.

Prior to data collection, the questionnaire was pilot tested first on eight Arab-American parents to assess the study's measures for reliability and to establish validity before embarking on the full study. Parents were asked to evaluate appropriateness of response options, time to complete, and clarity of the questions in terms of language, wording, and meaning. Necessary corrections were considered accordingly. All measures and information sheets were then translated from English to Arabic language. Forward translation from English to Arabic was employed by a certified translator. Back translation from Arabic to English was conducted by a different certified translator. The researcher compared the translated versions to insure that the items were equivalent. Finally, the survey was pilot tested again on another ten bilingual Arab American parents to test the measures after translation. At that time, no corrections were made. The pilot samples were not included as part of the main sample.

Permission was sought in writing from the Human Investigation Committee (HIC) at Wayne State University (See Appendices A &B). In addition, letters of support from Imams, priests, and Arab-American organizations and community leaders were obtained. The study took place at mosques, churches, Arab community centers, and Arab-American social organizations in the tri-county area.

During data collection, copies of the information sheets were distributed with the survey. The average time for study participation by each respondent ranged from 20-25 minutes. In order to assure anonymity and privacy, respondents were provided with envelopes in which to place the completed survey. At the time of data collection, parents were informed of the study's purpose and were advised that they were free to refuse to participate, to abstain from answering some questions, or to withdraw from the questionnaire at any time without penalty, and that

participation was voluntary. All information was kept confidential and the results were summarized and presented in aggregate.

3.6 Statistical Analyses and Techniques

For the purpose of this study, several statistical techniques were employed. The analysis proceeded in the following manner: univariate analysis, followed by bivariate analysis, and finally multivariate analysis (multiple regression analysis). Initially, univariate statistics were used to assess the overall trends and patterns of the data. These statistics were composed of descriptive statistics (i.e., frequency and measure of central tendency, dispersions). Bivariate statistics, such as One-Way ANOVAs, were conducted to assess whether the dependent variables (family size, parental involvement, allocating household chores to children, and marriage quality) differed significantly by parental gender preferences with regard to children and the gender composition of children. In addition, a simple regression analysis was used to examine whether the dependent variables were predicted by the gender ratio variable. Finally, multivariate analysis, using hierarchical linear multiple regression was used to test the study research hypotheses and to predict the relationship that exists between gender ratio, children's gender composition, parental gender preference regarding children and family size, parental involvement with children, allocating household work to children, and marital quality. Multiple regression technique allows identification of the best predictor of an outcome or dependent variable. It also allows control for other variables that may or may not have had an effect on the dependent variables.

CHAPTER 4

Results

This chapter looks at the relationship between gender preference of parents regarding children, gender ratio, and gender composition of children and four family dynamics:

- Family size
- Parental involvement with children
- Children's participation in the household work
- Marital quality

The first section of the chapter provides a univariate description of the variables under investigation, including the independent and dependent variables as well as the control variables. Next, bivariate analyses, including a series of One-Way ANOVA analyses, were used to test whether the dependent variables varied by gender composition of children and gender preferences of parents regarding children. A simple regression analysis was also used to examine whether the gender ratio variable significantly predicted parental involvement with children, allocation of household chores to children, and marital quality. The last section of this chapter deals with the multivariate analysis when statistical evidences warrant. A series of hierarchical linear multiple regressions were used to predict the relationship between the dependent variables (family size, parental involvement, allocating household chores to children, and marriage quality) and the independent variables (gender preference, children's gender composition, and gender ratio) while controlling for other variables. This analysis will provide answers to the previously listed hypotheses.

4.1 Univariate statistics

The following is a descriptive account of variables under examination. The analysis provides the researcher with an assessment of the overall trends and patterns of the variables included in the analysis. First, the social background characteristics are presented followed by the analysis of key variables, including the independent variables (gender composition, gender ratio, and gender preferences) and the dependent variables (family size, parental involvement with children, children's participation in the household work, and marital quality).

4.1.1 Social Background Characteristics

Prior to the analysis, assessments of the social background characteristics of Arab-American parents were made. The sample consisted of 200 Arab-American respondents. A total of (115) 57.5 % of the respondents were female and (85) 42.5 % were male and the majority of the respondents were born outside of the United States (72.5%) (See table 1). The average age of respondents was 40.16 years and respondents were an average age of 23.2 at marriage. Therefore, Arab-Americans were generally younger than the general population in the United States when they married and they started their families almost immediately after marriage (see table 2).

Income, education, and work status were also important contributors to a full understanding of the social background characteristics of Arab-American participants in this study. In general, Arab-Americans are highly educated, have higher labor force participation rates, and earn higher incomes than the U.S. adult population, all of which suggest an assimilated and progressive ethnic population (Samhan 2001; U.S.A Census Bureau, 2008). This is also evident in the present study. The majority of respondents (58%) had four or more years of college (bachelor's degree and higher), (63%) were working, and (48.2%) had a $65,000 or

higher annual income. A closer examination of the level of female education and employment status also revealed that the majority of female respondents was highly educated with a bachelor's degree or higher (55.6%) and was not working (54.8%). This suggests that gender role norms are still persistent in Arab-American culture (see table 1).

Table 1: Categorical Social Background Characteristics of Arab-American Parents in the Study

Variable	Category	Valid percentage
Gender	Male	42.5
	Female	57.5
Work status	Yes	63.0
	No	37.0
Female work status	Yes	45.2
	No	54.8
Place of birthplace	USA	27.5
	Outside USA	72.5
Education	Less than High School	11.0
	High school diploma or GED	15.5
	Associate Degree (a two-year college degree)	16.0
	Bachelor's degree	33.0
	Master's degree	14.5
	Professional degree (M.D., DDS. Ph.D. or other Doctorate Degree)	10.0
Female education	Less than High School	11.3
	High school diploma or GED	13.9
	Associate Degree (a two-year college degree)	19.1
	Bachelor's degree	36.5
	Master's degree	10.4
	Professional degree (M.D., DDS. Ph.D. or other Doctorate Degree)	8.2
Income	Under $25,000	18
	$25,000-$44,999	16.4
	$45,000-$64,999	17.5
	$65,000-$74,999	12.2
	$75,000-$94,999	15.9
	$95,000 or above	20.1

In comparing these results to the entire U.S. population, it is clear that the percentage of Arab–American respondents with four or more years of education was higher than the percentage of the entire U.S. population with four or more years of college (age 25 and over) (29.4%) and the majority of the respondents had income higher than the median family income in the U.S. (61.335) (Macionis, 2010).

Table 2: Continuous Social Background Characteristics of Arab-American Parents in the Study

Variable	Mean	Median	Standard deviation
Age	40.16	40.00	9.61
Age at marriage	23.20	23.00	5.05
Number of natural children	3.55	3.00	1.31
Average age of children	9.92	10.20	3.98
Gender ratio (boys to girls ratio)	1.02	1.00	1.00

A total of four items was adopted from the National Survey of Family and Household wave II (NSFH2) 1992-1994 to assess the degree of gender ideology. These items were:

1. It is much better if the man earns the main living and the woman takes care of the home and family.
2. Preschool children are likely to suffer if their mother is employed.
3. It is all right for mothers to work full time when their youngest child is under five.
4. A husband whose wife is working full-time should spend just as many hours doing housework as his wife.

Retrospective reports of parents' level of gender ideology revealed that the majority of the respondents held to non-traditional gender ideology. An examination of combined categories (strongly disagree and moderately disagree) revealed that (50.2 %,) of the respondents disagreed with the statement: "it is much better if the man earns the main living and the woman takes care

of the home and family", while 43.6% of the respondents reported being in agreement (strongly agree, moderately agree) with this statement and a few respondents (6.2%) reported being neutral. About the same percentage (50%) of the respondents also disagreed (strongly disagree and moderately disagree) with the statement: "preschool children are likely to suffer if their mother is employed", whereas 43% of the respondents were in agreement with this statement and 7.2% of the respondents were neutral. On the other hand, almost 51% of the respondents reported agreement (moderately agree to strongly agree) with the statement: "it is all right for mothers to work full time when their youngest child is under 5", while 42.2% of the respondents reported disagreeing with it and 7.2% of the respondents reported being neutral. Nearly 52% of the respondents agreed with the statement: "a husband whose wife is working full-time should spend just as many hours doing housework as his wife", while 41.1% of the respondents disagreed with this statement and 7.2% of the respondents were neutral (see table 3).

Table 3: Percentages of Gender Ideology Measures

Measures	**Strongly disagree**	**Moderately disagree**	**Neither agree nor disagree**	**Moderately agree**	**Strongly agree**
It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.	20.5	29.7	6.2	18.5	25.1
Preschool children are likely to suffer if their mother is employed	17.4	32.3	7.2	25.1	17.9
It is all right for mothers to work full time when their youngest child under 5	26.2	15.9	7.2	34.9	15.9
A husband whose wife is working full- time should spend just as many hours doing house work as his wife	14.4	26.7	7.2	29.2	22.6

4.1.2 Analysis of key variables

This section provides descriptive information on the independent variables: gender ratio, gender composition, and gender preferences; the dependent variables: family size, parental involvement with children, children's participation in household work, and marital quality, as well as the reasons for wanting boys and girls and the average age of children.

Independent variables: Gender composition, gender ratio, gender preference

Gender composition referred to the children's gender distribution (structure) in the family and represented those families with all boys, all girls, and mixed-gender sibships**.** Respondents were asked to specify the gender of each child at home. Based on the responses, gender composition was constructed. Table 4 showed that the majority of the respondents had a mixed gender sibship at home (59.9%), while 23% of the respondents had only boys and just 17.5% had only girls. Gender ratio of children in the Arab-American families was also constructed from participants' responses about specifying the gender of each child at home. The average boys' to girls' ratio was 1.02, which indicated that slightly more boys were born to respondents than girls (see table 2).

Previous studies pointed out that son preference was a common phenomenon in developing countries, including Arab countries (William, 1976; Arnold & Kuo, 1984; Cleland, Verrall & Vaessen, 1983, A El-Gilany & Shady, 2007), but differences were noted from one country to another. Even though preferring sons over daughters is still widespread in many developed countries (Bennett, 1983), this preference often exists side by side with the desire for having at least one child of each gender (Arnold & Zhaoxiang, 1986). Preference for balanced gender composition (at least one child of each gender) is a much more frequent pattern in developed countries (Kippen, Evans, & Gary, 2007; Raley & Bianchi, 2006; Andersson, 2006;

Hank & Kohler, 2000). In the current study, preference for balanced gender composition (at least one child of each gender) was evident. This preference existed side by side with son preference, especially for the first child. Respondents were asked to provide the total number of children they would have liked to have and how many boys and girls they preferred. Based on that gender preference, a variable was constructed to represent boy preference if the desired number of boys was higher than the number of the girls; girl preference if the desired number of the girls was higher than the number of the boys; balanced preference if parents desired an equal number of boys and girls; and no difference when parents felt that either gender was acceptable. Table 4 provided a summary of retrospective responses to parental gender preference regarding children. The results revealed that about (48%) of respondents preferred balanced gender, whereas 44.1% of the respondents preferred boys. Only 3% of the participants preferred girls and only 5.4% of the respondents were indifferent regarding gender preference. With regard to the gender preference of the first child, respondents were asked to specify their preference for the first child and the results indicated that about 55% of the respondents preferred a boy for the first child, while 37.2% of the respondents were indifferent about the gender of the first child and 8.2% of the respondents preferred a girl as the first child. These results suggested that, despite the tendency toward a preference for a balanced gender, a boy preference was not completely absent from Arab-American culture, especially the preference for a boy as the first child.

Table 4: Categorical Social Background Characteristics of Arab-American Parents in the Study

Variable	Category	Valid percentage %
Gender preference	Boy preference	44.1
	Girl preference	2.7
	Balance preference	47.8
	Indifferent	5.4
Gender preference of the first child	A boy	54.6
	A girl	8.2
	No difference	37.2
Gender composition	All boys	23.0
	All girls	17.5
	Mixed	59.5
Is family complete	Yes	68.6
	No	31.4

The main reasons for the preference for a male child, as reported by respondents, were social and cultural, followed by economic and psychological factors. All respondents were asked to give reasons for wanting a boy (see table 5). The question was, "For you, what are the most important reasons of wanting a boy?" The majority (58.8%) indicated that the main reasons for the preference for a male child were first social and cultural, specifically continuing the family name (33.1%), taking care of elder parents (11.1%), social status (9.4%), and taking care of siblings (5.2%).The next reasons were economic (21.3%), such as contributing to the family income (10.8%) and providing practical help (10.5%). The last reasons were psychological (19.8%), in particular, bringing happiness/satisfaction (13.6%), thinking that boys were easy to raise (3.8%), and provided companionship (2.4%). On the other hand, the main reasons for girls' preference were psychological and social with no economic reasons at all. Respondents were asked the following open-ended question: "For you, what are the most important reasons of wanting a girl?" Over 58% of respondents reported that the main reasons for wanting a girl were psychological, mostly to have companionship (29.5%), to bring happiness/satisfaction (20%),

and because they loved females (8.9%). 41% of respondents indicated that they wanted a girl for social reasons, particularly to take care of parents when they get older (21.8%) and to help with household work (19.2%).

Table 5: Reasons for Wanting Boys and Girls in Arab- American Families

Reason	Category	Valid percentage
Reasons for wanting boys		
Psychological reasons	Companionship	2.4
	Happiness/Satisfaction	13.6
	Easy to raise	3.8
Economic reasons	Contribute to the family income	10.8
	Practical help	10.5
Social and cultural reasons	Old age care	11.1
	Continue family name	33.1
	Social status (son achievement)	9.4
	Take care of sibling	5.2
Reasons for wanting girls		
Psychological reasons	Companionship	29.5
	Happiness/Satisfaction	20
	Love females	8.9
Social reasons	Old age care	21.8
	Help with household work	19.2

Dependent variable: Family Size

Number of children was used to measure family size. In this study, respondents were asked to identify the number of natural, adopted, and step-children living at home. None of the respondents had adopted or step-children living in the home. All respondents gave a response regarding the number of natural children living in the home. This study only included the number of natural children reported by participants. The average number of natural children living in the home was roughly 4 and the average mean of children's age under 18 was approximately 10 years old. (See table 2). These results suggested that the average number of children for Arab-

Americans was less than the average number of children in Arabic countries (6 children per woman) (Al-Qudsi, 1998) and more than the TFR (Total Fertility Rate) in the U.S. which is 2.10 (Preston & Hartnett, 2008).

In addition, respondents were asked if their families were complete and the majority indicated that their families were complete (68.6%) (See table 4).

Family size and gender preferences

Studies that examine the relationship between parental gender preferences regarding children and family size reveal that gender preferences regarding children may have significant inferences for a couple's fertility behavior and thus family size. This is strongly evident in many developing countries. A strong son preference may be a barrier to family planning if couples persist in having children after reaching their overall family size goal because they are not happy with the gender composition of their current family (Arnold & Roy, 1997). Parents who prefer sons rather than daughters may be unwilling to stop childbearing until their preferred number of sons has been achieved. Even in developed countries, some studies demonstrate an effect of gender preferences on family size (Marleau & Saucier, 1996) in order to achieve balance in the gender composition of their children (at least one boy and one girl). Similar to previous studies from developing countries, the data from this study disclosed that parents with a strong boy preference were more likely to have a larger family size than parents with a girl preference, a balanced preference, or were indifferent. A closer examination of the responses in table 6 indicated that parents who preferred a boy (77%) were more likely to have a larger family size (4 children or more) than parents with a girl preference (20%), a balanced preference (24%), or no preference (26.9%). This suggested that parents who preferred boys over girls may have been unwilling to stop childbearing until they achieved their desired number of sons.

Table 6: Prevalence of Number of Children by Parents' Gender Preferences with Regard to Children

Number of children	Boy preference		Girl preference		Balanced preference		Indifferent	
	N	%	N	%	N	%	N	%
2	7	8.5	2	40	32	36	4	40
3	12	14.7	2	40	32	36	4	40
4	24	29.3	1	20	19	21.3	---	---
5	31	37.8	---	---	5	5.6	2	20
6	5	6.1	---	---	---	---	---	---
7	1	1.2	---	---	---	---	---	---
8	2	2.4	---	---	1	1.1	---	---
Total	82	100%	5	100%	89	100%	10	100%

Family size and gender composition

Assessments by gender composition of children revealed that parents with only girls had larger family size than parents with all boys or mixed gender children. The results in table 7 clearly shows that the majority of parents with only girls (45.7%) had a larger family size (5 children) than parents with all boys (41.3%) (2 children) and parents with mixed gender children (37.8%) (3 children). This data implied that parents with only girls were more likely to have additional children in order to achieve a boy because they were not happy with the gender composition of their current family. On the other hand, parents with all boys were less likely to have a large family size because they had already achieved the desired number of boys. Parents with mixed gender children were also less likely to have a large family size because they had achieved the preferred number of boys and girls.

Table 7: Prevalence of Number of Children by Gender Composition of Children

Number of children	All boys		All girls		Mixed	
	N	%	N	%	N	%
2	19	41.3	4	11.4	26	21.8
3	11	23.9	1	2.9	45	37.8
4	11	23.9	10	28.6	25	21
5	4	8.7	16	45.7	18	15.1
6	1	2.2	4	11.4	---	---
7	---	---	---	---	2	1.7
8	---	---	---	---	3	2.5
Total	46	100%	35	100%	119	100%

Dependent variable: Involvement with children

Parental involvement with children represented both emotional and behavioral aspects of relationships between parents and children. Behavioral involvement represented the level of parental participation in children's activities, such as interactive activities (play, leisure activities, schoolwork, etc) and childcare activities (changing diapers, bathing, feeding, etc). Twenty items were used as to assess behavioral involvement with children (both girls and boys). Ten items were used to evaluate parents' level of involvement with boys. These were: playing, walking, spending time in leisure activities, watching T.V., talking, and helping with schoolwork, as well as changing diapers, bathing, feeding, and putting children to bed at night when they were babies. In addition, the same preceding ten items were used to evaluate parental involvement with girls. The emotional level of involvement characterized the level of closeness and affection in the parent/child relationship. It was measured with responses to the following survey questions: "(1) How close do you feel to your boys (girls)? (2) Do you give your boys (girls): (1) all the affection they want, (2) slightly less than they want, (3) much less than they want, (4) they don't want affection from me."

For purposes of this study, general descriptive information of the nature of parental involvement with children in Arab-American families and assessment of fathers' involvement relative to that of mothers' are presented. As a whole, tables 8 and 9 show that fathers were involved in various activities with children. A closer examination of the type of activities with children reveals that fathers were more involved with children in interactive activities than in childcare activities. Taking into account the grand mean percentage for each level of interactive and childcare activities respectively, 67% of fathers reported a moderate to high level of involvement with children in interactive activities (3-4 times a month to every day), while those reporting a lower level of involvement (twice a month, once a month, or never) were just 33% (see table 8). 56.5% of fathers reported a lower level of involvement (twice a week, once a week, or never) in childcare activities during childhood years (see table 9), compared to just 43.5% of those who claimed to be moderately to highly involved (3-4 times a month to every day) in childcare activities.

As one examined the type of activities, fathers were more likely to be involved with boys than with girls in both types of activities (interactive and childcare). In light of the mean percentage for each level of interactive activities with boys and girls respectively,77.1% of fathers reported a moderate to high level of involvement with boys in interactive activities (3-4 times a month to every day), while those reporting a lower level of involvement (twice a month, once a month, or never) were 22.9%. About 57% of fathers reported a moderate to high level of involvement with girls in interactive activities (3-4 times a month to every day), while those reporting a lower level of involvement (twice a month, once a month, or never) were 43.1% (see table 8). Fathers were moderately to highly involved (3-4 times a month to every day) with boys in play activity (86%), talking about things that were important to boys (85.9%), watching T.V.

(84.4%), helping with their schoolwork (81.3%), spending time with them in leisure activities (67.2%), and were least (57.8%) involved in taking boys for walks and to places of amusement. On the contrary, fathers were moderately to highly involved (3-4 times a month to every day) with girls in play activity (68.6%), watching T.V. (65.7%), talking about things that were important to girls (58.2%), helping with their schoolwork (55.3%), spending time with them in leisure activities (47.8%), and were least (44.7%) involved in taking girls for walks and to places of amusement.

Table 8: Reported Fathers' level of Involvement with Children in Interactive Activities

Measure	Every Day	5-6 times a month	3-4 times a month	Twice a month	Once a month	Never
	%	%	%	%	%	%
Interactive activities with boys						
Play	57.8	18.8	9.4	6.3	4.7	3.1
Walk	15.6	14.1	28.1	17.2	12.5	12.5
Watching T.V.	59.4	9.4	15.6	1.6	4.7	9.4
Leisure activities	12.5	7.8	46.9	17.2	14.1	1.6
Talking	48.4	21.9	15.6	3.1	4.7	6.3
School work	51.6	23.4	6.3	4.7	4.7	9.4
Mean	**40.9**	**15.9**	**20.3**	**8.3**	**7.5**	**7.1**
Interactive activities with girls						
Play	37.3	16.4	14.9	19.4	10.4	1.5
Walk	13.4	16.4	14.9	19.4	23.9	11.9
Watching T.V.	38.8	6	20.9	22.4	4.5	7.5
Leisure activities	17.9	9	20.9	22.4	25.4	4.5
Talking	28.4	11.9	17.9	23.9	9	9
School work	32.8	11.4	11.9	29.9	6	9
Mean	**28.1**	**11.9**	**16.9**	**22.9**	**13.1**	**7.1**
Grand Mean	**34.5**	**13.9**	**18.6**	**15.6**	**10.3**	**7.1**

Regarding childcare activities during childhood years, although the majority of fathers declared they were less involved in the infancy childcare tasks, there were also quite a few fathers involved with children in these activities . However, a variation in fathers' level of involvement with boys and girls in childcare activities was evident in this study. Fathers were

more involved with boys than with girls in childcare activities. Considering the mean percentage for each level of childcare activities, 52.7% of fathers reported a moderate to high level of involvement with boys in childcare activities (3-4 times a month to every day), while those reporting less involvement (twice a month, once a month, or never) were 47.3%. Also, 34.3% of fathers reported a moderate to high level of involvement with girls in childcare activities (3-4 times a month to every day), while those reporting less involvement (twice a month, once a month, or never) were 65.7% (see table 9). Fathers were most involved with boys (every day, 5-6 times a week, and 3-4 times a week) in activities like putting them to bed at night (71%), feeding (59%), followed by changing diapers (46.8%), and were least (33.9%) involved (twice a week, once a week, or never) in bathing. On the other hand, fathers were most involved with girls (every day, 5-6 times a week, and 3-4 times a week) in activities such as feeding (43.3%) putting them to bed at night (43.3%), changing diapers (28.4%), and were least (22.4%) involved in giving baths to their girls when they were babies (see table 9).

Table 9: Reported Fathers' level of Involvement with Children in Childcare Activities when they were Babies

Measure	Every Day	5-6 times a week	3-4 times a week	Twice a week	Once a week	Never
	%	%	%	%	%	%
Childcare activities with boys						
Changing diapers	21	14.5	11.3	4.8	4.8	43.5
Bathing	16.1	9.7	8.1	17.7	11.3	37.1
feeding	26.2	18	14.8	3.3	13.1	24.6
Putting in bed	50	12.9	8.1	4.8	9.7	14.5
Mean	**28.3**	**13.8**	**10.6**	**7.7**	**9.7**	**30**
Childcare activities with girls						
Changing diapers	20.9	4.5	3	1.5	---	70.1
Bathing	14.9	4.5	3	4.5	7.5	65.7
Feeding	25.4	4.5	13.4	23.9	7.5	25.4
Putting in bed	32.8	3	7.5	28.4	11.9	16.4
Mean	**23.5**	**4.1**	**6.7**	**14.6**	**6.7**	**44.4**
Grand Mean	**25.9**	**9**	**8.6**	**11.1**	**8.2**	**37.2**

Compared to fathers' levels of involvement with children, mothers had a higher level of involvement with children than fathers in several types of activities. Tables 10 and 11 provide a summary of retrospective reports of mothers' levels of involvement with children in several activities. The results revealed that the majority of mothers were highly involved with children (both boys and girls) in various activities. An assessment of the type of activities with children revealed that mothers were more involved in childcare activities than in interactive activities. In light of the grand mean percentage for each level of childcare and interactive activities with children, respectively, 96.9% of mothers reported a high level of involvement in infancy childcare tasks (every day, 5-6 times a week, and 3-4 times a week), while those reporting a lower level of involvement (twice a week, once a week, or never) were just 3.1%. 76.4% of mothers reported a moderate to high level of involvement in interactive activities (3-4 times a month to every day) compared to 23.6% of mothers who were less involved (twice a month, once a month, or never) in these activities. Further, when examining the type of activities, very little variation was seen in mothers' levels of involvement with boys and girls in both types of activities (interactive and childcare activities). In view of the mean percentage for each level of interactive activities with boys and girls, 75.5% of mothers reported a moderate to high level of involvement with boys in interactive activities (3-4 times a month to every day), while mothers reporting a lower level of involvement (twice a month, once a month, or never) were just 24.5%. 77.4% of mothers also reported a moderate to high level of involvement with girls in interactive activities (3-4 times a month to every day), while those reporting a lower level of involvement (twice a month, once a month, or never) were 22.6% (see table 10). Mothers were moderately to highly involved (every day, 5-6 times a month, and 3-4 times a month) with boys in talking about thing that were important to boys (87.1%), watching T.V. (85.2%), helping with their

schoolwork (81.2%), playing with boys (81.2**%),** spending time with them in leisure activities (59.4%), and were least involved in taking boys for walks and to places of amusement (58.5%). On the other hand, mothers were moderately to highly involved with girls (every day, 5-6 times a month, and 3-4 times a month) in talking about thing that were important to girls (88.3%), watching T.V. (87.1%), playing (84.9%), helping with their schoolwork (76.8%), spending time with them in leisure activities (64%), and were least involved (62.9%) in taking girls for walks and to places of amusement.

Regarding childcare activities, an evaluation of the mean percentage for each level of childcare activities with boys and girls revealed that 97.3% of mothers reported a high level of involvement in infancy childcare tasks with boys (every day, 5-6 times a week, and 3-4 times a week), while those reporting less involvement (twice a week, once a week, or never) were just 2.7%; and 96.5% of mothers also reported a moderate to high level of involvement with girls in childcare activities (3-4 times a month to every day) compared to just 3.5% of those who claimed to be less involved (twice a month, once a month, or never) in these activities. Mothers were most engaged with boys (every day, 5-6 times a week, and 3-4 times a week) in activities like putting them to bed at night (98%), bathing (98%), feeding (97%), and (96%) changing diapers. On other hand, mothers were involved with girls (every day, 5-6 times a week, and 3-4 times a week) in activities such as feeding (97.6%), putting girls to bed at night (97.6%), bathing (96.5%), and changing diapers (94.2%).

Table 10: Reported Mothers' Level of Involvement with Children in Interactive Activities

Measures	Every Day	5-6 times a month	3-4 times a month	Twice a month	Once a month	Never
	%	%	%	%	%	%
Interactive activities with boys						
Play	47.5	23.8	9.9	5.9	7.9	5
Walk	10.9	24.8	22.8	18.8	14.9	7.9
Watching T.V.	53.5	13.9	17.8	4	4	6.9
Leisure activities	13.9	19.8	25.7	19.8	13.9	6.9
Talking	55.4	17.8	13.9	7.9	1	4
Schoolwork	66.3	12.9	2	3	4	11.9
Mean	**41.3**	**18.8**	**15.4**	**9.9**	**7.5**	**7.1**
Interactive activities with girls						
Play	57	16.3	11.6	5.8	7	2.3
Walk	10.5	28	24.4	17.4	11.6	8.1
Watching T.V.	61.6	17.4	8.1	3.5	1.2	8.1
Leisure activities	16.3	19.8	27.9	14	16.3	5.8
Talking	61.2	21.2	5.9	4.7	1.2	5.9
Schoolwork	54.7	12.8	9.3	5.8	3.5	14
Mean	**43.6**	**19.3**	**14.5**	**8.5**	**6.8**	**7.3**
Grand Mean	**42.4**	**19.1**	**14.9**	**9.2**	**7.2**	**7.2**

Table 11: Reported Mothers' Level of Involvement with Children in Childcare Activities when they were Babies

Measures	Every Day	5-6 times a week	3-4 times a week	Twice a week	Once a week	Never
	%	%	%	%	%	%
Childcare activities with boys						
Changing diapers	96	---	---	---	---	4
Bathing	71.8	14.1	12.1	---	---	2
Feeding	96	1	---	---	1	2
Putting in bed	95	2	1	---	1	1
Mean	**89.7**	**4.3**	**3.3**	**0**	**.5**	**2.2**
Childcare activities with girls						
Changing diapers	93	1.2	---	---	---	5.8
Bathing	77.9	11.6	7	---	---	3.5
Feeding	95.3	1.2	1.2	1.2	---	1.2
Putting in bed	93	3.4	1.2	1.2	---	1.2
Mean	**89.8**	**4.3**	**2.4**	**.6**	**0**	**2.9**
Grand Mean	**89.7**	**4.3**	**2.9**	**.3**	**.3**	**2.6**

Further assessment of parental emotional involvement with children revealed that very little variation was seen in mothers' levels of emotional attachment to boys and girls, while fathers were more emotionally attached to boys than to girls. Tables 12 & 13 show that the majority of mothers (70.9%) reported being extremely close to their girls and (80.4%) of them gave their girls all the affection they wanted, while (62.4%) of mothers reported being extremely close to their boys and (85.1%) of them gave their boys all the affection they wanted. The majority of fathers (70.3 %) reported that they were extremely close to their boys and (84.4%) of them gave their boys all the affection they wanted, whereas (56.7%) of fathers reported that they were extremely close to their girls and (62.7%) of them gave their girls all the affection they wanted.

Table 12: Percentages of level of Closeness to Boys and Girls by Gender of Parents

Level of closeness	Fathers	Mothers
Boys		
Extremely close	70.3	62.4
Quite close	21.9	30.7
Fairly close	7.8	6.9
Not at all	---	---
Girls		
Extremely close	56.7	70.9
Quite close	28.4	26.7
Fairly close	13.4	2.3
Not at all	1.5	---

Table 13: Percentages of Level of Affection Giving to Children by Gender of Parents

Level of affection	Fathers	Mothers
Boys		
All the affection they want	84.4	85.1
Slightly less than they want	10.9	12.9
Much less than they want	3.1	1
They don't want affection from me	1.6	
Girls		
All the affection they want	62.7	80.4
Slightly less than they want	23.9	16.3
Much less than they want	3	---
They don't want affection from me	10.4	---

Overall, parental involvement with children indicated that both parents were involved in various activities with children. Comparatively speaking, mothers were more involved with children in several activities (childcare and interactive) than fathers, but fathers were not too far behind. An examination of the types of activities revealed that fathers were more involved with children in interactive activities than in childcare activities, while mothers were more involved with children in childcare activities than in interactive activities. Fathers were more involved with boys than with girls in interactive and childcare activities, and they were more emotionally attached to boys than girls. Yet, There were no extreme variations in mothers' levels of

involvement with boys and girls in interactive and childcare activities or in their levels of emotional attachment (for further explanation, see Chapter 5).

Dependent: Children's participation in household work

Participation in household work refers to unpaid work that children (girls/boys) may be asked to do at home, including indoor and outdoor work. In this study, sixteen items were used to assess children's participation in household work and, for each item, parents rated their response on a scale from 6 (Never) to 1 (every day). Eight items were used to estimate boys' participation in household work. These items were: washing and drying the dishes, doing laundry, making their beds, cleaning the house, helping with cooking, helping with grocery shopping, and helping with general yard work. In addition, the same eight items were used to assess girls' participation in household work. Table 14 provides a summary of the reported level of children's participation in the household.

As one examines the type of household work that children (girls/boys) were asked to do, more parents reported lower levels of children's participation in household work (indoor and outdoor work). Keeping in mind the mean percentage for each level of indoor and outdoor household work respectively, 61.5% of parents reported that their children's level of involvement in indoor work (twice a week, once a week, or never) was low, while those reporting high level of children's participation in the indoor work (every day, 5-6 times a week, and 3-4 times a week) were just 38.5%. 78.1% of parents indicated that their children were less involved in outdoor work (twice a week, once a week, or never) compared to 21.9% of those who reported that their children were highly involved in outdoor work (every day, 5-6 times a week, and 3-4 times a week).

Although the majority of parents reported that their children were less active participants in household work as a whole, there were also quite a few children who were highly involved in household work. Some differences were noticeable between boys and girls who were highly involved in household work. Girls were more likely to do household work; and girls, compared to boys, were more likely to do indoor work on average, while boys were more likely to do outdoor work than girls. The majority of girls were more involved in indoor work (every day, 5-6 times a week, and 3-4 times a week) such as cleaning (66.5%), making their beds (66.5%), washing and drying dishes (63.7%), followed by cooking (61.8%), and were least involved in doing laundry (55.2%), whereas boys who were highly active participants (every day, 5-6 times a week, and 3-4 times a week) were involved in making their beds (37.5%), cleaning (14.2%), cooking (6.8%), washing and drying the dishes (5.1%),), and finally doing laundry (5%). Boys who were active participants in outdoor work were involved (every day, 5-6 times a week, and 3-4 times a week) in carrying out the garbage (37.9%), followed by helping with general yard work (29.4%), and finally helping with grocery shopping (22.3%); and girls were highly involved (every day, 5-6 times a week, and 3-4 times a week) in carrying out the garbage (15.4%), followed by helping with general yard work (14.2%), and finally helping with grocery shopping (11.9%).

Although children were generally less involved in household work (indoor and outdoor work), the variation between girls and boys who were highly involved in indoor and outdoor work, was evident in this study. Similar to the previous literature, girls, on average, did more indoor work than boys and boys did more outdoor work than girls (for further explanation, see chapter 5).

Table 14: Percentages of Children's Level of Participation in Household Work

Measures	Every Day	5-6 times a week	3-4 times a week	Twice a week	Once a week	Never
	%	%	%	%	%	%
Indoor work						
Boys wash and dry the dishes	3.2	---	1.9	9	14.7	71.2
Boys do their own laundry	2.5	---	2.5	3.7	13.7	77.6
Boys make their beds	18.1	5	14.4	16.3	13.8	32.5
Boys help clean the house	6.8	3.1	4.3	10.6	31.7	43.5
Boys help with cooking	2.5	1.2	3.1	8.1	16.1	68.9
Girls wash and dry the dishes	25.2	14.7	23.8	4.2	4.9	27.3
Girls do their own laundry	10.4	4.2	40.6	6.3	5.4	33.1
Girls make their beds	48.3	7.7	10.5	9.8	9.8	14
Girls help clean the house	35.4	13.2	18.1	6.3	13.2	13.9
Girls help with cooking	13.2	11.1	37.5	3.5	6.9	27.8
Mean	**16.5**	**6**	**16**	**7.7**	**13**	**40.9**
Outdoor work						
Boys carry out the garbage	27.3	5.6	5	10.6	21.1	30.4
Boys help with grocery shopping	4.3	8.1	9.9	9.3	21.1	47.2
Boys help with general yard work	9.4	4.4	15.6	6.3	19.4	45
Girls carry out the garbage	6.3	4.2	4.9	8.3	26.4	50
Girls help with grocery shopping	5.6	2.1	4.2	22.9	33.3	31.9
Girls help with general yard work	6.8	3.1	4.3	10.6	31.7	34.5
Mean	**10**	**4.6**	**7.3**	**11.3**	**25.5**	**41.3**

Dependent variable: Marital quality

Marital quality represents a parent's global evaluation of the marriage relationship by capturing a spouse's personal traits, communication skills, conflict resolution, financial management, leisure activities, sexuality, parenting, relationship with the extended family, division of household labor, and religious practice. A short version of Enriching Relationship Issues, Communication, and Happiness scale (ENRICH; Fowers & Olson, 1992) was used to assess marital quality. The short version of the ENRICH scale included the following items:

1. I am not pleased with the personality characteristics and personal habits of my partner.

2. I am very happy with how we handle role responsibilities in our marriage.
3. I am not happy about our communication and feel my partner does not understand me.
4. I am very happy about how we make decisions and resolve conflicts.
5. I am unhappy about our financial position and the way we make financial decisions.
6. I am very happy with how we manage our leisure activities and the time we spend together.
7. I am very pleased about how we express affection and relate sexually.
8. I am not satisfied with the way we each handle our responsibilities as parents.
9. I am dissatisfied about our relationships with my parents, in-laws, and/or friends.
10. I feel very good about how we each practice our religious beliefs and values.

In table 15, ten measures of variable marital quality were considered. The results of all measures of marital quality clearly indicated that the majority of respondents reported positive marital quality. The percentage distribution of the first measure, "I am not pleased with the personality characteristics and personal habits of my partner," suggested that the majority of the respondents (67.8%) were more likely to disagree (strongly disagree, moderately disagree) with this statement and about (27%) of the respondents agreed (strongly agree, moderately agree) with it, while 5.1% remained neutral. Thus, respondents seemed to be pleased with their spouse's personal traits.

The results for the second measure, "I am very happy with how we handle role responsibilities in our marriage," revealed that the majority of the respondents (80.5%) were more likely to agree (strongly agree, moderately agree) with this statement and very few respondents (15.9%) disagreed (strongly disagree, moderately disagree) with this measure, whereas 3.6% of respondents remained neutral.

With respect to the third measure, "I am not happy about our communication and feel my partner does not understand me," the data imply that over 72% of respondents were more likely to disagree (strongly disagree, moderately disagree) with this statement and only 22% of the respondents agreed (strongly agree, moderately agree) with it, while 5.6% of them were neutral. Therefore, respondents seemed to be happy about their communication with their spouse.

The fourth measure asked if respondents were very happy about how they made decisions and resolved conflicts. The bulk of the respondents (77%) were more likely to agree (strongly agree, moderately agree) that they were very happy about how they made decisions and resolved conflicts, whereas few respondents (17.4%) were more likely to disagree (strongly disagree, moderately disagree) with it and 5.6% were neutral.

The results of the fifth measure, "I am unhappy about our financial position and the way we make financial decisions," indicated that over 67% of the respondents were more likely to disagree (strongly disagree, moderately disagree) that they were not happy about the way they dealt with their financial position, 27% of respondents were more likely to agree, and those who were neutral were about 6%. This suggested that the majority of respondents seemed to be happy with their way of dealing with their financial position and making financial decisions.

The percent distribution of the sixth measure, "I am very happy with how we manage our leisure activities and the time we spend together," suggested that the majority of the respondents (83.5%) were more likely to agree (strongly agree, moderately agree) about the way they managed their leisure activities, while only 15.3 % of the respondents disagreed (strongly disagree, moderately disagree) with this statement, and 10.2% of the respondents reported being neutral.

With regard to the seventh measure, "I am very pleased about how we express affection and relate sexually," the majority of the respondents (84%) were more likely to agree (strongly agree, moderately agree) with this statement, although 14.3% of the respondents were more likely to disagree (strongly disagree, moderately disagree) with this statement, and 10.2% of the respondents reported being neutral.

Concerning the eighth measure, "I am not satisfied with the way we each handle our responsibilities as parents," 75% of respondents were more likely to disagree (strongly disagree, moderately disagree) with this statement, 13.3% of respondents were more likely to agree (strongly agree, moderately agree), and 7.2% were neutral. Hence, the results implied that the majority of respondents were satisfied with the way they handled their responsibilities as parents.

The outcomes of the ninth measure, "I am dissatisfied about our relationships with my parents, in-laws, and/or friends," revealed that more than 70% of the respondents were more likely to disagree (strongly disagree, moderately disagree) with this statement, few respondents reported being in agreement (strongly agree, moderately agree), and 6.2% of the respondents were more likely to be neutral. The results showed that the bulk of the respondents were satisfied in their relationships with relatives.

The last measure dealt with the practice of religious beliefs and values, "I feel very good about how we each practice our religious beliefs and values." Over 78% of the respondents were more likely to agree (strongly agree, moderately agree) with this statement, 9.1% of the respondents were more likely to disagree (strongly disagree, moderately disagree) with this statement, and 12.4% were neutral.

Table 15: Percentages of Marital Quality Measures

Measures	Strongly disagree	Moderately disagree	Neither agree nor disagree	Moderately agree	Strongly agree
I am not pleased with the personality characteristics and personal habits of my partner.	40.8	27	5.1	17.3	9.7
I am very happy with how we handle role responsibilities in our marriage	2.6	13.3	3.6	39.5	41
I am not happy about our communication and feel my partner does not understand	48.5	24	5.6	17.9	4.1
I am very happy about how we make decisions and resolve conflicts.	3.6	13.8	5.6	41.3	35.7
I am unhappy about our financial position and the way we make financial decisions.	36.7	30.6	5.7	20.4	6.6
I am very happy with how we manage our leisure activities and the time we spend together.	3.6	11.7	10.2	40.3	43.2
I am very pleased about how we express affection and relate sexually.	4.6	8.7	11.7	30.6	44.4
I am not satisfied with the way we each handle our responsibilities as parents.	39.5	30.8	7.2	16.4	6.2
I am dissatisfied about our relationship with my parents, in-laws, and/or friends.	45.6	24.6	6.2	16.4	7.2
I feel very good about how we each practice our religious beliefs and values.	3.2	5.9	12.4	28.6	49.7

4.2 Data Analysis

4.2.1 Data construction and modification

Prior to multivariate analyses (multiple regression), various data modification procedures were necessary. First, since regression analysis required interval-ratio or categorical dummy-coded data, some variables were modified when used as predictors (independent variables). Categorical independent variables, such as gender composition of children, gender preferences, education, income, gender, place of birth, work status, and gender ideology were recorded to assume dummy-coding (i.e., 0 and 1). Gender composition of children was a nominal level variable with three categories (all boys, all girls, and mixed genders). This variable was dummy-coded into three different variables (e.g., 1= all boys and 0 = other genders; 1= all girls and 0 = other genders; and 1= mixed genders and 0 = other genders). For this study, the first two dummy-coded variables (1= all boys and 0 = other genders; 1= all girls and 0 = other genders) were included in the regression analysis of family size, whereas the following dummy-coded variables: (1) 1= all boys and 0 = other genders; (2) 1= mixed genders and 0 = other genders were used in the regression analyses of parental involvement with children in various activities, children's participation in household work, and marital quality. Gender preference was also a nominal level variable with four categories (boy preference, girl preference, balanced preference, and indifferent). This variable was dummy-coded into three different variables (1= boy preference and 0 = other preferences; 1= girl preference and 0 = other preferences; and 1= balanced preference and 0 = other preferences). Regarding the education variable, the response categories to this variable were: (1) less than high school, (2) a high school diploma or GED, (3) associate degree (a two year college degree), (4) bachelor's degree, (5) master's degree, (6) professional degree (M.D., DDS. Ph.D. or other doctorate degrees). Based on the frequency

distribution of the respondents in the sample, these response categories were collapsed and dummy-coded to reflect (1= bachelor's degree and higher and 0 = less than bachelor's degree). Further, the response categories to the income variable were: (1) less than $25,000; (2) $25,000-$44,999; (3) $45,000-$64,999; (4) $65,000-$74,999; (5) $75,000-$94,999; and (6) $95,000 or more. Based on the frequency distribution of the respondents in the sample and the median value of income variable, these response categories were collapsed and recorded first to represent: (1) low income ($44,999 and less); (2) middle income ($45,000-$64,999); and (3) high income ($65,000 and higher). Then, this variable was dummy-coded to reflect two different variables (1= low income and 0 = others; 1= high income and 0 = others).

Composite measures or scales for the various outcomes (parental involvement with children, children's participation in household work, and marital quality) also had to be created and used in the bivariate and multivariate analyses so these variables assumed interval-ratio-like properties. The creations of these additive scales are discussed below.

Measures of parental involvement with children

Parental involvement with children represents both behavioral and emotional involvement. Twenty items were used to assess parents' behavioral involvement with children as a whole (see table 16) and four items were used to evaluate parental emotional involvement with children (see table 17). Factor analysis was conducted to determine if the twenty items measuring parental behavioral involvement with children were measuring accurately. The analysis derived six different factors. However, for purposes of this study, reliability analysis was conducted to determine if the internal consistency of the variable (behavioral involvement with children) was acceptable, and the results, as shown in table 16, indicated that all measures selected were acceptable. The acceptable Cronbach alpha value (.897) [2] for behavioral

involvement measures justified the decision to include all twenty measures in the creation of a single additive scale for parental behavioral involvement with children, as a whole.

Table 16: Reliability Analysis for Parental Behavioral Involvement with Children Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Playing with boys	47.1379	378.294	.334	.897
Taking boys for a walk	45.9569	375.259	.391	.896
Spending time with boys in leisure activities	46.0431	381.085	.301	.898
Watching T.V. with boys	47.1466	368.839	.441	.895
Talking with boys	47.3017	375.639	.408	.895
Helping boys with school work	47.2241	377.549	.394	.899
Playing with girls	47.0431	366.563	.538	.892
Taking girls for a walk	45.8966	371.381	.451	.894
Spending time with girls in leisure activities	46.0431	370.824	.470	.894
Watching T.V. with girls	47.0259	357.556	.624	.890
Talking with girls	47.0000	360.122	.606	.890
Helping girls with school work	46.6379	373.572	.336	.898
Changing boys' diapers	47.0603	348.318	.637	.889
Giving baths to boys	46.8621	349.459	.674	.888
Feeding the boys	47.3621	361.781	.540	.892
Putting boys in bed	47.6724	360.100	.695	.889
Changing girls' diapers	46.6724	343.753	.592	.891
Giving baths to girls	46.6379	343.120	.638	.889
Feeding the girls	47.2069	349.348	.701	.887
Putting girls in bed	47.2931	349.183	.760	.886
Cronbach's alpha = .897				

[2] A Cronbach's alpha of 0.60 was used as the indicator of acceptable level of consistency (see Field, 2005; Kline, 1999; Cortina, 1993 for more details)

Further, a factor analysis of the four items measuring parental emotional involvement with children loaded on two factors. Reliability analysis outcomes (see table 17) suggested that all four measures of emotional involvement were acceptable measures. An acceptable Cronbach's alpha value for parental emotional involvement measures (.656) supported the decision to incorporate all four measures of parental emotional involvement with children in a single additive scale measure.

Table 17: Reliability Analysis for Parental Emotional Involvement with Children Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Feel close to your boys	3.8908	1.725	.400	.635
Give affection to your boys	4.1176	1.867	.486	.577
Feel close to your girls	3.9832	1.712	.533	.540
Give affection to your girls	4.0672	1.843	.384	.640
Cronbach's alpha =.656				

To examine the types of activities of parental involvement with children, twelve items were used to evaluate interactive activities with children (see table 18) and eight items were used to assess childcare activities (see table 19). Factor analysis of the twelve items measuring parental involvement with children in interactive activities loaded on five factors. Nevertheless, reliability analysis results (as shown in table 18) revealed that all measures selected were acceptable. The acceptable Cronbach's alpha value for parental involvement in interactive activities with children measures (.871) validated the decision to incorporate all twelve measures in a single additive scale representing parental involvement with children in interactive activities.

Table 18: Reliability Analysis for Parental Involvement with Children in Interactive Activities Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Playing with boys	29.1780	125.652	.629	.856
Taking boys for a walk	28.0085	125.034	.650	.855
Spending time with boys in leisure activities	28.0678	130.662	.492	.864
Watching T.V. with boys	29.1695	123.698	.609	.857
Talking with boys	29.3390	131.217	.490	.864
Helping boys with school work	29.2203	130.071	.402	.871
Playing with girls	29.0847	123.514	.692	.852
Taking girls for a walk	27.9492	124.835	.642	.855
Spending time with girls in leisure activities	28.0678	128.218	.546	.861
Watching T.V. with girls	29.0508	121.502	.672	.853
Talking with girls	29.0424	127.340	.524	.862
Helping girls with school work	28.6441	129.735	.390	.872
Cronbach's alpha =.871				

Factor analysis of the eight items measuring parental involvement with children in childcare activities when they were babies loaded on two factors. For this study, reliability analysis was conducted and the results, as viewed in table 19, showed that all measures selected were acceptable measures. An acceptable Cronbach alpha value (.954) for parental involvement with children in childcare activities measures justified the decision to include all eight measures in the creation of a single additive scale reflecting parental involvement with children in childcare activities.

Table 19: Reliability Analysis for Parental Involvement with Children in Childcare Activities Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Changing boys' diapers	15.5470	130.698	.868	.945
Giving baths to boys	15.3333	133.793	.863	.946
Feeding the boys	15.8462	139.993	.776	.951
Putting boys in bed	16.1538	146.993	.732	.954
Changing girls' diapers	15.1624	126.154	.826	.950
Giving baths to girls	15.1111	127.238	.855	.947
Feeding the girls	15.6923	133.370	.906	.943
Putting girls in bed	15.7778	137.623	.859	.946
Cronbach's alpha =.954				

Household work Measures

Sixteen items were used to measure children's participation in household work as a whole (see tables 20). Factor analysis determined that all sixteen measures loaded on four factors. Yet, reliability analysis results, as viewed in table 20, indicated that all measures selected were acceptable measures. An acceptable Cronbach's alpha value for children's participation in household work measures (.895) justified the decision to include all sixteen measures in the creation of a single additive scale representing children's participation in household work.

Table 20: Reliability Analysis of Household Work Measures

Measures	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Boys wash and dry dishes	64.7664	233.237	.411	.893
Boys do their own laundry	64.5514	233.533	.489	.892
Boys make their own bed	66.1308	222.285	.406	.895
Boys help cleaning the house	65.2804	228.072	.411	.893
Boys carry out the garbage	66.3458	202.474	.705	.882
Boys help with cooking	64.7944	229.938	.490	.891
Boys help with grocery shopping	65.4486	222.099	.545	.889
Boys help with general yard work	65.6075	215.505	.623	.886
Girls wash and dry dishes	66.9907	204.387	.720	.882
Girls do their own laundry	66.0748	208.070	.684	.883
Girls make their own bed	67.4953	206.705	.659	.885
Girls help cleaning the house	67.4112	213.395	.583	.888
Girls carry out the garbage	65.2243	227.081	.431	.893
Girls help with cooking	66.5514	207.665	.731	.881
Girls help with grocery shopping	65.4486	221.759	.588	.888
Girls help with general yard work	64.6822	233.917	.457	.893
Cronbach's alpha =.895				

To examine the types of household work that children (girls/boys) may have been asked to do, ten items were used to assess children's participation in indoor work (see table 21) and six items were used to evaluate their participation in outdoor work (see table 22). A factor analysis of the ten items measuring indoor work loaded on two factors. Reliability analysis was conducted to determine if the internal consistency of the variable (indoor work) was acceptable**.** The reliability analysis results (see table 21) suggested that all measures of indoor work were acceptable. The acceptable Cronbach's alpha value for children's participation in indoor work measures (.85) supported the decision to create a single additive scale that incorporated all ten measures of indoor work.

Table 21: Reliability Analysis for Indoor Household Work Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Boys wash and dry dishes	36.4019	100.563	.400	.846
Boys do their own laundry	36.1869	101.946	.413	.846
Boys make their own bed	37.7664	93.445	.380	.851
Boys help cleaning the house	36.9159	97.323	.388	.847
Boys help with cooking	36.4299	99.436	.430	.844
Girls wash and dry dishes	38.6262	79.953	.772	.810
Girls do their own laundry	37.7103	85.283	.635	.826
Girls make their own bed	39.1308	81.473	.703	.818
Girls help cleaning the house	39.0467	85.385	.639	.825
Girls help with cooking	38.1869	83.833	.725	.816
Cronbach's alpha =.85				

Factor analysis was also employed to determine if the six items measuring outdoor work were correct. The analysis revealed two different factors. Reliability analysis was also conducted to determine if the internal consistency of the variable (outdoor work that children might have been asked to do) was acceptable. The results (see table 22) revealed that all measures selected were acceptable. An acceptable Cronbach alpha value of outdoor measures (.79) justified the decision to include all six measures in the creation of a single additive scale representing children's participation in outdoor work.

Table 22: Reliability Analysis for Outdoor Household Work Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Boys carry out the garbage	24.5185	22.140	.727	.709
Boys help with grocery shopping	23.6389	28.775	.600	.745
Boys help with general yard work	23.7778	26.100	.700	.717
Girls carry out the garbage	23.3981	32.373	.359	.798
Girls help with grocery shopping	23.6111	30.801	.494	.769
Girls help with general yard work	22.8611	34.719	.428	.786
Cronbach's alpha =.79				

Measures of marital quality

Ten items used to measure marital quality were taken from an established scalar measure (ENRICH; Fowers & Olson, 1992). A factor analysis of all ten items measuring marital quality determined three factors. For this study, reliability analysis was conducted to determine if the internal consistency of the marital quality variable was acceptable. The reliability analysis results (see table 23) indicated that all measures of marital quality were acceptable measures. An acceptable Cronbach's alpha value of marital quality measures (.87) supported the decision to create a single additive scale that incorporated all ten measures of marital quality.

Table 23: Reliability Analysis for Marital Quality Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Very happy about handling role responsibilities in marriage	35.2143	54.655	.679	.848
Happy about making decisions & resolving conflicts	35.3242	54.872	.621	.852
Happy with managing leisure activities & time	35.3516	55.401	.617	.852
Pleased about affection & relating sexually	35.2143	55.374	.595	.854
Feel very good about practicing religious beliefs and values	35.1044	60.105	.322	.873
Pleased with the personality characteristics and personal habits of my partner.	35.5440	53.133	.567	.857
Not happy about our communication and feel my partner does not understand	35.2802	51.728	.733	.842
Unhappy about our financial position and the way we make financial decisions.	35.5824	54.311	.532	.859
Not satisfied with the way we each handle our responsibilities as parents.	35.3956	54.660	.560	.856
Dissatisfied about our relationship with my parents, in-laws, and/or friends	35.3626	53.028	.621	.851
Cronbach's alpha =.87				

Gender Ideology

Gender ideology was used as a control variable in the regression analysis. It was measured with four items adopted from the National Survey of Family and Household wave II (NSFH2) 1992-1994. Factor analysis of the four items measuring gender ideology revealed two factors. Nonetheless, an acceptable Cronbach alpha value of gender ideology measures (.93) validated the decision to build a single additive scale that included all four measures (see table 24). This additive scale was then dummy-coded and used later in the regression analysis.

Table 24: Reliability Analysis for Gender Ideology Measures

Measure	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
It is better if men work outside the home & women work inside	8.7641	15.748	.840	.909
Preschools children suffer if their mother is employed	8.8051	16.436	.855	.904
It is all right for mothers to work full-time when their youngest child is under 5	8.7282	15.931	.852	.904
A husband whose wife is working full-time should spend just as many hours doing housework as his wife	8.9333	16.856	.804	.920
Cronbach's alpha =.93				

4.2.2 Data screening

Prior to conducting regression analysis, data were first screened for missing data, outliers, multiconllinearity, and then examined for test assumption (i.e. normality, linearity, and homoscedasticity). Screening for missing data revealed that there were a number of missing cases associated with some variables included in the analysis (exceeded 5%) and were handled using pairewise default. In addition, there were a number of measures associated with parental involvement with children variable which were excluded in the analysis due to the large percentage of missing (over 85% of the respondents did not currently have babies at home). Therefore, including these measures in the analysis would have affected the sample size and would have been inappropriate for regression analysis (sample inadequacy). Table 25 provides a summary of the percentages of measures omitted from the analysis.

Screening for outliers was done by conducting case-wise diagnostics and no outliers were identified. Multiconllinearity was assessed during the regression analyses. The Variance Inflation

Factor (VIF) and tolerance statistics were reviewed. The Variance Inflation Factor (VIF) values were less than 10 and the tolerance statistic values were greater than 0.1, indicating an absence of multiconllinearity (see Mertler & Vannatta, 2005 for guidelines of a VIF and a tolerance statistic values). In addition, an assessment of normality, linearity, and homoscedasticity during the regression analyses revealed that there were no major violations of test assumptions. Thus multivariate normality, linearity, and homoscedasticity were assumed.

Table 25: A Summary of Frequency Distributions for those Omitted Measures

Measures	**Categories**						
	Every day	**5-6 times a week**	**3-4 times a week**	**Twice a week**	**Once a week**	**Never**	**Missing**
	%	%	%	%	%	%	%
How much in a typical week, do you change diapers for your boys	7	.5	.5	0	.5	2	89.5
How much in a typical week, do you give baths to your boys	5	2	.5	0	.5	2.5	89.5
How often in a typical week, do you feed your boys	7	1	.5	0	.5	1	90
How often in a typical week, do you put your boys in bed at night	2.5	.5	.5	.5	.5	1	89.5
How much in a typical week, do you change diapers for your girls	8	.5	0	0	0	1	90
How much in a typical week, do you give baths to your girls	4	1.5	2	0	1	1	90.5
How often in a typical week, do you feed your girls	7.5	1	0	0	1	0	90.5
How often in a typical week, do you put your girls in bed at night	8	.5	1	0	0	0	90.5

4.3 Bivariate Analysis

In this section, a series of One-Way ANOVA analyses were used to determine whether various family processes differed by parental gender preferences regarding children and children's gender composition. Specifically, whether family size varied by parental gender preferences and children's gender composition; whether parental involvement with children in various activities and children's participation in household work varied by gender composition; and whether marital quality differed by parental gender preferences and children's gender composition. In addition, a series of simple regression analyses were used to test whether gender ratio predicted parental involvement with children, children's participation in household work, and marital quality.

4.3.1 Differences in family size by gender preferences and gender composition

Univariate analysis indicated that family size varied by parental gender preference regarding children and children's gender composition. Specifically, parents with a boy preference were more likely to have a bigger family size than parents with girls, balanced, or indifferent preferences. Parents with only girls were more likely to have a bigger family size than parents with only boys or mixed gender. These results also were supported by the bivariate analyses. Two One-Way ANOVA analyses were conducted to determine whether family size differed by parental gender preferences regarding children and children's gender composition. The first analysis was performed to test whether family size significantly differed by parental gender preferences. The results in table 26 show that family size significantly differed by parental gender preferences with regard to children (F =20.456, df = 3, p<.05).

Table 26: ANOVA Results of Differences in Family Size by Gender Preferences

Dependent variable number of children	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	79.769	3	26.590	20.456	.000
Within Groups	232.669	179	1.300		

Differences are significant at the p< .05 level.

Post Hoc analysis using Bonferoni tests criterion (Table 27) indicated that families with boys preference (N = 75, Mean = 4.4, SD = 1.25) had a significantly larger family size than families with girls, balanced or no difference preferences.

Table 27: Bonferoni Comparisons between Gender Preferences and Family Size

Dependent variable	Within group comparisons		Mean Difference	Sig.
Family size	boys	girls	.76000	.295
		balance	1.37136*	.000
		no difference	1.36000*	.003
	girls	boys	-.76000*	.295
		balance	.61136	.659
		no difference	.60000	1.000
	balance	boys	-1.37136*	.000
		girls	-.61136	.659
		no difference	-.01136	1.000
	no difference	boys	-1.36000*	.003
		girls	-.60000	1.000
		balance	.01136	1.000

* The mean difference is significant at p< .05 level

A second One-Way ANOVA analysis was conducted to determine whether family size varied by children's gender composition. The results in table 28 revealed that family size significantly varied by children's gender composition (F =11.697, df = 2, p<.05).

Post Hoc analysis using Bonferoni tests criterion (Table 29) showed that families with only girls (N = 35, Mean = 4.43, SD = 1. 12) had a significantly larger family size than families with only boys or mixed gender composition.

Table 28: ANOVA Results of Differences in Family Size by Gender Composition

Dependent variable	Sum of squares	df	Mean Square	F	Sig.
Number of children					
Between Groups	36.026	2	18.013	11.697	.000
Within Groups	303.369	197	1.540		

*Differences are significant at the p< .05 level.

Table 29: Bonferoni Comparisons between Gender Composition and Family Size

Dependent variable	Within group comparisons		Mean difference	Sig.
Family size	all boys	all girls	-1.29814*	.000
		mixed	-.33175	.376
	all girls	all boys	1.29814*	.000
		mixed	.96639*	.000
	Mixed	all boys	.33175	.376
		all girls	-.96639*	.000

* The mean difference is significant at p< .05 level

Parental involvement by gender composition and gender ratio

A series of One-Way ANOVA analyses were employed to ascertain whether statistically significant differences existed in parental involvement with children based on children's gender composition. The first One-Way ANOVA analysis was performed to test whether paternal

behavioral involvement with children significantly varied by children's gender composition. The results in table 30 declared that paternal behavioral involvement with children significantly differed by children's gender composition (F =50.750, df = 2, p<.05).

An assessment of Post Hoc analysis using Bonferoni tests (Table 31) showed that fathers with mixed gender of children (N = 46, Mean =63.97, SD = 18.57) had a significantly higher level of involvement compared to fathers with all girls or all boys at the .05 level of significance. The second One-Way ANOVA analysis was conducted to evaluate whether paternal emotional involvement with children significantly differed by children's gender composition. The ANOVA results in table 30 asserted that paternal emotional involvement with children significantly varied by children's gender composition (F =22.929, df = 2, p<.05). Post Hoc analysis using Bonferoni tests also (Table 31) showed that fathers with mixed gender of children (N = 46, Mean =5.6, SD = 1.98) had a significantly higher level of emotional involvement than fathers with all girls or all boys at the .05 level of significance.

The third One-Way ANOVA analysis was conducted to evaluate whether children's gender composition differed in paternal involvement with children in interactive activities. The ANOVA results in table 30 emphasized that paternal involvement with children in interactive activities significantly varied by children's gender composition (F =30.175, df = 2, p<.05).

Post Hoc analysis using Bonferoni tests (Table 31) also showed that fathers with mixed gender of children (N = 46, Mean =33.6, SD = 12.8) had a significantly higher level of involvement in interactive activities than fathers with all girls or all boys at the .05 level of significance.

Table 30: ANOVA Results of Differences in Parental Behavioral and Emotional Involvement and Involvement in Interactive Activities by Gender Composition

Dependent variables	Sum of squares	df	Mean Square	F	Sig.
Behavioral involvement					
Between Groups	24429.301	2	12214.650	50.750	.000
Within Groups	19735.923	82	240.682		
Emotional involvement					
Between Groups	145.339	2	72.670	22.929	.000
Within Groups	259.884	82	3.169		
Interactive activities					
Between Groups	6620.181	2	3310.091	30.175	.000
Within Groups	8995.042	82	109.696		

* Differences are significant at the p< .05 level.

Table 31: Bonferoni Comparisons between Gender Composition and Behavioral and Emotional Involvement and Involvement in the Interactive Activities

Dependent variables	Within group comparisons		Mean difference	Sig.
Behavioral involvement	all boys	all girls	-6.05556	.683
		mixed	-37.03382*	.000
	all girls	all boys	6.05556	.683
		mixed	-30.97826*	.000
	Mixed	all boys	37.03382*	.000
		all girls	30.97826*	.000
Emotional involvement	all boys	all girls	-1.16667	.134
		mixed	-3.13043*	.000
	all girls	all boys	1.16667	.134
		mixed	-1.96377*	.000
	mixed	all boys	3.13043*	.000
		all girls	1.96377*	.000
Interactive activities	all boys	all girls	-2.69048	1.000
		mixed	-19.06522*	.000
	all girls	all boys	2.69048	1.000
		mixed	-16.37474*	.000
	mixed	all boys	19.06522*	.000
		all girls	16.37474*	.000

* The mean difference is significant at p< .05 level

Moreover, a series of simple regression analyses were used to assess whether gender ratio significantly predicted parental involvement with children. The first simple regression analysis was performed to test whether gender ratio of children significantly predicted mothers' and fathers' behavioral involvement with children. As shown in the model summary table (table 32), gender ratio explained 26% and 9.7% (R^2 =.260, R^2 = .097) of the variance in fathers' and mothers' behavioral involvement with children respectively. The overall model for fathers (F= 22.832, df =1, p<.05) and mothers (F= 9.254, df =1, p<.05) was statistically significant, which indicated that gender ratio was significantly predictive of the fathers' and mothers' behavioral involvement with children.

Table 32: Model Summary for Predictor of Parental Behavioral Involvement with Children

Gender	**Model**	**R**	**R^2**	**F**	**df**	***P***
Male	1	.510	.260	22.832	1	.000*
Female	1	.312	.097	9.254	1	.003*

* p< .05

The slopes (b) in the regression results table (table 33) further indicated that as the number of boys relative to girls increased by 1, there was an increase of 11.94, 4.91 in fathers' and mothers' behavioral involvement with children respectively. Moreover, the standardized coefficients Beta for fathers' behavioral involvement with children (.510) was higher than the Beta for mothers' involvement (.312), which in turn suggested that as the number of boys over girls increased, fathers' behavioral involvement with children, compared to mothers' involvement, increased.

Table 33: Simple Regression Results for Parental Behavioral Involvement with Children

Gender	Model	Variables	B	Beta	t	*P*
Male	1	(Constant)	36.487		10.447	.000*
		Boys to girls Ratio	11.936	.510	4.778	.000*
Female	1	(Constant)	26.499		11.323	.000*
		Boys to girls Ratio	4.911	.312	3.042	.003*

* p< .05

The second simple regression analysis was conducted to examine whether gender ratio significantly predicted emotional parental involvement. The model summary table (table 34) showed that gender ratio explained about 13% and about 7% (R^2 =.125, R^2 = .067) of the variance in fathers' and mothers' emotional involvement with children respectively. The overall significance of the model, assessed by the global F-test, and further supported by the results, indicated that gender ratio was significantly predictive of fathers' (F= 9.291, df =1, p<.05) and mothers' (F= 6.117, df =1, p<.05) emotional involvement.

Table 34: Model Summary for Predictor of Parental Emotional Involvement with Children

Gender	Model	R	R^2	F	df	*P*
Male	1	.354	.125	9.291	1	003*
Female	1	.259	.067	6.117	1	.015*

* p< .05

As viewed in table 35, the slopes (b) in the regression results indicated that as the number of boys relative to girls increased by 1, there was an increase of .793 and .463 in fathers' and mothers' behavioral involvement with children respectively. A closer examination of the Beta-weights suggested that fathers were more likely to be emotionally involved with children (.354) than mothers (.259). Therefore, as the number of boys increased, fathers' emotional involvement with children increased, relative to mothers' emotional involvement.

Table 35: Simple Regression Results for Parental Emotional Involvement with Children

Gender	Model	Variables	B	Beta	t	*p*
Male	1	(Constant)	3.685		10.131	.000*
		Boys to girls Ratio	.793	.354	3.048	.003*
Female	1	(Constant)	3.749		13.813	.000*
		Boys to girls Ratio	.463	.259	2.473	.015*

* p< .05

The third simple regression analysis was performed to look at whether parental involvement in interactive activities with children was significantly predicted by gender ratio. The results in the model summary table (table 36) showed that gender ratio explained about 13% and about 11% (R^2 =.128, R^2 = .109) of the variance in fathers' and mothers' involvement with children in interactive activities respectively. The overall significance of the model, assessed by the global F-test, and further supported by the results, indicated that gender ratio is significantly predictive of fathers' (F= 9.551, df =1, p<.05) and mothers' (F= 10.401, df =1, p<.05) involvement in interactive activities.

Table 36: Model Summary for Predictor of Parental Involvement with Children in Interactive Activities

Gender	Model	R	R^2	F	df	*P*
Male	1	.358	.128	9.551	1	.003*
Female	1	.330	.109	10.401	1	.002*

* p< .05

The slopes (b) in the regression results table (table 37) further pointed out that as the number of boys relative to girls increased by 1, there was an increase of 4.982 and 4.113 in fathers' and mothers' involvement with children in interactive activities respectively. In addition, the standardized coefficients Beta for fathers' involvement with children (.358) was slightly

higher than the Beta for mothers' involvement (.330). Thus, these results suggested that as the number of boys relative to girls increased, fathers' involvement with children in interactive activities increased, relative to mothers' involvement.

Table 37: Simple Regression Results for Parental Involvement in Interactive Activities with Children

Gender	Model	Variables	B	Beta	t	*P*
Male	1	(Constant)	20.475		9.083	.000*
		Boys to girls Ratio	4.982	.358	3.090	.003*
Female	1	(Constant)	19.506		10.551	.000*
		Boys to girls Ratio	4.113	.330	3.225	.002*

* p< .05

The fourth simple regression analysis was performed to test whether gender ratio of children significantly predict fathers' and mothers' levels of involvement with children in childcare activities. The results in the model summary table (table 38) show that gender ratio explains about 25.2% and less than 1% (R^2 =.252, R^2 =.007) of the variance in fathers' and mothers' involvement with children in childcare activities respectively. The overall model for fathers (F= 21.843, df =1, p<.05) is statistically significant, which indicates that gender ratio is significantly predictive of fathers' involvement with children in childcare. However, the overall model for mothers is statistically insignificant.

Table 38: Model Summary for Predictor of Parental Involvement with Children in Childcare Activities

Gender	Model	R	R^2	F	df	*P*
Male	1	.358	.252	21.843	1	.000*
Female	1	.84	.007	.608	1	.438

* p< .05

Examination of the slopes (b) in the regression results table (table 39) also indicates that gender ratio significantly predicts fathers' involvement with children in childcare activities. As the number of boys relative to girls increases by 1, there is an increase of 6.715 in fathers' involvement with children in childcare activities. Gender ratio however did not significantly predict mothers' involvement with children in childcare activities. In addition, the standardized coefficients Beta for fathers' involvement with children (.502) indicated that the relationship between gender ratio and fathers' involvement with children in childcare activities is moderate and positive. The results imply that as the number of boys compared to girls increases, fathers' involvement with children in childcare activities relative to that of mothers' increases.

Table 39: Simple Regression Results for Parental Involvement with Children in Childcare Activities

Gender	**Model**	**Variables**	**B**	**Beta**	**t**	***P***
Male	1	(Constant)	19.305		9.930	.000*
		Boys to girls Ratio	6.499	.502	4.674	.000*
Female	1	(Constant)	8.647		11.168	.000*
		Boys to girls Ratio	.414	.084	.780	.438

* p< .05

Household work by gender composition and gender ratio

One-Way ANOVA was performed to assess the relationship between children's participation in household work and children's gender composition. The results in table 40 revealed that children's participation in household work significantly differed by children's gender composition (F =112.363, df = 2, p<.05).

Table 40: ANOVA Results of Differences in Household Work by Gender Composition

Dependent variable	Sum of squares	df	Mean Square	F	Sig.
Number of children					
Between Groups	48768.098	2	24384.049	112.363	.000
Within Groups	42100.115	194	217.011		

* Differences are significant at the p< .05 level.

Post Hoc analysis using Bonferoni tests criterion (Table 41) illustrated that families with mixed gender of children (N = 118, Mean = 67.5, SD = 17.4) were more likely to allocate household work to children than families with only boys or only girls.

Table 41: Bonferoni Comparisons between Gender Composition and Children's Participation in Household Work

Dependent variable	Within group comparisons		Mean ifference	Sig.
Household work	all boys	all girls	5.44771	.316
		mixed	-29.56874*	.000
	all girls	all boys	-5.44771	.316
		mixed	-35.01645*	.000
	Mixed	all boys	29.56874*	.000
		all girls	35.01645*	.000

* The mean difference is significant at p< .05 level

In an effort to examine whether children's gender ratio significantly predicted participation in household work, as a whole, and the types of household work (indoor and outdoor work), a series of simple regressions were conducted. To begin, a simple regression analysis was conducted to assess whether gender ratio significantly predicted children's participation in household work. As shown in table 42, the results showed that gender ratio explained around 9% (R^2 =.086) of the difference in household work. The overall model for household work (F= 14.244, df =1, p<.05) was statistically significant, which showed that gender ratio was significantly predictive of children's participation in household work.

Examination of the slopes (b) in the regression results table (table 43) indicated that as the number of boys, relative to girls, increased by 1, children's participation in household work and/or spending time on housework decreased by 6.322. Also, Beta-weights (-.239) indicated that the relationship between gender ratio and children's participation in household work was weak and negative. This implied that more girls were associated with more household work compared to boys.

Next, a simple regression analysis was also performed to assess whether children's gender ratio significantly predicted children's participation in indoor work. The results suggested that (table 42) gender ratio explained approximately 12.2% (R^2 =.122) of the variance in indoor household work. The overall model for indoor work (F= 20.995, df =1, p<.05) was statistically significant, which meant that gender ratio was significantly predictive of children's participation in indoor household work. These results were further supported by the regression results. A closer look at the slopes (b) in the regression results table (table 43) pointed out that as the number of boys, relative to girls, increased by 1, children participation in indoor work (traditionally female tasks) decreased by 5.252. Furthermore, Beta-weights (-.349) indicated that the relationship between gender ratio and children's participation in indoor household work was moderate and negative. Thus, boys were less likely to do indoor work compared to girls.

Finally, a simple regression analysis was done to test whether children's participation in outdoor work could be significantly predicted by gender ratio. The results in the model summary table (42) showed that gender ratio explained about 6% (R^2 =.056) of the variance in children's involvement in outdoor work. The overall significance of the model, assessed by the global F-test, and further supported by the results, indicated that gender ratio was significantly predictive of outdoor work (F= 8.979, df =1, p<.05). By evaluating the slopes (b) in the regression results

table (table 43), the results suggested that as the number of boys compared to girls increased by 1, children contribution to outdoor work (traditionally male tasks) increased by 2.144. Beta-weights (.237) indicated further that the gender ratio had a weak but positive effect on children's participation in outdoor work. This suggested that as the number of boys, compared to girls, increased in the family, children contribution to outdoor work (traditionally male tasks) increased. In other words, boys are more likely to do outdoor work compared to girls.

Table 42: Model Summary for Predictors of Children's Participation in Household Work

Variables	**R**	**R^2**	**F**	**df**	***P***
Household work	.294	.086	14.244	1	.000 *
Inside work	.349	.122	20.995	1	.000 *
Outside work	.237	.056	8.979	1	.003 *

* p< .05

Table 43: Simple Regression Results for Children's Participation in Household Work

Variables	**Model**	**B**	**Beta**	**t**	***P***
Household work	(Constant)	48.199		20.157	.000 *
	Boys to girls Ratio	-6.322	-.294	-3.774	.000 *
Inside work	(Constant)	31.886		19.487	.000 *
	Boys to girls Ratio	-5.252	-.349	-4.582	.000 *
Outside work	(Constant)	19.636		19.220	.000 *
	Boys to girls Ratio	2.144	.237	2.996	.003 *

* p< .05

Marital quality by gender preferences, gender composition, and gender ratio

In order to test whether marital quality varied by parental gender preference with regard to children and children's gender composition, two analyses of One-Way ANOVA were used. ANOVA results in table 44 revealed that marital quality did not significantly differ by parental

gender preferences. This suggested that parents with boys, girls, balanced, or indifferent preferences had a similar level of marital quality.

Table 44: ANOVA Results of Differences in Marital Quality by Gender Preferences

Dependent variable	Sum of squares	df	Mean Square	F	Sig.
Number of children					
Between Groups	351.016	3	117.005	1.628	.185
Within Groups	12579.610	175	71.883		

*Differences are significant at the p< .05 level.

Next, another One-Way ANOVA was used to test whether respondents' marital quality differed by children's gender composition. Results showed (table 45) that marital quality significantly differed by children's gender composition (F =14.546, df = 2, p<.05).

Table 45: ANOVA Results of Differences in Marital Quality by Gender Composition

Dependent variable	Sum of squares	df	Mean Square	F	Sig.
Number of children					
Between Groups	1829.161	2	914.580	14.546	.000
Within Groups	12134.569	193	62.873		

*Differences are significant at the p< .05 level.

Post Hoc analysis using Bonferoni tests criterion (Table 46) indicated that families with all boys (N = 44, Mean = 40.61, SD = 7.69) and with mixed gender of children (N = 117, Mean = 40.02, SD = 6.74) had a significantly more positive marital quality than families with all girls.

Table 46: Bonferoni Comparisons between Gender Composition and Marital Quality

Dependent variables	Within group comparisons		Mean Difference	Sig.
Household work	all boys	all girls	8.38506*	.000
		mixed	.59654	1.000
	all girls	all boys	-8.38506*	.000
		mixed	-7.78852*	.000
	Mixed	all boys	-.59654	1.000
		all girls	7.78852*	.000

* The mean difference is significant at p< .05 level

Further, to assess the relationship between children's gender ratio and marital quality, a simple regression analysis was performed. The results clearly pointed out that gender ratio significantly predicted marital quality. Gender ratio explained about 3.5% (R^2 =.035) * of the variance in marital quality. The overall significance of the model, assessed by the global F-test, and further supported by the results, indicated that gender ratio was significantly predictive of marital quality (F= 5.523, df =1, p<.05)* of the respondents. In examining the slope (b) in the regression results table (47), it showed that as the number of boys, relative to girls, increased by 1, there was an increase of 1.590 in marital quality. In addition, Beta-weights (.188) indicated that the gender ratio had a weak but positive effect on marital quality. This suggested that as the number of boys (compared to girls) increased, marital quality increased.

Table 47: Simple Regression Results for Marital Quality

Variables	B	Beta	t	*P*
(Constant)	37.136		38.458	.000
Boys to girls Ratio	1.590	.188	2.350	.000

* ***F*** =5.523**,** p<.05
* R^2 = **.**035

4.4. Multivariate analysis and hypotheses testing

A multivariate statistical technique (multiple regressions) allowed us to analyze the relationship between a dependent variable and a set of independent variables and to determine which independent variable or subset of variable(s) were the best predictors for a particular outcome. This allowed the researcher to control for confounding factors and evaluate their contribution, find structural relationships, and provide explanations (Ho, 2006; Tabachnick & Fidell, 2007). To test the research hypotheses in this study, a series of incremental linear regression models were estimated to independently assess the dynamic of the relationship between gender ratio, children's gender composition, and parental gender preference regarding children for various Arab-American family dynamics. These dynamics were family size, parental involvement with children, allocation of household work to children, and marital quality, while controlling for other variables, such as child's age and number of children, parents' gender and age, income, employment, education, age at marriage, and gender ideology. In this study, four general hypotheses were tested, using multiple regression analysis.

The first general hypothesis stated that parental gender preference regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, income, work status, education, and gender ideology.

The second hypothesis addressed the following: gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth.

The third hypothesis examined was : gender ratio and gender composition of the children will significantly predict children's participation in household chores when holding constant parents' age, number of children, average ages of children, gender, work status, income, education, gender ideology, and place of birth.

The last hypothesis tested was: gender ratio, children's gender composition, and parental gender preference regarding children will significantly predict marital quality when holding constant parents' age, number of children, average ages of children, age at marriage, gender, work status, income, education, gender ideology, and place of birth as well as level of fathers' involvement. Below are the results of the multiple regression analyses.

Predictors of family size

To test the hypothesis related to family size: parental gender preference regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, income, work status, education, and gender ideology, a two- step incremental model was estimated. Based on past research, the first model included parental gender preferences and children's gender composition. The second model included control variables: parents' age, age at marriage, gender of parents, place of birth, work status, income, education, and gender ideology. In both models, a force entry method was used because the literature review provided sufficient evidence that all the predictors in each model were meaningful (Field, 2005, p.160). The results in table 48 indicated two models which were estimated incrementally. The changes from the null model to model one, to model two indicated significant changes in R^2; meaning that the final model was significant in predicting family size. These results were supported by the partial F tests. For the final model, the global *F* was 7.852, (df =14), and was significant ($p< .05$). The adjusted R^2 for

model 1 explained 32.5% of the variance in family size by the independent variables, parental gender preferences regarding children and gender composition of children. An addition of the control variables (parents' age, gender, income, work status, education, gender ideology, age at marriage, and place of birth) to the model increased the explained variance to 39.3%. Therefore, parental gender preferences regarding children (boy preference), gender composition of children (all boys and all girls sibships), age of parents, and age at marriage all significantly contributed to the variance explained in family size. Surprisingly, balanced gender preference, girls' gender preference, gender of parents, income, work status, education, gender ideology, and place of birth did not significantly contribute to the model. Further, these items did not modify the gender preference and gender composition of children effects. The standardized coefficients in the final model indicated that only five of the fourteen variables [boy preference (beta= .428); age of parents (beta= .264); age at marriage (beta= -.239); all boys sibships (beta = -.187); and all girls sibships (beta= .184)] significantly predicted family size. These results suggested that boy preference was a larger contributor to family size than the others. The unstandardized Beta coefficients in the final model showed that parents with a boy preference, compared to parents with no preference (indifferent), were more likely to have a larger family size. As parents' age increased, family size increased as well; and as parents' age at marriage increased, family size decreased. Parents with only boys sibships, compared to parents with mixed gender of children, were less likely to have a larger family size. However, parents with only girls sibships, compared to parents with mixed gender composition, were more likely to have a larger family size. Balanced gender preference, girl preference, gender of parents, income, work status, education, gender ideology, and place of birth did not significantly predict family size. Consequently, these findings strongly supported the hypothesis about family size: parental gender preference

regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, income, work status, education, and gender ideology.

Table 48: Regression Coefficient of Independent Variables on Family Size

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender preferences								
Boy preference	1.377	.520	3.400	.001	1.133	.428	2.871	.005*
Girl preference	.540	.094	1.010	.314	.517	.090	1.005	.317
Balanced preference	.012	.004	.029	.977	-.047	-.018	-.118	.906
Indifferent (reference)	---	---	---	---	---	---	---	---
Gender composite								
All boys	-.623	-.201	-2.836	.005	-.580	-.187	-2.698	.008*
All girls	.631	.184	2.583	.011	.630	.184	2.619	.010*
Mixed (reference)	---	---	---	---	---	---	---	---
Age of parents					.036	.264	3.546	.001*
Age at marriage					-.062	-.239	-3.019	.003*
Gender								
Male					.364	.138	1.579	.117
Female (reference)					---	---	---	---
Place of birth								
Outside U.S.A.					.184	.063	.887	.376
U.S.A. (reference)					---	---	---	---
Work status								
Working					.000	.001	.010	.992
Not working (reference)					---	---	---	---
Income								
High income					.042	.015	.184	.854
Low income					-.059	-.022	-.247	.805
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					.074	.028	.402	.689
Less than bachelor(reference)					---	---	---	---
Gender ideology								
Non-traditional					-.096	-.037	-.520	.604
Traditional					---	---	---	---
R^2	.348				.451			
Adjusted R^2	.325				.393			
R^2 changed	.348*				.103*			
F	15.280*				7.852*			

* $p < .05$

Predictors of Parental involvement with children

Parental involvement with children represented both behavioral and emotional involvement. Behavioral involvement was a composite scale from the additive combination of the variables in table 16. Emotional involvement was created by combining the variables in table 17. Therefore, a high score on the two composite measures indicated a high level of behavioral and emotional involvement. Interactive activities is the additive scale from the variables in table 18 and the childcare activities scale was created by combining the variables in table 19, in order to examine the types of activities in which parents were involved with their children. A series of multiple regression analyses were used to test the second hypothesis: gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of children, work status, income, education, average ages of children, gender ideology, and place of birth.

The first multiple regression analysis was used to test whether gender ratio significantly predicted fathers' and mothers' behavioral involvement with children as a whole, while controlling for parents' age, number of children, work status, income, education, gender ideology, and place of birth. Based on past research, the first model included gender ratio and the second model included control variables of parents' age, number of children, work status, income, education, gender ideology, and place of birth. The results in table 49 indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 24.6% of the variance in fathers' behavioral involvement by the independent variable of gender ratio. An addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model did not increase the explained variance, but rather decreased it (23.1%). Although there was a significant

change in R^2 (.260) from the null model to model one, the change in R^2 from model one to model two was not significant. The overall model was significant (F =2.678, df =10, p< .05**)** even though much of the variability in fathers' behavioral involvement with children was explained by variables not included in the estimated equation. Hence, the addition of the control variables to the model did not modify the gender ratio effects in the final model. The standardized coefficients in the final model indicated that gender ratio (beta = .465) and number of children (beta = -.234) are the best predictors of fathers' behavioral involvement with children. The unstandardized Beta coefficients in the final model revealed that as the number of boys to girls in the family increased, fathers' behavioral involvement with children increased; and as the number of children increased, fathers' involvement with children decreased. Fathers' age, income, work status, education, average age of children, gender ideology, and place of birth did not significantly predict fathers' behavioral involvement with children.

Further, two increment models were estimated for mothers. The results in table 50 indicated that the adjusted R^2 for model 1 explained 8.3% of the variance in mothers' behavioral involvement by gender ratio. Even though the addition of the control variables of mothers' age, number of children, work status, income, and education as well as average age of children, gender ideology, and place of birth to the model increased the explained variance to 15.6%, the change in R^2 was not significant. It is important to note how gender ratio contributed to model one, but the effects of gender ratio were modified in model two once the control variables were added to the model. Therefore, gender ratio did not significantly contribute to the final model or the control variables (mothers' age, number of children, work status, income, and education as well as average age of children, gender ideology, and place of birth). Further, the global F for the final model was 2.241, (df =10), which was not significant (p< .05).

Table 49: Regression Coefficient of Independent Variables on Fathers' Behavioral Involvement with Children

Variables		Model 1			Model 2			
	B	Beta	t	Sig	B	Beta	t	Sig
Fathers								
Gender ratio	11.936	.510	4.395	.000	0.890	.465	3.585	.001*
Age of fathers					-.659	-.228	-1.416	.164
Number of children					3.911	-.234	-1.798	.049*
Work status								
Working					-3.005	-.044	-.322	.749
Not working (reference)					---	---	---	---
Income								
High income					-.714	-.015	-.101	.920
Low income					10.773	.214	1.403	.167
Middle income (reference)					---	---	---	---
Education of fathers								
Bachelor degree and higher					.638	.229	1.605	.115
less than bachelor (reference)					---	---	---	---
Average age of children					1.147	.196	1.225	.227
Gender ideology								
Traditional					.460	.010	.077	.939
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-.529	-.011	-.077	.939
U.S. (reference)					---	---	---	---
R^2	.260				.368			
Adjusted R^2	.246				.231			
R^2 changed	.260*				.108			
F	19.320*				2.678*			

* $p < .05$

Table 50: Regression Coefficient of Independent Variables on Mothers' Behavioral Involvement with Children

Variable	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Mothers								
Gender ratio	4.911	.312	2.665	4.911	3.449	.219	1.741	.087
Age of mothers					33	.141	.853	.397
Number of children					.515	.037	.308	.759
Work status								
Working					.439	.138	1.152	.254
Not working (reference)					---	---	---	---
Income								
High income					1.923	.056	.392	.696
Low income					8.927	.275	1.891	.064
Middle income (reference					---	---	---	---
Education of mothers								
Bachelor degree and higher					-5.416	-.168	-1.330	.189
less than bachelor (reference)					---	---	---	---
Average age of children					.818	.203	1.188	.240
Gender ideology								
Traditional					3.009	.094	.786	.435
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					.591	.016	.123	.903
U.S. (reference)					---	---	---	---
R^2	.097				.282			
Adjusted R^2	.083				.156			
R^2 changed	.097*				.185			
F	7.102*				2.241			

* $p < .05$

An ANCOVA analysis was run and the interaction terms between gender of parents and gender ratio was tested to see if there was a significant difference between fathers and mothers regarding behavioral involvement with children. The significant interaction term between gender ratio and gender of parents implied that the relationship between gender ratio and parents' behavioral involvement was significantly different between fathers and mothers.

Therefore, compared to mothers, as the boys' to girls' ratio in the family increased, behavioral involvement of fathers with their children increased.

The second multiple regression analysis was used to test whether gender ratio significantly predicted fathers' and mothers' emotional involvement with children as a whole, while controlling for parents' age, number of children, work status, income, education, gender ideology, and place of birth. Based on past research, the first model included gender ratio and the second model included control variables of parents' age, number of children, work status, income, education, gender ideology, and place of birth. As viewed in table 51, the results indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 10.9% of the variance in fathers' emotional involvement by gender ratio and the change in R^2 from the null model to model one was significant. Although the addition of the control variables of fathers' age, number of children, work status, income, and education, as well as the average age of children, gender ideology, and place of birth, to the model increased the explained variance to15.5%, the change in R^2 (from model one to two) was not significant. These results were further assessed by the partial F tests. For the final model, the global *F* was 2.027 (df=10), which was not significant. The final model indicated that gender ratio and number of children were the only significant predictors of fathers' emotional involvement with children. The standardized coefficients in the final model revealed that gender ratio (Beta= .404) and number of children (beta =-.275) were the best predictors of fathers' emotional involvement with children. The unstandardized Beta coefficients in the final model suggested that as boys' to girls' ratio in the family increased, fathers' emotional involvement with children increased; and as the number of children increased, fathers' emotional involvement with children decreased. However, fathers' age, income, work status, education, average age of

children, gender ideology, and place of birth did not significantly contribute to the prediction of fathers' emotional involvement with children.

In addition, two incremental models were estimated for mothers. The results in table 52 indicated that the adjusted R^2 for model 1 explained 5.3% of the variance in mothers' emotional involvement by gender ratio and the change in R^2 from the null model to model one was significant. Even though the addition of the control variables (mothers' age, number of children, work status, income, and education as well as average age of children, gender ideology, and place of birth) to the model slightly increased the explained variance to5.7%, the change in R^2 (from model one to model two) was not significant. These results were further assessed by the partial F tests. For the final model, the global *F* was 1.403 (df=10), which was not significant. The final model pointed out that none of the predictors were significant in predicting mothers' emotional involvement with children. It is important to note the way in which gender ratio contributed to model one, but the effects of gender ratio were modified in model two once the control variables were added to the model. Therefore, it did not significantly contribute to the final model.

To test if there was a significant difference between fathers and mothers regarding the level of their emotional involvement with children, ANCOVA analysis was also performed and the interaction terms between gender of parents and gender ratio was tested. The significant interaction term between gender ratio and gender of parents suggested that the relationship between gender ratio and parents' emotional involvement was significantly different between fathers and mothers. Consequently, compared to mothers, as the boys' to girls' ratio in the family increased, emotional involvement of fathers with children increased.

Table 51: Regression Coefficient of Independent Variables on Fathers' Emotional Involvement with Children

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Fathers Gender ratio	.793	.354	2.804	.007	.905	.404	2.969	.005*
Age of fathers					.019	.069	.411	.683
Number of children					-.440	-.275	-2.017	.050*
Work Status of fathers								
Working					-.847	-.130	-.903	.371
Not working (reference)					---	---	---	---
Income								
High income					.460	.101	.649	.519
Low income					.736	.153	.955	.345
Middle income (reference)					---	---	----	---
Education of fathers								
Bachelor degree and higher					1.085	.244	1.632	.110
less than bachelor (reference)					---	---	---	---
Average age of children					-.061	-.109	-.650	.519
Gender ideology								
Traditional					.481	.109	.799	.429
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.A					.319	.069	.463	.646
U.S.A(reference)					---	---	---	---
R^2	.125				.306			
Adjusted R^2	.109				.155			
R^2 changed	.125*				.181			
F	7.862*				2.027			

* $p < .05$

Table 52: Regression Coefficient of Independent Variables on Mothers' Emotional Involvement with Children

Variable	Model 1				Model 2			
	B	Beta	B	Beta	B	Beta	B	Beta
Mothers								
Gender ratio	.463	.259	2.179	.033	.312	.175	1.314	.194
Age of mothers					-.009	-.049	-.280	.781
Number of children					.061	.038	.306	.761
Work Status of mothers								
Working					.504	.138	1.090	.280
Not working (reference)					---	---	---	---
Income								
High income					-.045	-.012	-.077	.939
Low income					.163	.044	.287	.775
Middle income (reference)					---	---	---	---
Education of mothers								
Bachelor degree and higher					-.304	-.083	-.623	.536
less than bachelor (reference)					---	---	---	---
Average age of children					.171	.375	2.077	.057
Gender ideology								
Traditional					.349	.096	.760	.450
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.A					.717	.167	1.245	.218
U.S.A(reference)					---	---	---	---
R^2	.067				.198			
Adjusted R^2	.053				.057			
R^2 changed	.067*				.130			
F	4.750*				1.403			

* $p < .05$

The third regression was performed to estimate whether gender composition of children significantly predicted fathers' behavioral involvement with children while controlling for fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. The results in table 53 indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 54% of the variance in fathers'

behavioral involvement by the independent variable of gender composition of children. An addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model increased the explained variance (58.4%). Although there was a significant change in R^2 from the null model to model one, the change in R^2 from model one to model two was not significant. The overall model was significant (F =10.203**,** df =11, p< .05) even though much of the variability in fathers' behavioral involvement with children was explained by variables not included in the estimated equation. The final model pointed out that gender composition of children, number of children, and education were significant predictors of fathers' behavioral involvement with children. The addition of the control variables did not modify the gender composition effects in the final model. The standardized coefficients in the final model indicated that gender composition (mixed genders) (Beta = .662), education (beta = .206), and number of children (beta = -.168) were the best predictors of fathers' involvement with children. But gender composition of children (mixed genders) (Beta = .662) was the largest contributor to the final model. The unstandardized Beta coefficients in the final model revealed that fathers with mixed gender of children were more likely to be involved with their children than fathers with only girls. Fathers with a bachelor's degree and higher were more likely to be involved with their children than fathers with less than a bachelor's degree. Finally, as the number of children increased, fathers' behavioral involvement with children decreased. However, fathers with only boys, fathers' age, income, work status, average age of children, gender ideology, and place of birth did not significantly contribute to the final model and were insignificant predictors of fathers' behavioral involvement with children.

Table 53: Regression Coefficient of Independent Variables on Fathers' Behavioral Involvement with Children

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender composition								
All boys	-6.056	-.109	-1.123	.265	-5.332	-.096	-.938	.352
Mixed	.978	.677	7.005	.000	30.268	.662	6.578	.000*
All girls (reference)	---	---	---	---	---	---	---	---
Age of fathers					-.450	-.156	-1.485	.143
Number of children					-2.802	-.168	-1.891	.049*
Work Status of fathers								
Working					6.615	.097	1.097	.277
Not working (reference)					---	---	---	---
Income								
High income					-3.812	-.080	-.815	.418
Low income					1.242	.025	.243	.809
Middle income(reference)					---	---	---	---
Education of fathers								
Bachelor degree and higher					9.599	.206	2.256	.028*
less than bachelor(reference)					---	---	---	---
Average age of children					.706	.121	1.158	.251
Gender ideology								
Traditional					.490	.011	.125	.901
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-3.808	.079	-.867	.389
U.S. (reference)					---	---	---	---
R^2	.553				.648			
Adjusted R^2	.540				.584			
R^2 changed	.553*				.095			
F	43.323				10.203			

* $p < .05$

The fourth regression was performed to estimate whether gender composition of children significantly predicted fathers' emotional involvement while controlling for fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. As shown in table 54, two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 34% of the variance in fathers' emotional involvement with children by children's gender composition. An addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model increased the explained variance (43.6%). The changes from the null model to model one, to model two indicated significant changes in R^2; meaning that the final model was significant in predicting fathers' emotional involvement with children. These results were supported by the partial F tests. For the final model, the global *F* was 6.063, (df =11), and was significant ($p< .05$). The final model pointed out that gender composition of children, number of children, and education were significant predictors of fathers' emotional involvement with children. Note that the addition of the control variables did not modify the gender composition effects in the final model. The standardized coefficients in the final model indicated that gender composition of children (mixed genders) (Beta= .571), education (beta= .224), and number of children (beta=-.214) were the best predictors of fathers' emotional involvement with children. But children's gender composition (mixed genders) (Beta= .571) was the largest contributor to the final model. The unstandardized Beta coefficients in the final model showed that fathers with mixed gender of children were more likely to be emotionally involved with children than fathers with only girls. Fathers with a bachelor's degree or higher were more likely to be emotionally involved with children than fathers with less than a bachelor's degree. Finally, as the number of children increased, fathers'

emotional involvement with children decreased. On the other hand, fathers with only boys, fathers' age, income, work status, average age of children, gender ideology, and place of birth were insignificant predictors of fathers' emotional involvement.

Table 54: Regression Coefficient of Independent Variables on Fathers' Emotional Involvement with Children

Variables	**Model 1**				**Model 2**			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender composition								
All boys	-1.167	-.218	-1.885	.064	-.512	-.096	-.807	.423
Mixed	1.964	.448	3.870	.000	2.501	.571	4.871	.000*
All girls (reference)	---	---	---	---	---	---	---	---
Age of fathers					.037	.133	1.088	.281
Number of children					-.342	-.214	-2.072	.043*
Work status								
Working					-.040	-.006	-.060	.952
Not working (reference)					---	---	---	---
Income								
High income					.189	.042	.362	.719
Low income					-.069	-.014	-.120	.904
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					.996	.224	2.098	.040*
less than bachelor(reference)					---	---	---	---
Average age of children					-.098	-.175	-1.439	.155
Gender ideology								
Traditional					.566	.129	1.297	.200
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					.042	.009	.086	.932
U.S. (reference)					---	---	---	---
R^2	.359				.522			
Adjusted R^2	.340				.436			
R^2 changed	.359*				.164*			
F	19.574*				6.063*			

* $p < .05$

The fifth multiple regression analysis was used to assess whether gender ratio significantly predicted fathers' and mothers' involvement with children in interactive activities while controlling for parents' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. The first model included gender ratio and the second model included control variables of parents' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. The results in table 55 indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 11.2% of the variance in fathers' involvement in interactive activities by the independent variable of gender ratio. Addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model did not increase the explained variance, but rather decreased it to (6.2%). Although there was a significant change in R^2 from the null model to model one, the change in R^2 from model one to model two was not significant**.** The overall model was not significant (***F*** =1.368**,** df =10, $p< .05$) even though much of the variability in fathers' involvement with children in interactive activities was explained by variables not included in the estimated equation. So, although gender ratio significantly contributed to the variance explained in fathers' involvement with children in interactive activities, the addition of the control variables (fathers' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth) did not. Hence, the addition of these variables to the model did not modify the gender ratio effects in the final model. The standardized coefficients in the final model indicated that gender ratio (Beta = .323) is the best predictor of fathers' involvement with children in interactive activities. The unstandardized Beta coefficients in the final model showed that as the number of boys to girls in the family increased, fathers'

involvement with children in interactive activities increased. Yet, fathers' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth were insignificant predictors of fathers' involvement with children.

In addition, two incremental models were estimated for mothers. The results in table 56 revealed that the adjusted R^2 for model one explained 9.6% of the variance in mothers' involvement with children in interactive activities by gender ratio. Even though the addition of the control variables (mothers' age, number of children, work status, income, and education as well as average age of children, gender ideology, and place of birth) to the model increased the explained variance to14.9%, the change in R^2 was not significant. It is important to note how gender ratio contributed to model one, but the effects of gender ratio were modified in model two once the control variables were added to the model. Therefore, the control variables of mothers' age, number of children, income, work status, and education as well as average age of children, gender ideology, and place of birth did not significantly contribute to the final model. Further, the global *F* for the final model was 2.177, (df =10), which was not significant ($p< .05$).

An ANCOVA analysis was run and the interaction terms between gender of parents and gender ratio was tested to see if there was a significant difference between fathers and mothers regarding behavioral involvement with children. The significant interaction term between gender ratio and gender of parents implied that the relationship between gender ratio and parents' involvement in interactive activities was significantly different between fathers and mothers. Accordingly, as the boys' to girls' ratio in the family increased, fathers' involvement with children in interactive activities increased when compared to mothers' involvement.

Table 55: Regression Coefficient of Independent Variables on Fathers' Involvement with Children in Interactive Activities

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Fathers								
Gender ratio	4.982	.358	2.843	.006	4.489	.323	2.251	.029*
Age of fathers					.244	.142	.799	.428
Number of children					1.307	.131	.915	.365
Work status								
Working					-2.553	-.063	-.416	.679
Not working (reference)					---	---	---	---
Income								
High income					-3.921	-.139	-.846	.402
Low income					5.017	.168	.995	.325
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					6.426	.232	1.477	.147
less than bachelor(reference)					---	---	---	---
Average age of children					-.278	-.080	-.453	.653
Gender ideology								
Traditional					3.094	.114	.786	.436
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-2.559	-.089	-.567	.574
U.S. (reference)					---	---	---	---
R^2	.128				.229			
Adjusted R^2	.112				.062			
R^2 changed	.128*				.101			
F	8.081*				1.368			

* $p < .05$

Table 56: Regression Coefficient of Independent Variables on Mothers' Involvement with Children in Interactive Activities

Variable	Model 1				Model 2			
	B	Beta	t	Sig	B	Beta	t	Sig
Mothers								
Gender ratio	4.113	.330	2.842	.006	3.013	.242	1.916	.060
Age of mothers					.224	.171	1.031	.307
Number of children					1.084	.097	.816	.418
Work status								
Working					4.395	.173	1.437	.156
Not working (reference)					---	---	---	---
Income								
High income					.727	.027	.187	.852
Low income					6.545	.255	1.747	.086
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					-3.656	-.143	-1.131	.263
less than bachelor(reference)					---	---	---	---
Average age of children					.456	.143	.835	.407
Gender ideology								
Traditional					1.471	.058	.484	.630
Nontraditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					.973	.033	.255	.799
U.S. (reference)					---	---	---	---
R^2	.109				.276			
Adjusted R^2	.096				.149			
R^2 changed	.109*				.167			
F	8.076*				2.177			

* $p < .05$

The sixth multiple regression analysis was used to examine whether gender ratio significantly predicted fathers' and mothers' involvement with children in childcare activities while controlling for fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. The first model included gender ratio and the second model included control variables of fathers' age, number of children, work status,

income, education, average age of children, gender ideology, and place of birth. The results in table 57 indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 23.8% of the variance in fathers' involvement in childcare activities with children by the independent variable of gender ratio. Addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model increased the explained variance to (35%). The change in R^2 from the null model to model one to model two was significant. These results were further supported by the partial F tests. For the final model, the global *F* was 4.021, (df =10), and was significant ($p< .05$). The results of the final model suggested that gender ratio, age of fathers, number of children, and the average age of children all significantly contributed to the variance explained in fathers' involvement in childcare activities with children. Surprisingly, income, work status, education, gender ideology, and place of birth did not significantly contribute to the model. Moreover, they did not modify the gender ratio effects. The standardized coefficients in the final model indicated that only four of the ten variables, gender ratio (Beta= .427); age of fathers (Beta= -.496); number of children (Beta= -.272), and average age of children (beta= .451) significantly predicted fathers' involvement in childcare activities with children. These results suggested also that age of fathers was the largest contributor to fathers' involvement with children in childcare activities compared to the other items. The unstandardized Beta coefficients in the final model revealed that as the boys' to girls' ratio in the family increased, fathers' involvement with children in childcare activities increased; as the age of fathers increased, fathers' involvement in childcare activities decreased; as the number of children increased, fathers' involvement in childcare activities decreased as well; and as the average age of children increased, fathers' involvement with children in

childcare activities increased. However, income, work status, education, gender ideology, and place of birth did not contribute to the prediction of fathers' involvement with children in childcare activities.

Two incremental models were also estimated for mothers. The results in table 58 showed that the adjusted R^2 for model 1 explains less than 1% of the variance in mothers' involvement with children in childcare activities by gender ratio. Although the addition of the control variables of mothers' age, number of children, work status, income, and education, along with the average age of children, gender ideology, and place of birth to the model slightly increases the explained variance to almost 2%, the change in R^2 is not significant. Further, the global *F* for the final model was 1.120, (df =10), which was not significant ($p < .05$). The regression results in the final model revealed that gender ratio, the mothers' age, number of children, work status, income, and education along with the average age of children, gender ideology, and place of birth did not contribute to the prediction of mothers' involvement with children in childcare activities when compared to fathers'.

To detect a significant difference between fathers' and mothers' involvement with children in childcare activities, an ANCOVA analysis was run and the interaction terms between gender of parents and gender ratio was tested. The significant interaction term between gender ratio and gender of parents indicated that the relationship between gender ratio and parents' involvement with children in childcare activities was significantly different between fathers and mothers. As the boys' to girls' ratio in the family increases, involvement of fathers with children in childcare activities increases relative to mothers.

Table 57: Regression Coefficient of Independent Variables on Fathers' Involvement in Child care Activities with Children when they were Babies

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Fathers								
Gender ratio	6.482	.502	4.299	.000	5.524	.427	3.585	.001*
Age of fathers					-.793	-.496	-3.358	.002*
Number of children					-2.509	-.272	-2.274	.028*
Work status								
Working					.075	.002	.016	.987
Not working (reference)					---	---	---	---
Income								
High income					1.157	.044	.323	.748
Low income					4.015	.145	1.031	.308
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					4.852	.189	1.443	.156
less than bachelor(reference)					---	---	---	---
Average age of children					1.455	.451	3.063	.004*
Gender ideology								
Traditional					1.813	.072	.596	.554
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					.051	.002	.015	.988
U.S. (reference)					---	---	---	---
R^2	.252				.466			
Adjusted R^2	.238				.350			
R^2 changed	.252*				.215*			
F	18.482*				4.021*			

* $p < .05$

Table 58: Regression Coefficient of Independent Variables on Mothers' Involvement in Childcare Activities with Children when they were Babies

Variable	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Mothers								
Gender ratio	.414	.084	.687	.494	.247	.050	.370	.713
Age of mothers					-.042	.171	1.031	.307
Number of children					-.275	.097	.816	.418
Work status								
Working					.277	.028	.214	.831
Not working (reference)					---	---	---	---
Income								
High income					3.192	.315	2.008	.069
Low income					1.198	.112	.726	.471
Middle income(reference)					---	---	---	---
Education								
Bachelor degree and higher					.912	.091	.665	.509
less than bachelor(reference)					---	---	---	---
Average age of children					.441	.351	1.904	.062
Gender ideology								
Traditional					1.082	.108	.839	.405
Non- traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-.631	-.054	-.390	.698
U.S. (reference)					---	---	---	---
R^2	.007				.164			
Adjusted R^2	.008				.018			
R^2 changed	.007				.157			
F	.472				1.120			

* $p < .05$

Finally, the seventh regression was conducted to assess whether gender composition of children significantly predicted fathers' involvement in interactive activities with children while controlling for fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. Table 59 indicated two models were estimated incrementally for fathers. The adjusted R^2 for model 1 explained 40.7% of the variance in

fathers' involvement in interactive activities with children by gender composition of children. Although the addition of the control variables (fathers' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth) to the model increased the explained variance (44.4%), the change in R^2 from model one to model two was not significant. For the final model, the global *F* was 6.227, (df =11), and was significant ($p<$ .05). Though most of the variance in fathers' involvement in interactive activities with children remained unexplained, the two variables that significantly predicted fathers' involvement in interactive activities with children were gender composition of children and education. It is important to note that the addition of the control variables did not modify the gender composition effects in the final model. The standardized coefficients in the final model indicated that gender composition (mixed genders) (Beta = .588) and education (beta = .189 were the best predictors of fathers' involvement with children in interactive activities. But children's gender composition (mixed genders) (Beta = .588) was the largest contributor to the final model. The unstandardized Beta coefficients in the final model showed that fathers with mixed gender of children were more likely to be involved in interactive activities with children than fathers with only girls. Further, fathers with a bachelor's degree or higher were more likely to be involved in interactive activities with children than fathers with less than a bachelor's degree. On the other hand, fathers with only boys, fathers' age, number of children, income, work status, average age of children, gender ideology, and place of birth were insignificant predictors of fathers' involvement with children in interactive activities.

Table 59: Regression Coefficient of Independent Variables on Fathers' Involvement in Interactive Activities with Children

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender composition								
All boys	-2.690	-.081	-.739	.462	-3.869	-.117	-.990	.326
Mixed	16.375	.602	5.485	.000	15.982	.588	5.050	.000*
All girls (reference)	---	---	---	---	---	---	---	---
Age of fathers					.367	.213	1.763	.083
Number of children					.640	.064	.628	.532
Work status of fathers								
Working					2.106	.052	.508	.613
Not working (reference)					---	---	---	---
Income								
High income					-5.333	-.189	-1.657	.103
Low income					-.211	-.007	-.060	.952
Middle income(reference)					---	---	---	---
Education of fathers								
Bachelor degree and higher					5.216	.189	1.782	.040*
less than bachelor(reference)					---	---	---	---
Average age of children					-.603	-.173	-1.438	.156
Gender ideology								
Traditional					3.809	.140	1.417	.162
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-3.749	-.130	-1.241	.219
U.S. (reference)					---	---	---	---
R^2	.424				.529			
Adjusted R^2	.407				.444			
R^2 changed	.424*				.105			
F	25.759*				6.227*			

* $p < .05$

At base, regression analyses indicated that the parental involvement with children was influenced by gender ratio and children's gender composition as well as other factors (such as age of fathers, number of children, average age of children, and education). Therefore, the second hypothesis that Gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of

children, work status, income, education, average ages of children, gender ideology, and place of birth was supported by these results.

Predictors of children's participation in household work

Household work was a composite scale from the additive combination of the variables in table 20. A high score on this composite measure, therefore, indicated a high level of children's participation in the household. Regression analysis was conducted to test the following hypothesis: gender ratio and gender composition of the children will significantly predict children's participation in household chores when holding constant parents' age, number of children, average age of children, gender, income, work status, education, gender ideology, and place of birth. This hypothesis was tested using multiple regression analysis. Based on past research, the first model included gender ratio and children's gender composition and the second model included control variables of parents' age, number of children, average age of children, gender, work status, income, education, gender ideology, and place of birth. The results in table 60 indicated two models were estimated incrementally. The adjusted R^2 for model 1 explained 56.7% of the variance in children's participation in household work by gender ratio and children's gender composition. Although the addition of the control variables (parents' age, number of children, and average age of children, gender, work status, income, education, gender ideology, and place of birth) to the model increased the explained variance (57.2%), the change in R^2 from model one to model two was not significant. For the final model, the global F was 13.723, (df =13), and was significant ($p< .05$). Even though most of the variance in children's participation in household work remained unexplained, the three variables that significantly predicted children's participation in household work were: gender ratio, children's gender composition, and average age of children. The addition of the control variables did not modify

the gender ratio and gender composition of children effects in the final model. The standardized coefficients in the final model showed that gender ratio (beta = -.274); gender composition of children (mixed genders) (Beta = 1.034); and average age of children (beta = .150) were the best predictors of children's participation in household work. But children's gender composition (mixed genders) (Beta = 1.034) was the largest contributor to the final model. The unstandardized Beta coefficients in the final model indicated that as the number of boys' to girls' ratio increased, children's participation in the household decreased; and as the average age of children increased, children's participation in household work increased. Further, parents with mixed gender children were more likely to use gender stereotyping when assigning household work to children than parents with all girls. All boys gender composition, parents' age, number of children, gender, income, work status, education, gender ideology, and place of birth were insignificant predictors of children's participation in the household.

Table 60: Regression Coefficient of Independent Variables on Children's Participation in the Household Work

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender ratio	-6.085	-.283	-3.437	.001	-5.900	-.274	-2.958	.004*
Gender composition								
All boys	13.167	.258	2.838	.005	10.504	.206	1.959	.053
Mixed	46.267	1.057	9.654	.000	45.258	1.034	8.059	.000*
All girls (reference)	---	---	---	---	---	---	---	---
Age of parents					.059	.027	.309	.758
Number of children					-1.038	-.063	-.863	.390
Average age of children					.811	.150	1.770	.048*
Gender of parents								
Male					-3.076	-.071	-.973	.333
Female (reference)					---	---	---	---
Work status of parents								
Working					2.718	.061	.873	.385
Not working (reference)					---	---	---	---
Income								
High income					-1.416	-.031	-.418	.677
Low income					-4.165	-.093	-1.197	.234
Middle income(reference)					---	---	---	---
Education of parents								
Bachelor degree and higher					-2.613	-.060	-.934	.352
less than bachelor(reference)					---	---	---	---
Gender ideology								
Traditional					3.180	.074	1.159	.249
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					3.566	.074	1.114	.268
U.S. (reference)					---	---	---	---
R^2	.578				.616			
Adjusted R^2	.567				.572			
R^2 changed	.578*				.039			
F	55.136*				13.723*			

* $p < .05$

In order to look at the types of household work which children might have been asked to do, indoor work was the additive scale from the variables in table 21 and outdoor work was created by combining the variables in table 22. Regression analysis was first conducted to assess whether gender ratio would significantly predict children's participation in indoor work while holding constant parents' age, number of children, average age of children, gender of parents, work status, income, education, gender ideology, and place of birth. As seen in table 61, two models were estimated incrementally. The adjusted R^2 for model 1 explained 55.9% of the variance in children's participation in indoor household work by gender ratio. Though the addition of the control variables (parents' age, number of children, average age of children, gender of parents, work status, income, education, and place of birth) to the model slightly increased the explained variance (56.2%), the change in R^2 from model one to model two was not significant. For the final model, the global *F* was 13.236, (df =13), and was significant ($p<$ .05). Although most of the variance in children's participation in indoor household work remained unexplained, gender ratio and gender ideology were significant predictors of children's participation in indoor household work. The addition of the control variables did not modify the gender ratio effects in the final model. The standardized coefficients in the final model pointed out that gender ratio (beta = -.285) and gender ideology (beta = .117) were the best predictors of children's participation in indoor household work. The unstandardized Beta coefficients in the final model indicated that, as the boys' to girls' ratio increased, children's contribution to indoor work (traditionally female tasks) decreased; and parents with traditional gender ideology were more likely to use gender stereotyping when assigning household work to children than parents with non-traditional gender ideology. In other words, boys were less likely to do indoor work than girls. Parents' age, number of children, gender, income, work status, education, average age

of children, and place of birth did not significantly contribute to the prediction of children's participation in indoor household work.

Table 61: Regression Coefficient of Independent Variables on Indoor Household Work

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender ratio	4.075	-.271	-3.267	.001	-4.277	-.285	-.037	.003*
Age of parents					.009	.006	.065	.948
Number of children					-.578	-.050	-.681	.497
Average age of children					-.498	-.132	-1.540	.126
Gender of parents								
Male					-1.086	-.036	-.487	.628
Female (reference)					---	---	---	---
Work status of parents								
Working					1.701	.055	.774	.441
Not working (reference)					---	---	---	---
Income								
High income					-.753	-.024	-.315	.753
Low income					-3.472	-.111	-1.413	.160
Middle income(reference)					---	---	---	---
Education of parents								
Bachelor degree and higher					-1.368	-.045	-.693	.490
less than bachelor(reference)					---	---	---	---
Gender ideology								
Traditional					3.518	.117	1.816	.042*
Non-traditional (reference)					---	---	---	---
Place of birth								
Outside U.S.					1.720	.051	.761	.448
U.S. (reference)					---	---	---	---
R^2	.570				.608			
Adjusted R^2	.559				.562			
R^2 changed	.570*				.038			
F	53.375*				13.236*			

* $p < .05$

Regression analysis was further employed to examine the effect of gender ratio on children's participation in outdoor household work while holding constant parents' age, number of children, average age of children, gender of parents, work status, income, education, gender ideology, and place of birth. As shown in table 62, two models were estimated incrementally. The adjusted R^2 for model 1 explained 4.8% of the variance in children's participation in outdoor household work by gender ratio. Addition of the control variables (parents' age, number of children, average age of children, gender of parents, work status, income, education, , gender ideology, and place of birth) to the model increased the explained variance (7.2%), the change in R^2 from model one to model two was not significant. For the final model, the global *F* was 1.880, (df =11), and was significant ($p< .05$). The final model revealed that gender ratio was the only significant predictor of children's participation in outdoor household work. The effects of gender ratio were not changed throughout the estimation of the models. The standardized coefficients in the final model pointed out that gender ratio (beta = .261) is the best predictor of children's participation in outdoor household work. The unstandardized Beta coefficients in the final model indicated that, as the boys' to girls' ratio increased, children contribution to outdoor work (traditionally male tasks) increased. In other words, boys were more likely to do outdoor work than girls. It was interesting to note that parents' age, number of children, gender, income, work status, education, average age of children, gender ideology, and place of birth did not significantly contribute to the prediction of children's participation in outdoor household work. Overall, these results provided a strong support to the third hypothesis: gender ratio and gender composition of the children will significantly predict children's participation in household chores when holding constant parents' age, number of children, average age of children, gender, work status, income, education, gender ideology, and place of birth .

Table 62: Regression Coefficient of Independent Variables on Outdoor Household Work

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender ratio	2.144	.237	2.704	.008	2.359	.261	2.858	.005*
Age of parents					.001	.001	.012	.991
Number of children					-1.015	-.146	-1.539	.127
Average age of children					.021	.009	.076	.939
Gender of parents								
Male					-1.826	-.100	-.933	.353
Female (reference)					---	---	---	---
Work status of parents								
Working					-.113	-.006	-.059	.953
Not working (reference)					---	---	---	---
Income								
High income					.915	.048	.442	.659
Low income					3.365	.179	1.629	.106
Middle income (reference)					---	---	---	---
Education of parents								
Bachelor degree and higher					-1.689	-.092	-.977	.331
less than bachelor(reference)					---	---	---	---
Gender ideology								
Traditional					.707	.039	.421	.674
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					-.551	-.027	-.282	.779
U.S. (reference)					---	---	---	---
R^2	.056				.155			
Adjusted R^2	.048				.072			
R^2 changed	.056*				.099			
F	7.314*				1.880*			

* $p < .05$

Predictors of marital quality

Marital quality is a composite scale from the additive combination of the variables in table 23. A high score on this composite measure therefore indicated positive marital quality. Regression analysis was conducted to examine the following hypothesis: gender ratio, children's gender composition, and parental gender preferences regarding children will significantly predict marital quality when holding constant parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement. Based on the previous research, the first model included gender ratio, children's gender composition, and parental gender preferences with regard children and the second model included the control variables of parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement. The regression results revealed that, as seen in table 63, two models were estimated incrementally. The adjusted R^2 for model 1 explained 10.6% of the variance in marital quality by gender ratio. Addition of the control variables (parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement) to the model increased the explained variance (11.3%).The change in R^2 from model one to model two was not significant. For the final model, the global *F* was 1.876, (df =18), and was significant ($p< .05$). The final model indicated that gender composition of children, average age of children, and fathers' involvement with children were the only significant predictors of marital quality. The effects of gender composition were not changed throughout the estimation of the models. The standardized coefficients in the final model indicated that only boys sibship (beta = .471), mixed sibeship (beta = .721), average age of children (beta = -.266), and fathers involvement (beta =.265) are the

best predictors of marital quality. The unstandardized Beta coefficients in the final model indicated that parents with only boys and mixed gender of children were more likely to have positive marital quality than parents with only girls. In addition, as fathers' level of involvement with children increased, marital quality increased; and as the average age of children increased, marital quality decreased. Surprisingly, gender ratio, parental gender preferences regarding children, parents' age, number of children, gender of parents, income, work status, education, gender ideology, and place of birth did not significantly contribute to the prediction of marital quality. Therefore, the fourth hypothesis that gender ratio, children's gender composition, and parental gender preferences regarding children will significantly predict marital quality when holding constant parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement, was partially supported by these results.

Table 63: Regression Coefficient of Independent Variables on Marital Quality

Variables	Model 1				Model 2			
	B	**Beta**	**t**	**Sig**	**B**	**Beta**	**t**	**Sig**
Gender ratio	-.455	-.054	-.438	.662	-.691	-.082	-.604	.547
Gender composition								
All boys	9.030	.450	3.401	.001	9.452	.471	3.094	.003*
Mixed	8.327	.484	.911	.004	2.392	.721	3.506	.001*
All girls (reference)	---	---	---	---	---	---	---	---
Gender preferences								
Boy preference	-3.540	-.206	-1.062	.291	-3.021	-.176	-.850	.397
Girl preference	-3.519	-.095	-.807	.422	-2.150	-.058	-.482	.631
Balanced preference	-2.144	-.127	-.662	.509	-1.208	-.072	-.350	.727
Indifferent (reference)	---	---	---	---	---	---	---	---
Age of parents					.084	.096	.693	.490
Number of children					.815	.126	1.052	.295
Average age of children					-.566	-.266	-2.041	.044*
Age at marriage					.078	.047	.406	.685
Gender of parents								
Male					-.095	-.006	-.046	.964
Female (reference)					---	---	---	---
Work status of parents								
Working					.021	.001	.011	.991
Not working (reference)					---	---	---	---
Income								
High income					-1.740	-.097	-.876	.383
Low income					-.745	-.042	-.361	.719
Middle income (reference)					---	---	---	---
Education of parents								
Bachelor degree and higher					.189	.011	.118	.906
less than bachelor(reference)					---	---	---	---
Gender ideology								
Traditional					.169	.010	.105	.917
Non-traditional(reference)					---	---	---	---
Place of birth								
Outside U.S.					.495	.026	.268	.789
U.S. (reference)					---	---	---	---
Father involvement					.104	.265	2.099	.038*
R^2	.149				.242			
Adjusted R^2	.106				.113			
R^2 changed	.149*				.093			
F	3.439*				1.876*			

* $p < .05$

Table 64: Summary of Significant Predictors of Regression Analysis on Four Family Processes

Family processes models	**Significant Predictors**
Family size	▪ Gender preferences-boy preference ▪ Gender composition- all boys and all girls sibships ▪ Age of parents ▪ Age at marriage
Parental Involvement with children	▪ Gender ratio ▪ Gender composition – Mixed genders ▪ Number of children ▪ Fathers' Education-bachelor degree and higher ▪ Age of fathers
Participation in household work	▪ Gender ratio ▪ Gender composition- mixed genders ▪ Average age of children ▪ Gender ideology-traditional gender ideology
Marital quality	▪ Gender composition- all boys and mixed genders ▪ Average age of children ▪ Fathers' involvement with children

CHAPTER 5

Discussion and Conclusion

The purpose of this study is to examine the effects of the gender of children in selected Arab-American family processes. Specifically, it looked at assessing the relationships between gender ratio, children's gender composition, and parental gender preferences regarding children and family size, parental involvement with children, allocating household work to children, and marital quality.

A cross-sectional quantitative research design was employed, using a self-administered questionnaire. A convenience sample (N=200) of Arab-American parents who had at least two children under 18 years old at home and resided in the tri-county area of Greater Metropolitan Detroit, Michigan was recruited to participate in this study.

Four general hypotheses were examined, using multiple regression analysis**.**

- Parental gender preference regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, work status, income, education, and gender ideology.
- Gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of children, work status, income, education, average ages of children, gender ideology, and place of birth.
- Gender ratio and gender composition of the children will significantly predict children's participation in the household chores when holding constant parents' age,

number of children, average age of children, gender, work status, income, education, gender ideology, and place of birth.

- Gender ratio, children's gender composition, and parental gender preferences regarding children will significantly predict marital quality when holding constant parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement.

All of these hypotheses were accepted in this study.

Following is an integrative discussion of the major research findings for each of the specific family dynamics analyzed. Next, a discussion of the symbolic interactionist theory and its relationship to family dynamics is examined. Finally, the dissertation is concluded by outlining the major findings, its strengths and limitations, directions for the future, and the implications of this study.

5.1 Family size

The first issue examined was family size and its relationship to parental gender preferences with regard to children and children's gender composition. The bivariate analyses revealed that parental gender preferences regarding children and children's gender composition were significant predictors of family size. These results were further supported by multiple regression analyses and the regression results provided a strong support to the first hypothesis: parental gender preference regarding children and children's gender composition will significantly predict Arab-American family size when holding constant parents' age, age at marriage, gender, place of birth, work status, income, education, and gender ideology. Specifically, the results showed that parents with a boy preference were more likely to have a larger family size than parents no preference. Also, parents with only girls' sibship were more

likely to have more children than parents with mixed gender of children. Parents with only boys' sibships were less likely to have a bigger family size than parents with mixed gender of children because they had achieved the desired number of boys. These results are consistent with the findings of the majority of the literature in that family size and childbearing are strongly influenced by the gender of the offspring in several societies. A strong son preference can be an obstacle to fertility decline if couples persist in having children after reaching their overall family size goal because they are not happy with the gender composition of their current family. Parents who prefer sons to daughters may be unwilling to stop childbearing until their preferred number of sons has been achieved (Dahl & Moretti, 2004; Rahman &Da Vanzo, 1993; Arnold & Roy, 1997). Also, some parents with all girls continue bearing children in hopes of achieving a boy. Therefore, these families become relatively large.

One can assume that parents who want one or more children of a certain gender may have larger families than would otherwise be the case. Parents who fail to achieve a balanced number of daughters and sons (or at least one child of each gender) by the time they reach the number of children planned, might tend to increase their family size upward (Gray & Morrison, 1974). These results contradict some of the findings of previous research that there is no impact of gender preferences on ultimate family size and that decisions about additional childbearing are more likely to derive from socioeconomic considerations, such as level of education and work status (Ayala & Falk, 1971; Repetto, 1972; Hoffman, 1975; Preston & Hartnett, 2008; Billari & Philipov ,2004; Jones & Tertilt ,2006; Bettio & Villa, 1998; Rindfuss, et al., 2000).

The educational attainment and higher level of employment were expected to affect fertility decisions downward. Surprisingly, education, work status, income, and other factors were not significant predictors of family size. Although the majority of the respondents in this

study were highly educated, employed, and had higher incomes, cultural factors exerted a powerful influence on fertility (to have more offspring), especially when they had a strong boy preference. As one can see, gender preference for a boy in Arab-American families is still taking place.

Those who have a strong boy preference and have all girls' sibships are more likely to have a larger family due to the different utilities (functions) that a boy might provide to the family, rather than a girl, such as social and economic benefits. Unlike the United States and other developed countries, boys in traditional societies are presumed to have greater economic net utility than daughters. Male offspring can provide assistance in wage earning, and can serve as a form of social security to parents when they get old.

The biggest advantage for having a son is that the family name will be carried forward (e.g., A El-Gilany & Shady, 2007; Hank & Kohler, 2000; Arnold & Roy, 1998; Baedhan 1988; Basu, 1989). The results above are also evident in this study. When respondents were asked an open-ended question to provide the reasons for wanting a boy and a girl, the majority indicated that the main reasons for the preference for a male child were mainly social and cultural: continuing the family name, taking care of elder parents, social status, and taking care of siblings. These were followed by economic reasons, such as contributing to the family income and providing practical help. Finally, parents cited psychological factors, such as bringing happiness and satisfaction, thinking that boys are easy to raise, and having companionship. On the other hand, the main reasons for wanting a girl were psychological, such as companionship, happiness and satisfaction, and loving females; followed by social factors, such as taking care of parents when they get older and to help with household work.

Moreover, the data also revealed that the age of parents and age at marriage were significant predictors of family size. Similar to past research, there is a positive relationship between the age of parents and family size; as the age of the respondents increased, family size increased. Further, there is an inverse relationship between age at marriage and family size: as the age at marriage increased, family size decreased. One explanation derived from the past research is that older cohorts were less educated than younger ones, hence they were less neutral about the gender and more adherent to the traditional male preference, thus having a larger family size. In addition, parents who enter into their first marriage at a young age have a higher expected fertility rate than those who marry later in life.

Overall, these findings are in agreement with the structural-functionalist theory that preferring one gender over the other (boys over girls) can provide economic, social, or psychological functions that contribute, in turn, to family solidarity. Yet, preferring boys over girls can also be dysfunctional for the family and society, in the long term. If families want a certain number of sons, they will continue bearing children until they achieve the desired number of boys. This could impoverish them by having a larger family size. Further, the preference for boys over girls could result in gender imbalance in the future (i.e., more men than women), which could alter the structure of marriage in society by having a lack of marriage partners or giving one gender more advantage/disadvantage in partner selection.

5.2 Parental involvement with children

This section examines the relationship of gender ratio and children's gender composition to parental involvement with children. Some previous research pointed out that fathers are becoming more egalitarian in their time investment with their children and that they feel just as much affection for daughters as for sons (i.e., Hofferth, 2003; Tucker, 2003; Sandberg &

Hofferth, 2001; Sanderson & Thompson, 2002). These reported changes can be traced to the increased social pressure that fathers face to adopt more equal roles in today's society (Morgan & Pollard, 2002).

In this study, bivariate analyses indicated that gender ratio and children's gender composition significantly predicted parental involvement with children. Multivariate findings further provided support to the second research hypothesis: gender ratio and gender composition of the children will significantly predict parental involvement with children when holding constant parents' age, number of children, work status, income, education, average age of children, gender ideology, and place of birth. In particular, the results indicated that fathers, compared to mothers, were more behaviorally and emotionally involved with boys than with girls. As the number of boys to girls in the family increased, fathers' behavioral involvement with children relative to mothers' involvement increased; and as number of boys to girls in the family increased, fathers' emotional involvement with children relative to mothers increased. These findings support the majority of the previous literature suggesting that fathers spend more time with boys than with girls in several activities; and fathers report a greater emotional attachment and closeness to their sons than to their daughters (e.g., Bryant & Zick, 1996; McHale, Crouter, & Tucker, 1999; McHale & Updegraff, 2000; Yeung, 2001; Tucker, 2003).

A possible explanation for these findings is that fathers may have gender-typed their time investment in children because they believed that boys needed their fathers as role models (more than girls) and that fathers had particular knowledge to share with their sons. This may have affected the amount of interaction between fathers and sons versus time between fathers and daughters. In addition, there is often a greater similarity of interests between fathers and their sons. Children themselves may contribute to this process by seeking out the parent they feel is

most gender suitable for the activity they want to do. For instance, boys may be more likely to approach their fathers, rather than their mothers, when they want to do something they see as masculine, such as sports. Girls may be more likely to approach their mothers to fulfill needs such as the desire to go shopping (Raley & Bianchi, 2006).

A further explanation is that this differential treatment by fathers may be due, in part, to stereotypes which fathers hold about what is appropriate behavior for a child of a given gender, or to different aspirations they have with regard to their child's future (Maccoby 2003). However, mothers do not spend more extensive amounts of time with girls than with boys and report being just as close to their sons as to their daughters. This is due to the fact that they spend much more time engaged in childrearing activities than fathers do. They are usually responsible for meeting the day-to-day needs of their children, such as ensuring that children are dressed, fed, bathed, perform well at school, etc., while fathers are more likely to focus on breadwinning as their primary parenting role (Raley & Bianchi, 2006).

Findings reported by some researchers indicated that children of both genders (mixed gender) or a fraction of boys, positively affected the frequency of fathers' involvement with their children (Cooksey & Fondell 1996; Marsiglio 1991; Wilcox 2002; Zick et al., 2001; Harris and Morgan, 1991). This study revealed similar results in that fathers with mixed gender children were more involved behaviorally and emotionally with their children than fathers with only girls. A possible explanation, as indicated by Harris and Morgan (1991), is that children of both genders (mixed gender) receive greater attention from their father when there is a boy present in the family. Therefore, the presence of boys in the family can draw fathers into more active parenting. This greater involvement, in turn, benefits girls because they receive more (but not equal) attention from their fathers.

When taking into account the types of activities in which parents were involved with children, the data analyses (e.g., descriptive statistics) indicated that both parents were involved in various activities with children. Generally, mothers were more involved with children in interactive and childcare activities than fathers, but fathers were not too far behind**.** Fathers were found to be more involved with boys than with girls in interactive and childcare activities, but, there were no extreme variations in mothers' level of involvement with both boys and girls in interactive and childcare activities. Bivariate and multivariate analyses further suggested that as the number of boys to girls in the family increased, fathers' involvement with children in interactive activities relative to mothers' increased, as the number of boys to girls in the family increased, fathers' involvement with children in childcare activities relative to mothers' increased; and fathers with mixed genders sibships were more likely to be involved with children in interactive activities than fathers with only girls. These results are similar to previous research in that most of the time men spent with their children was in the form of interactive activities, such as play/companionship activities or helping with homework (e.g., Yeung, 2001; Zick & Bryant, 1996; Gershuny & Robinson, 1988; Harris & Morgan ,1991). On the other hand, these results are in contrast to past research, which documents that fathers were less involved in childcare activities (Robinson and Godbey, 1997; Hofferth & Anderson, 2003). Yet, mothers do not spend more extensive amounts of time with girls than with boys in various activities (interactive and childcare activities) due to the fact that they still shoulder the lion's share of the parenting as their primary job (doing the work). The research clearly showed that once fathers were involved in childcare activities, they acquired a continuing taste for active childrearing, especially when boys were present in the family.

The data analyses (regression analyses) also revealed that the number of children, fathers' education, average age of children, and fathers' age were significant predictors of parental involvement with children. Consistent with previous studies, the number of children was associated negatively with parental involvement (behavioral, emotional, and involvement in childcare activities) with children**.** Having more children implied fewer parental resources going to each child in terms of time, emotional and physical energy, attention, and ability to interact with children as individuals (Black, 1989; Harris and Morgan, 1991).

Several previous studies highlighted that fathers' educational attainment was positively associated with their involvement with children in various activities (Aldous, et al., 1998; Marsiglio, 1991; Yeung, et al., 2001). This study revealed similar results in that fathers with more education invested more time and did more enriching activities with their children than less-educated fathers. These results suggest that parents with a higher level of education, in particular college-educated parents, may perceive greater benefits from spending time caring for their children. They are thought to be more aware of the importance of the investment of time in cultivating children's human and social capital, and are more strongly motivated to conform to the norms of involved parenting (Coleman, 1988; Daly, 2001; Kitterod, 2002). Thus, increased fathers' involvement may contribute to the children's overall development, their economic outcomes in adult life, and improvements in a family's overall well-being (Aldous, Mulligan, & Bjarnason, 1998; Lundberg, 2006).

The average age of children was also a significant predictor of fathers' involvement with children in childcare activities: as the average age of children increases, fathers' involvement with children in childcare activities increases. This result validates previous research that there was a greater involvement of fathers when children were older than five years (Anderson, 2003;

Aldus, 1998). However, other studies found a lower level of parental involvement, in absolute terms, with older children (Barnett & Baruch, 1987; Marsiglio, 1991; Pleck, 1985; Yeung, 2001). A possible explanation for this is that involvement with younger children in childcare activities requires a large amount of time and energy. Employed fathers do not have time or energy to fully participate in childcare duties for their older children.

The analyses results further revealed that the age of fathers had a negative association with fathers' involvement with children, especially in personal childcare activities. These results are in line with past research which suggested that as the age of fathers' increased, their involvement in childcare activities with children decreased. Nevertheless, Yeung (2001) found that the age of fathers had a positive association with the amount of time fathers spent with their children, the results of this study revealed that. A possible interpretation is that older fathers held more traditional attitudes and were less prone to being involved in childcare activities than younger fathers. Taken as a whole, these results are in agreement with the structural-functionalist theory signifying that increased parental involvement with children is functional for the overall children's well-being. However, differential treatment by fathers based on the gender of their children can be seen as dysfunctional, especially for girls whose overall well-being may be affected by lack of attention.

5.3 Children's participation in household work

Data on children's contribution to household work in relation to gender ratio and children's gender composition was examined in this study. The bivariate, and multivariate analyses revealed that children's gender ratio and children's gender composition were significant predictors of children's participation in household work. Multiple regression analyses results further provided support to the following research hypothesis: gender ratio and gender

composition of the children will significantly predict children's participation in household chores when holding constant parents' age, number of children, average age of children, gender, work status, income, education, gender ideology, and place of birth. Specifically, the results showed that as the number of boys to girls in the family increased, children's contributions to household work decreased, which implied that boys were less likely than girls to participate in household work as a whole. Further, parents with mixed genders of children were more likely to display gender stereotype when allocating household work to children. These results are in line with previous research showing that gender is a key determinant in the assignment of household tasks. In general, boys do less household work than girls do and when sibling groups are of mixed genders, parents are more likely to allocate household work to children based on their gender (e.g., Brody & Steelman, 1985**;** Raley & Bianchi, 2006; White & Brinkerhoff, 1981). Yet, Tucker et al., (2003) indicated that parents in married-couple families assigned household tasks to adolescent sons and daughters evenly.

When considering the types of household work (indoor and outdoor), the analyses revealed that as the number of boys to girls increased, children's contribution to indoor work decreased; and as the number of boys to girls increased, children's contribution to outdoor work increased. These results validate previous literature that boys are generally do the outdoor jobs, such as taking out the trash and household repairs, whereas girls are typically assigned indoor activities, such as washing the dishes, cooking, etc. In addition, girls devote more time to such activities than do boys (e.g., Cager, 1999; McHale, 1990; Brody & Steelman, 1985; White & Brinkerhoff, 1981). A possible explanation is that parents assign household work to children based on gender to teach them to be responsible, independent, and prepared for paid work in the future. A further explanation is that this sex-typing of the household assignments may be due, in

part, to stereotypes which parents hold about what is an appropriate role for a child of a given gender, or to future aspirations they have for their child (Maccoby, 2003).

The analyses results further pointed out that the average age of children was positively associated with children's participation in household work: as the average age of children increased, children's contribution to the household work increased. This finding corresponded with previous research suggesting that the age of children is a key determinant of the assignment of tasks (e.g., Blair 1992a, b; Cogle and Tasker, 1982; White & Brinkerhoff, 1981). Possibly, as children get older they are physically more capable, socially more responsible, skilled, and have acquired competence through experience and practice to take on certain tasks autonomously. Thus, their domestic work assignments become more stereotypical and gender-segregated**.** Gender ideology was also found to be associated with children's participation in household work. Parents with traditional gender attitudes were more likely to allocate indoor household work to children based on gender than parents with non-traditional gender ideology. This result confirmed previous research that those who expressed traditional gender-role attitudes were more prone to agree with the strict gender typing of children's household tasks than were their opposites (Duncan & Duncan, 1978; White & Brinkerhoff, 1981; Blair, 1992b).

These results strongly suggest that girls are perceived to put in substantially more time and effort in household work and do more indoor work than boys, while boys are more likely to perform outdoor work than girls. This, in turn, suggests that the sex-linked assignment of children's household work is a powerful societal norm which becomes more intense as the child matures. Therefore, children continue to be socialized into gender specific roles through the gender typing of household assignments and these role assignments become more pronounced as children approach adulthood (Geger, Cooney & Call, 1999). Moreover, this gender-segregated

pattern corresponds closely to the division of responsibilities commonly observed among adults (e.g., Blair 1992a, b; Cogle & Tasker 1982; White & Brinkerhoff 1981). That is, women are more likely to perform greater total amounts of household work and perform qualitatively different types of household chores.

In general, these results validate the structural-functionalist theory view that participation of children in household tasks has important functional, integrative, and developmental implications, both for the child and for the family. In particular, it teaches children to be responsible, independent, and prepared for paid work in the future.

5.4 Marital quality

The relationship between gender ratio, children's gender composition, and parental gender preferences regarding children and marital quality was evaluated in this study. The bivariate analyses revealed that gender ratio and children's gender composition were significant predictors of marital quality. However, the regression analyses suggested that children's gender composition was a significant predictor of marital quality. Thus, these results provide partial support to the following hypothesis: gender ratio, children's gender composition, and parental gender preferences regarding children will significantly predict marital quality when holding constant parents' age, number of children, average age of children, age at marriage, gender, work status, income, education, gender ideology, place of birth, and fathers' involvement. Specifically, the results indicated that parents with only boys and mixed sibships were more likely to report positive marital quality than parents with only girls' sibships. These findings are consistent with previous studies which showed that the presence of boys in the family increased the likelihood that a marriage would remain intact; and having all boys was associated with higher levels of happiness and satisfaction. (e.g., Dahl & Moretti, 2004, Mizell & Steelman, 2000, Raley &

Bianchi, 2006**;** Katzev et al., 1994**).** This may be because boys continue to be more valued in Arab-American society. Parents with boys may feel more satisfied in their marriage and hence are less disposed to consider separation from their spouse. In contrast, some researchers have found higher marital satisfaction and happiness among wives with daughters compared to wives with sons (Abbott & Brody, 1985). Surprisingly, gender ratio and gender preferences were insignificant in predicting marital quality. A possible explanation is that the data didn't allow for enough variation to obtain statistical variations. The other variables in the regression analysis were so strong that they washed out any impact these variables might have had on marital quality.

This research also indicates that the average age of children and fathers' involvement with children in various activities are significant predictors of marital quality. The average age of children has an inverse relationship with marital quality: as the average age of children increases, marital quality decreases. These findings are inconsistent with previous research suggesting that parents with young children are more dissatisfied with their marriages than parents with older children (e.g., Twenge, Campbell, & Foster, 2003; Glenn & McLanahan, 1982; Sollie & Miller, 1980). Possibly, as children grow up, they become more (financially) demanding and require more supervision placing significant stress on parents which, in turn, can lead to dissatisfaction with the marriage. A further explanation is that parents with older children are faced with issues of teenage dissent. These older children may challenge their parents' wishes that they conform to Arab community rules. The resultant stress can affect parents' level of marital satisfaction, happiness, and stability**.**

Research on the effect of child gender on marriage has suggested a positive relationship between fathers' involvement and marital satisfaction and stability. When fathers significantly

participate in family activities, including childcare, mothers perceive less disadvantage in their marital relationship and are more satisfied (Blair & Johnson, 1992). These results are evident in the current study: as fathers' level of involvement with children increases, marital quality increases as well. Past research suggests that paternal involvement in parenting can be related to marital satisfaction and stability in two ways. First, when fathers are more involved with sons than with daughters, they play a more crucial role in the emotional and social development of their sons. Therefore, having a son increases marital surplus, or the value of marriage relative to single parenthood. Second, fathers may simply place a higher value on marriage and family if they have a son (e.g., Lunderberg, 2003; Kalmun, 1999; Harris & Morgan, 1991; Marsiglio, 1991). Simultaneously, these results support the structural-functionalist theory that the presence of a boy can be functional for a couple's marriage by increasing marital quality and stability.

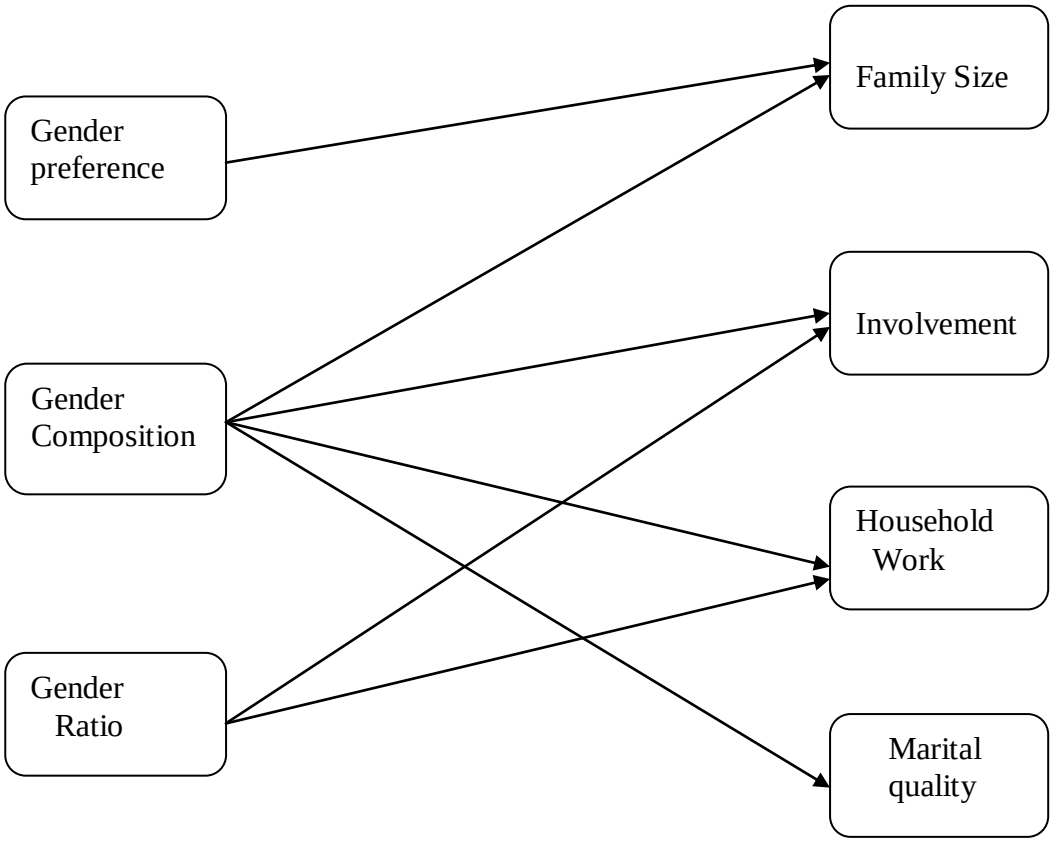
5.5 Symbolic interactionist theory and family dynamics

Symbolic interaction theory focuses on face-to-face interaction, and how people define and construct personal reality (Ritzer & Goodman, 2006). Based on social interactions with others, people construct their own meanings. Since meaning is created from these interactions, the interpretations assigned to being male and female are not permanent and can be modified as people deal with various encounters in their lives (Wallace & Wolf, 2006). Accordingly, people do not respond directly to physical actions, but they respond to their own subjective interpretations of these actions (Williams, Sawyer & Wahlstorm, 2009; Nelson & Robinson, 2002; Renzetti & Curran, 2003). Through interaction with others, especially parents, children learn their gender identity as a 'boy' or 'girl' and the meaning of gender-appropriate behavior as they begin to take on their defined roles. Parents bring a gendered self into situations and act

according to their own internalized definitions (Nelson & Robinson, 2002; Renzetti & Curran, 2003; Ritzer & Goodman, 2006).

At base, this study's findings illustrated that children's gender had an effect on parents' behavior, due to the meaning that gender had for those parents. Parents with a strong boy preference and with all girls' sibships were more likely to have a larger family size, while parents with all boys' sibships were less likely to have a larger family. In addition, fathers were more involved (behaviorally, emotionally and in interactive and childcare activities) with their boys than with their girls. Overall, girls did more household chores than boys. Girls did more indoor work while boys did more outdoor work; and parents were more likely to display gender-stereotype when allocating household chores to children. Further, the presence of a boy in the family (all boys or mixed genders) increased both the quality and stability of marriage. Thus, parents' behavior was highly influenced by the gender of their children. Children's gender is a symbol that has meanings for parents and parents act, based on these meanings. Taken as a whole, these results provide a support to figure 1 (the theoretical model) that tests the relationship between gender ratio, children's gender composition, and parental gender preference with regard to children and family dynamics. The relationship between parental gender preference and gender ratio and marital quality however has not been supported statistically in the analysis. As a result, figure 2 represents the relationships that were supported in the empirical analysis.

Figure 2: Revised Theoretical Model



5.6 Conclusions

The goal of this study was to address the relationship between children's gender and various Arab-American family dynamics. It was designed specifically to examine the effect of gender ratio, children's gender composition, and parental gender preferences regarding children on family size, parental involvement with children, allocating household work to children, and marital quality. The basic research question was: what is the impact of the gender of children on Arab-American family dynamics? The study has significantly contributed to the body of the literature on the impact of children's gender on family dynamics. The analysis revealed several interesting significant findings. In summary, parental gender preference regarding children and children's gender composition do predict family size when parents' age, age at marriage, gender, place of birth, work status, income, education, and gender ideology hold constant. Specifically, the results showed that parents with a boy preference were more likely to have more children than parents with an indifferent preference. Parents with only girls' sibship were more likely to have a larger family than parents with mixed genders. Nevertheless, parents with only boys' sibships were less likely to have more children than parents with mixed gender children. Age and age at marriage were also significant predictors of family size; as age of the respondent increased, family size increased; and as the age at marriage increased, family size decreased.

Gender ratio and gender composition of the children significantly predicted parental involvement with children when holding constant parents' age, number of children, income, work status, education, average age of children, gender ideology, and place of birth. Distinctively, the analyses revealed that as the boys' to girls' ratio increased, fathers' behavioral and emotional involvement with children relative to mothers' increased; fathers with mixed gender children were more likely to be involved behaviorally and emotionally with children than

fathers with only girls; and as the number of boys to girls in the family increased, fathers' involvement with children in interactive and childcare activities relative to mothers' involvement increased. Moreover, fathers with mixed gender children were more likely to be involved with children in interactive activities than fathers with only girls. The number of children, fathers' education, average age of children, and fathers' age were also significant predictors of parental involvement with children. The number of children associated negatively concerning parental involvement with children (behavioral, emotional, and involvement in childcare activities); fathers' educational attainment was positively related to fathers' involvement (behaviorally, emotionally, and involvement in interactive activities) with children; and as the average age of children increased, fathers' involvement with children in childcare activities increased. Additionally, the age of fathers had a negative relationship to fathers' involvement with children in childcare activities.

The results of studying the allocation of household work to children indicated household work was more gender-segregated in the Arab-American families studied. Gender ratio and gender composition of children predicted children's participation in the household. Boys overall did less household work than girls did; boys did less indoor work than girls did, while boys did more outdoor work relative to girls; and parents with mixed genders children were more likely to display gender-stereotype when allocating household chores to their children. This sex-linked assignment of children's household work becomes more intense as the child matures (average age of children increases) and when parents hold to more traditional gender ideology attitudes.

Regarding marital quality, parents with only boys and with mixed gender sibships were more likely to report positive marital quality than parents with only girls; and marital quality increased when fathers participated more in family activities. On the other hand, marital quality

decreased as the average age of children increased. Therefore, these results as a whole validated the symbolic interactionist view that gender is socially constructed and through interaction with others, especially parents, children learn their gender identity as a 'boy' or 'girl' and the meaning of gender appropriate behavior as they begin to take on the role as defined by significant others. Parents bring a gendered self into situations and try to act according to their own internalized definition. Thus, parents' behavior is highly influenced by the gender of their children.

Strengths and limitations of the study

This study makes several important contributions to the body of current literature on the effect of children's gender on Arab-American family processes. This research is the first to examine the impact of children's gender on various Arab-American family dynamics in the United States, specifically family size, parental involvement with children, allocating household work to children, and marital quality. Moreover, the majority of previous research measured parental involvement with children in terms of its quantity rather than its quality (emotional involvement). This study is one of the few to measure both the quality and the quantity of parental involvement with children in various activities. This study also expands previous research by looking at four measures of Arab-American family processes at the same time (e.g., family size, parental involvement with children, allocating household work to children, and marital quality). Finally, the innovative ways in which the gender of child has been analyzed in this study have advanced our conceptualizations and understanding of the impact of children's gender on Arab-American family dynamics**.**

Although many significant contributions have been made by this study, there are also some very important limitations. First, this study relied on a convenience sample technique which, in turn, reduced the ability to generalize the results to a larger population of Arab-

American families, even those in the tri-county area of study. Second, the sample technique and size did not allow for enough variation to obtain statistical variations. For example, relying on a convenience sample procedure probably attracted only those parents who felt relatively comfortable describing their relationships with their children. These parents were more likely to agree to participate than those who believe in strict gender division. This is probably more true for the men than for the women. Therefore, their behavior may not have been representative of the Arabic community as a whole**.** If possible, a random sample technique should be used in future research to collect a more diverse sample from Arab-American families to ensure findings would be generalizable. Third, the sample in this study was limited to intact Arab-American families with at least two children under 18 at home who reside in a tri-county area. Thus, the results are not generalizable to families with one child, separated or divorced families, or families that reside in other regions rather than this tri-county area. Fourth, the data used in this study were self-reported by Arab-American parents and thus may have been subject to social desirability. Finally, this study was based on a cross-sectional design and therefore did not allow for establishing causality. In order to establish causality and provide data would necessitate the use of a longitudinal research design that would enable a researcher to investigate more sophisticated models.

Directions for Future Research

More research is needed to understand the impact of a child's gender on Arab-American family processes in depth. Therefore, it may useful to employ a qualitative method, using in-depth face-to-face interviews in order to enhance the knowledge about the relationship between gender of children and Arab-American family dynamics**.** Future research is also needed to expand the findings of the current study and generalize them to a broader population of Arab-

American families. This would require the use of a random sample technique, if possible, in which findings would be generalizable to a broader population of Arab-American families. Moreover, there is a need to replicate this study using a larger sample size from Arab-American families in order to allow for enough variation and to obtain more statistical variations. It would also be valuable to apply it to Arab-American families from different regions of the United States and compare it to other ethnic groups (i.e., American, Indian, Russian, etc) in order to look at the differences and the similarities between Arab-American families from different regions and other ethnic groups. Further, a longitudinal research design is needed in order to establish causality and provide data that enables the researcher to investigate more sophisticated models. Future research should also study the impact of children's gender on family process in separated and divorced Arab-American families and compare it to intact families. This would allow a view of the differences and the similarities between intact families and other types of family structures.

Finally: Do parents encourage gender differences or do children's gender-differentiated behaviors elicit different parental treatment? Greater attention to the ways in which sons and daughters elicit or reinforce various parental behaviors is a topic worthy of more serious sociological attention.

Implications of the study

Based on the study's findings, several implications are worth mentioning. The primary implication of this study is relevant to the education system. Educators (teachers, school administrators, counselors, etc.) can use the study's findings to conduct workshops to educate parents about the importance of treating boys and girls equally.

Second, findings from the present study showed that there was parental differential treatment of boys and girls. Fathers were more involved with boys than with girls in various activities (interactive and childcare activities), and parents with mixed gender children were more likely to display gender stereotypes when allocating household work to children. Boys are generally assigned the outdoor jobs, such as taking out the trash and household repairs, whereas girls are typically assigned indoor activities, such as washing the dishes, cooking, etc. In addition, girls devote more time to such activities than do boys. This differential treatment is due to the Arabic culture which reinforces traditional gender roles, especially those regarding women's responsibilities in the home and family. Arab-American communities in the United States continue these gender norms regardless of the social, economical, technological, and educational changes that have taken place in Arab societies and worldwide. Therefore, children in Arab-American families continue to be socialized into gender specific roles that begin in early childhood and continue into adulthood. In fact, this early gender differential treatment is a channel to differential adult outcomes. Many issues in adulthood have their roots, at least partially, in gender constructions that begin in early childhood. For example, women around the world, including Arab societies have made considerable progress in several arenas yet are still unequal to men in many ways. Women still devote more time to childrearing and unpaid housework while men continue to give more time to work.

Thus, this differential treatment in early childhood can generate some long-term disadvantages, especially for girls, which in turn may affect their overall development. It could affect their academic success, their economic outcomes in adult life, and their overall well-being. The equal treatment of both boys and girls contributes to children's overall development including academic success, their economic outcomes in adult life, and improvements in a

family's overall well-being. For example, increased paternal interaction with children (boys and girls) is a crucial factor that promotes children's healthy development (Parke, 1996), creates greater satisfaction with parenting, and enhances closeness to the child (Russell, 1982; Sagi, 1982).

Children with highly involved parents develop more self-confidence, higher self-esteem, enhanced verbal intelligence (Deutsch, Servis, & Payne, 2001; Easterbrooks & Goldberg, 1984), and higher scores on measures of psychological and social competence compared to those who do not experience such close relationships (Lamb, 1997; Lamborn, Mounts, Steinberg, & Dorbusch, 1991; Almeida, Wethington, & McDonald, 2001). Furthermore, parental involvement in children's school activities, such as attending parent-teacher conferences, monitoring children's progress, and helping with homework are positively associated with children's academic success (Baker & Stevenson, 1986; Steinberg, Lamborn, et al., 1992; Stevenson & Baker, 1987).

In addition, the findings indicated that family size and childbearing are strongly influenced by the gender of the offspring. In particular, parents with a boy preference are more likely to have a larger family than parents with a girl, balanced preferences, or indifferent preference; and parents with only girls' sibship are more likely to have more children than parents with mixed gender children. On the other hand, parents with only boys' sibships are less likely to have larger families than parents with mixed gender children. Therefore, preferring boys over girls can have an effect on family and society in the long run. For example, if families want boys, they might impoverish themselves by having a larger family. Preference for boys over girls might also result in gender imbalance in the future (i.e., more men than women), which, in turn, could alter the structure of marriage in society, by creating a lack of suitable marriage partners.

Consequently, these findings can be used by researchers and policy makers to develop social policies that would improve Arab-American parents' attitudes toward girls .This would require conducting media campaigns, workshops, and educational programs that emphasize the value of girls, which, in turn, can improve the lives of millions of women and girls in Arab society and limit the extent of gender imbalance in the future. Also, policy makers should develop policies that can empower women by improving their economic, political, and social potential, since they are primarily responsible for socializing the future generation. The reality is that no country in the world, no matter how advanced, has achieved true gender equality, since it challenges one of the most deeply entrenched of all human attitudes. Achieving gender equality requires concentrated efforts on many fronts .This requires providing women with a quality of life that equal to that of men, with comparable levels of political participation, and more equal balance of educational and economic opportunity. Even though achieving gender equality is a grindingly slow process, the continuous intense efforts of many agencies and organizations, and numerous inspiring successes could help in promoting gender equality or at least narrowing the gender gap as much as possible in the long run. I hope that this work provides the impetus for policy-makers to strengthen their commitment to the idea of women's empowerment, and to concentrate the political will, energy, and resources, in concert with aid agencies and civil society organizations, to make gender equality a reality.

Third, there are several agencies in Michigan that provide services to the Arab-American community in order to help them improve their well-being and adjust to American society. For instance, the Arab-American and Chaldean Counsel (ACC) and Arab Community Center for Economic and Social Services (ACCESS) were established to serve a unique population of immigrants and foster the role of Arab communities in the United States. They have worked to

promote dialogue, understanding, and tolerance among diverse cultural groups over the past three decades. Today, these organizations serve hundreds of thousands of clients by providing counseling services (i.e., marriage and children's counseling), youth services, health care, and educational services, etc. Therefore, the information from this study about the impact of the gender of children on various Arab-American family processes may help counselors and social workers in these agencies to provide services (i.e., marriage and children's counseling) that are more relevant to Arab-American families. This, in turn, may improve social relationships and the well-being of children, families, and society as a whole.

Finally, this research is the first to examine the effect of children's gender on various Arab-American family dynamics in the United States, focusing specifically on family size, parental involvement with children, allocating household work to children, and marital quality. Thus, the findings of this study provide important baseline data for researchers and sociologists to conduct further studies to investigate, in depth, the effect of the gender of children in Arab-American families' processes. Accordingly, researchers will be able to provide the necessary facts supported by empirical findings regarding such a social phenomena as well as identify and develop strategies for reducing the unequal treatment of boys and girls and thus reinforce egalitarian gender norms in society. In fact, the more we understand the social behavior of parents and children, the more we can, as researchers, sociologists, and society, provide effective services. This, in turn, will lead to improvements in the well-being of children, families, and society as a whole. In addition, understanding the influence of a child's gender on family processes will advance the state of knowledge in the family and gender fields.

APPENDIX A

WAYNE STATE UNIVERSITY

HUMAN INVESTIGATION COMMITTEE
87 East Canfield, Second Floor
Detroit, Michigan 48201
Phone: (313) 577-1628
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http://hic.wayne.edu

NOTICE OF EXPEDITED APPROVAL

To: Sanaa Al-Tarahsheh
Sociology

From: Dr. Scott Mills
Chairperson, Behavioral Institutional Review Board (B3)

Date: October 13, 2010

RE: HIC #: 1004010B3E
Protocol Title: Arab American Family Patterns
Funding Source:
Protocol #: 1010008910

Expiration Date: October 12, 2011

Risk Level / Category: Research not involving greater than minimal risk

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Expedited Review* Category (#7)* by the Chairperson/designee for the Wayne State University Institutional Review Board (B3) for the period of 10/13/2010 through 10/12/2011. This approval does not replace any departmental or other approvals that may be required.

- Protocol Summary Form, received 10/7/10.
- Letters of Support received from Dearborn Community Center, Islamic Center of Detroit, Lebanese American Heritage Club, American-Arab Anti-Discrimination Committee, Islamic Organization of North America, and St. George Orthodox Church.
- Note to PI: Letters of support from additional sites must be submitted to the HIC via Amendment before data collection can begin at a site not yet approved.
- Recruitment Script
- Research Information Sheet
- Research Proposal: "Sons, Daughters and Arab-American Family Dynamics: Does a Child's Gender Matter?" (Running Title: Arab-American Family Dynamics), dated Fall 2010.

* Federal regulations require that all research be reviewed at least annually. You may receive a "Continuation/Renewal Reminder" approximately two months prior to the expiration date, however, it is the Principal Investigator's responsibility to obtain review and continued approval *before* the expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research data.

* All changes or amendments to the above-referenced protocol require review and approval by the HIC BEFORE implementation.

* Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframes specified in the HIC Policy (http://www.hic.wayne.edu/reportform).

NOTE:

1. Upon notification of an impending regulatory site visit, hold recruitment and/or external audit, the HIC office must be contacted immediately.
2. Forms should be downloaded from the HIC website at each use.

*Based on the Expedited Review List, revised November 1998.

APPENDIX B

WAYNE STATE UNIVERSITY

HUMAN INVESTIGATION COMMITTEE
87 East Canfield, Second Floor
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NOTICE OF EXPEDITED AMENDMENT APPROVAL

To: Sanaa Al Harahsheh
Sociology

From: Dr. Scott Millis S. Millis / ED
Chairperson, Behavioral Institutional Review Board (B3)

Date: November 09, 2010

RE: HIC #: 1040108B3E
Protocol Title: Arab American Family Patterns
Funding Source:
Protocol #: 1010008910

Expiration Date: October 12, 2011

Risk Level / Category: Research not involving greater than minimal risk

The above-referenced protocol amendment, as itemized below, was reviewed by the Chairperson/designee of the Wayne State University Institutional Review Board (B3) and is APPROVED effective immediately.

- Addition of Wasfi Almeshhagbeh as key personnel.
- Protocol - (1) Modification of survey to reflect multiple changes as detailed on the amendment form. (2) Addition of a new letter of permission from Huda School & Montessori. (3) Addition of Arabic version of the survey.
- Information Sheet - Addition of Arabic version of the Information Sheet.

APPENDIX C

Research Information Sheet
Title of Study: *Survey of Arab-American family Patterns*

Principal Investigator (PI): *Sanaa Taha Alharahsheh*
Sociology
313-577-3227

Purpose:
You are being asked to be in a research study of *Arab-American family patterns* because you identify as an Arab-American , reside in the Greater Metropolitan Detroit area, Michigan , and have at least two children under 18 years old living with you. This study is being conducted at mosques, churches, Arab community centers, and Arab social organizations, in the Greater Metropolitan Detroit area, Michigan.

Study Procedures:
If you take part in the study, you will be asked to complete a survey that asks about your family activities

- As part of the research, you will fill out a survey
- The survey asks questions about your involvement with your children, family relationships, and division of household labor. You have the option of not answering some of the questions and remaining in the study.
- Your active participation in the study includes the 30-35 minutes required to complete the survey. This is a one -time activity, and once you finish the survey, your participation ends.

Benefits

- As a participant in this research study, there will be no direct benefit for you; however, information from this study may benefit other people now or in the future.

Risks

By taking part in this study, you may experience the following risks:

- Emotional risks (e.g., feelings of discomfort or embarrassment answering questions)

Costs

- There will be no costs to you for participation in this research study.

Compensation

- You will not be paid for taking part in this study.

Confidentiality:

- All information collected about you during the course of this study will be kept without any identifiers.

Voluntary Participation /Withdrawal:
Taking part in this study is voluntary. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with Wayne State University or its affiliates

Questions:

If you have any questions about this study now or in the future, you may contact Sanaa Taha Alharahsheh at the following phone number *248-616-0754*. If you have questions or concerns about your rights as a research participant, the Chair of the Human Investigation Committee can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints.

Participation:
By completing the survey you are agreeing to participate in this study.

APPENDIX D

Questionnaire
Arab-American Family Patterns

Part One: Background information

To begin, we would like to ask you some background questions about yourself.

Please check the box or fill in the blank.

1. How old were you on your last birthday? _____ Years

2. Where were you born? □ In the U.S.
□ Outside the U.S. (specify the country)_____

3. If you were born outside the U.S.A, how old were you when you came to the U.S.?
Age _____

4. What is your gender? □ Male □ Female

5. What is the highest level of education you have completed?
☐ Less than High School
☐ High school diploma or GED
☐ Associate Degree (a two-year college degree)
☐ Bachelor's degree
☐ Master's degree
☐ Professional degree (M.D., DDS. Ph.D. or other Doctorate Degree)

6. Are you currently working outside the home? ☐ Yes ☐ No

7. What is your total annual family income from all sources before taxes?
☐ Under $25,000
☐ $25,000-$44,999
☐ $45,000-$64,999
☐ $65,000-$74,999
☐$75,000-$94,999

☐ $95,000 or above

8. In general, how would you rate your health status?

___ Excellent ___ Good ___ Fair ___ poor

Part Two: Background information about Children

To get an accurate picture of Arab American families, we need to get information about the number of children people have.

9. How many children are born to you and your spouse? _____

10. How many adopted children do you have? _____

11. How many step children do you have? _____

12. Are you done having kids? ☐ Yes ☐ No

13. Now, I would like you to tell me the sex and age of each live child, whether that child lives with you or not, and whether that child born in U.S.A or not. Let us begin with the oldest:

Child #	Is that a boy or a girl?	How old is (he/she)?	Does (he/she) live with you?	Was (he/she) born in U.S.A?
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

14. People do not have or expect to have just the number of children they most want. If you were just getting married and could choose exactly the number you want, how many children would you most like to have when you are through having children? _____ Children

15. Of these children, how many would you like to be boys and how many girls?

_____ boys _____ girls _____either

16. What would be your preference for the first child?

_____a boy _____a girl _____no difference

17. For you, what are the most important reasons for wanting a boy?

_____

_____

_____

_____

18. For you, what are the most important reasons for wanting a girl?

_____

_____

_____

_____

Part Three: Parental Involvement with children

Now I would like to ask you some questions about things you do with your children from time to time. Let us start with the BOYS first: If no BOYS, skip to # 31

	Every day	5-6 times per week	3-4 times per week	Twice per week	Once a week	Never
19. How often in a typical week, do you find the time to play with your **BOYS**?						
20. How often in a typical week, do you take your **BOYS** out for a walk?						
21. How often in a typical week, do you spend time with your **BOYS** in leisure activities away from home (picnics, movies, sports, etc)?						
22. How often in a typical week, do you watch T.V. with your **BOYS**?						
23. How often in a typical month, do you watch video games with your **BOYS**?						
24. How often in a typical week, do you spend time with your boys just talking about things that are important to **BOYS**?						
25. How often in a typical week, do you spend time helping your **BOYS** with schoolwork?						
26. How often in a typical week, do you visit your **BOYS**' classes at school?						
27. How often in a typical week, do you attend the sport events at your **BOYS**' school?						
28. How often in a typical week, do you attend the PTA events at your **BOYS** school**?**						

29. How often do you feel close to your **BOYS**?

___Extremely close ___ Quite close ___ Fairly close ___ Not at all

30. Do you give your **BOYS**:

1___ all the affection they want

2___ slightly less than they want

3___ much less than they want

4___ they don't want affection from me

Now I'm going to ask the same questions about things you do with your GIRLS from time to time.
If no Girls, skip to # 43

	Every day	5-6 times per week	3-4 times per week	Twice per week	Once a week	Never
31. Would you tell me how often in a typical month do you find the time to play with your **GIRLS**?						
32. How often in a typical week do you take your **GIRLS** out for a walk?						
33. How often in a typical week do you spend time with your **GIRLS** in leisure activities away from home (picnics, movies, sports, etc)?						
34. How often in a typical week do you watch T.V. with your **GIRLS**?						
35. How often in a typical week do you watch video games with your **GIRLS**?						
36. How often in a typical week do you spend time with your girls just talking about things that are important to **GIRLS**?						
37. How often in a typical week do you spend time helping your **GIRLS** with school work?						
38. How often in a typical week do you visit your **GIRLS**' classes at school?						
39. How often in a typical week do you attend the sport events at your **GIRLS**' school?						
40. How often in a typical week do you attend the PTA events at your **GIRLS**' school?						

41. How often do you feel close to your **GIRLS**?

___Extremely close ___ Quite close ___ Fairly close ___ Not at all

42. Do you give your **GIRLS**:

    1___ all the affection they want

    2___ slightly less than they want

    3___ much less than they want

    4___ they don't want affection from me.

Thinking back when you have babies, I would like you to tell me how much you were involved in the following activities with your boys: if no BOYS, skip to # 48

43. How much in a typical week, did you change diapers for your **BOYS**?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

    ___ Twice per week ___ Once a week ___ Never

44. How much in a typical week, did you give baths to your **BOYS**?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

    ___ Twice per week ___ Once a week ___ Never

45. How often in a typical week, did you prepare food for your **BOYS**?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

    ___ Twice per week ___ Once a week ___ Never

46. How often in a typical week, did you feed your **BOYS**?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

    ___ Twice per week ___ Once a week ___ Never

47. How often in a typical week, did you put your **BOYS** in bed at night?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

    ___ Twice per week ___ Once a week ___ Never

Now, I would like you to tell me how much you were involved in the following activities with your girls when they were babies: If no GIRLS, skip to # 53

48. How much in a typical week, did you change diapers for your **GIRLS**?

    ___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

49. How much in a typical week, did you give baths to your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

50. How often in a typical week, did you prepare food for your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

51. How often in a typical week, did you feed your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

52. How often in a typical week, did you put your **GIRLS** in bed at night?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

If you currently have babies at home, I would like you to tell me how much you are involved in the following activities with your BOYS: If no BOYS, skip to # 58

53. How much in a typical week, do you change diapers for your **BOYS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

54. How much in a typical week, do you give baths to your **BOYS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

55. How often in a typical week, do you prepare food for your **BOYS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

56. How often in a typical week, do you feed your **BOYS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

57. How often in a typical week, do you put your **BOYS** in bed at night?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

Could you to tell me how much you are involve in a typical week in the following activities with your baby GIRLS: If no GIRLS, skip to # 63

58. How much in a typical week, do you change diapers for your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

59. How much in a typical week, do you give baths to your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

60. How often in a typical week, do you prepare food for your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

61. How often in a typical week, do you feed your **GIRLS**?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

62. How often in a typical week, do you put your **GIRLS** in bed at night?

___Every day ___ 5-6 times per week ___ 3-4 times per week

___ Twice per week ___ Once a week ___ Never

Part Four: Children's participation in the household work

Now I'm going to name some household chores that children might be expected or asked to do, and for each one I would like you to tell me how often in atypical week your boys/girls do them. Let us start with the BOYS first: If no BOYS, skip to # 71

	Every day	5-6 times per week	3-4 times per week	Twice per week	Once a week	Never
63. In a typical week, how often do your **BOYS** wash and dry the dishes?						
64. In a typical week, how often do your **BOYS** do their own laundry?						
65. In a typical week, how often do your **BOYS** make their beds?						
66. In a typical week, how often do your **BOYS** help clean the house and do things like vacuuming, sweeping, dusting?						
67. In a typical week, how often do you **BOYS** carry out the garbage?						
68. In a typical week, how often do your **BOYS** help with cooking?						
69. In a typical week, how often do your **BOYS** help with grocery shopping?						
70. In a typical week, how often do your **BOYS** help with general yard work and do things like shoveling snow and cutting grass?						

Now I'm going to name the same household chores that children might be expected or asked to do, and for each one I would like you to tell me how often your GIRLS do them. If no GIRLS, skip to #79

	Every day	5-6 times per week	3-4 times per week	Twice per week	Once a week	Never
71. In a typical week, how often do your **GIRLS** wash and dry the dishes?						
72. In a typical week, how often do your **GIRLS** do their own laundry?						
73. In a typical week, how often do your **GIRLS** make their beds?						
74. In a typical week, how often do your **GIRLS** help clean the house and do things like vacuuming, sweeping, dusting?						
75. In a typical week, how often do you **GIRLS** carry out the garbage?						
76. In a typical week, how often do your **GIRLS** help with cooking?						
77. In a typical week, how often do your **GIRLS** help with grocery shopping?						
78. In a typical week, how often do your **GIRLS** help with general yard work and do things like shoveling snow or cutting grass?						

Part Five: Family Relationships

In this section, I'm going to ask you some questions about your family relations.

79. How many times have you been married? Number _____

80. How old were you when you get married? _____

81. How old was your spouse when you get married? _____

Now I would like to get your opinion in the following matters. For each statement, I would like you to indicate if you strongly disagree, moderately disagree, neither agree nor disagree, moderately agree, strongly agree.

	strongly disagree	moderately disagree	neither agree nor disagree	moderately agree	strongly agree
82. I am not pleased with the personality characteristics and personal habits of my partner.					
83. I am very happy with how we handle role responsibilities in our marriage					
84. I am not happy about our communication and feel my partner does not understand					
85. I am very happy about how we make decisions and resolve conflicts.					
86. I am unhappy about our financial position and the way we make financial decisions.					
87. I am very happy with how we manage our leisure activities and the time we spend together.					
88. I am very pleased about how we express affection and relate sexually.					
89. I am not satisfied with the way we each handle our responsibilities as parents.					
90. I am dissatisfied about our relationship with my parents, in-laws, and/or friends.					
91. I feel very good about how we each practice our religious beliefs and values.					
92. It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.					
93. Preschool children are likely to suffer if their mother is employed					
94. It is all right for mothers to work full time when their youngest child under 5					
95. A husband whose wife is working full- time should spend just as many hours doing house work as his wife					

96. How satisfied are you with your marriage

___Very satisfied ___Somewhat satisfied ___ Somewhat dissatisfied ___Very dissatisfied

97. Overall, would you rate your marriage as

___ Very happy ___ Somewhat happy ___ Not so happy ___ Not happy at all

Thank you for your participation

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ABSTRACT

SONS, DAUGHTERS, AND ARAB-AMERICAN FAMILY DYANAMICS: DOES A CHILD'S GENDER MATTER?

by

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Gender differences exist in families in all societies and cultures, but expectations are often different from one society/culture to another. Children's gender and its implications for family behavior have recently received a great deal of scholarly attention, especially in western societies; however, the influence of a child's gender on Arab-American family dynamics has not been investigated. Therefore, this study is the first to examine the impact of the gender of the child in selected Arab-American family dynamics. This study specifically investigates the effect of gender ratio, children's gender composition, and parents' gender preferences with regard to children on family size, parental involvement with children, allocating household work to children, and marital quality, while controlling for average age of children, number of children, parents' gender and age, income, work status, education, age at marriage, place of birth, and gender ideology.

A cross-sectional quantitative research design was employed, using a convenient sample (N=200) of Arab-American parents in families who have at least two children under 18 years old at home and reside Southeast Michigan to assess the relationship between gender ratio, parental gender preference with regard to children , and children's gender composition, and selected

family dynamics, such as family size, parental involvement with children, allocating household work to children, and marital quality.

Hierarchical linear multiple regression analysis was used to test the research hypotheses and the analysis results indicated that parental gender preferences regarding children and children's gender composition do predict family size. Specifically, parents with a boy preference are more likely to have larger families than parents with a girl and balanced preferences, or an indifferent preference; and parents with only girls' sibship are more likely to have more children than parents with mixed gender children. Nevertheless, parents with only boys' sibships are less likely to have larger families than parents with mixed gender children. Age of parents and age at marriage are also significant predictors of family size. In addition, gender ratio and gender composition (mixed genders) of the children significantly predict parental involvement with children. Number of children, fathers' education, average age of children, and fathers' age were also significant predictors of parental involvement with children.

Further, the results showed that household work is somewhat gender-segregated in the Arab-American families who were studied. Girls, overall do more household work than boys; girls do more indoor work than boys while boys do more outdoor than girls; and parents with mixed gender children are more likely to display gender stereotype when allocating household chores to children. This sex-linked assignment of children' household work becomes more intense as the child matures (average age of children increases) and when parents hold to more traditional gender ideology attitudes.

Finally, children's gender composition is a significant predictor of marital quality. Parents with only boys and with mixed gender children are more likely to report positive marital quality than parents with only girls. Further, marital quality increases when fathers participate

more in family activities. On the other hand, marital quality decreases as the average age of children increases. Additional research is needed to further study the impact of the gender of the child on Arab-American family dynamics.

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