University of Alberta

Parenting Stress in Mothers of Gifted and Typical Children

by

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Abstract

This study was designed to compare reported levels of parenting stress in mothers of gifted children with mothers of typical children. Mothers of school aged children (Kindergarten to Grade Five) whose children have been identified by a registered psychologist as being gifted through standardized intelligence assessments (*n* = 30) completed the Parenting Stress Index (PSI) online. Mothers of children of school aged children (Kindergarten to Grade Five) who self-identified their children having no identified learning exceptionalities (n = 30) also completed the Parenting Stress Index (PSI) online. The PSI asks participants to respond to statements in two identified major source domains of stressors: child factors and parent factors. Results show that mothers of the gifted sample report significantly greater levels of parenting stress than the mothers of the typical sample. In addition, it was shown that child factors were slightly more predictive of parenting stress than parenting characteristics. The findings point to the importance of identifying areas of parenting stress in families of gifted children so professionals working with these families have a more comprehensive understanding of the unique stressors in raising a gifted child.

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Chapter 1: Introduction

Parenting stress is important to the overall health and functioning of the family. Research shows that parenting stress is strongly correlated with insecure child attachment (Jarvis & Creasey, 1991; Hadidian & Merbian, 1996), a decrease in parenting fulfillment (Koeske & Koeske, 1990), and an increase in reactive parenting (Rodriguiz & Green, 1997; Kelly, 1998). Many authors have contended that to support the healthy development of family functioning, professionals must first work with parents to assist them in learning to manage parenting stress (Dunst, Leet & Trivette, 1988; McDowell, Saylor, Taylor, Boyce & Stokes, 1995).

The parenting stress research literature reveals many studies comparing levels of parenting stress with particular populations of children such as those with developmental disabilities (Krauss, 1993; Walker, 2000; Baker, Blacher, Crnic, & Edelbrock, 2002), Attention-Deficit Hyperactivity Disorder (ADHD) (Breen & Barkley, 1987; Fischer, 1990; Anastopoulos, Guevremont, Shelton & DuPaul, 1992; Baker, 1994; Baker & McKal, 1999; Podolski & Nigg; 2001), autism (Milgram & Atzil, 1988; Wolf, Noh, Fisman & Speechley, 1989; Schieve, Blumberg, Rice, Visser, & Boyle, 2007; Davis & Carter 2008) and learning disabilities (Dyson, 1996 Hassall, Rose & McDonald, 2005). These studies have shown that having a child in the family who possesses exceptionalities correlates with an increase in the amount of parenting stress. One area of exceptionality that has received much less attention in the parenting stress literature is giftedness. There have been some studies that have focused on the types of unique stressors being reported by parents of gifted

children, but few studies comparing the stress level of parents of gifted children with that of parents of non-gifted children.

There has been an increase in the number of fathers who are stay-at-home dads in the last 20 years from 1% to 12% of stay-at-home parents. Although this is a large increase, it remains that fathers account for one in eight of primary caregivers in Canada. (Statistics Canada, 2010). As mothers still remain the majority of primary caregivers in Canada, they were chosen for this study. The primary purpose of this study is to compare parenting stress in mothers of gifted children with parenting stress in mothers of children with no identified learning or behavioural exceptionalities.

There is a small body of research indicating that gifted children may be more susceptible to developing emotional and behavioural problems (Whitmore, 1980; Roedell, 1984, 1986; Garner, 1991; Kwan, 1992; Neihart, 1999). Porter (2005) identified some key issues for gifted children that may result in problems for them: overexcitability, low self-esteem, perfectionism, anxiety and stress, depression, suicide, behaviour difficulties, social difficulties, and psychiatric disturbance. In the research literature there is evidence supporting and contradicting these claims. There is contradictory evidence in the literature suggesting that gifted children are both less susceptible (Baker, 1995; Barnett & Fiscella, 1985; Eccles, Bauman & Rotenberg, 1989; Gust-Brey & Cross, 1999; Kelly & Colangelo, 1984; Neihart, 2002; Parker, 1996; Reynolds & Bradley, 1983; Seeley, 1984), and more susceptible to poor mental health (Coleman & Cross, 1988; Czeschlik & Rost, 1994; Freeman, 1994;

Garner, 1991; Kwan, 1992; May, 1990; Renzulli, 1981; Roedell, 1984; Whitmore, 1980).

There have been several books and guides written for parents of gifted children offering advice from professionals who have worked in clinical settings with these families. For example, "Keys to Parenting the Gifted Child" by Sylvia Rimm, "Parents Guide to Raising a Gifted Child" by James Alvino, and "Raising a Gifted Child" by Carol Fertig. However, there is limited research about parenting gifted children to provide empirical support to validate the advice. Most studies have focused on how parents can support their child's educational experience (Hertzog & Bennet, 2004). Few studies have explored parenting differences between gifted and typical children and most of these have centered around the environments the children are raised in; for example, the amount of time spent at home working on school or learning-related activities (Karens et al., 1984; Weissler & Landau, 1993), and how parent's perceive their children's use of free time (Johnson & Lewman, 1990). There is some evidence to support the notion that mental health outcomes of gifted children depend on the family environment (Olszewski, Kulieke, & Buescher, 1987; Winner, 2000).

There are several theories of parenting stress that have been developed in recent decades. The oldest, and most prominent theory still used today is that proposed by Abidin in 1976 (as cited in Abidin, 1995). Abidin also created the most commonly used measure of parenting stress for research, The Parenting Stress Index (PSI; 1983/1995). His theory contends that parenting stress is determined by child factors, parent factors, and situational factors. Child factors are defined as

distractibility/hyperactivity, adaptability, reinforcing to parent, demandingness, mood, and acceptability; parent factors as attachment, sense of competence, and depression; and situational factors as role restriction, parental health, social support/isolation, and spousal relationship. Considering the preeminence of Abidin's theory in parenting research and literature, the decision was made to use Abidin's conceptual framework for this research. The Parenting Stress Index was used as the instrument for measuring parenting stress in this study; therefore, the data collected is most relevant to this theory.

The role of parents is critical in the healthy development of a child. The importance of examining parenting stress in parents of children with exceptionalities is that it provides professionals working with these families a deeper understanding of the unique issues they may be facing as a family. Giftedness is often overlooked as a type of exceptionality. Gifted children have quantitative differences in their ability to learn and qualitative differences in the way they perceive and interact with the world around them. It is important to understand the unique stressors facing parents of gifted children and to provide them with the necessary supports that will enable them to create an environment that will help nurture the cognitive and emotional development of their gifted child.

The current study therefore aims to compare reported levels of parenting stress in mothers of gifted children with mothers of typical children. First, a review of the research on giftedness, parenting stress, and parenting stress in families of gifted children will be provided. Next, the procedures that were taken to investigate parenting stress in the two samples will be provided. Finally, the results of the

study will be presented and interpreted. Implications for professionals working with these families and potential directions for future research will be conveyed.

Chapter 2 Literature Review

The main purpose of this study is to compare parenting stress in mothers of gifted children with parenting stress in mothers of children with no identified learning or behaviour exceptionalities. In this chapter, conceptions and definitions of giftedness will be reviewed. Research literature on characteristics of gifted children will be examined to illustrate possible unique stressors for parents. A review of the research concerning parenting gifted children will be provided. Theories of parenting stress will be summarized and the theoretical framework for this study will be outlined.

Defining Giftedness

There is no shortage of controversy in the research findings and theoretical writings attempting to define giftedness (Kauffman & Sternberg, 2008). Over the years, many different conceptions have been proposed, but no single definition of giftedness has ever been universally accepted. Because of this lack of a cohesive, accepted definition of this term, researchers are presented with a unique challenge when conducting empirical studies in this area. In this section, some earlier conceptions of giftedness as well as popular modern day conceptions will be explored. A definition of giftedness will be outlined for the purposes of this study.

Early conceptions of giftedness. Some early conceptions of giftedness are notable as they set the foundation from which modern day conceptions evolved. Earlier research tended to focus on definitions of giftedness that hinged on measured intelligence; more modern day conceptions are leaning towards the inclusion of qualities that are more difficult to measure, such as the internal

emotional experience of the gifted. These conceptions laid the groundwork for further research into this unique population.

Sir Francis Galton was the first to coin the term "gifted children" with the publication of *Hereditary Genius* (Galton, 1869). He believed that intelligence was passed through successive generations. He came to this conclusion based on his research of over 7,500 people after attempting to measure their intelligence. One of his discoveries was a direct correlation between a child's intelligence with the parent's. Galton concluded that intellectual giftedness is genetic or inherited.

In the early 1900s, Lewis Terman added the element of high IQ to the existing definition (Terman, 1921). He defined giftedness as those possessing an IQ of 140 or higher; his seminal longitudinal study followed the development of 1,500 children with IQs over 140. Terman followed these children through their childhood and into adulthood; he found in his sample that gifted children tended to be healthier and more emotionally stable. One of Terman's discoveries was that childhood giftedness by this definition does not predict adult achievement.

Leta Hollingworth is considered "the mother" of giftedness as she was the first to recognize the affective needs of the gifted child and the importance of the home and school environment in nurturing their potential (Hollingworth, 1926, 1942). "To have the intellect of an adult and the emotions of a child combined in a childish body is to encounter certain difficulties" (Hollingworth, 1942, p.282). She recognized Galton's and Terman's beliefs that heredity played a critical role in intelligence, but she countered that the home and school environment had a role to play in the development of giftedness. Hollingworth ran a school in New York City

for gifted children where she emphasized the importance of early identification and grouping gifted children with others who had similar abilities.

Modern conceptions of giftedness. Some modern definitions focus on elements of giftedness that have been correlated with success as an adult. Joseph Renzulli proposed with his Three Ring Conception of Giftedness "gifted behaviour…reflects an interaction among three basic clusters of human traits – these clusters being above average (but not necessarily high) general and/or specific ability, high levels of task commitment (motivation), and high levels of creativity. Gifted and talented children are those possessing or capable of developing this composite set of traits and applying them to any potential area of human performance." (Renzulli, 1986) Renzulli's model remains a popular choice for the identification of students for gifted education programming in the United States. His identification plan doesn't require a student to have all three traits to be considered gifted, he views them as fluid and changing within a student depending on their stage and the task at hand.

Some researchers have proposed a definition of giftedness that embraces the idea of potential. They believe that a child with exceptional potential is gifted, and that the child's environment will determine whether this potential will lead to achievement. These researchers stress the importance of an environment that nurtures this potential. Francoys Gagne's Differentiated Model of Talent Development separates the concept of gifts from talents. Gifts are defined as natural inborn traits or aptitudes that a child possesses that puts them in the top 15% of

same age peers in a particular domain. Gagne proposes that through interaction with the environment combined with motivation and personality factors, that gifts undergo a process of transforming into talent that is defined as a superior mastery of skills in a domain that puts a child's achievement in the top 15% of same age peers. This distinction between ability and achievement or gifts and talents remains a popular way of viewing giftedness today (Gagne, 2009).

Professionals in the field of gifted education met in Columbus, Ohio in 1991 and created the following definition based on their knowledge and experience in the field. "Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable and requires modifications in parenting, teaching and counseling in order for them to develop optimally. (The Columbus Group, 1991) This definition encompasses a broader range of conceptions of giftedness and acknowledges the unique social and emotional needs of the gifted that the professionals in the field agree better captures the essence of giftedness.

In an effort to standardize giftedness for identification purposes with students in an educational setting, the United States federal government adopted the following definition: "Students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities. (No

Child Left Behind Act, P.L. 107-100 (Title IX, Part A, Definitions (22) (2002); 20 U.S.C. Sec 7802 (22) (2004)). The Canadian Council of Exceptional Youth endorses this definition although each province in Canada has the freedom whether to utilize this definition.

Characteristics Associated with Giftedness

Gifted children possess unique characteristics that may render them vulnerable for developing emotional and behavioural difficulties. These difficulties, in turn, may contribute to higher levels of parenting stress in this population. Some factors that may make gifted children vulnerable to developing behavioural and emotional problems are asynchronous development (Roedell, 1986; Webb, 1993); emotional sensitivity (Aron, 1996; Lovecky, 1993; Mendaglio, 1995; Walker, 1991; Webb, Meckstroth & Tolan, 1982); a mismatch between their ability and educational environment (Pfeiffer, 2000); and unrealistic expectations of teacher and parents placed on them (Freeman, 1995).

There is some controversy in the literature surrounding this notion. Some researchers believe the internal experience of gifted children that is believed by some to make them inherently more vulnerable to interpersonal and intrapersonal struggles (Garner, 1991; Kwan, 1992; Neihart, 1999; Porter, 2005), and some report that as a group, gifted children are more emotionally healthy than average children (McCallister, Nash & Meckstroth, 2006; Nail & Evans, 1997; Neihart, Reis, Robinson, & Moon, 2002). The protective factors that prevent some gifted children from developing these vulnerabilities are not well understood. It is important to note that most of the literature concerning the social and emotional needs of gifted

children is through clinical observation or theoretical writings; there is comparatively less empirical research in this area.

Intensity. Dabrowski (1967) conducted the first empirical study of the internal experience of gifted children. He identified a pattern of intensities in gifted children that he termed "overexcitabilties." Dabrowski and Piechowski (1977) outlined these excitabilities, summarized here as:

Psychomotor Overexcitability. It manifests itself, for example, in rapid talk…intense athletic activities, restlessness and acting out on impulse.

Sensual Overexcitability. In children, it ma be seen as an increased need for touching and cuddling or the need to be the center of attention.

Imaginational Overexcitability. It manifests itself through association of images and impressions, inventiveness, vivid and often animated visualization…dreams, nightmares, mixing of truth and fiction, fears of the unknown, etc.

Intellectual Overexcitability. It is manifested in the persistence to ask probing questions, avividity for knowledge, analysis, theoretical thinking, reverence for logic, preoccupation with theoretical problems.

Emotional Overexcitability. The manifestions of emotional overexcitability Include inhibition (timidity or shyness)…concern with death…fears, anxieties, depressions, feelings of loneliness… [and] concern for others. (pp.30-36)

These overexcitabilities stand out "loud and clear in gifted children" (Piechowski, 1997, p.367). This theory is arguably the most accepted and embraced theory in the gifted community as representative of the inner experience of being gifted.

Asynchrony. Asynchrony is uneven development in the rates of emotional, physical, and intellectual development. According to the Columbus Group (1991), giftedness is asynchronous development in that advanced cognitive abilities and intensities combine to create inner experiences that differ from the norm. With increased intellectual capacity, this asynchrony increases, and gifted children are more likely to feel out of sync with their peers (Silverman, 1993). This term is used frequently when discussing the unique needs of gifted children.

Concerns of Parents with Gifted Children

Based on the aforementioned characteristics of gifted children, it seems logical that parents may have their own unique parenting concerns. Parents often find that there is a lack of information, resources, and support in their community. Again, most of the literature regarding concerns of parents with gifted children has been based on clinical findings or theoretical writings, and comparatively less empirical studies have been conducted. Most have it has concerned the effects of labeling (Ballering & Koch, 1984; Cornell, 1983; Freeman, 1985; Colangelo & Brower, 1987) or providing parents with strategies to support their gifted child educationally (Gross, 1999; Wolf, 1987).

Hackney (1981) conducted one of only a few studies of concerns of parents with gifted children. Parents were asked to write down some of their concerns and observations about having a gifted child in the family and then they discussed them

together as a group. The parents in this study identified five main areas of concern: altered normal family roles; altered parental self-image; adaptations made in the family; issues created between the family and the neighborhood or community; and issues created between the family and the school.

Dangel & Walker (1991) surveyed 159 parents of gifted students in Georgia as to their needs for parent education programs. Of nine areas of need, over 25% of the parents responded to seven of them that dealt with social/behavioural development rather than academic concerns. Schools often focus on academic concerns leaving parents to deal with social/emotional development concerns on their own.

Yuen (2005) conducted qualitative research using semi-structured interviews to understand the parenting stress and the parental coping processes of gifted children. She discovered that the amount of parenting stress parents report depended on how a parent perceived giftedness. The successful coping processes of parents in the study depended on their ability to understand the characteristics of gifted children that increased their feelings of competence in parenting their child.

Morawska & Sanders (2008) conducted a study aimed at describing gifted children's behavioural and emotional adjustment, and the factors that contribute to children's difficulties. Parents of 278 gifted children were asked to complete a series of questionnaires relating to child behaviour and emotional adjustment, parenting style, parent confidence, parent conflict, marital relationship, and parent adjustment. The study showed that overall gifted children displayed similar difficulties to other children except for in two areas: emotional symptoms and peer

difficulties. The children in this sample displayed more problems in these areas compared to the normative data. Parents who reported higher levels of confidence in parenting reported fewer behavioural and emotional problems in their children.

Clelland (2009) investigated parenting concerns of gifted children. Over 500 parents of gifted children from the provinces of British Columbia, Alberta, and Ontario responded. The concerns in order of frequency of responses were evaluation of school program, understanding my gifted child, teaching my gifted child life skills, dealing with my gifted child's issues, parent's role in the school, school program choices, how to be a good parent of a gifted child, peer relationships, wanting support from the community, the effect of having a gifted child in our family, deciding to change school programs, and relationships with extended family. Parents in British Columbia and Ontario reported higher levels of concern with lack of time, resources, and programs for gifted children, than in Alberta.

Parenting Stress

In varying degrees, parenting stress is a universal phenomenon. Most parents would agree that parenting a child can be demanding at times, and thus, stressful. Regardless of child factors or any other variables associated with parenting stress, all parents experience stress in their role to some degree (Crnic & Greenberg, 1990). There have been many attempts made by researchers to define, design instruments to measure, and to create theoretical models to understand the complexities of contributing factors to parenting stress.

Deater-Deckard (2004) defines parenting stress as, "the aversive psychological reaction to the demands of being a parent." (p.315). He further

describes parenting stress as being a complex process involving demands of parenting, the parent's psychological well-being, the quality of the relationship between parent and child, and the psychosocial adjustment of the child. This definition states that parenting stress involves not only negative feelings towards oneself as parent, but also negative feelings toward the child.

Theories of Parenting Stress

There have been several conceptualizations of parenting stress (e.g., Abidin, 1992; Belsky, 1984; Crnic and Low, 2002; Webster-Stratton, 1990). Deater-Deckard (2004) suggested two predominant theories: parent-child-relationship (P-C-R) theory, and daily hassles theory. These theories represent two complementary perspectives in the conceptualization of parenting stress.

Parent-child-relationship theory. The most prominent and widely tested theory is the parent-child-relationship theory (P-C-R). This theory suggests there are three domains of stress that contribute to parenting stress. The first is the parenting domain; that is the aspects of parenting stress that originate with the parent. The child domain contains those stressors that originate from the child. The relationship domain refers to those aspects that result from interactions between the parent and the child. The parenting domain stress is associated with mental health issues for the parent such as depression and anxiety, the child domain stress refers to emotional and behavioural problems of the child, and the relationship domain is correlated with the degree of conflict in the parent-child relationship (Eyberg, Boggs, and Rodriguez, 1992).

Increases in the amount of stress in the parenting domain as a result of stress in the other domains will adversely impact effective parenting methods. These changes may result in an increase of harsh and reactive discipline methods, less consistency in parenting behaviour, a decrease in attentiveness to the child, or a complete withdrawal from the parenting role (Deater-Deckard, 2004). As these changes occur, the child behaviours are affected and there is an increase in conflict in the relationship domain. The three domains in this theory are inextricably connected. Stress in any of the domains can adversely affect the others and reduction of stress in one area can positively affect others (Abidin, 1995).

Daily hassles theory. The daily hassles theory focuses on the accumulation of daily stressors as a parent and how they adversely affect a parent's physical and psychological health (Crnic & Low, 2002). "These include the typical stress that arises when having to deal with a child's minor misbehaviour or problems, when carrying out the many mundane tasks of childcare, and when navigating the complicated and usually conflicting schedules of work and family life," (Deater-Deckard, 2004, p.10). This is a complimentary theory to the P-C-R theory to explain the slow accumulation of stress in each domain that contributes to dysfunctional parent-child relationships (Deater-Deckard, 2004).

The hassles of daily parenting are not considered as major sources of stress when viewed in isolation. It is the cumulative effects of these stressors that build over time. Some of these daily parenting hassles may be dealing with a child's misbehaviour, mundane daily tasks, and organizing the often hectic family schedule. The daily hassles theory suggests that when there is an accumulation of daily

stressors, the quality of the parent-child relationship deteriorates (Crnic & Low, 2002). When parenting stress becomes chronic, it is most likely to have harmful consequences (Deater-Deckard, 2004).

Parenting Stress Index (PSI)

The most prominent and widely used measure of parenting stress is the Parenting Stress Index (PSI). The framework for the PSI draws directly from the Parenting-Child-Relationship (P-C-R) theory of parenting stress (Abidin, 1995). The PSI measures stress in two domains: child and parent. The child domain measures child factors that contribute to parenting stress. It contains the following subscales: Adaptability, Demandingness, Mood, Distractibility/Hyperactivity, Acceptability of Child to Parent, and Child's Reinforcement of Parent (Abidin, 1995). The parent domain measures parent factors that contribute to parenting stress. It contains the following subscales: Depression, Attachment to Child, Social Isolation, Sense of Competence in the Parenting Role, Relationship with Spouse/Parenting Partner, Role Restrictions, and Parental Health (Abidin, 1995).

Summary

Children who are gifted are both quantitatively and qualitatively different from typical children. Research supports that along with their high intellectual ability gifted children may have internal experiences such as intensity (Dabrowski, 1967) and asynchrony (Silverman, 1993) that may create some difficulties with behaviour and emotional regulation. Framing these difficulties within the Parenting-Child-Relationship (P-C-R) theory of parenting stress (Abidin, 1997) it seems to follow that these unique issues for gifted children may create more

parenting stress than typical children. Stemming from the current research, the following hypotheses were made:

$H_{1:}$ Mothers of gifted children would report higher levels of parenting stress than mothers of typical children.

H_2: Higher levels of total parenting stress would be more likely predicted by child factors rather than parent factors.

H_3: Reported child factors may predict membership in gifted or typical group.

Chapter 3: Method

Participants and Procedures

Participants in the study were mothers of children attending Kindergarten to Grade 5 in schools in Alberta. Two groups of mothers (n = 30 for each group) were recruited by several means. The mothers of typical children were recruited by snowball sampling. After approval from the university research ethics board, and after gaining permission for the research project from the parent council of George H. Luck Elementary, a recruitment poster was posted to attract participants. The initial group of participants was encouraged to contact other potential participants, resulting in a subsequent wave of volunteers who agreed to complete the survey. The mothers of gifted children were recruited through two charter schools in Alberta for gifted children: Westmount Charter School in Calgary, AB, and New Horizons Charter School in Ardrossan, AB. The principals of these two charter schools were contacted and information about the study was sent home in newsletters.

Interested participants were asked to contact the researcher by email and were asked to complete a short screening form to ensure the suitability of the volunteer for the study. There were 68 respondents to the survey. Data from two participants were omitted , as they did not live in Alberta and the researcher made the decision to restrict the sample to participants from within the province. Six other respondents were omitted as they reported their children were diagnosed as being gifted with Attention Deficit Hyperactivity Disorder (ADHD). For the purposes of this study, inclusion of these participants may have resulted in data that

were influenced by children's attention problems, not giftedness. The remaining 60 participants were accepted through this process. When all 60 participants were recruited, they were sent a link to complete the Parenting Stress Index survey online at Survey Monkey. Permission was obtained by the distributor of the Parenting Stress Index to publish the survey online in this manner for the study. Responses to the survey were collected with the only identifying factor being an email address.

For the purposes of this study *giftedness* was defined by IQ scores of 130 or higher. Children of participants in the study had to have been previously identified through standardized intelligence measures by a registered psychologist. The children of participants in this study were tested using the WISC-IV intelligence measure which scores children with measured intelligence of 130 and over as being in the very superior range of intelligence.

In order to control for potential age related parenting stressors, participants were asked their age when their child was born. An independent-samples t-test was conducted to compare the ages in the gifted and typical samples. There was no significant difference between the typical sample (M = 29.2, SD = 5.2) and the gifted sample (M = 31.5, SD = 3.6); $t = .06$, $p > .05$. Three control variables were reported: income, number of children living in the home, and history of depression or anxiety. These variables were chosen as potential stressors for the mother that may contribute to their ability to effectively manage parenting stress.

The participants were asked to choose the income category that represented total annual household income (with 5 = *+$100,000*, 4 = *$80,000-$100,000*, 3 = *$60,000-$80,000*, 2 = *$40,000-$60,000*, and 1 = *less than $40,000*). The gifted sample

reported a total annual household income (M = 4.1, SD = 1.3). The typical sample reported a total annual household income (M = 4.4, SD = 1.0); t = .41, p > .05. There was no significant difference between the two samples on measures of household income.

The participants were asked to report how many other children were currently living in their homes other than the child being considered for the study. The gifted sample reported 1.06 (SD = .69) other children living in the home, whereas the typical sample reported 1.47 (SD = 1.28) other children living in the home; t = .06, p > .05. There was no significant difference between the number of children living in the homes of the gifted and typical samples.

The participants were asked to report if they were currently taking any medication for anxiety or depression. Three mothers in the gifted sample and one mother in the typical sample reported that they were currently taking medication to relieve symptoms of anxiety or depression.

Measures

The Parenting Stress Index (PSI; Abidin, 1986) was used to measure the overall stress within the parent-child system. This instrument was chosen because of its excellent reliability and validity, and its predominance in studies on parenting stress. Previous research (Berry, 1995; Bigras, Lafreniere, & Dumas, 1996) shows the test-retest reliability of the Total Stress score on the PSI ranges from .88-.90. The concurrent validity of the PSI has been correlated with many other measures including Beck Depression Inventory, Conners Hyperactivity Rating Scales, Eyberg Child Behavior Inventory, and the Family Parenting Sense of Competence Scale.

(Abidin, 1995). The PSI is used to help determine therapeutic parenting interventions (Abidin, 1997). The scale was developed in concordance with Abidin's theoretical model of the determinants of dysfunctional parenting which suggested that parent factors and child factors combined with situational factors contribute to parenting stress.

The PSI contains 101 items, each of which is weighted on a 5-point scale. These scores are summed to generate a total stress score. There are separate domain scores for child and parent factors. The child domain total score is yielded from six subscale scores and the parent domain contains seven subscale scores.

The Child Domain contains the subscales of Adaptability, Demandingness, Mood, Distractibility/Hyperactivity, Acceptability, and Reinforces Parent. The Adaptability subscale is used to assess how a child handles transitions and change. Demandingness is used to measure the direct pressure the child places on the parent. The Mood subscale measures child factors such as excessive crying, withdrawal, and depression. Stressors associated with the Distractibility/Hyperactivity Scale refer to those behaviours that are constant drain on the parent's energy. The Acceptability subscale measures how the child reflects the expectations the parents had for them. The Reinforces Parent subscale determines to what degree the parent-child interaction creates a positive response in the parents.

The Parent Domain contains the subscales of Depression, Competence, Parental Attachment, Spouse, Isolation, Health, and Role Restriction. Depression refers to the extent that the parent is emotionally available to the child. Competence

assesses how competent the parent feels in their role as parent. Parental Attachment assesses how invested the parent is in their role. The Spouse subscale measures the support the parent has from their spouse in the parenting role; it also determines conflict in the parenting relationship. The Isolation subscale examines the availability of social support for the parent. Health refers to the parents' current state of health and how parenting may impact it. Role Restriction assesses how the parenting role may be restricting the parent from other roles in their lives.

The characteristics in both domains are measured using a five-point Likert scale to evaluate parent statements ranging from "strongly agree" to "strongly disagree." A total stress measure is calculated by adding together the scores from the child and parent domains. The PSI also includes a Stressful Life Events Scale that is in a yes/no format that evaluates major life changes that have occurred for the parent in the last year.

Ethical Issues

The proposal was approved for research ethics by the University of Alberta's Human Ethics Research Online program. Participation was voluntary and informed and data confidentiality was ensured. There were no risks to the participants and no conflicts of interests for the researcher.

Statistical Analysis

Data were analyzed using PASW (Predictive Analytics SoftWare) Statistical Procedures 19 (2010). Descriptive statistics were determined to assess for outliers in the participants responses. Multiple comparisons were made to detect differences between groups on specific subtests and were corrected post hoc using

Bonferroni correction. A one-way ANOVA was run to compare the gifted and typical groups on three dependent variables: child domain, parent domain, and total parenting stress. Next, an ANCOVA was completed to control for the effect of the independent control variables in the study. Finally, a logistic regression analysis was used to see if the data obtained in this study could predict membership in either the gifted or typical group. For analysis, a cut-off of $p < 0.05$ was chosen for the level of significance, to balance the effects of Type I and Type II errors.

Chapter 4: Results

The first research question sought to determine whether mothers of gifted children report experiencing parenting stress that is more significant than mothers of typical children. Two groups were formed from the dataset (GIFTED, *n* = 30; TYPICAL, *n* = 30). The mean grade of the gifted sample was grade 4.4, and the mean grade of the typical sample was grade 3.9 .Table 1 shows the means, standard deviations, skewness, and kurtosis of subtest scores in both the child and parent domain, total scores for each domain, and an overall total parenting stress score. It also shows *t* and *p* values for multiple comparisons of the subscales between groups. For the child domain, the subscales of distractibility/hyperactivity (DI), adaptability (AD), reinforces parent (RE), demandingness (DE), mood (MO), and acceptability (AC), are reported. For the parent domain, the subscales of competence (CO), isolation (IS), parental attachment (AT), health (HE), role restriction (RO), and spouse (SP) were noted. The total parenting stress score is a measure of both child and parent factors that are associated with parenting stressors.

Table 1
Descriptive Statistics and Multiple Comparisons for Gifted (N = 30) and Typical (N = 30) Groups

	Gifted			Typical				
Subtests	*M (SD)*	Skewness	Kurtosis	*M (SD)*	Skewness	Kurtosis	*t*	*p*
Distractibility/ Hyperactivity (DI)	106.2 (19.07)	.257	-.571	87.1 (16.53)	1.295	1.209	-4.123	.000*

Adaptability (AD)	112.6 (21.57)	.006	-.913	91.3 (16.65)	.364	-.393	-4.282	.000*
Reinforces								
Parent (RE)	109.2 (15.11)	.073	.373	101.3(14.84)	.537	-.289	-2.060	.044
Demandingness (DE)	106.8 (18.82)	-.043	-1.083	92.0 (19.40)	-.086	-.668	-2.979	.004
Mood (MO)	117.9 (13.51)	-.242	- .952	100.8 (11.25)	.747	.824	-5.318	.000*
Acceptability (AC)	99.1 (13.11)	.417	-1.143	98.6 (17.39)	1.026	.110	-.143	.887
Child Total	110.4 (20.48)	.303	- .629	90.9 (17.73)	1.292	2.892		
Competence (CO)	91.0 (3.16)	.070	.227	89.9 (3.12)	.169	-.278	-1.398	.167
Isolation (IS)	83.4 (3.55)	-.180	-.826	81.8 (3.03)	.045	-.864	-1.916	.060
Attachment (AT)	82.4 (2.27)	.234	-.334	81.7 (2.50)	.492	-.153	-1.080	.284
Health (HE)	83.2 (2.20)	.879	-.052	81.6 (2.22)	.767	1.760	-2.745	.008
Role								
Restriction (RO)	86.6 (2.90)	-.466	.327	84.6 (2.46)	.570	1.280	-2.931	.005
Depression (DP)	87.5 (3.57)	.177	.241	85.2 (2.93)	.283	- .370	-2.768	.008
Spouse (SP)	87.8 (2.94)	.149	-.521	85.7 (2.72)	-.609	.142	-2.872	.006
Parent Total	121.5 (18.69)	-.282	-.752	108.5 (16.24)	.108	-.811		
Total Stress	107.7 (17.61)	.127	.243	90.2 (16.29)	.159	-.319		

* $p < .004$; adjusted using Bonferroni correction

As seen in Table 1, the mothers of gifted children reported a higher level of total parenting stress than mothers of typical children. The mothers of gifted children also reported higher levels of child factors associated with parenting stress than mothers of typical children. On measures of parenting characteristics, the mothers of gifted children also reported somewhat higher levels. The difference between the means of each domain was greater in the reported child factors in each group of children than the parent factors. Using multiple comparisons, significant differences on subscales of Distractibility/Hyperactivity (DI), Adaptability (AD), and

Mood (MO) were noted at $p < .004$ level of significance. The p value was corrected post hoc using the Bonferonni correction to prevent committing a Type I error.

Skewness is a term used in distribution analysis as a sign of asymmetry and deviation from a normal distribution. The child totals for both the gifted and typical samples were positively skewed distributions (gifted, .303; typical, 1.292) meaning most of the values were to the left of the mean with some extreme values on the right. The parent totals were positively skewed for the typical sample (.108) and negatively skewed for the gifted sample (-.282). A negatively skewed distribution refers to most of the values being to the right of the mean with some extreme values on the left. The overall total parenting stress scores were both positively skewed (gifted, .127; typical, .159). The skewness results are considered valid and acceptable.

Kurtosis is a term used to describe a flattening or "peakedness" of a distribution. All of the values for both the gifted and typical samples in child and parent totals, and overall measures of parenting stress reflect a platykurtic distribution, which is flatter than a normal distribution with a wider peak. The values are wider spread around the mean. The kurtosis results are considered acceptable for this study.

Next, a one-way ANOVA compared these groups on three dependent variables: child domain scores, parent domain scores, and total parenting stress scores. Significant differences were found between gifted and typical groups on all three measures. Table 2 summarizes the results.

Table 2

ANOVA for Child, Parent, Total Stress Scores on Gifted/Typical

Source:	*F*	Mean Square	*p*
		Between groups	
Child Domain	15.66	5742.82	.000
Parent Domain	8.184	2509.067	.006
Total Stress	15.91	4576.27	.000

ANCOVA is used to control for the effect of other continuous variables on the dependent variable. It is often used when randomization of participants is not possible and the groups may differ in substantial ways that may influence the outcome variable. Without controlling for these extraneous variables, it may make it more difficult to accurately detect differences between groups. Therefore, an ANCOVA was then chosen as an analysis to control for the effect of the independent control variables used in the study: the age of the mother when she gave birth (Age), the total income in the household (Income), whether the mother is taking medication for depression or anxiety (Medication), and the number of other children in the home (NoKids).

As seen in Table 3, significant differences were still found to exist between the two groups on measures of child factors and overall parenting stress but no longer on measures of parent factors.

Table 3

ANCOVA for Child, Parent, Total Stress Scores on Gifted/Typical

Source:	*F*	Mean Square	*p*
		Between groups	
Child Domain	3.81	1408.88	.005
Parent Domain	1.97	626.41	.098
Total Stress	3.46	1032.67	.009

The final research question posited that parent reporting of variables contributing to parenting stress might predict giftedness in their children. For this analysis all of the subscale scores in each domain were utilized. For the child domain, the subscales of Distractibility/Hyperactivity (DI), Adaptability (AD), Reinforces Parent (RE), Demandingness (DE), Mood (MO), and Acceptability (AC) were used. For the parent domain, the subscales of Competence (CO), Isolation (IS), Attachment (AT), Health (HE), Role Restriction (RO), Depression (DP), and Spouse (SP) were considered.

Logistic regression is a statistical technique that is frequently used to predict group membership from a set of predictor variables. Logistic regression follows the same principles as linear regression with one of the main differences being that

logistic regression is used when the outcome variable is dichotomous. The Wald Test is used to test the statistical significance of each coefficient in the model.

Logistic regression was chosen as a statistical technique to analyze the results of this study for its usefulness in predicting giftedness. The research literature on the identification of giftedness shows a movement away from a traditional IQ based definition towards different measures that include reported child factors and behaviours. The information gained from this analysis may be useful in supporting alternative ways of identifying giftedness in children.

Using this data, a logistic regression analyses was conducted to determine which of these subscales would support a prediction of the child's group membership - gifted or typical. The model with all of the 13 subscales included predicted group membership accurately in 93.3% of the gifted group and 90% of the typical group. Table 4 summarizes the findings.

Table 4

Results of Logistic Regression with all 13 Predictor Variables

Predictor Variable	*B*	*SE*	*Wald*	*Sig.*	*ExpB*
Distractibility/ Hyperactivity (DI)	.111	.054	4.125	.042*	1.117
Adapatability (AD)	.078	.045	3.043	.081	1.081
ReinforcesParent (RE)	.026	.043	.358	.550	1.026
Demandingness (DE)	-.075	.059	1.611	.204	.928

Mood (MO)	.155	.068	5.178	.023*	1.167
Acceptability (AC)	-.131	.058	5.109	.024*	.878
Competence (CO)	-.018	.302	.003	.953	.982
Isolation (IS)	-.196	.267	.537	.464	.822
Attachment (AT)	-.280	.245	1.313	.252	.756
Health (HE)	-.022	.300	.006	.941	.978
Role Restriction (RO)	-.053	.258	.041	.839	.949
Depression (DP)	.473	.313	2.437	.118	1.605
Spouse (SP)	-.038	.277	.019	.891	.963

**Note*. p=<.05

Results of the logistic regression show that the most significant predictors for group membership in the gifted or typical groups were reported child factors of Distractibility/Hyperactivity, Mood, and Acceptability.

Chapter 5: Discussion

The objective of this study was to compare parenting stress in mothers of gifted children with parenting stress in mothers of typical children. The Parenting Stress Index (PSI; Abidin, 1986) was used to measure stress in the parent-child relationship. Three hypotheses concerning parenting stress and gifted children were proposed. First, parents of gifted children would report greater levels of parenting stress than parents of typical children. Second, child factors would contribute more to the levels of reported parenting stress than parent factors. Finally, measures of parenting stress would predict membership of the children in either the gifted or typical group. The following Discussion will relate the results of this study to past and present research as well as identify limitations of the study and suggest future directions for research.

Results of this study indicated that mothers of gifted children are experiencing significantly greater levels of parenting stress than mothers of typical children. It was also discovered that child factors were significant predictors of parenting stress whereas parent factors were not. Multiple comparisons using a Bonferroni correction to $p < .004$ indicated significant differences between the gifted and typical groups on the subscale measures of Distractibility/Hyperactivity (DI), Adaptability (AD), and Mood (MO). Logistic regression analysis showed that membership in the gifted group was predicted with 93.3% accuracy by reported parenting stress and with 90% accuracy for the typical group.

Characteristics of Giftedness

The main objective of this study was to compare parenting stress of mothers of gifted children with mothers of typical children. Previous research about giftedness has been controversial in terms of whether or not gifted children possess traits that render them vulnerable to social, emotional, and behavioural difficulties that may cause an increase in parenting stress. Some researchers report that the internal experience of gifted children makes them more vulnerable to struggles (Garner, 1991; Kwan, 1992; Neihart, 1999; Porter, 2005), and some report that gifted children are more emotionally healthy than typical children (McCallister, Nash & Meckstroth, 2006; Nail & Evans, 1997; Neihart, Reis, Robinson, & Moon, 2002). Most of the literature concerning the social, emotional, and behavioural needs of gifted children is through clinical observations or theoretical writings.

Results of this study indicated that there was a significant difference between the gifted and typical group in terms of child factors predicting an increase in parenting stress. After controlling for the age of the mother when she gave birth (Age), the total income in the household (Income), whether the mother was taking medication for depression or anxiety (Medication), and the number of other children in the home (NoKids), parent factors were not found to be significantly different between the gifted and typical groups. These results are important because they help to factor out possible reasons for differences in overall parenting stress and highlight the child factors of the gifted group that are leading to an increase in the stress of the mothers of these children.

Using the results of the multiple comparisons of the subscale measures, significant differences at $p < .004$ between groups were found to exist on measures of Distractibility/Hyperactivity (DI), Adaptability (AD), and Mood (MO). The subscale of Demandingness (DE) was approaching significance with a *p* value of .004. These differences are considered highly significant and help to focus even further on the particular child factors that are contributing to the differences in parenting stress for mothers in this study. The nature of giftedness is not only intellectual but also emotional. Gifted children interact with the world around them with more intensity than others. These emotional intensities are highlighted in the subscales that have significant differences. These results help to focus even further as to what the particular characteristics are of gifted children that are contributing to more parenting stress for mothers.

These results support previous research that reported that gifted children are more vulnerable to social and emotional difficulties and refute the research that reported that gifted children are more emotionally healthy when compared to typical children. The results of this study are highly correlated with Dabrowski's theory of overexcitabilities (1977) that identified patterns of intensities in gifted children. When framed in Dabrowski's theory, gifted children with high scores in the Mood category may be viewed as having an emotional overexcitability; those with Distractibility/Hyperactivity as having a psychomotor overexcitability.

Morawksa & Sanders (2008) investigated factors that contributed to gifted children's difficulties with behavioural and emotional adjustment. The study showed that gifted children were similar to the typical sample overall except in two

areas: emotional symptoms and peer difficulties. The emotional symptoms can be related to the elevated scores in difficulty in mood reported in this study, and difficulties with peers are issues that can arise for children that have high levels of distractibility and hyperactivity as those in this study.

Concerns of Parents with Gifted Children

Research and clinical findings have reported that parents of gifted children have some unique needs in terms of being supported in their parenting. Parents often find a lack of support in the community for information and resources concerning parenting a gifted child. The results of this study are supportive of previous research that identified concerns of parents with gifted children.

Results of the logistic regression analysis reported that the measures of Mood, Distractibility/Hyperactivity, and Acceptability were all significant factors in predicting membership in the gifted group. These results are similar to the multiple comparisons of the subscales except for in the area of acceptability. The mothers of gifted children reported being more satisfied with their children in terms of physical, intellectual, and emotional characteristics and having a stronger attachment with their child than mothers of typical children. This is interesting information considering that mothers of gifted children also report having more parenting stress stemming from their children's characteristics and behaviours. Perhaps the reported strong bonds between gifted mothers and children in this study are reflective of their concerns about parenting as have been indicated in other studies.

Dangel & Walker (1991) surveyed parents of gifted students in the American state of Georgia as to what needs they have in developing a parent education program. Over 25% of the parents responded to needs that dealt with social/behavioural development rather than academic concerns. Clelland (2009) conducted research on parenting concerns of gifted children. Out of the twelve concerns that were identified in the study, seven concerns involved support for parenting issues that related to social, emotional, and behavioural concerns. The current study is reflective of the results of this research, indicating that parents of gifted children have concerns and are reaching out for support.

Implications

The results of this study are validating for parents of gifted children who often feel that there is a misconception that it is "easy" to raise a gifted child. It addresses the unique characteristics of gifted children that can make parenting more challenging. It may also help shed light on behaviours that gifted children may have that set them apart from others and make them appear different from a typical child.

An important implication of this study for parents, schools, and professionals is the recognition that many gifted children have behaviours that mimic other common childhood diagnoses such as Attention-Deficit Hyperactivity Disorder (ADHD), Aspergers, Obsessive Compulsive Disorder, and Anxiety Disorder. These disorders may exist alongside giftedness in a child but should be evaluated carefully by professionals working with children. The "treatment plan" for these disorders look very different than what may help cure gifted "misbehaviours" in the classroom

such as: curriculum compacting, acceleration, opportunities for project-based learning, cluster grouping, and connecting with other gifted children.

The most important implication of this study is an increased awareness as to how parents of gifted children struggle with parenting issues in the home. Resources in communities and schools are often few and far between. There are parent education programs and school programs for children with other exceptionalities, and it should be the same for gifted children and their families. The large amount of parenting stress being reported by mothers of gifted children in this study should alert professionals working with families as to the importance of intervening to reduce the degree of conflict in the family. Parents who are equipped with the knowledge and tools to raise their exceptional children will be more able to assist their children in developing into emotionally healthy adults.

Limitations

The current study helps to extend research on parenting stress and gifted children and provides some insight as to what aspects of the parents and children are contributing to the increased stress in the parent-child relationship. Although there are many strengths of the current study, there are some limitations that should be examined before extending this study in future research.

The first limitation of this study is the nature of the parents who volunteered. The mothers were primarily of high socioeconomic status (SES) and thus the results of this study may not be generalizable to other populations. The researcher also overlooked some potentially important control variables such as culture and amount of education held by parents, potentially because the areas in which

participants were recruited were a fairly homogenous population. In the future, this research should be extended to include a wider variety of participants to assess parenting stress across a wider sample of culture and SES.

A second limitation may be the congregated setting that the gifted population was recruited from. It is possible that results may have been different if both samples were recruited from a public school setting as they each may attract different types of parents. It would be of interest to repeat the study again with all participants being recruited from a public school setting.

An inherent limitation to survey research is they depend on the participant's motivation to respond. It is impossible to measure how careful and reflective participants are with their responses when a survey is completed anonymously online. When questions on a survey rely on a participant's "strength of choice" such as "moderately agree" or "strongly agree" there is a potential risk that these options mean something different to each respondent.

Future Directions

In the future, this research should be extended to include a wider variety of participants to assess parenting stress of gifted children. Including a wider sample of participants from different cultures and different SES may influence the results of this study by either showing weak or strong generalizability. The sample could also be widened to include parents of different age groups of gifted children and fathers.

It would be interesting to repeat this study with the inclusion of other groups such as children with learning disabilities, children who are gifted with learning disabilities and children who have been diagnosed with ADHD. Comparing

parenting stress in parents of children who are considered exceptional for a variety of reasons could potentially lend strength to the development of appropriate programming and supports for gifted children and their parents in the school and community.

Another direction that could be taken from this study is to explore teacher stress with gifted and typical students and compare it with parenting stress of the same sample of students. It would be interesting to see if the child factors that are being reported in this study as contributing to an increase in parenting stress are also contributing to stress for the classroom teacher. If the parent-child relationship is being strained, and the teacher-child relationship is strained, the gifted child may be trying to function in two environments that are potentially unhealthy to their development.

Conclusion

This study aimed to compare parenting stress of mothers of gifted children with parenting stress of mothers of typical children. Despite the study limitations and suggested future research as outlined above, this study contributes to the research literature in the following ways. Predicted outcomes were supported; mothers of gifted children reported significantly higher levels of parenting stress than mothers of typical children, child factors were significant predictors of parenting stress, and child factors were able to predict membership in the gifted or typical group.

A key finding of this study were the differences in reported parenting stress. Mothers of gifted children reported significantly higher levels of parenting stress

than mothers of typical children. This supported previous research that has identified social, emotional, and behavioural issues as being key concerns for parents of gifted children.

The current study highlights the importance of school and community supports for gifted children and their families. A parent-child relationship that is stressed is unhealthy for the development of the child. It is the aim of this study to further research in this area to help support the development of gifted children.

References

Abidin, R.R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology, (21),* 407-412.

Abidin, R.R (1995) *Parenting Stress Index,* 3rd edn. PAR, Odessa, FL.

Alvino, J. (1986). *Parents Guide to Raising a Gifted Child.* New York: Ballantine Books.

Anastopoulos, A.D., Shelton, T.L., DuPaul, G.J., & Guevremont, D.C. (1993). Parent training for attention-deficit hyperactivity disorder: Its impact on parent functioning. *Journal of Abnormal Child Psychology, 21,* 581-596.

Aron, E.N. (1996). *The highly sensitive person: How to thrive when the world overwhelms you*. New York: Broadway Books.

Baker, B.L., Blacher, J., Crnic, K.A., & Edelbrock, C. (2002). Behavior problems and parenting stress in families of three-year-old children with and without developmental delays. *American Journal on Mental Retardation, 107,* 433-444.

Baker, D.B. (1994). Parenting stress and ADHD: A comparison of mothers and fathers. *Journal of Emotional and Behavioral Disorders, 2,* 46-50.

Baker, D.B., & McCal, K. (1995). Parenting stress in parents of children with attention-deficit hyperactivity disorder and parents of children with learning disabilities. *Journal of Child and Family Studies, 4,* 57-68.

Baker, J.A. (1995). Depression and suicidal ideation among academically talented students. *Gifted Child Quarterly, 39,* 218-223.

Ballering, L.D., & Koch, A. (1984). Family relations when a child is gifted. *Gifted Child Quarterly, 28,* 140-143.

Barnett, L., & Fiscella, J. (1985). A child by any other name: A comparison of the playfulness of gifted and nongifted children. *Gifted Child Quarterly, 30,* 218-223.

Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, (55),* 83-96.

Berry, J.O., & H., J.W. (1995). The Parental Stress Scale: Initial psychometric evidence. *Journal of Social & Personal Relationships*, 12(3), 463-472.

Bigras, M., Lafreniere, P., & Dumas, J. (1996). Discriminant validity of the parent and child scales of the parenting stress index. *Early Education & Development*, 7(2) 167-178.

Breen, M., & Barkley, R.A. (1988). Parenting stress and child psychopathology in ADHD boys and girls, *Journal of Pediatric Psychology, 13,* 265-280.

Clelland, D.A. (2009). *Needs for information and concerns of parents of gifted children in four Canadian provinces.* Retrieved from: summit.sfu.ca

Colangelo, N., & Brower, P. (1987). Labeling gifted youngsters: Long-term impact on families. *Gifted Child Quarterly, 31(2)* 75-78.

Coleman, L.J., & Cross, T. (1988). Is being gifted a social handicap? *Journal for the Education of the Gifted, 11*(4), 41-56.

Columbus Group (1991, July). Unpublished transcript of the meeting of the Columbus Group, Columbus, OH.

Cornell, D.G. (1983). Gifted children: The impact of positive labeling on the family system. *American Journal of Orthopsychiatry, 53(2),* 322-335.

Crnic, K., & Greenberg, M. (1990). Minor parenting stress with young children. *Child Development, 54,* 209-217.

Crnic, K., & Low, C. (2002). Everyday stresses and parenting. In M.H. Bernstein (Ed.), *Handbook on parenting - Vol.5: Practical issues in parenting* (2nd ed.) pp.243-267.

Czeschlike, T., & Rost, D.H. (1994). Socio-emotional adjustment in elementary school boys and girls: Does giftedness make a difference? *Roeper Review, 14, 40-41.*

Dabrowski, K. (1967). *Personality shaping through positive disintegration.* Boston: Little, Brown.

Dabrowski, K., & Piechowski, M.M. (1977). *Theory of levels of emotional development: Vol. 1B. Multilevelness and positive disintegration.* Oceanside, NY: Dabor Science.

Dangel, H.L., & Walker, J.J. (1991). An assessment of the needs of parents of gifted students for parent education programs. *Roeper Review, 14,* 40-41.

Davis, N.O., & Carter, A.S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: associations with child

characteristics. *Journal of Autism & Developmental Disorders, (38),* 1278-1291.

Deater-Deckard, K.D. (2004). *Parenting Stress.* Boston: Yale University Press.

Dunst, C.J., Leet, H.E., & Trivette, C.M. (1988). Family resources, personal well-being, and early intervention. *Journal of Special Education, 22,* 108-116.

Dyson, L.L. (1996). The experiences of families of children with learning disabilities: parental stress, family functioning, and sibling self-concept. *Journal of Learning Disabilities, 29,* 280-286.

Eccles, A.L., Bauman, E., & Rotenberg, K.J. (1989). Peer acceptance and self-esteem in gifted children. *Journal of Social Behavior and Personality, 4,* 401-409.

Eyberg, S.M., Boggs, S.R., & Rodriguez, C.M. (1992). Relationships between maternal parenting stress and child disruptive behavior. *Child and Family Behavior Therapy, 14,* 1-9.

Fertig, C. (2008). *Raising a Gifted Child*. Waco: Prufrock Press.

Fischer, M. (1990). Parenting stress and the child with attention deficit hyperactivity disorder. *Journal of Clinical Child Psychology, 19,* 337-346.

Freeman, J. (1985). *The psychology of gifted children.* Chichester: John Wiley and Sons.

Freeman, J. (1994). Some emotional aspects of being gifted. *Journal for the Education of the Gifted, 17,* 180-197.

Freeman, J. (1995). Recent studies of giftedness in children. *J Child Psychology and Psychiatry, 38,* 531-547.

Gagne, F. (2009, March). *Building gifts into talents: a brief overview of the DMGT 2.0*. Paper presented at the National Conference on Gifted Education, Rotorua, New Zealand. Abstract retrieved from http://www.giftedconference2009.org/paresenter_files/gagne/p12_thereal nature.pd

Galton, F. (1869). *Hereditary genius: An inquiry into its laws and consequences.* London: Macmillan.

Garner, D. (1991). Eating disorders in the gifted adolescent. In M. Bierely & J.L. Genshaft (Eds.), *Understanding the gifted adolescent* (pp. 50-64). New York: Teachers College Press.

Gross, M.M. (1999). Small poppies: Highly gifted children in the early years. *Roeper Review, 21,* 207-214.

Gust-Brey, K., & Cross, T. (1999). An examination of the literature based on the suicidal behaviors of gifted students. *Roeper Review, 22,* 28-35.

Hackney, H. (1981). The gifted child, the family, and the school. *Gifted Child Quarterly, 25,* 51-54.

Hadadian, A., & Merbler, J. (1996). Mothers stress: Implications for attachment relationships. *Early Child Development and Care, 125*, 59-66.

Hassall, R., Rose, J., & Macdonald, J. (2005). Parenting stress in mothers of children with an intellectual disability: the effects of parental cognitions in relation to child factors and family support. *Journal of Intellectual Disability Research (49),* 405-418.

Hertzog, N.B., & Bennet, T. (2004). In whose eyes? Parents' perspectives on the learning needs of their gifted children. *Roeper Review, 26,* 207-214.

Hollingworth, L.S. (1926). *Gifted children: Their nature and nurture.* New York: Macmillan.

Hollingworth, L.S. (1942). *Children above 180 IQ Stanford-Binet Origin and development.* New York: World Book.

Jarvis, P.A., & Creasey, G. L. (1991). Parental stress, coping, and attachment in families with an 18-month-old infant. *Infant Behavior and Development*, *14*, 383-395.

Johnson, L.J., & Lewman, B.S. (1990). Parent perceptions of the talents of young gifted boys and girls. *Gifted Child Quarterly, 13,* 176-188.

Karnes, M.B., Shwedel, A.M., & Steinberg, D. (1984). Styles of parenting among parents of young gifted children. *Roeper Review, 6,* 232-235.

Kaufmann, S.B. & Sternberg, R.J. (2008). Conceptions of giftedness. In S. Pfeiffer (Ed.). Handbook of giftedness in children: Psycho-educational theory, research, and best practices. New York: Springer.

Kelly, K.R., & Colangelo, N. (1984). Academic and social self-concepts of gifted, general and special students. *Exceptional Children, 50,* 551-554.

Kelly, S.J. (1998). Stress and coping behaviors of substance-abusing mothers. *Journal of the Society of Pediatric Nurses, 3(3),* 103-110.

Koeske, G.F., & Koeske, R.D. (1990). The buffering effect of social support on parental stress. *American Journal of Orthopsychiatry, 60,* 440-451.

Krauss, M.W. (1993) Child-related and parenting stress: similarities and differences between mothers and fathers of children with disabilities. *American Journal on Mental Retardation, 97,* 393-404.

Kwan, P.C.F. (1992). On a pedestal: Effects of intellectual-giftedness and some implications for programmed planning. *Educational Psychlogy, 12,* 37-62.

Lovecky, D.V. (1993). The quest for meaning: Counseling issues with gifted children and adolescents. In L.K. Silverman (Ed.), *Counseling the gifted and talented* (pp.29-50). Denver CO: Love Publishing.

McDowell, A.D., Saylor, C.F., Taylor, M.J., Boyce, G.C., & Stokes, S.J. (1995). Ethnicity and parenting stress change during early intervention. *Early child Development and Care, 111,* 131-140.

May, K.M. (1990). A developmental view of a gifted child's social and emotional adjustment. *Roeper Review, 17,* 105-109.

Mendaglio, S. (1995). Sensitivity among gifted persons: A multi-faceted perspective. *Roeper Review, 17,* 169-173.

Milgram, N.A., & Atzil, M. (1988). Parenting stress in raising autistic children. *Journal of autism and developmental disorders, (18),* 415-424.

Morawska, A., & Sanders, M.R. (2008). Parenting gifted and talented children: What are the key child behaviour and parenting issues? *Australian and New Zealand Journal of Psychiatry, 42,* 819-827.

Nail, J.M., & Evans, J.G. (1997). The emotional adjustment of gifted adolescents: A view of global functioning. *Roeper Review, 22,* 10-18.

Neihart, M. (1999). The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Review, 22*, 10-18.

Neihart, M. (2002). Delinquency and gifted children. In M. Neihart, S.M. Reis, N.M. Robinson, & S.M. Moon (Eds.), *The social and emotional development of gifted children: What do we know?* (pp. 103-112). Waco, TX: Prufrock Press.

Neihart, M., Reis, S.M., Robinson, N.M., & Moon, S.M. (Eds.). (2002). *The social and emotional development of gifted children: What do we know?* Waco, TX: Prufrock Press.

No Child Left Behind Act, P.L. 107-110 (Title IX, Part A, Definitions (22) (2002); 20 U.S.C. Sec. 7802 (22) (2004).

Olszewski, P., Kulieke, M.J., & Buescher, T. (1987). The influence of the family environment on the development of talent: A literature review. *Journal for the Education of the Gifted, 11,* 6-28.

Parker, W. (1996). Psychological adjustment in mathematically gifted students. *Gifted Child Quarterly, 40,* 154-157.

Pfeiffer, S.I., & Stocking, V.B. (2000). Vulnerabilities of academically gifted students. *Special Services Schools, 16,* 83-93.

Piechowski, M.M. (1997). Emotional giftedness: The measure of intrapersonal intelligence. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (2nd ed., pp. 366-381). Needham Heights, MA: Allyn & Bacon.

Podolski, C., & Nigg, J.T. Parenting stress and coping in relation to child ADHD severity and associated child disruptive behavior. *Journal of Clinical Child & Adolescent Psychology, 30,* 503-513.

Porter, L. (2005). *Gifted young children: A guide for parents and teachers* (2nd ed.). Crows Nest, Australia: Allen & Unwin.

Renzulli, J.S. (1981). Identifying key features in programs for the gifted. In W.B. Barbe & J.S. Renzulli (Eds.), *Psychology and education of the gifted* (pp.214-219). New York: Irvington.

Renzulli, J. (1986). The three-ring conception of giftedness: A developmental model for creative productivity. In R. J. Sternberg & J. Davidson (Eds.), *Conceptions of Giftedness*. New York: Cambridge University Press.

Reynolds, C.R., & Bradley, M. (1983). Emotional stability of intellectually superior children versus nongifted peers as estimated by chronic anxiety levels. *School Psychology Review, 12,* 190-194.

Rimm, S. (2006). *Keys to Parenting the Gifted Child*. Scottsdale: Great Potential Press.

Rodriguiz, C.M., & Green, A.J. (1997). Parenting stress and anger expression as predictors of child abuse potential. *Child Abuse and Neglect, 21,* 367-377.

Roedell, W.C. (1984). Vulnerabilities of highly gifted children. *Roeper Review, 6,* 127-130.

Roedell, W.C. Socioemotional vulnerabilities of young children. In: Whitmore, J., ed. *Intellectual giftedness in young children: recognition and development.* New York: Haworth Press, 1986: 17-29.

Schieve, L.A., Blumberg, S.J., Rice, C., Visser, S.N., & Boyle, C. (2007). The relationship between autism and parenting stress. *Official Journal of the American Academy of Pediatrics, (119),* 114-121.

Seeley, K.R. (1984). Perspective on adolescent giftedness and delinquency. *Journal for the Education of the Gifted, 9,* 59-72.

Silverman, L.K. (1993). The gifted individual. In L.K. Silverman (Ed.), *Counseling the gifted & talented* (pp. 3-8). Denver, CO: Love Publishing.

SPSS Inc. (2010). PASW STATISTICS 19.0 Command Syntax Reference. SPSS Inc., Chicago.

Statistics Canada. (2010). "Making fathers count," *Canadian Social Trends,* Winter, 2010. Ottawa, ON: Statistics Canada. Retrieved from http://www42.statcan.gc.ca/smr08/2011/smr08_157_2011-eng.htm

Terman, L.M. (1925). *Mental and physical traits of a thousand gifted children* (Vol. 1). Stanford, CA: Stanford University Press.

Walker, A.P. (2000). *Parenting stress: a comparison of mothers and fathers of disabled and non-disabled children.* Retrieved from digital.library.unt.edu.

Walker, S.Y. (1991). *The survival guide for parents of gifted kids: How to understand, live with, and stick up for your gifted child.* Minneapolis, MN: Free Spirit.

Webb, J.T. Nurturing social-emotional development of gifted children. In: Heller, K.A., Monks, F.J., Passow, A.H., eds. *International handbook of research and development of giftedness and talent.* Oxford: Pergamon Press, 1993: 525-538.

Webb, J.T., Meckstroth, E.A., & Tolan, S.S. (1982). *Guiding the gifted child: A practical source for parents and teachers.* Columbus, OH: Ohio Psychology.

Webster-Stratton, C. (1990). Stress: A potential disruptor of parent perceptions and family interactions. *Journal of Clinical Child Psychology, 19,* 302-312.

Weissler, K., & De Vries, A.R. (1993). Characteristics of families with no, one, or more than one gifted child. *Journal of Psychology: Interdisciplinary and Applied, 127,* 143-152.

Whitmore, J. (1980). *Giftedness, conflict, and underachievement.* Boston: Allyn & Bacon.

Winner, E. (2000). The origins and ends of giftedness. *American Psychologist, 55,* 159-169.

Wolf, J.S. (1987). Workshops for parents of the gifted. *Roeper Review, 9,* 243-246.

Wolf, L.C., Noh, S., Fisman, S.N., & Speechley, M. (1989). Brief report: psychological effects of parenting stress on parents of autistic children. *Journal of Autism & Developmental Disorders, (19),* 157-166.

Yuen, K. (2005). *Making sense of giftedness: A way to understand parenting stress among parents of gifted children*. Retrieved from http://hub.hku.hk/handle/10722/134061.

Appendix A

Ted Zarowny
Principal
New Horizons School
53145 RR#222
Ardrossan, AB

Dear Mr. Zarowny,

I am writing to you to request your assistance in some research I am planning to start at the University of Alberta for fulfillment of a Masters degree in School Psychology. The reason I have chosen to contact you regarding my research is that my intended area of study involves mothers of gifted children. Being that you are the principal of one of the charter schools for gifted children in the province of Alberta, I see the parent population at your school as potentially providing me with a rich resource of information.

There is an abundance of research in the literature examining parenting stress. An area less explored are the levels of stress in parents of gifted children, specifically mothers of gifted children. My purpose for this research project is to help identify areas in which mothers of gifted children could use support from professionals in the community. The project will be conducted by an anonymous survey that will potentially be sent home with students in your school with your permission.

I would be happy to speak with you in phone or in person regarding any questions you may have about this study or the intended methods of gathering data.

I can be reached at (780)988-0766 or by e-mail at bdbishop@ualberta.ca.

Look forward to hearing from you,

Barbara Bishop

Appendix B

Martha Faulkner
Principal
Westmount Charter School
2519 Richmond Rd., SW
Calgary, AB

Dear Ms. Faulkner,

I am writing to you to request your assistance in some research I am planning to start at the University of Alberta for fulfillment of a Masters degree in School Psychology. The reason I have chosen to contact you regarding my research is that my intended area of study involves mothers of gifted children. Being that you are the principal of one of the charter schools for gifted children in the province of Alberta, I see the parent population at your school as potentially providing me with a rich resource of information.

There is an abundance of research in the literature examining parenting stress. An area less explored are the levels of parenting stress in gifted children and specifically, mothers of gifted children. My purpose for this research project is to help identify areas in which mothers of gifted children could use support from professionals in the community. The project will be conducted by an anonymous survey that will potentially be sent home with students in your school with your permission.

I would be happy to speak with you in phone or in person regarding any questions you may have about this study or the intended methods of gathering data.

I can be reached at (780)988-0766 or by e-mail at bdbishop@ualberta.ca.

Look forward to hearing from you,

Barbara Bishop

Appendix C

Comparing Parenting Stress in Mothers of Gifted and Typical Children
Information/Consent Letter

If you are chosen to take part in the study, you will complete a survey (20-30 minutes) that will ask for your response about a variety of items related to parenting stress.

I am requesting your consent to participate in a research project entitled "Comparing Parenting Stress in Mothers of Gifted and Typical Children." This project is in fulfillment of a Masters degree in School Psychology at the University of Alberta.

The purpose of the research is not compare parenting stress of mothers of different populations of children with special needs. You do not need to supply your name.

The survey results will be collated and analyzed; only the primary investigator and supervisor will have access to the raw data collected in the project. Your name or any identifying information will not appear in any reports of this research. Your participation in this project is completely voluntary. You have the right to withdraw from participation up until the survey is completed, without penalty. Participants are guaranteed anonymity, and will not be identified by name. The data collected will be kept in a secured storage space for a minimum of 5 years after the study is completed. Although there may be no direct benefit for you, the results from this study will help researchers and educators to better understand the parenting stress of mothers of gifted and typical children and will be able to plan more effectively for parenting support programs. The results from this study will likely be presented at academic conferences, and published in research journals. For further information about this project, you may contact me, Barbara Bishop at bdbishop@ualberta.ca. The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana, and Saint Jean Ethics Board (EEASJ REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB at 780-492-3751.

Your completion of this survey indicates your consent.

Thanks for participating—you may tear off this cover sheet for your reference and to request a copy of the results when they are completed!

Barbara Bishop
bdbishop@ualberta.ca

Comparing Parenting Stress in Mothers of Gifted and Typical Children

Pre-screening Questionnaire

Please fill out this questionnaire with only one of your children in mind if you are the mother of more than one child.

1. My child is currently enrolled in gr. _____ for the current school year 2010/2011.
2. I was _____ years old when I gave birth to my child.
3. If you have any diagnoses you have received from a professional, please list them below.

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4. Are you currently taking any medication?
   Yes or NO
5. Has your child received a professional diagnosis of giftedness?
   YES or NO
6. Has your gifted child ever received another diagnosis along with their giftedness such as ADHD, behavior disorder, anxiety disorder, etc…?
   YES or NO

If you answer YES to this question, please indicate the other diagnoses below:

_____

_____

7. Has your child received professional diagnosis of having a learning disability?
   YES or NO
8. Has your LD child ever received another diagnosis along with their learning disability such as ADHD, behavior disorder, anxiety disorder, etc…?
   YES or NO

If you answer YES to this question, please indicate the other diagnoses below:

_____

_____

9. My child has never received a professional diagnosis of giftedness, learning disability, behavior disorders, ADHD, anxiety disorder, or any others not listed.

YES or NO