THE DIFFERENCES IN THE LEVELS OF STRESS BETWEEN FATHERS AND MOTHERS OF CHILDREN WITH INTELLECTUAL DISABILITIES IN SAUDI ARABIA

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This study compared perceived stress in fathers and mothers of male children with intellectual disabilities. The sample consisted of 102 fathers and 102 mothers of children with intellectual disabilities who were enrolled at institutes for male children with intellectual disabilities, and from special education classrooms attached to the public elementary general school in Riyadh, Saudi Arabia. By using the Parent Stress Index (PSI) for the study, results indicated higher perceived stress levels in Saudi mothers compared to fathers regarding the overall parent-child relationship, the child’s individual characteristics, and the parent’s characteristics.

The implications obtained from this study provide research-based data for stakeholders, justifying the creation of appropriate and effective programs for parents of children with intellectual disabilities, especially mothers. The knowledge gained from this study will inform professionals in Saudi Arabia of the services that parents of children with intellectual disabilities need, and support the funding of sufficient numbers of quality social services for these families.
Additionally, the results of this study will encourage further study of families of children with intellectual disabilities in Saudi Arabia.
DEDICATION

I would like to dedicate this dissertation to my parents, wife, sons, brothers, and sisters, for their ongoing support and encouragement. They have been crucial in the creation of this dissertation.

This dissertation is also dedicated to parents of children with intellectual disabilities. Through this study, I have truly understood the stress, sacrifices, and challenges these individuals undergo and hope that they will benefit from my research.
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CHAPTER ONE

Introduction

According to the American Association on Intellectual and Developmental Disabilities (AAIDD), an intellectual disability is "a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 18" (AAIDD, 2010, p. 1). Roeleveld, Zielhuis, and Gabriels (1997) found that the international prevalence rate of intellectual disability in children is approximately 3% of the population. In the United States, the rate is estimated to be between 0.9% and 2.5% of the population (Biasini, Grupe, Huffman, & Bray, 1999).

The family plays a significant role in the child’s cognitive, academic, emotional, social, and physical development (Gestwicki, 2010). All parents want what is best for their child; when they realize their child has a disability, they may face a variety of emotions. The parents’ first reaction to the birth of their child with an intellectual disability is often a combination of hopelessness, loss, and resentment. These feelings can be an obstacle for the parents’ capacity to accept the child (Van Riper & Selder, 1989). For example, Huang (as cited in Mar, 1996) studied 130 couples of children with Down syndrome. Seventy-nine percent of mothers felt grief, 62.8% felt shock and were unaccepting, 61.7% felt fearful and hopeless, and 55.3% felt disappointed. In addition, 25.5% of mothers felt guilty and 14.9% felt anger. In comparison, 61.3% of fathers felt
grief, 48.4% felt shock and denial, 48.4% felt disappointed, and 35.5% felt fearful and hopeless. “For many parents, the realization that their child has a disability is a blow to their sense of self-worth. They are in difficult parenting situations with many unknowns and may feel less than capable” (Gestwicki, 2010, p. 566).

When a child is born, a family typically experiences joy, excitement, and the resolution of expectations surrounding the pregnancy. Parents also experience new challenges and responsibilities with the addition of a newborn. When a child is born with a disability, the typical challenges are compounded with many additional issues (Hanson & Hanline, 1990). The adjustment process for parents is often more difficult as additional demands may be placed on parents. The child may need hospitalization, medical care, developmental services, and basic care giving services beyond those of a typically developing child. These demands can be prolonged for parents as they cope with financial demands, time constraints, intense emotions, and feelings of inadequacy about their ability to handle their child’s needs (Blacher, 1984). Farzanekia (1985) found that raising a child with an intellectual disability can be burdensome, stressful, frustrating, and can also cause feelings of alienation for parents of middle socio-economic status. Caretaking for children with intellectual disabilities generates stress which affects the physical, cognitive, and emotional development of all family members (Floyd & Gallagher, 1997; Pelchat & Lefebvre, 2004).

Many studies have shown that parents of children with intellectual disabilities report experiencing greater stress than parents of children without disabilities (Gupta & Kaur, 2010; Olsson & Hwang, 2001; Sanders & Morgan, 1997; Simmerman, Blacher, & Baker, 2001). Children with intellectual disabilities have specific needs that create parental stress; these persistent needs cause the parental stress to continue throughout the child’s life (Wikler, 1986).
The level of stress for parents may increase according to the severity of the disability. Majumdar, Pereira, and Fernandes (2005) showed in their study that parents of children with severe to moderate intellectual disabilities experienced higher levels of stress than parents of children with mild intellectual disabilities. There are multiple variables that may contribute to the increased level of stress that caregivers of children with intellectual disabilities experience. However, the severity of behavioral problems of children is often the strongest predictor of parental stress (Nachshen, Garcin, & Minnes, 2005; Quine & Pahl, 1985). Frey, Greenberg, and Fewell (1989) found that the gender of the child with a disability and other characteristics also predicted the stress level of the parents. Parents of boys, as well as parents of children whose communication skills were low, experienced higher stress levels. On the contrary, numerous studies have found no relationship between the gender of the child with a disability and parents’ stress levels (Alqaisy, 2012; Rimmerman & Duvdevani, 1996; Sequeira et al., 1990). A study conducted by Rimmerman and Duvdevani (1996) revealed that the age of the child with an intellectual disability was significantly related to the stress perceived by the parent. They found that parents experienced higher levels of stress as the child aged, especially as the parents were increasingly aware of the importance of mainstreaming and inclusion for their children. Additionally, Beavers, Hampson, Hulgus, and Beavers (1986) indicated that the older the child, the more evident the discrepancies between the child’s age and level of capability.

Child characteristics are not the only factor contributing to parental stress. A parent’s age is also a factor in the stress they experience. Oh, Rubin, and Mouw (1994) revealed that parents who were very old or very young were at a higher risk of experiencing stress. Furthermore, many studies have shown that single mothers have more stress than married mothers. For example, Upadhyay and Havalooanavar (2007) conducted a study of parents of children with intellectual
disabilities and the researchers found that single parents had significantly different stress in care, emotional, social, and financial areas. Also, more than one study has shown that the higher the education level of the parent, the less stress the family experienced (Azar & Badr, 2006; Azar & Badr, 2010). Parents with higher educational backgrounds may experience less stress because they have knowledge about effective coping strategies that help them accommodate their child’s problem behaviors. The parent’s higher education may have a direct effect on the family income. Families with higher educational backgrounds have a higher income level and they have more opportunities for quality care and education for their child with special needs.

Closely related to educational background, the socioeconomic situation of the family also may play a role in the level of stress. Hatton and Emerson (2009) and Emerson (2003) found that families of children with intellectual disabilities were at a significant economic disadvantage compared to families without children with intellectual disabilities. Parents living in low socioeconomic strata may experience lower family functioning, as well as lower parental well-being due to living in substandard conditions and not having access to needed education, health, and family resources.

Kermanshahi et al. (2008) found that mothers’ experiences in living with a child with an intellectual disability revealed six major stress-related outcomes including: “Challenging the process of acceptance, painful emotional reactions, the inter-relatedness of the mother’s health and the child’s well-being, struggling to deal with oneself or the child, inadequate support from the family and community, and anxiety related to the child’s uncertain future” (p. 317). McConkey, Truesdale-Kennedy, Chang, Jarrah, and Shukri (2006) attempted to identify the interrelationships between three indicators of maternal well-being across three cultures – Irish, Taiwanese, and Jordanian. It was discovered in all three countries that mothers of children with
intellectual disabilities experienced poorer mental health, higher levels of child-related stress, and poorer family functioning than mothers of typically developing children. Additional exploratory analyses in a study by Hastings, Daley, Burns, and Beck (2006) found evidence which shows that maternal depression is causally related to the distress the mother experiences. Furthermore, the analyses show that this is a separate phenomenon from the stress of parenting a child with severe behavior problems. Researchers found that the mothers’ stress led to an increase in the child’s behavior problems, and the resulting problem behavior led to increased stress felt by the mother. Many studies indicated that parents of children with intellectual disabilities tend to be in poorer physical health (Oelofsen & Richardson, 2006), experience more depressive symptoms (Hastings et al., 2006), and experience more marital conflict (Kersh, Hedvat, Hauser-Cram, & Warfield, 2006). In comparing families of children with disabilities to families of children without disabilities, it has been found that families of children with disabilities had a smaller social network (Kazak & Wilcon, 1984). These parents tend to isolate themselves because of feelings of shame and guilt (Drew, Logan, & Hardman, 1992), and isolation can result from parents having less time and energy for socialization (Valentine, 1993). Jani (1967) examined the social problems faced by a family with a child with intellectual disabilities. The results of the study found that parents felt anxiety about the child’s future, as well as had psychological stress, negative impact on their siblings, miscommunication with the family, lessened socialization with neighbors and relatives, and economic hardship.

Having a child with a disability can have a negative impact on spousal relationships. Many studies discovered that spouses offered lower levels of support to each other when they had a child with an intellectual disability. For example, Gath (1978) found that there was a higher incidence of divorce and marital strife in families with a child with Down syndrome. The
family with a child with intellectual disability may experience consequences to the entire family system. The effect of having a child with an intellectual disability not only affects the parents, but the siblings as well (Rodrique, Morgan, & Geffken, 1992). Farber (1963) found that male and female siblings of the child with an intellectual disability placed less importance on family, having many close friends, and being a respected leader in the community. Khamis (2007) found that the effect of having a child with an intellectual disability had higher negative consequences on a family when the family had a low socioeconomic status. The family finances were also affected by the child’s disability. It is estimated that it costs three times as much to raise a child with a disability than to raise a child without a disability (Jarbrink, Fombonne, & Knapp, 2003).

Extra support is needed to help parents of children with intellectual disabilities raise their children because they face many negative situations. A component to successful adaptation depends on the family’s ability to connect with appropriate support services. These services help families take care of the child’s needs and reduce problems for the family (Singer, et al., 1993). The implementation of services is highly dependent on the parents’ motivation to get assistance, the type of disability the child has, and the amount of benefit the family will receive from these support services (Dunst, Trivette, Hamby, & Pollack, 1990). Social support can be conceived in two ways: “formal” support from professionals and “informal” support from family and friends (Patterson & McCubbin, 1983; Trunzo & Pinto, 2003). A series of research studies have shown that parents of children with intellectual disabilities, especially mothers, experience lower levels of stress when they have informal social support, stress management skills, and interaction with all family members (Dyson, 1997; Kermanshahi et al., 2008). Dunst, Trivette, and Cross (1986) conducted a study of 137 parents of children with intellectual disabilities, physical impairments, and developmental impairments. Their study showed that high levels of social support decreased
the level of stress that parents experienced. The support from a spouse or partner is extremely important in order to reduce the stress experienced by parents of children with intellectual disabilities (Kazak & Marvin, 1984; Upadhyay & Havalappanavar, 2007). Another form of social support for families of children with intellectual disabilities can come from the child’s grandparents. Grandparents participating in a supportive role can give parents a large amount of emotional support (Seligman, 1991).

Honig and Winger (1997) conducted a study on families of preschool children with intellectual disabilities that focused on the effects of long-term formal social services support and the stress felt by families. The researchers found that a highly skilled group of professionals who distribute information, services, and social support for long periods of time can alleviate psychological stress in mothers of children with intellectual disabilities. Sandler, Coren, and Thurman (1983) and Vadasy, Fewell, Greenberg, Dermond, and Meyer (1986) conducted studies on parents of children with disabilities, including parents of children with intellectual disabilities, and discovered that both fathers and mothers reported significantly decreased depression and stress than those parents who did not participate in training programs designed to give parents additional information related to methods of caring for their child with disabilities. These training programs included both a series of two-hour small group training sessions and four individual training classes.

While many studies suggest that intellectual disabilities in children have a negative effect on the parents, some studies reported no negative effects. For instance, Indla, Indla, and Singh (2008) found in a study of parents of individuals with intellectual disabilities that 55.38% of parents felt that their children with intellectual disabilities had positively impacted the family. Parents stated they had developed patience, tolerance, empathy, sensitivity, and experienced
better spousal relations. In contrast, only 25.26% of respondents stated a negative impact of having a child with an intellectual disability. Mahoney (1958) found several positive effects of having a child with an intellectual disability on a family. These included the child with an intellectual disability having an integrative effect on the family by concentrating the family’s energy in a positive manner, which minimized day to day problems. Others parents stated a new appreciation for the ordinary things that they formerly took for granted. Krauss and Seltzer (1993) found that mothers over 60 years of age of children with intellectual disabilities experienced less depression than mothers in the same age group whose children did not have intellectual disabilities. Mothers of children with disabilities reported having better health, more life satisfaction, and better social networks than mothers of children without disabilities. In addition, some studies stated that the presence of parental stress did not always indicate family dysfunction. For example, Longo and Bond (1984) reported that the divorce rate did not appear to be affected by having a child with a disability.

A number of studies have shown that there are different levels of stress and perception which vary depending on the gender of the parent (e.g., Goldberg, Marcovitch, MacGregor, & Lojkasek, 1986; Gupta & Kaur, 2010). The mother of a child with intellectual disabilities is often the primary caregiver and is acutely aware of her child’s disabilities (Azar & Badr, 2006; Heller, Hsieh, & Rowitz, 1997). Therefore, many studies showed that mothers of children with intellectual disabilities may experience higher levels of stress than fathers. For instance, Shin et al. (2006) investigated the influence of child variables on the stress experienced by parents of young children with intellectual disabilities. The study surveyed 106 mothers and 93 fathers of young children. Results indicated that the mothers experienced higher levels of stress. Goldberg et al. (1986) conducted a study of parents of 18 children with Down syndrome, 19 children with
neurological problems, and 22 children with unknown disabilities. The researchers indicated that fathers reported fewer symptoms relating to stress and they had higher self-esteem than the mothers. Gerstein et al. (2009) examined the trajectory of the daily parenting stress mothers and fathers of children with intellectual disabilities face. The researchers indicated that the stress mothers experience increases over time, while the fathers’ stress level remains constant. A study by Krauss (1993) on parents of 121 toddlers with disabilities including 39 children with Down syndrome showed that fathers experienced higher stress levels relating to their child’s temperament and the relationship with the child. Mothers experienced stress as a result of parenting and were affected by their support system. Mothers reported higher levels of stress in regards to their own personal health, limitations in their role as a parent, and in their relationship with their spouse. In contrast, fathers felt higher levels of stress regarding their child’s temperament and their feelings of attachment to their child. Additionally, fathers’ stress levels were also dependent on the child’s reciprocation of their feelings of attachment. Mothers, in contrast to fathers, stated that their families were cohesive and adaptable. Fathers, however, felt more stress as a result of the child’s behavior than mothers. In addition, fathers were more likely to be affected by the family’s adaptability and cohesiveness.

Other studies have indicated that there are no differences in stress levels and perceptions between mothers and fathers of children with intellectual disabilities. For example, Azar and Badr (2010) conducted a study on 101 mothers and 46 fathers of children with intellectual disabilities in Beirut, Lebanon. The researchers showed that both fathers and mothers experienced similar stress, informal social support, and coping behaviors.

Based upon the literature reviewed here, it can be concluded that raising a child with an intellectual disability can be burdensome, stressful, or frustrating for the child’s parents. In fact,
many studies have shown that most parents who have children with intellectual disabilities experience more stress than parents of children without disabilities. There are many important variables that contribute to the higher levels of stress of parents of children with intellectual disabilities. These factors include those related to environmental characteristics such as the parents’ socio-economic level, or the child’s characteristics, including problem behaviors, gender, or age. The factors also include those related to the parent’s characteristics, including mental health, age, level of education, and gender. Some studies have found that gender does not play a role in the level of stress of parents of children with disabilities, while many others have shown that there is a difference in the level of stress between fathers and mothers of children with intellectual disabilities. It was found that most Western mothers of children with intellectual disabilities tend to be the primary caregivers of their children, and often experience higher levels of stress than fathers.

**Purpose of the Study**

The purpose of the current study was to investigate the difference in the stress levels between fathers and mothers of children with intellectual disabilities in Saudi Arabia. The hypothesis of the current study was that there is a difference in the level of stress between Saudi fathers and mothers experienced as a result of having a child with intellectual disabilities.

In Saudi Arabia, generally the mother is the primary caregiver of the child with an intellectual disability. She is responsible for educating, caretaking, and rearing the child while the father’s main focus is on the family’s financial matters. Because the mother is the primary caregiver, she is acutely aware of her child’s educational, behavioral, and physical difficulties. This awareness of the child’s needs leads the mother to increase the amount of time and effort
required to support and care for the child, and may cause her stress level to be higher than the father’s stress level.

One can assume that the lack of participation by fathers in education and child rearing necessitates the mother to take additional responsibilities and to spend extra time in helping the child with school activities, daily needs, and medical issues. These added responsibilities may increase the level of stress in Saudi mothers of children with intellectual disabilities.

**Research Questions**

By using the Parenting Stress Index (PSI; Abidin, 1995), the current study examined the hypothesis of differences in stress levels between Saudi fathers and mothers of children with intellectual disabilities. The following research questions guided this study:

1- What is the difference in the total stress levels between Saudi mothers and fathers regarding the parent-child relationship?

2- What is the difference in the stress levels between Saudi mothers and fathers regarding their children with intellectual disabilities in regards to the child’s characteristics?

3- What is the difference in the stress level between Saudi mothers and fathers of children with intellectual disabilities regarding the parent’s characteristics?

**Significance of the Study**

In order to better understand and effectively support the child with an intellectual disability, professionals should have an overall understanding of the child’s family (Fiedler, Simpson, & Clark, 2007). When providing services to families of children with intellectual disabilities, parenting stress is an important variable to consider (Fuller & Rankin, 1994; Smith, Oliver, & Innocenti, 2001). An indirect effect of high parental stress is its relationship to poor
intervention results for children with intellectual disabilities (Hastings & Beck, 2004). It has been found that successful intervention of severe problem behaviors in children with intellectual disabilities is most effective when family stress issues are addressed before the intervention begins (Rhodes, 2003); additionally, the high level of stress that the family experiences may translate into a lower quality of life for the family. This issue should be addressed if successful integration of individuals with intellectual disabilities is to be achieved (Browne & Bramston, 1998).

At this time in Saudi Arabia, there is a lack of information and resources in the special education field concerning parents who are raising children with disabilities, especially children with intellectual disabilities. The results of this study will give professionals a better understanding of the stress that Saudi parents experience in caring for their child with an intellectual disability. Making professionals aware of these stressors may improve the interaction between child and parent, as well as give support to parents of children with intellectual disabilities. Results from this study will possibly provide research-based data for stakeholders in Saudi Arabia, resulting in the creation of appropriate and effective programs for parents of children with intellectual disabilities. The knowledge gained from this study will make professionals in Saudi Arabia aware of the services that parents of children with intellectual disabilities need. The knowledge gained will also support the funding of quality and sufficient numbers of social services for these families. Additionally, the results of this study will encourage further studies of families of children with intellectual disabilities in Saudi Arabia.

Assumptions and Limitations

There are several assumptions that were considered when conducting this study. It was assumed that the parents completed the PSI truthfully. There was also an assumption that the
parents chosen to respond to the PSI were representative of the population from which they were
drawn.

A number of limitations affected the conclusions that were drawn from this study. The
study was conducted in Riyadh, Saudi Arabia's capital. The study was limited to parents of boys
aged 6 -12 years old. This was because male researchers experience difficulties communicating
with girls’ schools while distributing and collecting data. Another limitation of the study was that
it was limited to parents of children that only have intellectual disabilities and no additional
disabilities. The study was also limited to parents with only one child with an intellectual
disability. Finally, this study was limited to two-parent households in order to control for the
impact of differences in family structures.

**Definition of Terms**

In order to be able to appreciate the importance of the study, there should first be an
understanding of the language used. The following terms will be helpful in defining the research
questions.

Parent Stress Index (PSI): a standardized self-report questionnaire designed to evaluate
stress in parents of children with intellectual disabilities. PSI consists of three domains: Child
Domain, Parent Domain, and Life Stress Domain (Abidin, 1995).

Parent: refers to the biological father and mother that live in the house and are
responsible for caring for, educating, and rearing their child with an intellectual disability.

Children with intellectual disabilities: refers to children with intellectual disabilities that
are educated in an institutional setting or in a special education classroom attached to a public
elementary school. The children referred to in this definition have an IQ below 70 and are
between the ages of 6 and 12.
CHAPTER TWO

Literature Review

In this chapter, the literature review will be presented in three parts. The first section provides a brief overview of the background of Saudi Arabia, the history of education in Saudi Arabia, and the history of special education in Saudi Arabia with an emphasis on children with intellectual disabilities. The second section discusses what is known about parents of children with intellectual disabilities. The third section reviews the effects and levels of stress that mothers and fathers of children with intellectual disabilities perceive.

Background of the History of General and Special Education in Saudi Arabia

When conducting research in the social science field, it is important to understand the region and people being studied. The following section will give the reader an overview of the country and people for which data is being collected.

Saudi Arabia is found in the southwestern part of Asia and occupies 80% of the Arabian Peninsula, with an area of 2,240,000 square kilometers. Saudi Arabia is one of the largest countries in the Middle East. It is bordered by the Arabian Gulf, Qatar, and the United Arab Emirates in the east, the Red Sea in the west, Kuwait, Jordan, and Iraq in the north, and Oman and Yemen in the south (Saudi Embassy to the United States, 2012). Saudi Arabia has a
population of 27.7 million people, with 75% of the population living in urban areas. In addition, the illiteracy rate in Saudi Arabia is 21.2% (Saudi Embassy to the United States, 2012).\(^1\)

Saudi Arabia's economy is oil based. The country has the largest petroleum reserve in the world (25% of proved reserves) and is the largest exporter of petroleum. The country also holds a leading role in Organization of the Petroleum Exporting Countries (OPEC). Revenue from petroleum accounts for approximately 75% of budget revenues, 45% of Gross Domestic Product (GDP), and 90% of export earnings. Approximately 40% of the GDP is obtained from the private sector (Aldeham, 2009).

The official religion of the Kingdom of Saudi Arabia is Islam and its tenets are written as laws. Islam is a basis for education and other aspects of life in Saudi Arabia. Arabic is the official language in all areas and levels of education, although students study English beginning in the fourth grade (Saudi Embassy to the United States, 2012).

The education system in Saudi Arabia is built on Islamic philosophy. Students in general and special education classes take several religious classes at all grade levels. The education system in Saudi Arabia consists of a six year elementary stage, a three year middle stage, and a three year secondary stage. In addition, education is free for all students regardless of grade level, including higher education. Male and female students study at separate schools at all grade levels, as well as in higher education. Female instructors teach female students and male instructors teach male students. The Ministry of Education has the role of supervising education for male and female students, with other government organizations offering vocational and technical training; this includes the Ministry of Labor and Social Affairs and the General Organization for Technical Education and Vocational Training (Althabet, 2002).

\(^1\) The U. S. has an overall illiteracy rate of about 1% (World Bank, year, 2009).
Special education in Saudi Arabia began in 1958 as a result of independent efforts by devoted individuals. These individuals educated one hundred persons with visual impairments with the use of Braille in evening classes at a school in Riyadh. The Ministry of Education allowed these students the use of a government building and its materials in the evening. During the day, the same students enrolled in programs in government institutions (The Directorate General of Special Education, 1981). The program was highly successful. Two years after the program’s inception, it was called Special Education, and it was the first institute for the training of individuals with visual disabilities. The Institute of Light for the Education and Training of the Blind in Riyadh was established in 1960 as the first organized special education school in Saudi Arabia (The Directorate General of Special Education, 1981).

Since the establishment of the first special education school, special education has been incorporated within the growth of all educational programs. In 1964, the first two special education institutes for students with a hearing impairment opened called The Institute of Hope for Boys and Girls in Riyadh. In 1971, the first specialized institute for students with intellectual disabilities opened. By this time, institutes for students with visual impairments and hearing impairments numbered eleven (The Directorate General of Special Education, 1981).

In 1974, the Ministry of Education established the General Secretariat of Special Education (GSSE), which was previously called the General Directorate for Special Education Care. The GSSE is divided into several departments which focus on educational programs for students with disabilities, including intellectual disabilities, hearing impairment, visual impairment, learning disabilities, gifted and talented, emotional and behavioral disorders, speech and language impairments, physical impairments, autism, and multiple disabilities (Alfaiz, 2006).
Saudi Arabia was the first Arab country to incorporate inclusion in its schools. Inclusion is implemented on a scientific basis. The first successful experiment was conducted in the city of Al-Hofuf in 1984. In 1989, King Saud University in Riyadh opened a kindergarten for children with special needs. In 1990, the Ministry of Education began inclusion in schools on a limited basis. However, the greatest advances in mainstreaming started in 1996 with an educational strategy using ten key themes. The first one emphasized activating the role of the public school in the education of children with special needs when they were integrated with their peers without disabilities. During the Third International Conference on Disability and Rehabilitation in Riyadh (2009), Saudi Arabia, it was strongly recommended that the country continue expanding its inclusion programs. In addition, emphasis was placed on moving toward a more inclusive approach for students with special needs. The education, social affairs, and health ministries put consistent efforts forth in formulating policies and organizational by-laws since the beginning of special education and rehabilitation programs in Saudi Arabia. These efforts resulted in the Provision Code for Persons with Disabilities in Saudi Arabia in 2000. This law guarantees the right of individuals with special needs in all areas, including a free appropriate public education. Article 8 of this law stated that a supreme council for the affairs of people with disabilities be established. Saudi Arabia signed and ratified the Convention on the Right of Persons with Disabilities and its Protocol in 2008. In 2009 a regional symposium was formed by Saudi Arabia and the Arab League to create a plan which would implement the Arab Decade of Disabled Persons and the Convention on the Rights of Persons with Disabilities (Almousa, 2010).

In recent years, The Ministry of Education has continued to open special education institutes according to the needs of the various provinces (The Directorate General of Special
Education, 1981). Special education services in public schools now exceed services available to students with disabilities in special education institutes. In 1994-1995 there were 38 programs and institutes serving 5,208 male students. This number increased in 2004-2005 to 2,047 programs and institutes serving 46,514 male students. Additionally, programs for female students increased from 18 programs and institutes which served 2,517 students in 1994-1995, to 530 programs and institutes serving 10,651 female students in 2004-2005 (Al-Mousa, 2007).

When the first institute for children with intellectual disabilities opened in Saudi Arabia, the concept of educating these students was a new way of thinking in Saudi society. Statistics show that in 1970 when the institute for children with intellectual disabilities opened, there were only 100 students with intellectual disabilities, and fifteen years later, in the mid 1980’s, there were only 827 students enrolled in institutions for students with intellectual disabilities in the entire country (The Directorate General of Special Education, 1981). In addition, through a study conducted by Sartaawi, Sartaawi, and Jarar (1988) on 2,582 principals and teachers in Riyadh City, it was found that educators felt that residential schools were the best place for students with intellectual disabilities. However, in recent years, this attitude has changed among teachers and parents. A study conducted by Abdjabbar and Masoud (2002) surveyed 447 general education teachers, special education teachers, and school principals in Riyadh. Their study determined that inclusion had a positive effect on the education of children with disabilities. In addition, Hawsawi (2009) conducted a study on 182 parents of 84 children with intellectual disabilities, and 98 children without disabilities in Riyadh. This study revealed varying responses. Parents whose children had intellectual disabilities had positive attitudes towards inclusion, whereas parents of children without disabilities had neutral attitudes towards inclusion programs.
Althabet (2002) found that parents of children with intellectual disabilities have limited family involvement in their children’s school in Saudi Arabia (Althabet, 2002). Saudi Arabia’s special education provisions do not include parental involvement. There is minimal encouragement for parents’ involvement in their child’s education because of the legislative view in Saudi Arabia. Basically, parental involvement in the child’s education is minimal and the role of the parent in the eligibility meeting, individualized education program (IEP) development, and transitional planning is minimal and even non-existent (Alajmi, 2006). In 1986, Fouzan conducted a study aimed at identifying the level of parental involvement of parents of students with mild intellectual disabilities in educational programs in Saudi Arabia. The participants included 338 male parents of boys with mild intellectual disabilities, and 252 female parents of girls with mild intellectual disabilities enrolled in special education schools in Saudi Arabia. A major finding of the study revealed that overall parental involvement was generally low, with only 4.6% of parents having a high level of involvement in their child’s education.

In recent years, the number of students enrolled in programs for students with intellectual disabilities has greatly increased. In 2008, Saudi Arabia had 11 institutes and 718 programs for male students with intellectual disabilities. In addition, 1,244 students studied in 170 classes at these special institutes. Meanwhile, 11,805 male students with intellectual disabilities studied in 2,307 classes in general education schools (The Directorate General of Special Education in Saudi Arabia, 2008). Furthermore, in 2010, Saudi Arabia had 13 institutes and 240 programs for female students with intellectual disabilities that included 5,632 female students (The Directorate General of Special Education in Saudi Arabia).

There are two educational choices for students with intellectual disabilities in Saudi Arabia: mainstreamed schools or institutions (Almousa, 2010). Related services for individuals
with disabilities have not received adequate attention and need further development. The related services that exist in Saudi Arabia include medical services, speech-language pathology services, transportation services, and psychological services (Alajmi, 2006).

Generally, when students with intellectual disabilities finish their elementary education, they may take two years of training in a vocational training center provided by the Ministry of Labor and Social Affairs or they may drop out of school. Although, beginning in 2002-2003, students with intellectual disabilities had the opportunity to complete their schooling through high school (Althabet, 2002).

Given this brief overview of the history of general and special education in Saudi Arabia, it can be concluded that general and special education programs and services have been recently improved and expanded. However, these services and programs are still inadequate and need more development and improvement. In addition, the involvement of parents of children with disabilities, including parents of children with intellectual disabilities, in Saudi Arabia should be given sufficient consideration. The involvement of parents is the key to success in all programs for individuals of all ages with disabilities, including students with intellectual disabilities (MacDonald & Hastings, 2010; Martinez, 2009). To increase the involvement of parents of children with intellectual disabilities, educators and professionals should understand the challenges, demands, and stress that these parents face.

Parents of Children with Intellectual Disabilities

A family’s dynamics change with the birth of a child. These dynamics are magnified and more apparent when the child has an intellectual disability (Karazk & Marvin, 1984). When a child is diagnosed with an intellectual disability, the family experiences many changes that affect their previous sense of normalcy. This period of change produces a new life perspective that can
include extra stress (Wikler, 1981). When parents are told that their child has a disability, they experience many emotions which include anger, denial, shock, guilt, sadness, and finally acceptance (Floyd & Philippe, 1993; Van Riper & Selder, 1989). Parents often ask themselves and others why their child has a disability, but never receive a satisfactory answer (Berdine & Blackhurst, 1985). In addition to the adjustment of caring for a child with an intellectual disability, parents often experience strain on the family’s resources and have difficulties relating to other family members (Glidden, 1993). Parents who have a child with an intellectual disability encounter specific challenges regardless of their family’s culture and background (Azar & Badr, 2010; Shin et al., 2006).

Many studies have shown that parents of children with intellectual disabilities experience more stress than parents of children without disabilities (Azar & Badr, 2010; Baker et al., 2003; Beckman, 1991; Browne & Bramston, 1998; Cahill & Glidden, 1996; Gupta & Kaur, 2010; Olsson & Hwang, 2001; Roach, Orsmond, & Barrett, 1999; Sanders & Morgan, 1997; Simmerman, Blacher, & Baker, 2001). For instance, Gupta and Kaur (2010) examined the effect of stress on two groups of parents. The first group consisted of 30 parents of children with intellectual disabilities (17 fathers and 13 mothers), while the second group consisted of 65 parents of children without intellectual disabilities. The Quick Stress Assessment Test (QSAT; Vaz, 1995) was used and incorporated two parts: a physical part and a mental part. Results from this study showed that most parents who had children with intellectual disabilities experienced more mental and physical stress than parents who had children without intellectual disabilities. Most parents typically had a higher mental stress level than physical stress level. In addition, Majumdar, Pereira, and Fernandes (2005) conducted a study on 60 parents of children with moderate to profound intellectual disabilities, 60 parents of children with mild intellectual
disabilities, and 60 parents of children without intellectual disabilities. Parents were evaluated using the Family Interview for Stress and Coping (FISC; Girimaji, Shobha, Sheshadri, & Subba, 1999) and the Hamilton Anxiety Rating Scale (HARS; Hamilton, 1959). The researchers found that parents of children with moderate to profound intellectual disabilities had a higher frequency of stress and anxiety when compared to parents of children with mild or borderline intellectual disabilities and parents of children without intellectual disabilities. Researchers found a positive correlation between the severity of perceived stressors and the anxiety level of these parents. In other words, multiple stressors seemed to predict the likelihood that parents would experience stress and anxiety. Examples of stressful feelings included anxious mood, tension, fears, and insomnia.

After viewing the studies about parental stress and contributing factors, and considering these factors as predictors for stress, it was concluded that there are many influential variables on levels of stress. Some of these factors included caring for a child with an intellectual disability (Pelchat & Lefebvre, 2004; Schultz & Quittner, 1998), the child’s behavioral problems (Baker et al., 2003; Baker, Blacher, Crnic, & Edelbrock, 2002; Beck, Daley, Hastings, & Stevenson, 2004; Browne & Bramston, 1998; Chen & Tang, 1997; Floyd & Gallagher, 1997; Hill & Rose, 2009; Nachshen, Garcin, & Minnes, 2005; Quine & Pahl, 1985; Saloviita, Italinna, & Leinonen, 2003; Shin et al., 2006), child characteristics such as gender, age, and severity of the child’s disability (Alqaisy, 2012; Browne & Bramston, 1998; Olsson & Hwang, 2001; Shin et al., 2006; Warfield, Krauss, Hauser-Cram, Upshur, & Shonkoff, 1999; Warfield, Krauss, & Wikler, 1981), parental characteristics (Alqaisy, 2012; Gerstein, Crnic, Blacher, & Baker, 2009; Gupta & Kaur, 2010; Hatton & Emerson, 2009; Lessenberry & Rehfelt, 2004; Rousey, Best, & Blacher, 1992), and environmental variables such as the socio-economic level of the parents (Chetwynd, 1985;
Children with intellectual disabilities have specialized needs that require parents’ time, physical energy, and emotional energy. Some of the child’s needs demand a certain amount of physical strength, can be unpleasant, and may disrupt the family unit (Schultz & Quittner, 1998). Children with intellectual disabilities have demands that persist from childhood through adulthood and parents must adapt in a continuous manner to stressors and crisis situations (Wikler, 1986). Taking care of a child with an intellectual disability creates chronic stress for parents over a long period of time (Dyson, 1993). The needs of children with intellectual disabilities can increase the stress that family members experience. This stress can affect physical, cognitive, emotional, and social domains (Pelchat & Lefebvre, 2004). In addition, financial strain is often put on the family’s resources due to the services that a child with an intellectual disability requires. A family of a child with an intellectual disability needs to be aware of and have access to support services, including financial support (Azar & Badr, 2006; Feldman, Varghese, & Ramsay, 2002). Regardless of the culture, the mother is often the parent affected by the stress of caring for a child with an intellectual disability. Mothers tend to be the primary caregivers of children with intellectual disabilities and fathers usually take a secondary role in this responsibility (Azar & Badr, 2006; Heller et al., 1997; Kermanshahi et al., 2008; Roach et al., 1999).

Although many factors affect the stress of parents of children with intellectual disabilities, many studies have found that the child’s behavior problems are the largest predictor of parental stress (Baker et al., 2003; Baker, Blacher, Crnic, & Edelbrock, 2002; Beck et al., 2004; Browne & Bramston, 1998; Chen & Tang, 1997; Floyd & Gallagher, 1997; Hill & Rose,
Parents whose children with intellectual disabilities experience behavioral problems have additional challenges and demands placed on them. These children may need more individual attention and effective behavioral intervention plans. Nachshen et al. (2005) suggested that parents whose children have both intellectual disabilities and behavior problems such as social withdrawal or depression may be overlooked in family service organizations. It can also be surmised that parents whose children have these behavior problems may also withdraw and be reluctant to interact with educational professionals.

Children with intellectual disabilities have a greater chance of developing behavior problems and psychological disorders. This phenomenon is known as dual diagnosis (Dykens, 2000; Gath & Gumley, 1986). A study conducted by Linna et al. (1999) stated that children with intellectual disabilities have psychiatric conditions including depression. Results from this study showed that children with intellectual disabilities were three times more likely to have emotional and behavior problems when compared to children without disabilities. Other studies indicated that children with intellectual disabilities demonstrated behavior problems at a rate four times higher than children without intellectual disabilities (Dekker, Koot, Ende, & Verhulst, 2002; Einfeld & Tonge, 1996). Einfeld and Tonge (1996) conducted a study on 454 families with children with intellectual disabilities between the ages of 4 and 18 years. Results showed that 40.7% had emotional and behavior problems. These children were identified as having a psychiatric disorder according to the Developmental Behavior Checklist (DBC; Einfeld & Tonge, 1995). Another study was conducted by Stromme and Diseth (2000) in order to discover the prevalence of psychiatric problems in children with intellectual disabilities. The study included 178 children: 79 with severe intellectual disabilities and 99 with mild intellectual disabilities.
Results of the study showed that 37% of the children in the total population had psychiatric disorders including hyperkinesia and pervasive developmental disorder.

Children with mild or moderate intellectual disabilities are at great risk of having a variety of behavioral disorders and their symptoms are similar to children without intellectual disabilities (Nezu, Nezu, & Gill-Weiss, 1992). However, children with severe intellectual disabilities often demonstrate many problem behaviors. These behavior problems may include self-stimulation, self-injury, and aggressive behavior (Singh, 1997). Nachshen et al. (2005) examined the relationship between child behavior difficulties, as well as positive and negative stress outcomes, in 100 Canadian parents of children with intellectual disabilities. The researchers used the Child Behavior Checklist (CBCL, Achenbach, 1991), Parenting Stress Index (PSI, Abidin, 1995), and additional scales to gather information regarding the children, parents, and families. The Child Behavior Checklist reported that the most common behavioral problems in children with intellectual disabilities were found in thought, attention, and social problem areas. These findings suggested that 43% of parents of children with intellectual disabilities in the Canadian sample reported significant behavior problems in their children with intellectual disabilities. It was also reported that parents had more stress, less happiness, less social support, and fewer family-centered school services than parents whose children did not have significant behavior problems.

Quine and Pahl (1985) conducted a study on a group of 200 families of children with severe intellectual disabilities in England. Family members who were interviewed were responsible for the daily care of their child with an intellectual disability, and their stress levels were measured using the Malaise Inventory (Rutter et al, 1970). The study revealed that the highest stress levels were associated with children with behavior disorders or with multiple
disabilities. It was found that factors causing stress (from greatest to least) included: behavior problems in the child, night-time disturbances, social isolation, adversity in the family, multiple impairments, problems getting the child to sleep, problems with the health of the child, problems with the appearance of the child, and financial worries.

Browne and Bramston (1998) conducted a study in order to look at the underlying stress and life experiences of parents of young people with intellectual disabilities. The study included 44 parents of young people with intellectual disabilities and 58 without intellectual disabilities. Assessment was conducted by a stress questionnaire and a quality of life questionnaire. The results showed that parents of children with intellectual disabilities experienced significantly higher stress than parents of children without intellectual disabilities. Also, it was found that increased amounts of stress resulted in a decreased quality of life for parents. In addition, Chen and Tang (1997) conducted interviews with 30 Chinese mothers who had adult children with moderate to severe intellectual disabilities. These interviews were conducted in order to examine the source and type of parental stress as well as available support. The results showed that these mothers experienced stress related to planning for their children’s future, as well as stress relating to behavior problems in their child. It was found that social support was necessary to relieve stress. Chen and Tang’s study looked at three major categories of social support that affect parents. These categories included tangible, emotional, and informational support. Tangible support was defined as support that is practical. Emotional support included positive verbal feedback, and informational support included information on accessing services, as well as behavioral management skills. Tangible support was found to be more effective than informational support for controllable stress. Controllable stress was defined as the degree of
control that the parent had over the cause and consequences of the stress. In addition, tangible support was equally useful for stress that was uncontrollable.

Researchers have confirmed that characteristics of children with intellectual disabilities play a significant role in the levels of stress that parent’s experience. These characteristics include: severity of the disability (Hassall, Rose, & McDonald, 2005; Honig & Winger, 1997; Huang, 1997; Kishore, 2011; Minnes, 1988; Rousey, Best, & Blacher, 1992; Sequeira, Rao, Subbakrishna, & Prabhu, 1990; Shin et al., 2006), the child’s age (Rimmerman & Duvdevani, 1996; Wikler, Wasow, & Hatfield, 1981), and the child’s gender (Frey, Greenberg, & Fewell, 1989).

While some studies have indicated that the severity and nature of the intellectual disability are not related to the level of parents’ stress (Azar & Badr, 2010; Bradshaw & Lawton, 1978; Khamis, 2007), numerous studies have shown that a child’s level of cognitive ability is an important determinant in the parent’s stress level. Huang (1997) conducted a study of 687 Chinese mothers of children with intellectual disabilities. It was found those mothers with higher levels of spiritual belief and whose children had mild intellectual disabilities felt less stress. These findings support the theory that the more severe the intellectual disability, the more likely it is that the child will have behavior problems. This, in turn, negatively affects the mother’s stress levels (Huang, 1997). Similarly, Minnes (1988) conducted a study with 60 mothers of children with intellectual disabilities in Toronto, Canada. Minnes (1988) found a significant positive relationship between the degree of intellectual disability and maternal stress. Mothers of children with mild intellectual disabilities reported less stress in regard to caring for the child, family resources, physical limitations, and personal limitations than mothers of children with severe intellectual disabilities. Hoing and Winger (1997) conducted a study involving families of
65 preschoolers with mild to severe intellectual disabilities. Their findings determined that mothers of preschoolers with severe intellectual disabilities were able to more accurately rate the severity of their child’s disability when compared to mothers of children with mild intellectual disabilities. In addition, the results of the study determined that the more severe the child’s intellectual disability, the higher the level of parental stress.

The gender of the child with an intellectual disability may also play a role in the level of stress a parent experiences. Frey et al. (1989) found that the child’s gender, as well as other characteristics, predicted the mothers and fathers’ parenting stress. Parents of boys experienced higher stress levels as well as parents of children whose communication skills were low. The child’s ability to communicate was in direct relation to the psychological stress of fathers, but not mothers. The researchers also found that fathers of children with disabilities were affected by the child’s gender, whereas mothers were less affected by the gender of the child. It is thought that fathers find it more difficult to adjust their expectations of their sons. In addition, the relationship of father and son emphasizes shared recreational activities rather than a role of caregiver and child. Fathers of children with severe disabilities may have fewer opportunities for recreation for themselves and their child.

In contrast, numerous studies have not found a relationship between the gender of the child with an intellectual disability and the parents’ stress levels (Alqaisy, 2012; Honig & Winger, 1997; Khamis, 2007; Rimmerman & Duvdevani, 1996; Sequeira et al., 1990). Sequeira et al. (1990) conducted a study with 55 mothers aged 21-55 years who had children with intellectual disabilities (30 male and 25 female) aged 5-12 years. The study was conducted to investigate their level of stress and their coping strategies. No significant differences in stress were found in relation to the gender of the child. Mothers of children with severe intellectual
disabilities had greater stress than mothers of children with mild intellectual disabilities; 70.9% of mothers of children with severe intellectual disabilities experienced stress that put a severe strain on their psychological well-being.

Children with intellectual disabilities have demands that produce parental stress that persist throughout their lifespan (Wikler, 1986). Sometimes those demands lead parents to consider placing their child in an alternative residential setting outside the family home. Rimmerman and Duvdevani (1996) conducted a study on parents of children and adolescents with severe intellectual disabilities in Tel Aviv, Israel. Eighty-eight parents responded to a questionnaire regarding their application for out-of-home placement for their children. The results of the study found that the factors that caused parents to apply for out-of-home placement included: high parental stress, low social support, parental concern about fitting into the normal concept of a family, poor family climate and relationships, and the age of the child. In addition, parents of children with intellectual disabilities that experienced high levels of stress were more likely to apply for out-of-home placement for their children than parents who had low levels of stress.

A family may experience greater stress when their child with an intellectual disability enters school. The school years can be challenging for parents, as the disability may be more notable at this time. When a child with an intellectual disability enters school, parents become aware of the difficulties and challenges that their child faces. In addition, when the child enters school, more time and effort is needed on the part of the parent to help the child be successful. In addition, parents may not have access to information on how to cope with children with intellectual disabilities (Wikler, et al., 1981). Rimmerman and Duvdevani (1996) found that the child’s age was significantly related to the parent’s perception of stress and that the level of
stressed increased as the child aged. The child’s intellectual disability became more evident as he/she got older. Also, the child’s intellectual disability prohibited him/her from keeping pace with what is normal for a child at that age.

In contrast, several studies have shown that stress decreases for parents as their children with intellectual disabilities get older. As their children age, parents gain experience and knowledge on how to manage difficulties that they face, as well as how to manage their child’s needs. Parents become knowledgeable about services and resources that are available to them, and this reduces the challenges and stress that they may experience. Hoing and Winger (1997) investigated the effect of the child’s age on the stress that the mother experienced. The authors determined that mothers with an infant under 2 years of age with a disability reported higher stress levels than mothers of preschool children with disabilities.

Child characteristics are not the only factor contributing to parental stress. Parental characteristics are also a factor in the stress they experience. Oh, Rubin, and Mouw (1994) revealed that mothers who were around the age of 42 had the best level of adjustment to their child with an intellectual disability, whereas mothers who were older or younger than age 42 were at a higher risk of experiencing stress. The authors justified their reasoning due to the finding that older mothers may be concerned about who will care for the child as the mother ages and after she passes away. Younger mothers may have increased stress due to the fact that they have less parenting experience overall. However, many other studies did not find a correlation between stress and the age of the parents (Alqaisy, 2012; Azar & Badr, 2006; Khamis, 2007; Mar, 1996).

The socioeconomic situation of the family also plays a role in the stress parents’ experience. Emerson (2003) conducted a study on parents of 10,438 children with intellectual
disabilities between 5 and 15 years of age and on parents of 9,481 children without intellectual
disabilities in England, Scotland, and Wales. Stress was reported by 245 mothers of children
with intellectual disabilities (2.6 %). The study revealed that families of children with intellectual
disabilities were significantly disadvantaged economically when compared to families who did
not have children with intellectual disabilities. While some studies did not find a relationship
between the stress of parents of children with intellectual disabilities and socioeconomic status
(Chetwynd, 1985; Honig & Winger, 1997), other studies revealed that the socioeconomic level
of a family may play an important role in parents’ levels of stress (Azar & Badr, 2010; Hatton &
evidence that shows poverty and a family’s socioeconomic level play an important part in the
psychological well-being of children with intellectual disabilities and their parents. There is
proof that families with children with intellectual disabilities are more likely to be living in low
socioeconomic conditions. The differences in socioeconomic status between families with
children with or without intellectual disabilities explain the differences in child and parent
psychological well-being (Hatton & Emerson, 2009). Further studies found that the education
level of the parent is associated with the socioeconomic level of the family. As a result, the
higher the education level of the parent, the less stress there is on the family (Azar & Badr, 2006;
Azar & Badr, 2010). Other studies did not find a significant correlation between the parent’s
education level and the amount of stress they experienced (Mar, 1996; Ravindranadan & Raju,
2007).

Additional studies have found a relationship between the level of stress parents of
children with intellectual disabilities experience and their relationship status. Floyd and
Gallagher (1997) found that single mothers of children with intellectual disabilities were not
more stressed than married mothers, and they took advantage of more services than two-parent families. In addition, Hoing and Winger (1997) conducted a study on mothers of young children with intellectual disabilities. The researchers found that mothers who were married reported more stress than single parents. In contrast, many studies have shown that single mothers have more stress than married mothers. For example, Upadhyay and Havalooanavar (2007) revealed that single parent families were lacking the support of a spouse and that this increased the level of stress they experienced. The study of 77 single parents and 77 families with both parents present examined care, emotional, social and financial stresses. Results revealed that single parents differed significantly in total stress. It revealed that single parents felt more stress in the emotional and social areas than in care and financial areas. Single parent families of children with intellectual disabilities experienced higher levels of stress in all areas when compared to families of children with intellectual disabilities with both parents present.

Many studies indicated that successful adaptation of families of children with intellectual disabilities lies in accessing support services (Dukmak, 2009; Floyd & Gallagher, 1997; Hassall et al., 2005; Heller & Factor, 1993; Honig & Winger, 1997; Karasavvidis et al., 2011; Shin et al., 2006). Services for families of children with intellectual disabilities include appropriate psychosocial support and counseling (Ong, Chandran, & Peng, 1999). These support services can help the family cope with the child’s needs and reduce disability related problems by providing training programs. The training programs are designed to give parents additional information related to methods of caring for their children with intellectual disabilities, as well as to give them information about the nature and origin of their child’s intellectual disability (Baker, Landen, & Kashima, 1991; Barr & Miller, 2003; Hastings & Beck, 2004). While some studies found that social support is effective in reducing stress and the ability to cope in families of
children with intellectual disabilities, some studies did not find a relationship between social support and stress (Azar & Badr, 2010; Honig & Winger, 1997; McConkey et al., 2008). Azar and Badr (2010) explained this by stating that the stress level of mothers may be influenced by personal characteristics, family characteristics, and circumstances in place of receiving support. Another possible explanation from Azar and Badr (2010) is that the informal support received by parents was considered insufficient.

Parents of children with disabilities are aware of and sensitive to the reactions of neighbors, friends, and strangers, and adverse reactions may affect the stress experienced by these families (Boss, 1988). Gartner, Lipsky, and Turnbull (1991) indicated that there is still a stigma in cultures around the world regarding having a child with a noticeable disability. Huang (1997) found through his research that mothers who felt negative attitudes from neighbors about their children with intellectual disabilities were found to have significantly higher stress levels than mothers who did not feel negative attitudes. Shin et al. (2006) also found in their study that both mothers and fathers of children with intellectual disabilities felt more stress when they experienced stronger stigma regarding their child.

Smith et al. (2001) conducted a study which evaluated parenting stress in families of children with disabilities. The researchers found social support for parents is a better predictor in parenting stress than the child’s level of functioning. Ben-Zur, Duvdevany, and Lury (2005) interviewed 50 mothers of children with intellectual disabilities living at home and 50 mothers of children with intellectual disabilities living in an out-of-home setting. The study showed that social support and high levels of mental health were positively correlated. Other studies have found parents who have social support experience less parental stress (Dunst & Trivette, 1986; Dunst, Trivette, & Hamby, 1994).
In addition, many correlational studies have indicated that formal, professional services and support are associated with lower levels of parental stress (e.g., King, King, & Rosenbaum, 1999; Hoing & Winger, 1997). Weiss (2002) conducted a study with 120 mothers that included 40 mothers of children with autism, 40 mothers of children with intellectual disabilities, and 40 mothers of typically developing children. The study concluded that mothers of children with autism felt the most negative effects of stress, followed by mothers of children with intellectual disabilities. Mothers of children with autism perceived lower levels of social support than mothers of children with intellectual disabilities. All of the groups included in the study reported that perceived spousal support was related to positive feelings and fewer physical symptoms. The study also concluded that perceived support may be more important than actual support. Feldman and Werner (2002) stated in their study of 18 families of children with intellectual disabilities that parents who participated in behavioral parent training reduced the stress experienced by the family and reduced child behavior problems for up to 5 years after the initial training program. Karasavvidis (2011) indicated that parents of children with intellectual disabilities in different cultures experience the same level of symptoms and stress from their child’s disability. In addition, different cultures use varying approaches and social support to relieve every day stress.

While many studies found a correlation between the social support and stress levels of parents of children with intellectual disabilities, other studies did not. For instance, Duvdevany and Abboud (2003) examined the effect of a social support system on the stress and sense of well-being of 100 mothers of young children with intellectual disabilities. Fifty mothers received social support such as welfare on a regular basis, and fifty mothers did not utilize this service. The results of the study found that there was not a relationship between the amount of social support and the level of stress and personal well-being of the parents. In addition, Honig and
Winger (1997) investigated the effects of long term social support for families of preschoolers with intellectual disabilities. The number of kin and friend social support networks reported by the mothers in the study did not have a significant effect on mothers’ stress. The researcher justified this by explaining that social support is not as effective in lowering stress of mothers. This is because professional support is significantly more influential in lowering stress. In addition, some families do not have strong social networks established, which makes the support of professional programs even more important.

Many researchers study more than one potential contributing factor at a time because of the interaction between factors that affects the parents’ level of stress. For example, Azar and Badr (2006) conducted a study on 127 mothers who had children with intellectual disabilities. The goal of the study was to identify factors that played a role in the mothers’ adaptations in the care of their children with intellectual disabilities. The results of the study found that a high percentage of the mothers of children with intellectual disabilities had depressive symptoms. The factors that affected a mother’s stress level were family strain, parental stress, and family income. Smith, Oliver, and Innocenti (2001) conducted a study on 880 parents of children with moderate to severe intellectual disabilities. The study used participants who were participating in a larger longitudinal study examining 16 early intervention sites within the United Kingdom. The results of the study found that although there was a correlation between family functioning, the severity of the child’s disability, and overall parenting stress, family functioning was a stronger predictor of parenting stress. The severity of the child’s disability had little impact on parental stress, but had a significant effect on the parent-child relationship. The child’s social skills were also a determining factor in parental stress. In addition, Chetwynd (1985) conducted a study to evaluate stress in a sample of 91 mothers of 109 children with intellectual disabilities. By using
the Maternal Malaise Inventory (Rutter et al, 1970), the researcher found that mothers of children with intellectual disabilities in New Zealand had significantly higher levels of stress than mothers of children without a disability. Several components were found to play a part in the stress experienced by mothers. There was a high incidence of marital breakdown with 24% of mothers of children with intellectual disabilities living without a partner. In addition, it was discovered that there was a relationship between stress levels of the mother and the child’s activity level. The findings of this study suggested that the disability of the child did affect stress in the mother, but the over or under activity of the child determined the type and amount of stress the mother experienced. For example, children who experienced hyperactivity often caused stress due to disruptions and disturbances in the family unit, whereas children who were under-active caused maternal stress by requiring extra stimulation and attention. Total family income was not related to stress levels or spending habits. However, a relationship was discovered between maternal stress levels and household heating expenses. Families in New Zealand with modern housing use oil or electricity to heat their homes, whereas older homes often rely on open fires for heating. Mothers who use open fires to heat the home must be constantly watching their child near the fire. In addition, the findings may show a relationship between the stress of the mother and the financial health of the family.

Khamis (2007) conducted a study on 113 fathers and 112 mothers of children with intellectual disabilities in the United Arab Emirates. The study investigated the correlation between child characteristics, parent socio demographics, and family environment on parental stress and psychological distress. By using the Questionnaire on Resources and Stress Short-Form (QRS-F; Friedrich et al., 1983), Family Environment Scale (FES; Moos & Moos, 2002), and Psychiatric Symptom Index (PSI; Ilfeld, 1976), it was found that the combined predictors of
child characteristics, parent socio-demographics, and family environment accounted for 36.3% of parental stress and 22.5% of parental psychiatric symptoms. The child’s age was significantly associated with the parents’ stress, and parental stress lessened when the child was older. Parents experienced more psychiatric symptoms when the child had a high severity level of disability. Furthermore, the severity of the disability was significantly associated with the parents’ psychological distress. In addition, it was found that fathers who were not working experienced higher levels of stress than fathers who did work. Low socioeconomic levels were correlated with higher anxiety, cognitive disturbance, despair, and depression in parents. Within the family environment variable, the personal growth dimension was found to be a predictor of parental stress. The personal growth dimension was comprised of leisure and religious activities, high independence, and cognitive and recreational orientation. From Khamis’s study, it is clear that the stress of parents of children with intellectual disabilities is complex, interrelated, and is affected by many factors. Thus, many researchers study more than one stress causing factor at the same time. Alqaisy (2012) conducted a study involving 235 mothers of children with intellectual disabilities. The mothers were selected in a randomized sample in Jordan. The study investigated the level and intensity of stress experienced by mothers of children with intellectual disabilities. The variables used were the age of the child, the gender of the child, and the age of the mothers. Before the Stress Inventory Scale (Houser & Seligman, 1991) was used, it was translated by a professional translator from English to Arabic. The results of the study showed that the mothers’ total stress score was high, and the mothers’ stress did not differ with the gender or age of the child. The study also showed that there was no difference in a mother’s stress and her age.
After reviewing the studies in this section, it can be concluded that the presence of a child with an intellectual disability in a family may affect the parents’ perspective on life which can involve additional stress. This stress can be emotional, social, physical, and financial. Many studies have shown that most parents who have children with intellectual disabilities experience more stress than parents who have children without intellectual disabilities. This is the case regardless of culture, and this stress may increase with the severity of the child’s intellectual disability. It is notable that the literature reviewed here included studies on parenting stress in Jordan and United Arab Emirates, but did not include Saudi Arabia as no studies have been conducted in on this topic in Saudi Arabia to date.

As the extant literature reveals, there are many influential variables on stress levels among parents of children with intellectual disabilities. Some of these factors included: caring for a child with an intellectual disability; child characteristics such as gender and age; parental characteristics such as gender, age and the parent’s education level; parents’ relationship status; and environmental variables such as the parents’ socio-economic level. Not only is it important to note the many types of variables in the parent-child relationship, it is also interesting to note that there is not a clear consensus about some of the factors contributing to parental stress. For example, some researchers found that parental stress increased as the child aged. However, other researchers found the opposite. They found that stress decreased as a child aged. In addition, some researchers stated that parents of boys experienced more stress than parents of girls, while other studies countered this result. Although many factors affect the stress of parents of children with intellectual disabilities, many studies have found that the child’s behavior problems were the strongest predictor of parental stress. Studies have shown that formal and informal services
and support were associated with lower levels of parental stress for parents of children with intellectual disabilities.

**Effects and Perception of Stress Level between Mothers and Fathers of Children with Intellectual Disabilities**

Many studies have looked at parental stress levels in general rather than specifically looking at the differences between the stress levels of mothers versus fathers of children with intellectual disabilities. A number of studies have shown that there are different levels of stress and perception which vary depending on the gender of the parent (Goldberg et al., 1986; Gupta, & Kaur, 2010; Olsson & Hwang, 2001; Shin et al., 2006). Shin et al. (2006) examined the influence of child and family variables on the stress level of mothers and fathers of young children with intellectual disabilities. One hundred six Vietnamese mothers and 93 fathers of children with intellectual disabilities were examined. It was determined that mothers experienced higher levels of stress. However, it was also found that fathers in a lower socioeconomic bracket with smaller social support systems had more stress than fathers without these characteristics. Mothers and fathers had higher levels of stress when they felt social stigma. Roach et al. (1999) indicated that mothers may experience higher levels of stress because they are the primary caregivers of children with intellectual disabilities, with fathers playing a secondary role in this responsibility. Goldberg et al. (1986) conducted a study with parents of 59 preschoolers with developmental disabilities. Eighteen children were identified as having Down syndrome, 19 with neurological problems, and 22 with disabilities with unknown etiologies. Parents responded to questionnaires and interviews to determine parental stress, support, locus of control (the ability to control events that affect a person), and self-esteem. Parents of children with Down syndrome were found to have more support than others. Fathers reported fewer symptoms of stress, higher
self-esteem, higher locus of control, and less support than mothers. Gerstein et al. (2009) examined the progression and path of daily parenting stress for mothers and fathers of children with intellectual disabilities. The study considered the absolute and relative stability over time by reviewing growth curves for both parents. Participants included 115 families of 3 year old children with intellectual disabilities. Participants were part of a longitudinal study of families of children with and without intellectual disabilities from ages 36-60 months. The results of the study found the daily parenting stress of mothers of children with intellectual disabilities increased over time, while the stress levels of fathers of these children stayed constant. Mothers experienced fewer trajectory stress levels when the parents’ well-being and marital relationship was positive, as well as when a positive father-child relationship was present. Fathers’ stress was affected by the well-being of the mother and perceived marital adjustment.

However, other studies have indicated that there are no differences in stress levels and perceptions between mothers and fathers of children with intellectual disabilities. Dyson (1997) conducted a study on 30 pairs of fathers and mothers of school-age children with intellectual disabilities and other disabilities. These parents were compared to 32 pairs of fathers and mothers of children without disabilities. The results of the study revealed that fathers and mothers of children with intellectual disabilities did not differ from each other. Also, parents of children with intellectual disabilities did not differ from fathers and mothers of children without disabilities in the areas of parental stress, family support, or family function. However, it was discovered that parents of children with disabilities had a greater level of stress in regards to connecting with their children. Fathers’ and mothers’ stress was related to their perception of family function. Azar and Badr (2010) conducted a study on 101 mothers and 46 fathers of children with intellectual disabilities. The goal of the study was to assess child and parent
characteristics, informal social support, and the effect of stress on the coping behaviors of fathers and mothers. The study examined parents of children between 5 and 12 years of age with intellectual disabilities. The children in this study had been placed in a special education center in Beirut, Lebanon. It was determined that both fathers and mothers reported similar stress levels, informal social support, and coping behavior. Essex, Seltzer, and Krauss (1999) conducted a study to determine the similarities and differences between mothers and fathers in regards to levels of psychological stress and the use of coping strategies. The study sample consisted of 133 married mothers aged 59-83 and fathers aged 56-84. It was determined that there was no difference between mothers and fathers in regards to the frequency of emotion. Mothers were found to buffer the impact of caregiving stress by using more problem-focused coping strategies such as planning ahead and active coping. Active coping was described as a direct attempt to remove, circumvent, or reduce the direct effects of a stressor. The researchers found that mothers used fewer emotion-focused coping strategies such as denial. Denial was described as denying that a stressor exists or mental disengagement. Furthermore, mental disengagement was described as turning one’s thoughts away from the problem and focusing on another activity such as watching television. However, fathers were not found to have any buffering effects in relation to coping. During an 18 month period, fathers were affected most predominately by the knowledge of their child’s functional limitations. Among fathers, it was found that the more severe the child’s disability, the higher the incidence of depression, burden, and negative outlook on the child’s future. Rousey et al. (1992) utilized the Questionnaire on Resources and Stress (QRS-F; Friedrich et al., 1983) in a study conducted with 90 mothers and 57 fathers. Participants in the project were recruited to determine the impact a child with severe or profound intellectual disability had on the family. The analysis of the QRS-F did not reveal
significant differences between mothers and fathers. The study found that the parent’s gender had a minimal effect on perceptions of stress and coping when a child had extensive caretaking needs. Heaman (1995) conducted a study on 203 parents who were the primary caregivers of 133 children with developmental disabilities. Eighteen of the children had intellectual disabilities, and they ranged in age from 2-5. The goal of the study was to examine the similarities and differences between mothers and fathers when comparing their perceptions of stressors and their coping behaviors. The stressor most reported by parents was concern about the child’s future. It was found that there were fewer differences between mothers and fathers in reports of stressors than in reports of coping strategies.

Other studies revealed that mothers and fathers of children with intellectual disabilities do not differ in the amount of stress experienced, but in the source of the stress. Azar and Badr (2006) conducted a study on 113 families with married parents and a child with moderate to profound intellectual disability. Fifty percent of the children in the study lived in the home and 50% lived outside the family home. It was revealed that mothers spent more time caring for the child, offered more types of support, and felt more burdens in regards to caregiving. Caregiving stress was perceived as lower for parents with adult children living outside the home. Mothers were affected more than fathers by the behavior and health of the child.

Krauss (1993) conducted a study concerning similarities and differences in parenting and child related stress. Participants were mothers and fathers of 121 toddlers with disabilities. Thirty-nine children had Down syndrome, 38 had developmental disabilities, and 44 had motor impairments. Fathers experienced more stress in regard to the child’s temperament and their relationship with the child. Mothers experienced more stress as a result of parenting and were affected by their personal support network, while fathers were more sensitive to the family
environment. Saloviita et al. (2003) tried to explain parental stress experienced by 116 mothers and 120 fathers of children aged 1-10 years with intellectual disabilities. Eight orthogonal components were utilized for the study. These were placed in a stepwise regression that was written separately for mothers and fathers. The results of the study confirmed the importance of intervening factors in defining the stress. The most important predictor of the father’s stress was a negative outlook on the situation, while for mothers the negative outlook was associated with the child’s behavior problems. The father’s negative definition of the situation was related to the social acceptance of the child. A study conducted by Brubaker, Engelhardt, Brubaker, and Lutzer (1989) examined the differences between 54 fathers and 334 mothers who were caregivers of individuals with intellectual disabilities. Topics examined included parents’ characteristics, characteristics of individuals with intellectual disabilities, parents’ perceived caregiving ability, service planning, and satisfaction. The study found that mothers described their child’s related disabilities as severe. Fathers were satisfied with available services, but were concerned with how they would be able to care for their child in the future. Frey et al. (1989) examined the various components causing stress felt by 48 mothers and 48 fathers as parents of young children with Down syndrome, cerebral palsy, multiple disabilities, and Williams syndrome. It was discovered that the child’s characteristics were a predictor for mothers’ parenting stress, as well as fathers’ parenting and psychological stress. The child’s ability to communicate was related to the psychological stress of fathers, but not the mothers’ psychological stress. The researchers also found that fathers of children with disabilities were affected by the child’s gender, while mothers were less affected by the child’s gender. Psychological stress was low in mothers who had either a positive belief system or a noncritical family network.
The studies in this section were presented in three groups. The first group included a number of studies which showed that there are varying levels of stress and types of perceptions of stress, depending on the parents’ gender. In addition, a number of studies indicated that mothers of children with intellectual disabilities may experience higher levels of stress because they are the primary caregivers of their children. The second group of studies indicated that there are no differences in stress levels and perceptions of stress between mothers and fathers of children with intellectual disabilities. The third group of studies showed that mothers and fathers of children with intellectual disabilities do not differ in the amount of stress experienced, but in the source of the stress. Sources of stress included the behavior and health of the child, the child’s temperament, the parents’ relationship with the child, the family environment, and the social acceptance of the child. Although the parenting stress variable is important in successful intervention for children with intellectual disabilities, the extant literature does not address parents of children with intellectual disabilities in Saudi Arabia. Therefore, the need for such a study is evident, and it will give professionals a better understanding of the challenges faced by parents of children with intellectual disabilities.
CHAPTER THREE

Method

The research method utilized to examine the differences in levels of stress between Saudi fathers and mothers toward their children with intellectual disabilities was described in this chapter. The methodology of this research was presented in six major sections: a description of participants and settings, the design, variables studied, instruments and materials, methods for data collection, and data analyses. The validity and reliability of the instrument and the validity of the instrument for diverse non-English-speaking cultures was also discussed.

Participants

Gall, Borg, and Gall (1996) indicated that “the first step in sampling is to define the target population” (p. 220). The population for this study was obtained from mothers and fathers of children with intellectual disabilities who were enrolled at institutes for male children with intellectual disabilities, and from special education classrooms attached to the public elementary general school in Riyadh. By 2008, Riyadh had two institutes and 206 special education classrooms attached to the public elementary general schools. These institutes and special education classrooms served 2,129 male students. These institutes and classrooms provided specialized diagnostic and teaching services to children with intellectual disabilities. Riyadh had two such institutes and many special education classes attached to general schools for children with intellectual disabilities.
All parents who participated had a child who had been diagnosed with an intellectual disability. Parents were asked to participate in this study by responding to the Arabic edition of the Parents Stress Index (PSI; Abidin, 1995), 3rd ed. (standardized scale). Criteria for inclusion and exclusion in this study were:

1- The child came from a two-parent family living in the same household. Thus, children of divorced parents were excluded from this study.

2- Parents had a child who was diagnosed with only an intellectual disability. Therefore, parents who had a child without intellectual disabilities, a child with different disabilities, or a child who had another disability in addition to intellectual disabilities were excluded.

3- Parents had only one child with an intellectual disability. Therefore, parents who had more than one child with intellectual disabilities or other disabilities were excluded.

4- The child with intellectual disabilities was a male. Parents of a female child with disabilities were excluded.

5- Parents had a child with intellectual disabilities between the ages of 6 and 12 years old. Therefore, parents who had a child with intellectual disabilities who was not in the above mentioned age bracket were excluded.

**Overview of Research Design**

This study was quantitative in nature and utilized a descriptive survey design. The descriptive survey is used to examine hypotheses or to answer questions about individuals’ opinions or specific issues. The descriptive survey is used to collect information about groups’ behaviors, attitudes, and beliefs. Questionnaires are convenient for both the researcher and the participants involved in the study. For researchers, the questionnaire reduces bias and it is a
quick and efficient tool for collecting data. The participants may respond differently to a questionnaire than an in-person interview. In addition, the questionnaire can be distributed to a larger number of participants and to participants in diverse locations, whereas this is limited when conducting in-person interviews (Ary, Jacobs, Razavieh, & Sorensen, 2009). Therefore, in the current study, a questionnaire was utilized to facilitate the collection of data and meet the goal of the study. In this study, the independent variable was the gender of the parent, while the dependent variable was found in the level of the parents' stress.

**Instruments and Materials**

The family unit and the amount of stress parents experience must be evaluated in order to provide quality services to both the child and parent (Fuller & Rankin, 1994). Parenting stress is a complex construct and is comprised of child/parent characteristics and family dynamics as they relate to a parent’s view of his or her role (Whiteside-Mansell et al., 2007). Tests that measure the stress a parent experiences within the parent-child relationship may be an important tool for the practicing professional (Fuller & Rankin, 1994). In the current study, the PSI was used to assess the dependent variable (level of parents' stress).

The PSI is a screening and diagnostic tool created to obtain a measure of the relative effect of stress in the parent-child relationship (Abidin, 1995). Forde et al. (2004) indicated that “the PSI measures parental stress specifically in relation to a parent’s personal distress, interaction with the child and the impact on the child’s behavior” (p. 703). The PSI was created so that either parent can complete it and completion takes less than 30 minutes (Abidin, 1995). The PSI has been empirically approved to predict parent stress as well as the child’s current and future behavioral and emotional adjustment. This instrument has been utilized in the United States as well as among several international populations including: Chinese, Portuguese, French
Abidin (1995) indicated that the PSI has been widely used for parents of children with disabilities, including parents of children with intellectual disabilities. The PSI was designed for use with parents of children aged one month to twelve years and the instrument was normed on a total of 2,633 mothers and 200 fathers. The PSI consists of a 120 item, self-reporting measure of the stress parents’ experience. Included on the PSI are three domains: Parent Domain, Child Domain, and an optional Life Stress Scale. For this study, the 19 item Life Stress Scale was excluded to make the questionnaire easier to complete. As a result, the questionnaire contained 101 items (Abidin, 1995). The PSI utilizes a 5 point Likert Scale with 1 (strongly agree) to 5 (strongly disagree). Also included in the questionnaire are several multiple choice items.

A total stress score (Abidin, 1995) was obtained by adding the two domain scores. Child Domain scores rate parents’ perceptions of how their child functions in the following six subscales: Distractibility/ Hyperactivity (9 items; e.g., “When my child wants something, my child usually keeps trying to get it”), Adaptability (11 items; e.g., “My child reacts very strongly when something happens that my child doesn’t like”), Reinforces Parent (6 items; e.g., “Most times I feel that my child likes me and wants to be close to me”), Demandingness (9 items; e.g., “My child seems to be much harder to care for than most”), Mood (5 items; e.g., “My child seems to cry or fuss more often than most children”), and Acceptability (7 items; e.g., “My child looks a little different than I expected and it bothers me at times”). A high score in the Child Domain indicates that parenting stress is initiated from child characteristics or behavior problems that make caregiving difficult for the parent.

The Parent Domain relates to the sources of stress and potential dysfunction of the
parent-child system in relation to the parent’s functioning (Hoffman, Sweeney, Hodge, Lopez-Wagner, & Looney, 2009). The Parent Domain is calculated as the total of the following seven subscales: Competence (13 items; e.g., “I feel that I am successful most of the time when I try to get my child to do or not do something”), Isolation (6 items; e.g., “I often have the feeling that other people my own age don’t particularly like my company”), Attachment (7 items; e.g., “I expected to have closer and warmer feelings for my child than I do and this bothers me”), Health (5 items; e.g., “During the past six months I have been sicker than usual or have had more aches and pains than I normally do”), Role Restriction (7 items; e.g., “I find myself giving up more of my life to meet my children’s needs than I ever expected”), Depression (9 items; e.g., “When I think about the kind of parent I am, I often feel guilty or bad about myself”), and Spouse (7 items; e.g., “Since having a child, my spouse [or male/female friend] has not given me as much help and support as I expected”). A high score in the Parent Domain indicates that the source of stress stems from some parental functioning characteristics, including parent and family context factors that impact a parent’s ability to optimize his or her caregiving capabilities (Hoffman et al, 2009).

The reliability and validity of the PSI have been evaluated, revealing internal consistency as well as test-retest reliability and concurrent validity (Abidin, 1995). Abidin indicated that “the PSI has been validated not only in a variety of U.S. samples, but also in transcultural research involving populations as diverse as Chinese (Pearson & Chan, 1993), Italian (Forgays, 1993), Portuguese (Santos, 1992), and Latin American Hispanic (Solis & Abidin, 1991)” (p. 3). These studies using diverse populations have shown comparable statistical characteristics. As a result, the PSI has been shown to be a strong diagnostic tool that maintains its validity with English-
speaking cultures. It has been effectively translated into languages other than English and has been found useful with non-English speaking cultures.

Abidin (1995) reported a Total Stress score on the PSI as having an internal consistency of .90 or greater. The Child Domain internal consistency scores ranged from .70 to .83 and the Parent Domain scores ranged from .70 to .84. For example, Hoffman et al, (2009) stated that internal consistencies were .91 and .93 in the Child Domain for the autism and community groups, and .93 for both groups in the Parent Domain. Test-retest reliability between the first and second set of scores were .63 for the Child Domain, .91 for the Parent Domain, and .96 for the Total Stress score. In addition, by using test-retest reliability, many studies supported the stability of the PSI. For the present study, the researcher conducted a pilot study and found the reliability (Cronbach’s alpha) of the child domain for mothers and fathers to be .91 and .90 respectively; and .85 and .89 on the parent domain for mothers and father respectively.

To understand the individuals who responded to the study, the demographic characteristics of participating parents were examined as well as information regarding the target child. Each parent completed a Demographic Questionnaire which included: gender, age, highest grade level completed, family income, mother's employment status, number of children in family (with and without disabilities), target child’s age, date of diagnosis, severity of disability, and current grade level.

**Data Collection Procedures**

In collecting the data from the research population, the following procedures were followed. First, the researcher obtained two official letters from his major advisor at Ball State University, Dr. Lisa Pufpaff, and sent one to the General Directors for boys’ education in Riyadh region and another to the Saudi Arabian Cultural Mission (SACM) in Washington, D.C. These
letters explained the purpose of the study and the importance of conducting the study in Saudi Arabia.

In the summer of 2012, the researcher traveled to Riyadh, Saudi Arabia, and obtained conditional approval from the Educational Development Center in Riyadh. The final approval required a letter from the college dean in Salman bin Abdulaziz University (SAU; the researcher’s sponsoring university), a summary of the research, and one copy of the instrument. In the fall of 2012, the researcher submitted the letter from his academic advisor and the conditional approval from the Educational Development Center to the SACM. The SACM then wrote an official letter to SAU where the researcher had a scholarship. The dean of the Education College at SAU wrote an official letter to the Educational Development Center in Riyadh to facilitate the researcher’s mission in distributing and collecting the questionnaire. In addition, a summary of the researcher’s study and a copy of the questionnaire were attached to the letter from the dean. The researcher then obtained final approval from the Educational Development Center in Riyadh to conduct the study in all institutes and programs for male children with intellectual disabilities in Riyadh City. An official letter from the Educational Development Center in Riyadh was sent to all principals of institutes and supervisors of programs for male children with intellectual disabilities. This letter was written to gain principals’ and supervisors’ maximum collaboration. Principals and supervisors were asked to encourage teachers to collaborate with the researcher and contact parents of male children with intellectual disabilities.

When the researcher received approval of his prospectus by his doctoral committee and Ball State University’s Institutional Review Board in the summer of 2013, the researcher traveled to Riyadh to distribute and collect the questionnaires from parents of children with intellectual disabilities.
The researcher asked principals of the institutes of students with intellectual disabilities as well as supervisors of special education students with intellectual disabilities attached to a public elementary school to forward a Recruitment Letter to parents of students with intellectual disabilities who met the conditions to conduct the study. The letter asked parents to participate in the study. If they wanted to participate, parents had three options. In the first option, the parents would contact the researcher with a time convenient for them to meet at the school. Then, the researcher would distribute and collect the questionnaires (paper and pencil survey) from parents of children with intellectual disabilities. Each questionnaire would have an attached cover letter, which would explain the nature of the questionnaire and, in addition, state that parents’ participation was voluntary and confidential. In the second option, the researcher sent emails to the parents to complete the online survey (Qualtrics.com) individually. This online survey was identical to the paper and pencil survey.

The third option was to have the survey sent to the parents through the child with intellectual disabilities. The researcher went to the school and put closed envelopes containing two surveys, one for the mother and one for the father, into the child’s bag. The parents were asked to complete the surveys separately and truthfully. The parents were asked to contact the researcher when the surveys had been completed and had been sent back to the school in the closed envelopes with the child. The researcher then went to the school to collect the envelopes from their bags. With all three options, each mother and father were assigned a code in order to link them to their child so the data could be directly compared against each other. With the first and second options, the researcher wrote the assigned code on each parent’s survey. With the third option, the parents found his or her code on his or her Recruitment Letter and transferred the code to his or her survey.
Because part of the data was collected from an online survey, which automatically was inputted in Statistical Package for the Social Sciences (SPSS), and another part of data was collected from a hard copy survey and manually inputted in SPSS, the reliability was calculated. The reliability (Cronbach’s alpha) of the child domain for mothers and fathers was found to be .60 and .70 respectively; and .75 and .67 in the parent domain for mothers and father respectively.

**Data Analysis**

The data analysis method in this research was quantitative. “Quantitative data analysis involves the use of numbers to indicate the amount, degree, or frequency of some variable(s), and may involve exploring relationships and differences among those variables to explain their causes or effects and predict their future occurrences or changes” (Merrigan & Huston, 2008, p. 75). Both descriptive and inferential statistics were used for analysis of the data. A descriptive approach to research is commonly used “to portray an accurate profile of persons, events, or situations” (Robson, 2002, p. 59). Therefore, the researcher used descriptive statistics to analyze the research participants’ demographic information such as gender, age, highest grade level completed, family income, mother’s employment status, number of children in family, and the children’s demographic information such child’s age, child’s grade, and severity of intellectual disability.

By using inferential statistics, the researcher analyzed the three following questions:

1- What is the difference in the total stress levels between Saudi mothers and fathers regarding the parent-child relationship?
2- What is the difference in the stress levels between Saudi mothers and fathers regarding their children with intellectual disabilities in regards to the child’s characteristics?

3- What is the difference in the stress level between Saudi mothers and fathers of children with intellectual disabilities regarding the parent’s characteristics?

While descriptive statistics emphasize explaining, summarizing, or describing data, inferential statistics go outside the specified data and suggest characteristics of populations based on samples (Johnson & Christensen, 2008).

Regarding the first question, an independent t-test was used to measure the difference in the total stress levels between Saudi fathers and mothers concerning their children with intellectual disabilities. “The independent t-test is used to test for a difference between two independent groups (like males and females) on the means of a continuous variable (Wiyi, 2011, p.14).”

In measuring the difference in stress levels between parents within the Child Domain (the second question), as well as the difference in stress levels between parents within the Parent Domain (the third question), the researcher used a multivariate analysis of variance (MANOVA). “MANOVA is designed to examine multiple dependent variables across single or multiple independent variables” (Hair, Bush, & Ortinau, 2003, p. 548).
CHAPTER FOUR

Results

The purpose of the current study was to investigate the difference in the stress levels between fathers and mothers of children with intellectual disabilities in Saudi Arabia. This study was quantitative in nature and utilized a descriptive survey design. The researcher used descriptive statistics to analyze the research participants’ demographic information and used inferential statistics to analyze the three study questions. The statistical data collected in the present study was analyzed using the SPSS version 21.0 (IBM Corporation, Armonk, NY, USA) computer software for Windows for the purposes of descriptive statistics on the demographic characteristics, and answering the study questions.

Response Rate

When the recruitment letters were sent to the parents who met the criteria for inclusion in this study, 449 parents showed they wanted to participate in the study. One hundred and twenty seven parents (63 mothers and 64 fathers) selected the option of participation through online surveys, 310 parents (155 mothers and 155 fathers) selected the option of delivering the survey to them through their children, and only 12 parents (2 mothers and 10 fathers) selected the option of meeting the researcher at the school to complete the survey. Because the option of meeting the researcher at the school only got 12 responses, the researcher excluded this option. When the link to the online survey was sent to the 127 parents, only 66 parents responded. Also, when the 310
hard copy questionnaires were sent to the parents through their children, 152 parents responded. This would make the rate of response 48.5%.

However, the researcher excluded 14 questionnaires. Four were completed by divorced parents and two had missing data. An additional eight were excluded because only one of the child’s parents completed the questionnaire; three children’s fathers completed a survey but not their mothers, and five children’s mothers completed a survey but not their fathers. Therefore, a total of 204 parents (102 mothers and 102 fathers) were included in the final analysis of the current study.

Demographic Characteristics of the Study Sample

In order to gain an understanding of the individuals who participated in the study, the demographic characteristics of participants were examined, as well as information regarding the target children. In addition, demographic data such as this may help to provide reasonable interpretations and justifications for the study results; these results are helpful for many intervention considerations (Innocenti, 1992).

Demographic data were presented in Table 1. The study sample included 204 parents, of whom 50% (n=102) were fathers and 50% (n=102) were mothers. Mothers in the sample included 37.3% (n=38) under age 40. Fifty-one percent (n=52) of mothers were between 40 and 50 years old, and 11.7% (n=12) of mothers were over age 50. Fathers in the sample included 31.4% (n= 32) under age 40. Fifty-three percent of fathers (n=54) were between 40 and 50 years of age, and 13.7% (n=14) were between 50 and 60 years of age. Two percent of fathers (n=2) were older than 60 years of age. The sample of mothers who participated in the study included 47% (n=48) who worked outside the home and 53% (n=54) who stayed at home.
The education levels of the mothers were determined to be 2% (n=2) without a high school diploma, 7.8% (n=8) had earned a high school diploma, 35.3% (n=36) had 1-3 years of college, 49% (n=50) holding a four-year college degree, and 5.9% (n=6) held a graduate degree. On the other hand, 1% (n=1) of fathers in the study were found to be without a high school diploma, 5.9% (n=6) of fathers in the study were found to have only a high school diploma, 31.4% (n=32) had 1-3 years of college, 53.9% (n=55) held a four-year college degree, and 7.8% (n=8) held a graduate degree.

The monthly income of participants varied. Two percent of families (n=2) had an income of less than $2,000 and, 7.8% (n=8) of families had an income between $2,000 and $3,000. Forty-seven percent (n=48) of families had a monthly income between $3,000 and $4,000, 23.5% (n=24) of families had a monthly income between $4,000 and $6,000, 11.8% (n=12) of families had a monthly income between $6,500 and $8,000, and 7.8% (n=8) of families had a monthly income over $8,000.

Participants in the study had families of varying sizes. Families with three or fewer children made up 49% (n=50) of the sample, 29.4% (n=30) of families had 4-5 children, and families with six or more children made up 21.6% (n=22) of the sample.

Table 1

| Demographic Characteristics of the Parents of Children with Intellectual Disabilities |
|-----------------------------------------------|--------|--------|----------------|----------------|
| **Characteristics** | **Frequency** | **Percentage** | **Valid Percent** | **Cumulative Percent** |
| Total parents | 102 | 50 | 50 | 50 |
| Fathers | 102 | 50 | 50 | 50 |
| Mothers | 102 | 50 | 50 | 100 |
| Mothers’ Employment |
| Working mother | 48 | 47 | 47 | 47 |
| Stay at home   | 54 | 53 | 53 | 100 |

**Mothers’ Age**

| Less than 40 years | 38 | 37.3 | 37.3 | 37.3 |
| Between 40 and 50 years | 52 | 51 | 51 | 88.2 |
| More than 50 years | 12 | 11.7 | 11.8 | 100 |

**Fathers’ Age**

| Less than 40 years | 32 | 31.4 | 31.4 | 31.4 |
| Between 40 and 50 years | 54 | 52.9 | 52.9 | 84.3 |
| Between 50 and 60 years | 14 | 13.7 | 13.7 | 98 |
| More than 60 | 2 | 2 | 2 | 100 |

**Education of Mother**
**(the Highest Level Completed)**

| Less than high school | 2 | 2 | 2 | 2 |
| High school diploma | 8 | 7.8 | 7.8 | 9.8 |
| 1-3 years of college | 36 | 35.3 | 35.3 | 45.1 |
| Four years of college | 50 | 49 | 49 | 94.1 |
| Graduate degree | 6 | 5.9 | 5.9 | 100 |

**Education of Father**
**(the Highest Level Completed)**
<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Less than 8 years</th>
<th>8-9 years</th>
<th>9-10 years</th>
<th>10-12 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>High school diploma</td>
<td>6</td>
<td>5.9</td>
<td>5.9</td>
<td>6.9</td>
</tr>
<tr>
<td>1-3 years of college</td>
<td>32</td>
<td>31.4</td>
<td>31.4</td>
<td>38.2</td>
</tr>
<tr>
<td>Four years of college</td>
<td>55</td>
<td>53.9</td>
<td>53.9</td>
<td>92.2</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>8</td>
<td>7.8</td>
<td>7.8</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic Status (Monthly Income)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $2,000</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Between $2,000 and $3,000</td>
<td>8</td>
<td>7.8</td>
<td>7.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Between $3,000 and $4,000</td>
<td>48</td>
<td>47.1</td>
<td>47.1</td>
<td>56.9</td>
</tr>
<tr>
<td>Between $4,000 and $6,000</td>
<td>24</td>
<td>23.5</td>
<td>23.5</td>
<td>80.4</td>
</tr>
<tr>
<td>Between $6,500 and $8,000</td>
<td>12</td>
<td>11.8</td>
<td>11.8</td>
<td>92.2</td>
</tr>
<tr>
<td>More than $8,000</td>
<td>8</td>
<td>7.8</td>
<td>7.8</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of Children in Family</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Three children or fewer</td>
<td>50</td>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Four to five children</td>
<td>30</td>
<td>29.4</td>
<td>29.4</td>
<td>78.4</td>
</tr>
<tr>
<td>Six or more children</td>
<td>22</td>
<td>21.6</td>
<td>21.6</td>
<td>100</td>
</tr>
</tbody>
</table>

In addition, the demographic data showed that the ages of participating children varied. Thirty percent (n=31) of the children in the sample were less than 8 years old, 39.2% (n=40) were between 9 and 10 years old, and 31.4% (n=31) were between 11 to 12 years old. The grade level of participating children also varied. Twenty seven percent (n=28) of the children in the
sample were in grade 1, whereas 43% (n=44) were in grade 2. Children in grade 3 made up 23% (n=23) of the sample, and children in grade 4 made up 7% (n=7). The severity of the children’s intellectual disability was noted as mild in 76% (n=79) of the children, and moderate in 24% (n=25) of the children (see table 2).

Table 2

Demographic Characteristics of Children with Intellectual Disabilities

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Child</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 years and younger</td>
<td>31</td>
<td>30.4</td>
<td>30.4</td>
<td>30.4</td>
</tr>
<tr>
<td>Between 9 to 10</td>
<td>40</td>
<td>39.2</td>
<td>39.2</td>
<td>69.6</td>
</tr>
<tr>
<td>Between 11 to 12</td>
<td>31</td>
<td>31.4</td>
<td>31.4</td>
<td>100</td>
</tr>
<tr>
<td><strong>Child’s Grade Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 1</td>
<td>28</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>Grade 2</td>
<td>44</td>
<td>43</td>
<td>43</td>
<td>70</td>
</tr>
<tr>
<td>Grade 3</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>93</td>
</tr>
<tr>
<td>Grade 4</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>100</td>
</tr>
<tr>
<td><strong>Severity of the Child’s Intellectual Disability</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild</td>
<td>79</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>Moderate</td>
<td>25</td>
<td>24</td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>
Research Question One:

What is the difference in the total stress levels between Saudi mothers and fathers regarding the parent-child relationship?

An independent sample t-test was used to examine the first question, which considered whether a difference could be found in the total stress levels between Saudi mothers and fathers regarding the parent-child relationship (see table 3).

The mean of the Child Domain was 2.80 for the fathers, while it is 3.24 for the mothers. Also, the mean for the Parent Domain was 2.68 for the fathers, and it was 3.20 for the mothers. Finally, the mean of total stress scores for the fathers was 2.74, while it was 3.22 for the mothers. Therefore, it is noticeable that the mothers’ means of stress levels were higher than the fathers’ means. To examine whether these differences were statistically significant, an independent sample t-test was performed. The results show that the t value was (101)-14.596 for total stress levels, and this t value was statistically significant ($p<.001$). This means that mothers of children with intellectual disabilities had significantly higher total stress levels than fathers of children with intellectual disabilities.

Table 3

*Independent sample t test for the difference in total stress levels parents*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.8077</td>
<td>102</td>
<td>.19163</td>
<td>-13.226</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.2419</td>
<td>102</td>
<td>.20259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.6856</td>
<td>102</td>
<td>.20052</td>
<td>-14.166</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.2025</td>
<td>102</td>
<td>.22527</td>
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<td></td>
</tr>
</tbody>
</table>
Research Question Two

What is the difference in the stress levels between Saudi mothers and fathers regarding their children with intellectual disabilities in regards to the child’s characteristics?

Multivariate analysis of variance (MANOVA) was used to examine the second question, which considered whether a difference could be found in the stress levels between Saudi mothers and fathers in regards to the characteristics of their child with intellectual disabilities (see table 4). The mothers had statistically significantly higher stress levels ($M=3.24, SD=.20$) than fathers ($M=2.80, SD=.19$) in regards to the child’s characteristics (Child Domain), $F(1)= 247.21$, $p<.001$. The results show that mothers had statistically significantly higher stress levels than the fathers in all the child domain subscales, except two subscales: Reinforces and Acceptability. The results show that mothers of children with intellectual disabilities had statistically significantly higher stress levels than fathers in the subscales of Distractibility/Hyperactivity, $\mu_M=3.13$, $\mu_F=2.62$, $F(1)= 140.85$, $p<.001$, Adaptability, $\mu_M=3.26$, $\mu_F=2.42$, $F(1)= 260.87$, $p<.001$, Demandingness, $\mu_M=3.25$, $\mu_F=2.58$, $F(1)= 197.27$, $p<.001$, Mood, $\mu_M=3.25$, $\mu_F=2.98$, $F(1)= 47.72$, $p<.001$, while there was no significant difference in the levels of stress between mothers and fathers in the subscales of Reinforces Parent, $\mu_M=3.00$, $\mu_F=3.00$, $F(1)= 1.951$, $p > 0.05$, and Acceptability, $\mu_M=3.52$, $\mu_F=3.59$, $F(1)= 2.036$, $p > 0.05$. 

<table>
<thead>
<tr>
<th></th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total stress</td>
<td>2.7424</td>
<td>3.2208</td>
</tr>
<tr>
<td></td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>.17872</td>
<td>.19691</td>
</tr>
</tbody>
</table>
Table 4

*MANOVA results for the difference in child domain stress levels between*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distractibility/Hyperactivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.62</td>
<td>102</td>
<td>0.29</td>
<td>140.85</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.13</td>
<td>102</td>
<td>0.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforces Parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>3.05</td>
<td>102</td>
<td>0.25</td>
<td>1.951</td>
<td>0.0164</td>
</tr>
<tr>
<td>Mother</td>
<td>3.00</td>
<td>102</td>
<td>0.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.42</td>
<td>102</td>
<td>0.38</td>
<td>260.87</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.26</td>
<td>102</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demandingness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.58</td>
<td>102</td>
<td>0.32</td>
<td>197.27</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.25</td>
<td>102</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.98</td>
<td>102</td>
<td>0.27</td>
<td>47.72</td>
<td>0.00</td>
</tr>
<tr>
<td>Mother</td>
<td>3.25</td>
<td>102</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>3.59</td>
<td>102</td>
<td>0.32</td>
<td>2.036</td>
<td>0.155</td>
</tr>
<tr>
<td>Mother</td>
<td>3.52</td>
<td>102</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Domain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>2.80</td>
<td>102</td>
<td>0.19</td>
<td>247.21</td>
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</tr>
<tr>
<td>Mother</td>
<td>3.24</td>
<td>102</td>
<td>0.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition to the MANOVA, discriminate analysis was conducted to understand which Child Domain subscales contributed most to the mother-father differences (see table 5). The canonical structure results for Child Domain shows that Child Domain subscales of Adaptability, Demandingness, and Distractibility/Hyperactivity contributed most to the stress level differences between fathers and mothers, with structure values of 0.797, 0.693 and 0.586 respectively.
However, the subscales of Mood, Acceptability, and Reinforce Parents had little contribution to
the stress level differences between fathers and mothers, with structure values of 0.341, -.070, and -.069 respectively.

Table 5

Canonical Structure Results for Child Domain

<table>
<thead>
<tr>
<th>Subscales within Child Domain</th>
<th>Total Can1</th>
<th>Between Can1</th>
<th>Within Can1</th>
<th>Relative importance in contributing to group differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>.797</td>
<td>1.00</td>
<td>.797</td>
<td>1</td>
</tr>
<tr>
<td>Demandingness</td>
<td>.693</td>
<td>1.00</td>
<td>.693</td>
<td>2</td>
</tr>
<tr>
<td>Distractibility/Hyperactivity</td>
<td>.586</td>
<td>1.00</td>
<td>.586</td>
<td>3</td>
</tr>
<tr>
<td>Mood</td>
<td>.341</td>
<td>1.00</td>
<td>.341</td>
<td>4</td>
</tr>
<tr>
<td>Acceptability</td>
<td>.270</td>
<td>1.00</td>
<td>.070</td>
<td>5</td>
</tr>
<tr>
<td>Reinforces Parent</td>
<td>.005</td>
<td>1.00</td>
<td>-.069</td>
<td>6</td>
</tr>
</tbody>
</table>

Research Question Three

What is the difference in the stress levels between Saudi mothers and fathers of children with
intellectual disabilities regarding the parent’s characteristics?

MANOVA was used to examine the third question, which considered whether a
difference could be found in the stress levels between Saudi mothers and fathers in regards to the
parent’s characteristics (see table 6). The mothers had statistically significantly higher stress
levels ($M=3.20$, $SD=.22$) than fathers ($M=2.68$, $SD=.20$) in regards to the parent’s characteristics
(Parent Domain), $F(1)= 299.57$, $p<.001$. The results show that that mothers had statistically
significantly higher stress levels than fathers in all the parent domain subscales, except two
subscales of Competence and Health.
The results show that mothers of children with intellectual disabilities had statistically significantly higher stress levels than fathers in the subscales of Isolation, $\mu_M=3.27$, $\mu_F=2.49$, $F(1)= 164.86$, $p<.001$, Attachment, $\mu_M=3.15$, $\mu_F=2.86$, $F(1)=45.65$, $p<.001$, Role Restriction, $\mu_M=3.39$, $\mu_F=2.50$, $F(1)= 233.82$, $p<.001$, Depression, $\mu_M=3.41$, $\mu_F=2.43$, $F(1)= 305.79$, $p<.001$, and Spouse, $\mu_M=3.38$, $\mu_F=2.47$, $F(1)= 252.35$, $p<.001$, while there was no significant difference in the levels of stress between mothers and fathers in the subscales of Competence, $\mu_M=2.93$, $\mu_F=2.95$, $F(1)= .314$, $p > 0.05$, and Health, $\mu_M=2.98$, $\mu_F=2.96$, $F(1)=.180$, $p > 0.05$.

Table 6

<table>
<thead>
<tr>
<th>MANOVA results for the difference in parent domain stress level between mothers and fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competence</td>
</tr>
<tr>
<td>Father</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Isolation</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Attachment</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Role Restriction</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Depression</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Spouse</td>
</tr>
<tr>
<td>Mother</td>
</tr>
</tbody>
</table>
In addition to the MANOVA, discriminate analysis was conducted to understand which Parent Domain subscales contributed most to the mother-father differences (see table 7). The canonical structure results for Parent Domain revealed that Parent Domain subscales of Depression, Spouse, Role Restriction, and Isolation contributed most to the stress level differences between fathers and mothers, with structure values of 0.746, 0.678, 0.652, and 0.548 respectively. However, the subscales of Attachment, Competence, and Health demonstrated little contribution to the stress level differences between fathers and mothers, with structure values of 0.288, -0.024, and 0.018 respectively.

Table 7

Canonical Structure Results for Parents Domain

<table>
<thead>
<tr>
<th>Subscales within Child Domain</th>
<th>Total Can1</th>
<th>Between Can1</th>
<th>Within Can1</th>
<th>Relative importance in contributing to group differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.746</td>
<td>1.00</td>
<td>.746</td>
<td>1</td>
</tr>
<tr>
<td>Spouse</td>
<td>.678</td>
<td>1.00</td>
<td>.678</td>
<td>2</td>
</tr>
<tr>
<td>Role Restriction</td>
<td>.652</td>
<td>1.00</td>
<td>.652</td>
<td>3</td>
</tr>
<tr>
<td>Social Isolation</td>
<td>.548</td>
<td>1.00</td>
<td>.548</td>
<td>4</td>
</tr>
<tr>
<td>Attachment</td>
<td>.288</td>
<td>1.00</td>
<td>.288</td>
<td>5</td>
</tr>
</tbody>
</table>
The canonical structure results for Parent Domain shows that Parent Domain subscales of Depression, Spouse, Role Restriction, and Social Isolation contributed most to the stress level differences between fathers and mothers, with structure values of 0.746, 0.678, 0.652, and 0.548 respectively. However, the subscales of Attachment, Competence, and Health had little contribution to the stress level differences between fathers and mothers, with structure values of 0.288, -0.024, and 0.018 respectively.

**Summary**

Results indicated higher perceived stress levels in Saudi mothers compared to fathers regarding the total parent-child relationship, the child’s individual characteristics (Child Domain), and the parent’s characteristics (Parent Domain). Among the Child Domain subscales, all subscales contributed significantly to the difference in the levels of parents’ stress except for subscales of Reinforce Parents and Acceptability. In regards to the Parent Domain subscales, all subscales except two contributed significantly to the different in the levels of parents’ stress levels; subdomain of Health and Competence did not contribute.
Children with intellectual disabilities tend to have difficulties with cognitive abilities and adaptive behaviors. Therefore, children with intellectual disabilities have specific needs that are time consuming and require physical and emotional energy from parents. These needs can be unpleasant to address, cause additional stress, and may affect the life perspective of the parents and other family members. The stress experienced by parents of children with intellectual disabilities has been studied extensively by researchers. Results have shown that parents of children with intellectual disabilities have stress levels that are much higher than parents of children without intellectual disabilities (Browne & Bramston, 1998; Gupta & Kaur, 2010; Olsson & Hwang, 2001; Sanders & Morgan, 1997; Simmerman et al., 2001). Furthermore, the parental stress of having a child with intellectual disabilities is experienced differently by fathers and mothers.

The current study found a significant difference in the levels of total stress between Saudi mothers and fathers of children with intellectual disabilities. It was found that Saudi mothers of children with intellectual disabilities had significantly higher total stress levels than Saudi fathers of children with intellectual disabilities. Similar results were obtained by Azar and Badr (2006), Chen and Tang (1997), Roach et al. (1999), and Shin et al. (2006), who found parental stress significantly higher in mothers of children with intellectual disabilities versus fathers of children with intellectual disabilities. On the other hand, this result is in contrast to studies such as those
by Azar and Badr (2010), Dyson (1997), Heaman (1995), Rousey et al. (1992), and Seltzer and Krauss (1999), which did not find a significant difference in the stress levels of mothers and fathers of children with intellectual disabilities. In addition, Gerstein et al. (2009) found that the daily parenting stress of mothers of children with intellectual disabilities increased over time, while the fathers’ daily parenting stress levels stayed constant.

In Saudi Arabia, the mother is generally the primary caregiver of children, including children with intellectual disabilities. She is responsible for educating, caring for, and rearing the child while the father’s main focus is on the family’s financial matters. Due to the fact that the mother is the primary caregiver, she is acutely aware of her child’s educational, behavioral, and physical difficulties. This awareness of the child’s needs necessitates that the mother spends a large amount of time and energy to support and care for the child, and may cause her stress level to be higher than the father’s. Fouzan (1886) conducted a study to investigate the parental involvement of parents of students with intellectual disabilities in educational programs in Saudi Arabia. The study found that mothers of children with intellectual disabilities had higher levels of involvement compared to fathers. Therefore, an assumption can be made to the notion that the lack of participation by fathers in education (such as helping with homework and studying for tests) and child rearing requires the mother to take on additional responsibilities and spend extra time in helping the child with school activities, daily needs, and medical issues. These added responsibilities may increase the level of stress, psychological symptoms, and other problems experienced by Saudi mothers of children with intellectual disabilities, and may persist throughout the mother’s lifespan.

Researchers have confirmed that the levels of stress that parents experience can be affected by child characteristics such as behavioral problems and demandingness (Hastings,
2003; Mash & Johnston, 1983; Saloviita et al., 2003; Shin et al., 2006), as well as parent
characteristics such as health, depression, and support of a spouse (Beckman, 1991).

Furthermore, the current study determined that there was a significant difference in the
levels of stress between Saudi mothers and fathers of children with intellectual disabilities
regarding the Child Domain of the PSI (Abidin, 1995). It was found that Saudi mothers of
children with intellectual disabilities had significantly higher stress levels than fathers regarding
the child’s behavioral characteristics. Similar results were obtained by Hastings (2003), Mash
and Johnston (1983), Saloviita et al. (2003), and Shin et al. (2006), who also found parental
stress was significantly higher in mothers of children with intellectual disabilities versus fathers
related to the areas of behavioral problems, demands of the child, child’s acceptance of his or her
parents, emotional and behavioral abilities of child, and having some level of independence. On
the other hand, this result is in contrast to studies such as those by Beckman (1991), Goldberg
and Patten (1983), Krauss (1993), Noh, Dumas, Wolf, and Fisman (1989), who did not find a
significant difference in the stress levels between mothers and fathers of children with
intellectual disabilities related to areas of the Child Domain such as adaptive behavioral skills
and demandingness.

Although many different factors affect the stress of parents of children with intellectual
disabilities, many studies have found that children’s behavior problems such as hyperactivity,
depression, and aggression are the largest predictors of parental stress (Bake et al., 2002; Baker
et al., 2003; Beck et al., 2004; Browne & Bramston, 1998; Chen & Tang, 1997; Floyd &
Gallagher, 1997; Hill & Rose, 2009; Quine & Pahl, 1985; Saloviita et al., 2003; Shin et al.,
2006). Because children with intellectual disabilities have a greater chance of developing
behavior problems and psychological disorders, their parents are more likely to have high levels
of stress. Many Western studies showed that children with intellectual disabilities are three to four times more likely to have emotional and behavioral problems when compared to children without disabilities (Dekker et al., 2002; Einfeld & Tonge, 1996; Linna et al., 1999). In addition to Western studies, a study of Saudi children by Ziadan (1989) showed that 50% of children with intellectual disabilities also had behavioral problems.

Saudi parents whose children have intellectual disabilities in conjunction with behavioral problems have additional responsibilities and challenges. For example, these children may need more attention and individual behavioral intervention plans. The responsibilities and challenges may cause additional stress on Saudi parents of children with intellectual disabilities, especially for mothers. While Saudi fathers usually take a secondary role in caregiving, mothers are the primary caregivers. Therefore, mothers of children with intellectual disabilities tend to carry more stress than fathers.

Increased behavioral problems of children with intellectual disabilities may cause additional stress on Saudi mothers more than fathers because of Saudi marital culture. The behavioral problems of the child with intellectual disabilities may cause marital conflicts between the child’s parents. Should the conflicts result in divorce, it is easy for a man to remarry or even marry multiple women, but it is difficult for a Saudi woman to get remarried. As a result, mothers may feel worried and have increased stress about preventing the child’s behavioral problems from causing conflicts between herself and her husband. Further, the behavioral problems of children with intellectual disabilities may cause stress on parents by making them feel isolated and giving them feelings of shame or guilt. The parents might become embarrassed when taking the child in public because the child may attract unwanted attention by possibly screaming or damaging property, and they might want to avoid causing frustration or looks of
pity. Parents may also feel isolated if they compare their child to children without intellectual disabilities and behavioral problems.

The relationship between parental stress and child behavioral problems is affected by interactive correlation, as found by Hastings et al. (2006). These researchers found that a mother’s stress leads to an increase in the child’s behavioral problems, and the resulting problem behaviors lead to increased stress felt by the mother.

In the current study under the Child Domain, it was found that the subdomains of Demandingness, Adaptability, Acceptability, and Distractibility/Hyperactivity contributed in large part to the stress level differences between Saudi mothers and fathers. Children with intellectual disabilities have various demands, which may vary based on the nature of the child’s disability (Abidin, 1995). Much of the high levels of these parents’ stress comes from the increased demands that may come from the child crying, needing fed, needing educated, or frequently requesting help. These increased demands yield from the care needs of the child and from needing to manage the environment of the child in areas such as a hospital, school, or therapy (McCarthy, Cuskelly, Kraayenoord, & Cohen, 2006). Because Saudi mothers are the primary caregivers, they are the parent that takes most care of the demands of their children with intellectual disabilities. This may be the main reason that Saudi mothers reported experiencing a higher level of stress in the current study. Although in recent years there has been an increase in Saudi fathers’ involvement in childcare, Saudi mothers are still their children’s primary caregivers.

Wikler et al. (1981) indicated that parents may experience higher stress when their child with an intellectual disability enters school. Parents of the student with intellectual disabilities become aware of the difficulties and challenges that their child faces at that time. Further, when
the child enters school, more time and effort are needed from the parent to help the child be successful in school. In the current study, all the parents who participated had children in elementary school, which required mothers to provide additional assistance with school-related demands such as homework help and contact with the teachers. This may provide a logical justification for why those Saudi mothers felt more stress than Saudi fathers.

The demographic data of the current study showed that 47% of Saudi mothers had jobs. This may be another factor explaining why Saudi mothers had more stress than fathers. After these mothers spent their days at work, they needed to go home and take care of their families instead of relaxing. Though fathers worked during the day, they were not the primary caregiver when they came home and were not met with the additional responsibilities that increased the stress levels of mothers. As a result, many researchers confirmed the importance of formal and informal support of mothers of children with intellectual disabilities, especially spousal support, which may decrease their stress (Hoing & Winger, 1997; Karasavvidis et al., 2011; Shin et al., 2006).

Attention deficit disorder with hyperactivity is more frequent in children with intellectual disabilities than in children without disabilities with a prevalence rate between 4-15% (Fernandez-Jaen, 2006). Several studies found that the relationship between children with externalizing behavioral problems such as distractibility/hyperactivity and the level of parent stress was positively correlated. For example, Chetwynd (1985) determined that children who were hyperactive increased the stress of the parents by causing disruptions and disturbances in the family unit, while children who are under-active increased stress by requiring extra stimulation and attention. In the present study, Saudi mothers of children with intellectual disabilities were found to have significantly higher levels of stress in the Distractibility/
Hyperactivity subdomain of the PSI. Saudi mothers of children with intellectual disabilities may have additional stress when their children have hyperactive behavior because they may worry that their children will cause harm to themselves or others, or damage things in the house. It is also difficult to teach these children because they cannot focus, and mothers end up teaching the same lesson multiple times. Further, children with hyperactivity may need specific medical, behavioral, or diet programs. Therefore, these mothers will need to spend additional time and effort with their children than fathers would, which will reflect more negatively on her stress.

Adaptive behavior is the group of conceptual, social, and practical skills that are learned and implemented by individuals in their everyday lives (AAIDD, 2013). Children with intellectual disabilities have deficits in adaptive behavioral skills, such as communication, socialization, and activities of daily living. These adaptive behavioral skills are positively related with the degree of intelligence of the child (Paskiewicz, 2009). Adaptive behavioral skills are very important for all children, including children with intellectual disabilities. The importance of adaptive behavior increases as children mature. Many researchers indicated that adaptive skills of children with intellectual disabilities are a strong predictor of parental stress (Beck et al., 2004; McCarthy, 2006; Smith et al., 2001; Weiss, Sullivan, & Diamond, 2003).

Saudi mothers of children with intellectual disabilities in the current study had significantly higher levels of stress compared to fathers in relation to the Adaptability subdomain of the PSI. This may also be a result of Saudi mothers being the primary caregivers, and their children’s inability to adapt to changes in their physical or social environment required them to spend more time than fathers helping the child adjust. In contrast with the present study’s result, Patten (1983) found that there was no significant difference between fathers and mothers of children with intellectual disabilities in the level of stress related to the areas of demands on
problems relating to the child’s ability to communicate, relate to others, and have independence at some level.

Extreme mood is a strong predictor of stress of parents of children with intellectual disabilities (Althefeeri, 2001). Many studies showed that children with intellectual disabilities are more likely to have emotional disorders. Einfeld and Tonge (1996) found that 40.7% of children with intellectual disabilities had emotional problems. Saudi mothers of children with intellectual disabilities in the current study had significantly higher levels of stress than fathers related to the Mood subdomain of the PSI. This result may perhaps be because Saudi mothers usually are more affected emotionally and are more attached to their children. In addition, the mothers intensively interact during educating, feeding, and caring for their children, more than fathers, causing the mothers to be more negatively affected than the fathers. However, this result is in contrast to studies such as those by Krauss (1993) and Patten (1983), who found that there was no significant difference between fathers and mothers of children with intellectual disabilities in the level of stress related to their child’s mood.

Children with intellectual disabilities often have lower physical, intellectual, social, and emotional abilities than their peers without disabilities. The interaction between children with intellectual disabilities and mothers has been characterized as being less reinforcing and less supportive (Krauss, 1993). In addition, parents of children with intellectual disabilities perceived their children as more distractible, less acceptable, and more stressful than parents of children without disabilities (Walker, 2000). Surprisingly, in the current study under the Child Domain of the PSI, it was not found that the subscales of Reinforces and Acceptability contributed significantly to the differences in stress levels between Saudi mothers and fathers. This result is consistent with the results of Patten (1983), who found that there was no significant difference
between fathers and mothers of children with intellectual disabilities in the level of stress related to acceptance of the child in relation to self, family, and friends.

The results of the current study can be justified by the following two reasons. The first reason is that most people in Saudi Arabia are religious. They believe that having a child is a gift from God. The gift of the child will make the problems in the parents’ lives easier, and their lives will be better. The patience required for raising a child will be rewarded after the parents die. Saudi parents of children with intellectual disabilities believe that illness is a test from God, and by accepting the gift that God gave them, the parents will be rewarded generously. Through caring for their child with intellectual disabilities, the parents will be able to go to heaven.

The second reason may be the formal and informal support that Saudi mothers receive, especially spousal support. Saudi fathers may help the mothers in some caregiving activities and together, the parents can discuss the best ways to raise their children. By helping the mothers, the fathers’ competence in taking care of the children will continue to increase, and they will be able to provide even better support for the mothers. This will help prevent mothers from feeling isolated and reduce additional stress the mothers may have. In addition to spousal support, relatives may play a beneficial role in helping to raise a child with intellectual disabilities. In Saudi culture, family ties are very strong, specifically the tie between parents and their grandparents. The support from these relatives can also help decrease the stress of the Saudi mothers. Saudi government support is also a valuable resource for Saudi parents of children with intellectual disabilities. The government provides many free services for children with disabilities and their parents, including free health care and free education. Every child with disabilities also receives additional monthly financial aid. These justifications support the findings of many correlational studies regarding the importance of formal and informal support.
in decreasing the levels of stress of parents of children with intellectual disabilities (Hoing & Winger, 1997; Karasavvidis et al., 2011; King et al., 1999; Shin et al., 2006).

Child characteristics are not the only factors contributing to parental stress. Parental characteristics also contribute to this stress. The current study determined that there was a significant difference in the levels of stress between Saudi mothers and fathers of children with intellectual disabilities regarding the Parent Domain of the PSI. It was found that Saudi mothers of children with intellectual disabilities had significantly higher stress levels regarding the parents’ characteristics than Saudi fathers. This result is consistent with many other studies, such as research by Beckman (1991), who found that mothers in general reported greater levels of stress in the Parent Domain than fathers. Specifically, mothers reported more depression, more restrictions on the parental role, and more difficulties in their relationship with their spouse.

In the current study under the Parent Domain, it was found that the subdomains of Depression, Isolation, Attachment, Role Restriction, and Spouse contributed a large part to the differences in stress levels between Saudi mothers and fathers of children with intellectual disabilities. Parents of children with intellectual disabilities are more likely than parents of children without intellectual disabilities to express psychological symptoms such as depression or anxiety. Azar and Badr (2006) found in their study that 46.5% of mothers of children with intellectual disabilities have symptoms of depression. It was also found that depression of parents of children with intellectual disabilities was as an important predictor of stress for those parents (Hastings, 2003). The current study found that the subdomain of Depression contributed significantly more to Saudi mothers than to Saudi fathers. This result is consistent with the results of Beckman (1991), Hastings (2003), and Krauss (1993), who found that the stress related
to depression of the parents was significantly higher in mothers of children with intellectual disabilities than in fathers.

There may be several reasons why Saudi mothers experience higher levels of stress related to depression than Saudi fathers. First, 51% of mothers in the current study had four or more children, and 47% of mothers had a job. Being the primary caregivers, it may be easy for these mothers to become overwhelmed with responsibilities related to taking care of several children as well as their jobs. This may prevent them from having time to do things to relax or things that they enjoy. By spending so much time focused on others instead of themselves, mothers can easily become depressed. Fathers, who do not spend as much time taking care of the children, may have more time for themselves and for the things they enjoy, so they may be less susceptible to depression.

The second reason may be based in Saudi culture. In the culture, women have many limitations and are more restricted than men, especially in Riyadh, the central region of Saudi Arabia. For example, a woman must be escorted by her husband when she goes out in public. This causes restrictions on her ability to take care of her children. If her child was having problems in school, it would be very difficult for a mother to be able to go to the school to discuss the problem with the child’s teacher. These restrictions may make it more difficult for her to take care of her children and cause her to feel more depressed than her husband, who does not have as many restrictions.

Another reason why women showed higher levels of stress related to depression may be a result of the lack of involvement or support systems. There is a lack of collaboration between the schools and parents. For example, the school rarely suggests ways for the child to improve, or may not communicate about the performance of the child. By recognizing that the school does
not help in these areas, the additional weight is placed on mothers. These additional responsibilities may take up more of the mothers’ time, making them feel depressed.

Parents of children with intellectual disabilities face many challenges and difficulties in rearing and educating their children with intellectual disabilities. Receiving support from a spouse or partner is exceptionally important in reducing the stress experienced by parents of children with intellectual disabilities (Kazak & Marvin, 1984; Upadhyay & Havalappanavar, 2007). Saudi mothers of children with intellectual disabilities in the current study were found to have significantly higher levels of stress related to the subscale of spousal support compared to fathers. This result is consistent with the results of several researchers (i.e., Beckman, 1991; Hastings, 2003; Krauss, 1993; Shin et al., 2006) who also found that mothers of children with intellectual disabilities were more affected by their spouse than fathers, causing them to have more stress.

The results of the current study may be justified by looking at the time requirements and abilities of men versus women in Saudi Arabia. While most women stay home to take care of the house and the children, men go to work during the day and are not available to help with home or childcare duties until they return from work. When husbands return from work, wives look for physical or emotional support, but because the husbands are stressed from their days and need to relax, they are not able to provide that support. In other words, because of their jobs, men do not have sufficient time to provide support to their wives.

Another reason may be a result of Saudi culture, which says that men are looked down upon if they are too supportive of their wives in home duties such as childcare, cooking, and cleaning. The husbands may be seen as not masculine enough. Though these views have improved in recent years, these attitudes still exist, particularly in Riyadh, the central region of
Saudi Arabia where data for this study were collected. These attitudes result in a lack of support of husbands to their wives, who already have many demands. When these two reasons are combined, there is a result of a significant lack of spousal support for Saudi wives from their husbands. This lack of support results in higher levels of stress for the wives.

According to Abidin (1995), isolation and role restriction are significantly related, causing a positive correlation between the two. Social isolation and restrictions on the parental role are two important factors that cause parental stress for parents of children with intellectual disabilities. Parents of children with intellectual disabilities tend to isolate themselves because they have feelings of shame and guilt (Drew et al., 1992), and isolation can result from parents not having enough time and energy for socialization (Valentine, 1993).

The current study found that Saudi mothers of children with intellectual disabilities had significantly higher stress levels related to role restriction and social isolation than Saudi fathers. These results are consistent with a study by Roach (1999), who found that mothers of children with intellectual disabilities reported significantly greater feelings of restriction by their parenting role than fathers reported. On the other hand, these results are in contrast with a study conducted by Krauss (1993), who did not find a significant difference between the stress levels of mothers and fathers of children with intellectual disabilities in relation to social isolation. The significant differences found in stress levels due to role restriction and social isolation of Saudi fathers and mothers may be a result of Saudi mothers tending to be more isolated than Saudi fathers. In addition to her responsibilities of taking care of the home, her husband, her personal responsibilities, and perhaps a job, taking care of a child with intellectual disabilities requires a significant amount of additional time and effort. Taking care of a child with intellectual disabilities may cause mothers to feel as if their lives are no longer their own (Chen & Tang,
1997; McConkey, 2008). Knowing that 51% of mothers in this study had four or more children, it is clear that taking care of all of her children together will take these mothers much more time. For this reason, mothers are restricted in their abilities to care for themselves and do things they personally enjoy, and may become isolated.

Although attitudes towards individuals with disabilities have improved in Saudi Arabia in recent years, there are still some negative perceptions towards these individuals. These attitudes affect mothers, who are more sensitive and emotional than fathers. When these mothers are conscious of the stigma of a child with intellectual disabilities, or they feel that other people are judging or have pity on their children, they may tend to feel more isolated than fathers. Another important reason contributing to mothers’ increased feelings of isolation and role restriction compared with fathers is the limitations that Saudi culture places on women, as discussed earlier. For example, women cannot drive cars. If a woman wants to go somewhere, she must either take a taxi or be driven by a male relative. These restrictions may make her feel that her freedom is restricted.

The PSI subdomain of Attachment is related to the strength of the bond between a parent and child and a parent’s feelings that he or she is able to understand the emotional needs of the child (Abidin, 1995). Although many studies found that fathers of children with intellectual disabilities felt that they had higher levels of stress related to their feelings of attachment to their children with intellectual disabilities (Baker, 1994; Beckman, 1991; Krauss, 1993), the current study, surprisingly, found Saudi mothers of children reported more stress related to attachment with their children than fathers.

The results may have occurred for two reasons. First, the current study showed that 51% of Saudi mothers have four or more children. As a result, most of the mothers’ time is split
between multiple children. A mother must give individual attention to all of the children, but she may worry that she does not spend enough time with the child with intellectual disabilities, and this will affect negatively the attachment between her and that child.

This result may also be because Saudi mothers usually are affected more emotionally than fathers. Children with intellectual disabilities have many emotional and behavioral disorders that may disturb or prevent the communication between these children and their mothers. This may prevent a mother from understanding her child’s forms of feedback or affection, and may not be able to determine if her child is well-attached to her or not. This may cause her stress about whether or not there is a bond.

Further, if the mother also has a child without disabilities, she may compare the two children’s forms of affection. Since she will be able to interpret the signs of affection from the child without disabilities but not the child with disabilities, she will subconsciously compare the two and worry that there is a connection between the child without disabilities but not the child with intellectual disabilities.

Caring for children, especially children with intellectual disabilities, is not an easy task. Parents need to understand child development and have a wide range of child management skills. Many Western and Middle Eastern studies have investigated the factors that were associated with the levels of stress of parents of children with intellectual disabilities, and have found that difficulties with parents’ sense of competence is a strong predictor for parenting stress for parents of children with intellectual disabilities (Alshrah, 2007; Fulgos-Masnjak, 1996; Neece & Baker, 2008). As a result, many studies, including a study by Jamel (1998), recommended guidance programs designed to increase parents’ competence regarding caring for children with intellectual disabilities.
In the current study under the Parent Domain of the PSI, it was not found that the subdomain of Competence contributed significantly to the differences in stress levels between Saudi mothers and fathers. This result is consistent with the results of Gowen, Johnson-Martin, Goldman, and Appelbaum (1989) and Krauss (1993), who also found that there was no significant difference between fathers and mothers of children with intellectual disabilities in the levels of stress related to their sense of competence.

The results of the current study can be justified through three reasons. First, the competence of parents in caring for children is affected by many demographic factors, including the number of years of experience and the levels of education. However, in the current study, there were no significant differences between mothers and fathers in many of these characteristics. For example, 52.9% of Saudi mothers were between 40-50 years old, compared with 51% of fathers. In addition, 53% of Saudi mothers held a four-year college degree, as did 55% of fathers. Since these characteristics contribute to the competence of mothers and fathers, and because there was no significant variance of characteristics in the current study’s participants, there was not a significant difference in the levels of stress due to competence.

The second reason may be a result of the number of children of the parents in the study. This study had 51% of parents with four or more children. The parents have both undergone the experience of raising multiple children, and both have gained knowledge and best practices regarding child development and child management skills. As a result, they have both gone through the same experiences together, and learned what works best for them as parents, so their levels of stress due to competence have relatively paralleled.

Further, awareness in Saudi Arabia in recent years regarding children with disabilities has increased. The Ministries of Education and the Social Affairs, universities, and other associations
offer courses and education outreach programs for parents of children with disabilities. If a parent were lacking in competence, these courses and programs may enhance the parent’s competence and the stress that results from a perceived lack of competence. This reason is supported by researchers including Dempsey, Keen, Pennell, O’Reilly, and Neilands (2009), who advocated for the importance of support in increasing competence of childcare in order to decrease stress levels of parents of children with intellectual disabilities.

Having a child with intellectual disabilities may have a negative impact on the physical health and the levels of stress of the child’s parents (Ha, Greenberg, & Seltzer, 2011; Hedov, Anneren, & Wikblad, 2000). Although many researchers such as Azar and Badr (2010), Beckman (1991), and Krauss (1993) found that there was a significant difference in the health due to stress between fathers and mothers of children with intellectual disabilities, the current study did not find a difference between Saudi mothers and fathers of children with intellectual disabilities. The current researcher was surprised at this result, given that the role of primary caretaker falls on Saudi mothers. However, the researcher believes this is a result of the excellent health care system in Saudi Arabia, which provides free health care for Saudi people. Should a mother feel her stress is causing her health to diminish, she will be more likely to go to the hospital to solve a problem before it worsens.

**Practical Implications**

Although special education has improved in Saudi Arabia in recent years, there is still room to grow in the field. There is still a lack of information and resources for parents of children with disabilities, especially children with intellectual disabilities. For this reason, the current study investigated the population of parents of children with intellectual disabilities. It aimed to learn more about the differences in the levels of stress between mothers and fathers of
children with intellectual disabilities. The results from the current study will help professionals better understand the stress of parents of children with intellectual disabilities in order to improve the support provided and improve the interactions between the parents and their children. These results will also help professionals understand the services needed by parents of children with disabilities.

Based on the findings from the current study’s research, it may be important for the Saudi Government, including the Ministries of Education, Health, and Social Affairs, to create additional channels of communication for people who are interested in special education. These channels may include websites, phone hot lines, or community centers. They will increase the awareness regarding children with disabilities, present effective strategies, and can provide advice or answer parents’ questions about their children with intellectual disabilities. Further, the lack of laws and policies regarding special education in Saudi Arabia should be addressed in order to help individuals with disabilities and their parents assert their rights and receive the support they require.

The Saudi government should also create early intervention programs for children with intellectual disabilities to provide effective services to these children to improve their skills. These programs should also provide support for the parents of these children to help solve any issues and prevent problem-causing stress. The involvement of parents is crucial. Without addressing the needs of parents of children with intellectual disabilities, the goals of special education in Saudi Arabia will not be achieved. This need is especially important when we know that only 4.6% of parents have a high level of involvement in their child’s education (Fouzan, 1986). When parents of children with intellectual disabilities participated in their children’s intervention programs, they had lower stress levels and more positive perceptions about their
children with disabilities and their parental situation, compared with parents who did not participate in their child’s intervention programs. These parents were also more confident, had lower levels of emotional distress, and felt as if they received better support from their spouse (Pelchat, Bisson, Richard, Perreault, & Bouchard, 1999).

Parents of children with intellectual disabilities must also receive support designed to help them as parents. This support, which may include counseling, training programs, or other types of support, will help lower parents’ levels of stress regarding their children with intellectual disabilities. This support will help the family better understand their child’s needs to provide improved care for their child. It can also teach parents more about disabilities in general, including the origin of their children’s disabilities. Sandler et al. (1983) researched participating families of training programs for parents of special needs children. They found that the families who participated in these training programs showed increased knowledge of techniques of instructing their children with disabilities and had more positive attitudes towards their children. In addition, Vadasy, Fewell, Mayer, and Greenberg (1985) studied fathers who participated in a support program. Their research showed that that fathers who did attend the support programs had lower levels of stress and better life satisfaction than fathers who did not attend support programs. Hastings and Beck (2004) performed a selective review of numerous studies related to intervention methods designed to reduce stress of parents of children with disabilities. Their research review revealed that cognitive behavioral group interventions had the most potential for reducing stress of parents, particularly mothers, of children with intellectual disabilities.

The government should also create associations or regionally located centers for parents of children with intellectual disabilities to meet to provide support for each other through discussion-based sessions. This will provide a place for these parents to share best practices and
discuss their concerns with a group of people in a similar situation. They can exchange experiences and difficulties, discuss the problems that they face, and discuss potential ways to further the rights of children with intellectual disabilities and their parents. These groups will also benefit parents by providing socialization and preventing feelings of isolation.

When preparing future teachers of special education, universities should reinforce the importance of parental involvement in children’s education. Universities can use the findings from the current and other studies to illustrate this point. They should prepare the students by teaching them strategies to increase parental involvement within their future classrooms.

**Limitations**

The current study’s research has several potential methodological limitations. The first limitation of the study is that it was only conducted in Riyadh City. Saudi Arabia has many cities and many institutes and programs for individuals with intellectual disabilities. The study may have had a different result if the geographic area were larger. The second limitation is that the study was only conducted with parents of male children with intellectual disabilities. Differing results may have been achieved if parents of female children with intellectual disabilities had been surveyed as well. Another limitation is that the demographic data did not specify if the parental husband had more than one wife. Having multiple wives is not uncommon in Saudi Arabia and may have had an effect on the mother or father’s level of stress in the study. The fourth limitation is that this study only used a quantitative research technique. It may not have provided a sufficient explanation of the data. Having qualitative data may have been beneficial in interpreting why the research yielded such results. This may have been particularly beneficial because the research topic was of such a subjective nature. The fifth limitation of the study is that it was only conducted with Saudi parents of children with intellectual disabilities. Cultures vary
widely across the globe as well as across geographic regions in the same continent. Parents from other regions in the Middle East might submit different responses to the survey than Saudi parents. The next limitation of the study is that it focused only on one category of disability, that being intellectual disabilities. A different picture may have developed if parents of children with multiple disabilities or other types of disabilities were included in the sample. The final limitation is that only parents of children with intellectual disabilities between the ages of 6 and 12 years old were included. Parents with children younger or older than the specified age bracket may have yielded different results.

**Implications for Future Research**

This study opens the door for an assortment of future research. Given the results of this study, it would be beneficial for future research to examine the same topic using a qualitative research technique, especially individual interviews, to better understand the driving forces behind the stress of parents and give in-depth information. Additionally, the current research focused only on parents of children with intellectual disabilities. Performing the same research on parents of children with other disabilities may help increase the generalizability of the research results.

Researchers may need to examine additional factors that contribute to parental stress. These factors may include child characteristics such as gender, age, severity of the child’s disability, or the child’s behavioral problems. Other factors may include parental characteristics such as their age, level of education, number of wives, marital status, or environmental variables such as the socio-economic level of the parents. Further, this study was conducted in Riyadh City, just one city in one region of Saudi Arabia. The culture of each region of Saudi Arabia
varies slightly. Therefore, additional research may be conducted to include many cities in addition to Riyadh so that the results are more representative of Saudi Arabia as a country.

Additional research may need to investigate the sources of support that are available for parents of children with intellectual disabilities, and the effect of this support on parents’ levels of stress. This research may promote the study’s implications to increase support, both informal and formal, which will be provided to parents of children with intellectual disabilities. In Saudi Arabia, there are two educational choices for students with intellectual disabilities. They can attend special education institutes, with only children with intellectual disabilities, or they can attend special education classrooms attached to general public schools. Researchers may need to investigate the effect of the school setting on the levels of stress of parents with intellectual disabilities.

Conclusion

The current study found that Saudi mothers had higher levels of stress than fathers regarding the total stress, the Child Domain (child characteristics), and the Parent Domain (parent characteristics) of the PSI (Abidin, 1995). This study discussed several reasons that may result in the higher levels of stress of Saudi mothers of children with intellectual disabilities. Being the primary caregiver, experiencing the restrictions on women in the Saudi culture, and the lack of social support were all contributing factors to mothers’ higher stress levels. Although successful intervention of children with intellectual disabilities yields optimal results when family stress issues are addressed before the intervention begins, many Saudi parents did not receive enough support from educators, professionals, and Saudi officials to help them care for their children with intellectual disabilities. Therefore, the current study showed there is an urgent need from stakeholders and professionals to support parents of children with intellectual
disabilities. In order to help support these parents, the Saudi government needs to focus its attention on creating support systems for parents of children with intellectual disabilities as well as awareness of the importance of parental involvement with these children. The government can accomplish this mission by creating additional channels of communication to help educate citizens about children with intellectual disabilities as well as by creating laws and policies to address children with intellectual disabilities, advance the rights of these children and their parents, and help them receive the support they require.

In addition, the Saudi government should create early intervention programs with a focus on parental involvement and provide access for these parents to support including counseling, training programs, or regionally located group support associations. Through these advancements in support systems, the levels of stress for parents, specifically mothers, of children with intellectual disabilities can be decreased and the lives of these parents and their children can be improved.
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Appendix A

Maps indicating the location of Saudi Arabia
Appendix B

The letter that was sent from Dr. Lisa Pufpaff, the major advisor at Ball State University, to the Saudi Arabian Cultural Mission (SACM) in Washington, D.C.
March 23, 2012

To: Saudi Arabia Culture Mission

The purpose of this letter is to inform you that, after discussion with his full doctoral committee, it was felt that Mubarak Aldosari's doctoral dissertation would best be applied in Saudi Arabia rather than the United States. Since Mr. Aldosari intends to return to Saudi Arabia after completing his doctoral program to teach at the university level and provide services for individuals with disabilities, the results of his dissertation will be more applicable to Saudi Arabian society and culture if the data are collected in that country. As the chairperson of Mr. Aldosari's doctoral committee, I agree that his dissertation data collection should occur in his home country. He will likely be collecting these data between 06/01/2013 until 09/01/2013. If you have any questions about this issue, please feel free to contact me at lapufpaff@bsu.edu or 765-285-5714.

Sincerely,

Lisa A. Puipaff, Ph.D.
Assistant Professor
Ball State University
Appendix C
The letter that was sent from the Educational Development Center in Riyadh to the institutes and programs of children with intellectual disabilities in Riyadh (Arabic version)
السلام عليكم ورحمة الله وبركاته.

قبلة لطلب الدارس المذكور، بإذن الله، فإننا نحن، لدى إدارة التخطيط والتطوير، مشرف الدارس على التدريس، مقترنه بالعنوان التالي:

"الفرص في مستوى الضغوط الحياتي بين آباء ومهمات الأطفال ذوي التخلف العلقي".

وباللهم الولي التوفيق.
Appendix D

The letter that was sent from the Educational Development Center in Riyadh to the institutes and programs of children with intellectual disabilities in Riyadh (English version)
The Ministry of Education

Educational Development Center in Riyadh

TO WHOM IT MAY CONCERN

<table>
<thead>
<tr>
<th>Passport Number</th>
<th>Name of researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 674856</td>
<td>Mubarak Saad Aldosari</td>
</tr>
</tbody>
</table>

The Educational Development Center in Riyadh gives Mubarak Aldosari approval to conduct his research entitled, “The Differences in the Levels of Stress between Fathers and Mothers of Children with Intellectual Disabilities” in the institutes and programs of children with intellectual disabilities in Riyadh.

Best Regards,

Educational Development Center
Appendix E

The informed consent document
Informed Consent Document

Study Title
The differences in the levels of stress between fathers and mothers of children with intellectual disabilities in Saudi Arabia

Study Purpose and Rationale
The purpose of this research project is to explore the difference in stress levels between fathers and mothers toward their children with intellectual disabilities in Saudi Arabia. Research on parental stress towards children with intellectual disabilities has shown that there are different levels of stress between fathers and mothers toward their children with intellectual disabilities.

Inclusion/Exclusion Criteria
To be eligible to participate in this study, you must be between the ages of 18-60 and a father/mother of a child with a diagnosis of an intellectual disability. Your child should live in a family with two parents in the same household. You must have only one child with an intellectual disability. Your child with an intellectual disability must be between the ages of 6 and 12 years old. If you do not meet all four conditions above, you are excluded from the study.

Participation Procedures and Duration
For this study, you will be asked to complete two questionnaires. The first will ask about your demographic information of yourself and your child. The second questionnaire will ask about the stress you have towards your child. Together, they will take approximately 30 to 60 minutes to complete.

Data Confidentiality or Anonymity
All data will be anonymous and will not ask for identifying information, such as names, will appear in any publication or presentation of the data. Only the researcher and the researcher’s advisor will have access to the data.

Storage of Data
Paper data will be stored in a locked filing cabinet in the researcher’s office for two years and will then be shredded. Only the researcher and the researcher’s advisor will have access to the data.

Risks or Discomforts
There are no foreseeable risks.

Benefits
One benefit you may gain from participating in this study is a better understanding of the sources of your stress, which help in improving your relationship with your child, and with your spouse.
Voluntary Participation

Your participation in this study is completely voluntary and you are free to withdraw your permission at any time, for any reason, without penalty, or prejudice from the investigator. Please feel free to ask any questions to the investigator before signing this form and at any time during the study.

IRB Contact Information

For questions about your rights as a research subject, please contact Director, Office of Research Integrity, Ball State University, Muncie, IN 47306, (765) 285-5070.

Consent

I, ______________________________, agree to participate in this research, “The differences in the levels of stress between fathers and mothers of children with intellectual disabilities in Saudi Arabia.” I have had the study explained to me and my questions have been answered to my satisfaction. I have read the description of this research and give my consent to participate. I understand that I will receive a copy of this informed consent form to keep for future reference.

To the best of my knowledge, I meet the inclusion/exclusion criteria for participation (described on the previous page) in this study.

Researcher Contact Information

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Special Education
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Telephone: (00+1) 765-285-5714
Email:
Appendix F

Demographical questionnaire
Demographical Questionnaire

Dear parent,

Please respond first to the following questions by filling the correct answer or by circling or checking the best answer(s). Please remember that this information will be kept strictly confidential and will be read only by the researcher.

Information about Parent of child

1. What is your relationship to the child: A- the father  B- the mother
2. If you are the mother, do you work?
3. Your age is in the range of:
   A- 25 -40yr  B- 40-50 yr  C- 50-60 yr  D- more than 60 yr
4. Our monthly income (me and my spouse) is in the range of:
   A- Less than $ 2000  B- $ 2000 -3000  C- $ 3000 - 4000
   D- $ 4000 - $6500  E- $ 6500 - 8000  F- More than $ 8000
5. How many children do you have living in your home? ..................
6. Do you have other children with special needs? ....(if yes) how many? ....

Information about your child with intellectual disability

7. What is your child's age ..............
8. What grade is your child currently in.............

9. What was your child's age when you first discovered that he/she has an intellectual disability? (month/year).../.....
10. Based on the diagnosis, what is severity of intellectual disability of your child?
    A- Mild  b- Moderate  C- Severe  D- Profound
11. What was your child's age the last time he/she was assessed for a disability? What was your child's diagnosis at that time?
12. Based on the diagnosis, what is severity of disability of your child?
    A- Mild  b- Moderate  C- Severe  D- Profound
Appendix G

The introductory letter and Parent Stress Index (PSI) - English version
Instructions:

On the PSI Answer Sheet, please write your name, gender, date of birth, ethnic group, marital status, child's name, child's gender, child's date of birth, and today's date. Please mark all your responses on the answer sheet. DO NOT WRITE ON THIS BOOKLET.

This questionnaire contains 120 statements. Read each statement carefully. For each statement, please focus on the child you are most concerned about, and circle the response which best represents your opinion.

Circle the SA if you strongly agree with the statement.
Circle the A if you agree with the statement.
Circle the NS if you are not sure.
Circle the D if you disagree with the statement.
Circle the SD if you strongly disagree with the statement.

For example, if you sometimes enjoy going to the movies, you would circle A in response to the following statement:

I enjoy going to the movies. SA A NS D SD

While you may not find a response that exactly states your feelings, please circle the response that comes closest to describing how you feel. YOUR FIRST REACTION TO EACH QUESTION SHOULD BE YOUR ANSWER.

Circle only one response for each statement, and respond to all statements. DO NOT ERASE! If you need to change an answer, make an "X" through the incorrect answer and circle the correct response.

For example:

I enjoy going to the movies. SA A NS X SD
1. When my child wants something, my child usually keeps trying to get it.
2. My child is so active that it exhausts me.
3. My child appears disorganized and is easily distracted.
4. Compared to most, my child has more difficulty concentrating and paying attention.
5. My child will often stay occupied with a toy for more than 10 minutes.
6. My child wanders away much more than I expected.
7. My child is much more active than I expected.
8. My child squirms and kicks a great deal when being dressed or bathed.
9. My child can be easily distracted from wanting something.
10. My child rarely does things for me that make me feel good.
11. Most times I feel that my child likes me and wants to be close to me.
12. Sometimes I feel my child doesn’t like me and doesn’t want to be close to me.
13. My child smiles at me much less than I expected.
14. When I do things for my child, I get the feeling that my efforts are not appreciated very much.

For statement 15, choose a response from choices 1 to 4 below.
15. Which statement best describes your child?
   1. almost always likes to play with me
   2. sometimes likes to play with me
   3. usually doesn’t like to play with me
   4. almost never likes to play with me

For statement 16, choose a response from choices 1 to 5 below.
16. My child cries and fusses:
   1. much less than I had expected
   2. less than I expected
   3. about as much as I expected
   4. much more than I expected
   5. it seems almost constant

17. My child seems to cry or fuss more often than most children.
18. When playing, my child doesn’t often giggle or laugh.
19. My child generally wakes up in a bad mood.
20. I feel that my child is very moody and easily upset.
21. My child looks a little different than I expected and it bothers me at times.
22. In some areas, my child seems to have forgotten past learnings and has gone back to doing things characteristic of younger children.
23. My child doesn’t seem to learn as quickly as most children.
24. My child doesn’t seem to smile as much as most children.
25. My child does a few things which bother me a great deal.

26. My child is not able to do as much as I expected.

27. My child does not like to be cuddled or touched very much.

28. When my child came home from the hospital, I had doubtful feelings about my ability to handle being a parent.

29. Being a parent is harder than I thought it would be.

30. I feel capable and on top of things when I am caring for my child.

31. Compared to the average child, my child has a great deal of difficulty in getting used to changes in schedules or changes around the house.

32. My child reacts very strongly when something happens that my child doesn't like.

33. Leaving my child with a babysitter is usually a problem.

34. My child gets upset easily over the smallest thing.

35. My child easily notices and overreacts to loud sounds and bright lights.

36. My child's sleeping or eating schedule was much harder to establish than I expected.

37. My child usually avoids a new toy for a while before beginning to play with it.

38. It takes a long time and it is very hard for my child to get used to new things.

39. My child doesn't seem comfortable when meeting strangers.

For statement 40, choose from choices 1 to 4 below.

40. When upset, my child is:
   1. easy to calm down
   2. harder to calm down than I expected
   3. very difficult to calm down
   4. nothing I do helps to calm my child

For statement 41, choose from choices 1 to 5 below.

41. I have found that getting my child to do something or stop doing something is:
   1. much harder than I expected
   2. somewhat harder than I expected
   3. about as hard as I expected
   4. somewhat easier than I expected
   5. much easier than I expected

For statement 42, choose from choices 1 to 5 below.

42. Think carefully and count the number of things which your child does that bothers you. For example: dawdles, refuses to listen, overactive, cries, interrupts, fights, whines, etc. Please circle the number which includes the number of things you counted.
   1. 1–3
   2. 4–5
   3. 6–7
   4. 8–9
   5. 10+
For statement 43, choose from choices 1 to 5 below.

43. When my child cries, it usually lasts:
   1. less than 2 minutes
   2. 2–5 minutes
   3. 5–10 minutes
   4. 10–15 minutes
   5. more than 15 minutes

44. There are some things my child does that really bother me a lot.

45. My child has had more health problems than I expected.

46. As my child has grown older and become more independent, I find myself more worried that my child will get hurt or into trouble.

47. My child turned out to be more of a problem than I had expected.

48. My child seems to be much harder to care for than most.

49. My child is always hanging on me.

50. My child makes more demands on me than most children.

51. I can’t make decisions without help.

52. I have had many more problems raising children than I expected.

53. I enjoy being a parent.

54. I feel that I am successful most of the time when I try to get my child to do or not do something.

55. Since I brought my last child home from the hospital, I find that I am not able to take care of this child as well as I thought I could. I need help.

56. I often have the feeling that I cannot handle things very well.

For statement 57, choose from choices 1 to 5 below.

57. When I think about myself as a parent I believe:
   1. I can handle anything that happens
   2. I can handle most things pretty well
   3. sometimes I have doubts, but find that I handle most things without any problems
   4. I have some doubts about being able to handle things
   5. I don’t think I handle things very well at all

For statement 58, choose from choices 1 to 5 below.

58. I feel that I am:
   1. a very good parent
   2. a better than average parent
   3. an average parent
   4. a person who has some trouble being a parent
   5. not very good at being a parent
For questions 59 and 60, choose from choices 1 to 5 below.

59. What were the highest levels in school or college you and the child's father/mother have completed:
   Mother:
   1. 1st to 8th grade
   2. 9th to 12th grade
   3. vocational or some college
   4. college graduate
   5. graduate or professional school

60. Father:
   1. 1st to 8th grade
   2. 9th to 12th grade
   3. vocational or some college
   4. college graduate
   5. graduate or professional school

For question 61, choose from choices 1 to 5 below.

61. How easy is it for you to understand what your child wants or needs?
   1. very easy
   2. easy
   3. somewhat difficult
   4. it is very hard
   5. I usually can't figure out what the problem is

62. It takes a long time for parents to develop close, warm feelings for their children.

63. I expected to have closer and warmer feelings for my child than I do and this bothers me.

64. Sometimes my child does things that bother me just to be mean.

65. When I was young, I never felt comfortable holding or taking care of children.

66. My child knows I am his or her parent and wants me more than other people.

67. The number of children that I have now is too many.

68. Most of my life is spent doing things for my child.

69. I find myself giving up more of my life to meet my children's needs than I ever expected.

70. I feel trapped by my responsibilities as a parent.

71. I often feel that my child's needs control my life.

72. Since having this child, I have been unable to do new and different things.

73. Since having a child, I feel that I am almost never able to do things that I like to do.

74. It is hard to find a place in our home where I can go to be by myself.

75. When I think about the kind of parent I am, I often feel guilty or bad about myself.

76. I am unhappy with the last purchase of clothing I made for myself.

77. When my child misbehaves or fusses too much, I feel responsible, as if I didn't do something right.

78. I feel every time my child does something wrong, it is really my fault.
79. I often feel guilty about the way I feel toward my child.
80. There are quite a few things that bother me about my life.
81. I felt sadder and more depressed than I expected after leaving the hospital with my baby.
82. I wind up feeling guilty when I get angry at my child and this bothers me.
83. After my child had been home from the hospital for about a month, I noticed that I was feeling more sad and depressed than I had expected.
84. Since having my child, my spouse (or male/female friend) has not given me as much help and support as I expected.
85. Having a child has caused more problems than I expected in my relationship with my spouse (or male/female friend).
86. Since having a child, my spouse (or male/female friend) and I don’t do as many things together.
87. Since having a child, my spouse (or male/female friend) and I don’t spend as much time together as a family as I had expected.
88. Since having my last child, I have had less interest in sex.
89. Having a child seems to have increased the number of problems we have with in-laws and relatives.
90. Having children has been much more expensive than I had expected.
91. I feel alone and without friends.
92. When I go to a party, I usually expect not to enjoy myself.
93. I am not as interested in people as I used to be.
94. I often have the feeling that other people my own age don’t particularly like my company.
95. When I run into a problem taking care of my children, I have a lot of people to whom I can talk to get help or advice.
96. Since having children, I have a lot fewer chances to see my friends and to make new friends.
97. During the past six months, I have been sicker than usual or have had more aches and pains than I normally do.
98. Physically, I feel good most of the time.
99. Having a child has caused changes in the way I sleep.
100. I don’t enjoy things as I used to.

For statement 101, choose from choices 1 to 4 below.
101. Since I’ve had my child:
   1. I have been sick a great deal
   2. I haven’t felt as good
   3. I haven’t noticed any change in my health
   4. I have been healthier
Appendix H

The introductory letter and Parent Stress Index (PSI) - Arabic version
لا يوجد نص يمكن قراءته بشكل طبيعي من الصورة المقدمة.
تبع دائرة واحدة فقط حول كل عبارة وأجب على جميع العبارات، ولا تلامع الإجابة.
إذا أردت تغيير الإجابة ضع العلامة ( × ) على الإجابة الخطأ ووضع دائرة حول الإجابة الصحيحة مثلاً:

أحب الإلهام إلى السينما (را) ، (م) ، (غ) ، (ع)
1. إذا أراد طفلك شيئاً غالباً ما يستمر في المحاولة حتى يحصل عليه.
2. طفلك نشيط جداً لدرجة مرهقة لي.
3. يبدو طفلك مشوشًا، ومن السهل أن يتشتت انتباهه.
4. بمقارنة طفلك بغالبيته أقرانه من الأطفال، فإن لديه صعوبة أكبر في التركيز والإنباء.
5. كثيراً ما يظل طفلك مشغولاً بعبء ما لأكثر من 10 دقائق.
6. يتجلو طفلك بعيداً عن أبعد مما كنت أتوقعت.
7. طفلك أنشط مما كنت أتوقعت بكثر.
8. طفلك يلتبس ويرفض كثيراً أثناء إلقاءه ثيابه أو اغطائه حماماً.
9. يسهل جداً صرف نظر طفلك من شيء يريده.
10. نادراً ما يفعل لي طفلك أشياء تشعرني بالارتباك.
11. أشعر في معظم الأحيان أن طفلك يحبني ويريد أن يظل بجانبي.
12. أشعر أحياناً أن طفلك لا يحبني ولايريد أن يظل بجانبي.
13. يبتسم لي طفلك أقل بكثير مما كنت أتوقعت.
14. عندما أؤذي أشياء لطفلك أشعر أنه لا يقدر جهودي حق قدرها.

للإجابة على العبارة رقم (15): اختر إجابة واحدة من بين الاختيارات الأربعة التالية:

15. أي من العبارات التالية تتطابق على صفات طفلك أكثر من غيرها؟

(1) تقريباً يجب أن يلعب معي دائماً
(2) يجب أن يلعب معي أحياناً
(3) عادة لا يجب أن يلعب معي
(4) تقريباً لا يجب أن يلعب معي أبداً
لإجابة على العبارة رقم (16) اختر إجابة واحدة من بين الخيارات :

الخمسة التالية : 

16- يبقى طفلاً وسبب صخباً 
(1) أقل كثيراً مما كنت اتوقع 
(2) أقل مما كنت اتوقع 
(3) بقدر ما كنت اتوقع تقريباً 
(4) أكثر بكثير مما كنت اتوقع 
(5) يبدو تقريباً أنه لا يوقف عن ذلك 

17- يبدو أن طفلاً يبقى أو يسبب صخباً أكثر من معظم الأطفال . 

18- عندما يلعب طفل فهو لا يكون من القهقية أو الضحك . 

19- يستطيع طفل عموماً وهو منحرف المزاج . 

20- أشعر بأن طفلاً متقلب المزاج جداً ومن السهل إثارة اضطرابه . 

21- منظر طفلاً مختلف قليلاً من ما كنت اتوقع . وذلك يضايقني أحياناً . 

22- يبدو طفل كما أو أنه نسي مسبق أن تعلم في بعض المجالات ، واردت إلى ممارسات من التي يتميز بها الأطفال الصغار . 

23- لا يبدو على طفلاً أنه يتمتع بنفس السرعة التي يتمتع بها معظم الأطفال . 

24- لا يبدو أن طفل يبتسم بنفس القدر الذي يبتسم به معظم الأطفال . 

25- يفعل طفل بضعة أشياء تضايقني بشدة . 

26- لاقدر طفل على أداء ما كنت أتوقع منه ان يسيد بنفس قدر توقعاتي . 

27- لا يحب طفل أن يحتضنه الآخرين أو يلمسونه كثيراً . 

28- لما رجعت مع طفل من المستشفى ، انتابني احساس بالشك في قدرتي على اداء دورى كام أو كاب .
29- المسئولية الوالدية أصعب مما كنت أظن.

30- أشعر بأنه قدير ومتمكن وفي قمة ليائتي عندما أرهق طفلي.

31- مقارنة بالطفل العادي، يجد طفلي صعوبة كبيرة في التعود على تغيير المواعيد أو تغيير الأشياء في المنزل.

32- رد فعل طفلي يكون شديد جداً عندما يحدث شيء لا يعجبه.

33- ترك طفلي مع نائمة أطفال يعتبر في المعتاد مشكلة.

34- يضايق طفلي بسهولة لأنفه الأشياء.

35- يلاحظ طفلي بسهولة الأصوات العالية والأضواء المبهرة وبالغ في رد فعله تجاهها.

36- تنبيط مواعيد نوم طفلي وألا أصرع مما كنت أتوقع.

37- يتجه طفلي عادة اللعب الجديدة لوحة قبل أن يبدأ اللعب بها.

38- من الصعب جداً أن يتمتع طفلي على الأشياء الجديدة ويستغرق ذلك منه وقتاً طويلاً.

39- لا يقرر على طفلي الارتياح عندما يقابل الأغراب.

لإجابة على العبارة رقم (60) ، اختير إجابة واحدة من بين الخيارات:

الأربعة التالية:

40- عندما يكون طفلي مضطرباً فهو:

1- من السهل تهديته
2- تهديته أصعب مما كنت أتوقع
3- من الصعب جداً تهديته
4- لا بد أن ابدأ مهما فعلت له

لإجابة على العبارة رقم (61) ، اختير إجابة واحدة من بين الخيارات:

الخمسة التالية:

41- لقد اكتشفت أن جعل طفلي يفعل شيئاً أو يتوقف عن فعل شيئاً هو:
(1) أصعب بكثير مما كنت أتوقع
(2) أصعب مما كنت أتوقع إلى حد ما
(3) كما توقعت تماماً من حيث درجة الصعوبة
(4) أسهل مما كنت أتوقع إلى حد ما
(5) أسهل مما كنت أتوقع بكثير

لإجابة على العبارة رقم (47)، اختر إجابة واحدة من بين الاختيارات
الخمسة التالية:

17- فكر جيداً بعد الأشياء التي يؤديها طفلك وتسبب لك مشاكل؟: أنه يتباهى، يرفض أن يستمع، يغفل عن الادخار، يبكي، يقاطع المتحدثين، يتواصل، ينوح.

إلى أخره = 2 Points
من 1 إلى 3
من 4 إلى 5
من 6 إلى 7
من 8 إلى 9
10 فاصل

لإجابة على العبارة رقم (47)، اختر إجابة واحدة من بين الاختيارات
الخمسة التالية:

42- عندما يبكي طفلك، عادة يستمر في البكاء:

1- أقل من دقيقة
2- من 2 إلى 5 دقائق
3- من 5 إلى 10 دقائق
4- 10 - 15 دقيقة
(5) أكثر من 15 دقيقة

44 - بعض أفعال طفل تضايقنا فعلاً

45 - لدى طفل مشاكل صحية أكثر مما كنت أتوقع

46 - كلما كبر طفل وأصبح أكثر استقلالًا بنفسه يزيد قلقه عليه ومن احتمال تعرضه للإذى أو تعرضه في الملعب

47 - تبين أن طفل أصبح يمثل مشكلة لي أكثر مما كنت أتوقع

48 - تبدو العناية بطفلي أصعب بكثير من العناية بغيره من معظم الأطفال

49 - يتشبطن طفل بي داشا

50 - يتطلب مني طفل من الرعاية أكثر مما يتطلب معظم الأطفال الآخرين

51 - لا أقدر أن اتخذ قرارات بدون مساعدة

52 - واجهت من المشكلات في تربية الأطفال أكثر بكثير مما توقعته

53 - استمتع بكوني أبا (أو أبا)

54 - أشعر بالنجاح في معظم الأوقات التي أحاول فيها أن أجعل طفل يفعل شيئاً أو يكف عن فعل شيء ما

55 - منذ عودتي من المستشفى بطفلي الأخير، أشعر كما لو أنني غير قادر (أو قادر) على العناية بهذا الطفل بقدر ما كنت اعتاد أنني يحتاج (محتاج) إلى مساعدة

56 - اتمنى لأحيان كثيرة أن أكون قادر (قادرة) على معالجة الأمور جيداً للاجابة على العبارة رقم (47)، اختر اجابة واحدة من بين الاختيارات

الخمسة التالية:

57 - عندما أفكر في نفسي كأب أو كأم اعتقد:

(1) أنه في مقدورى معالجة أي موقف يحدث
(2) أفعال معظم المواقف جداً نوعاً ما
في بعض الأحيان تتناسب الشكوك، ولكنني أجد أنه في امكاني معالجة معظم المواقف بدون أي مشاكل.

(4) لدى بعض الشكوك في مقدرتي على معالجة المواقف

(5) لا أعتقد أنني أجد معالجة المواقف جيداً باتتاً

الإجابة على العبارة رقم (58) اختر إجابة واحدة من بين الاختيارات

الخمسة التالية:

58- أشعر أنه:

(1) الأب (أو أم) صالحاً جداً

(2) الأب (أو أم) أحسن من الأب أو الأم العادي

(3) الأب (أو أم) عادي

(4) شخص لديه بعض العناية في كونه أبا (أو أما)

(5) ليست صالحة بدرجة كبيرة في كونه أبا (أو أما)

السؤال رقم (59) اختر إجابة واحدة من بين الاختيارات الخمسة التالية:

59- ما هو أعلى مستوى دراسي أتمته في المدرسة أو الكلية أنت وأبناءك والدة الطفل؟

الأم:

(1) الصف الأول الإبتدائي إلى الصف الثاني الإعدادي

(2) الصف الثالث الإعدادي إلى الثانوية العامة

(3) تعليم مهني أو بعض سنوات من الدراسة الجامعية

(4) خريج جامعي

(5) دراسات عليا أو دراسات تخصصية
الإي: 
(1) الصف الأول الابتدائي إلى الصف الثاني اعدادي
(2) الصف الثالث الاعدادي إلى الثانوية العامة
(3) تعليم مهني أو بعض سنوات من الدراسة الجامعية
(4) خريج جامعي
(5) دراسات عليا أو دراسات تخصصية

للسؤال رقم (11) ، اختير إجابة واحدة من بين الخيارات الخمسة التالية:

11 - هل تجد سهولة في فهم ما يثيرده أو يحتاج إليه طفلك؟
(1) سهل جداً
(2) سهل
(3) صعب نوعا ما
(4) صعب جداً
(5) عادة لا أقدر أن أفهم ماهي المشكلة

22 - تستغرق عملية تنمية مشاعر الفدية والتعاون ما بين الوالدين وأطفالهما وقتا طويلا

23 - لقد توقعته أن أحظى بمشاعر دفء وتعاون مع طفلك أكثر مما تحقق لي معه فعلاً، وذلك يضايقتي.

24 - في بعض الأحيان يؤدي طفل على بعض التصرفات التي تضايقتي لمجرد أن يكون

لئيناً.

25 - لم أشعر ابداً بالارتياح في صبابى عند قيامي بإحترام الأطفال، أو بالإعتناء بهم.

26 - طفلي يعرف اني أمي/ أبيه ويربينى أكثر مما يريد غيري من الناس.

27 - عدد الأطفال الذين رزقت بهم حتى الآن كثيرا جداً

28 - أتفق معظم حياتي في اداء خدمات لطفلى.

29 - أجد اني أتنازل عن جزء من حياتى أكثر مما توقعته من أجل تلبية طلبات اطفالى.
70- أشعر كأنى سجن مستواياتى كاب (أو كام)
71- كثيراً ما أشعر أن احتياجات طفلي تسيطر على حياتى.
72- منذ ميلاد هذا الطفل، لم أتمكن من عمل أشياء جديدة ومختلفة.
73- منذ ميلاد الطفل، أشعر أنى قد أكاد أكون غير قادر دائما على عمل الأشياء التي أحبها.
74- من الصعب إيجاد مكان في بيتيتي لكي أختلى فيه بنفسي.
75- أشعر أنها آنا بالذنب أو بعدم الرضا عن نفسي عندما أفكر في أي نوع من الآباء/الأمهات آنا.
76- آنا غير راضي عن آخر قطعة ملابس أشتريتها لنفسى.
77- عندما يبكي طفلى سلوكي أو يكثر من الصخب أشعر أنى المسئول عما فعل ولائنى لن أفعل الصواب.
78- كلهما خطأ فطفلى أشعر كأنى حقا خطئى آنا.
79- كثير من الأحيان، أشعر بالذنب بسبب كيفية شعوري نحو طفلى.
80- المنحنات التي تضايقني في حياتى كثيرة إلى حد ما.
81- شعرت باسنى وأحباط أكثر مما توقعت بعد مساعدتى من المستشفى مع مولودى.
82- يشعرنى إحساس بالذنب عندما أغضب على طفلى وذلك يضايقنى.
83- بعد شهر تقريبا من مولودى طفلى من المستشفى لاحظت أننى أشعر بالحزن والإحباط أكثر مما توقعت.
84- منذ ميلاد طفلى لم تنقصني زوجتي (زوجى) المساعدة والمدد بقدر ما كنت أتوقع.
85- سبب وجود الطفل مشاكل أكثر مما كنت أتوقع، في علاقاتى مع زوجتي (زوجى).
86- منذ ميلاد الطفل أنا وزوجتي (زوجى) نلتذى كثير من الأشياء معاً.
منذ ميلاد الطفل لم نقضى أنا وزوجتي (زوجي)، مما وقنا كافنا كأسرة مما كنت أنتموح.

88 - منذ ميلاد الطفل الثاني انخفض اهتمامي بالجنس.
89 - يبدو أن وجود طفل قد زاد من عدد المشاكل التي نواجهها مع الأشخاص والأقارب.
90 - أتضح أن أطفال الأطفال عملية مكلفة أكثر مما كنت أتوقع.
91 - أشعر بالوحدة وتباطر بلا أصدقاء.
92 - عندما أذهب إلى حفل فإنني عادة ما أتوقع إلا استمتع به.
93 - لم أعد أهتم بالناس بقدر ما كنت أفعل سابقاً.
94 - كثيراً ما أشعر بأن من يقاربوني في العمر لا يحبون صحتي بصفة خاصة.
95 - عندما تصادفت مشكلة تخص رعاية أولادي أجد أن لدى عدد كبير من الناس مهن.
96 - يمكنني اللجوء إليهم طلباً للمساعدة أو التصدع.
97 - منذ أن ركبت بلطفلاً أصبحت فرصتي في رؤية أصدقاء أو تكوين صداقات جديدة أقل بكثير مما ذكر قبل.
98 - خلال الشهر الأخرى أتمنى التبنتي الأرجاء والآلام والتجارب الصحية أكثر من المعتاد.
99 - أشعر بأن صحتي البدنية على مايراعي معظم الأوقات.
100 - وجود طفل تسبب في تغيير في نظام نومي.

للإجابة على العبارة رقم (101): اختار إجابة واحدة من بين الخيارات الأربعة التالية:
101 - منذ ميلاد طفل:
(1) مرضت كثيراً.
(2) لم يعد الشعر باتى على مثيراً كما كتبت سابقاً
(3) لم الاحظ أي تغير في صحتي
(4) أصبحت أصح من قبل