PERCEIVED SELF-EFFICACY AND WELL-BEING
IN FATHERS OF CHILDREN WITH AUTISM

A Thesis
by
Blake R. Burnham
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APPROVED BY THE DEAN OF GRADUATE STUDIES
AND VICE PROVOST FOR RESEARCH:

Katie Milo, Ed.D.

APPROVED BY THE GRADUATE ADVISORY COMMITTEE:

Linda M. Kline, Ph.D.
Graduate Coordinator

Leesa V. Huang, Ph.D., Chair

Sandra Machida, Ph.D.
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DEDICATION

This study is dedicated to children with autism and the parents who care for them. The job of parenting a child with autism requires never ending patience, care, and love, which is a truly admirable act.
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ABSTRACT

PERCEIVED SELF-EFFICACY AND WELL-BEING
IN FATHERS OF CHILDREN WITH AUTISM

by

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The current study examines the relationship between parent beliefs about self-efficacy and well-being reports of depression, stress, and guilt in fathers of children with autism. Two additional cognitions of parental agency and knowledge of autism were also examined for their potential relationship with paternal self-efficacy. A sample of 28 fathers caring for a child with autism was asked to fill out 7 questionnaires totaling 138 questions. Participants were solicited through local autism agencies and completed the survey online or with a paper copy. Results indicated that depression and stress have a significant negative correlation with paternal self-efficacy. Post hoc regression analysis revealed that only stress accounted for a significant amount of variance in self-efficacy while depression did not. The current study is a replication of a previous study that focused on self-efficacy in mothers of children with autism. The results in the current study on fathers of children with autism differ from previous research on mothers that
found a variety of predictors for self-efficacy including depression, stress, guilt, and agency. Based on the current results, interventions for fathers of children with autism should strongly consider a father’s stress levels since there is a very strong impact on self-efficacy.
CHAPTER I

INTRODUCTION

Background

The prevalence of autism spectrum disorders (hereafter referred to as autism) has seen a dramatic increase in the last two decades. Once considered a very rare developmental disorder, it is now estimated that 1 in every 110 children will be diagnosed with autism (Autism and Developmental Disabilities Network [ADDM], 2009). Autism disorders are characterized by deficits in three areas: social deficits, communicative deficits, and restrictive or repetitive patterns of behavior (American Psychiatric Association [APA], 2000). Every individual with autism is affected differently by the core deficits.

The significant increase in autism has demanded immediate attention from researchers who have focused largely on the cause of autism, diagnosis, and intervention. Research on possible causes of autism has focused on a genetic basis and environmental factors (Baron-Cohen, 2004). The diagnosis of autism has also been studied in depth as the wide range in expression of symptoms presents many challenges (Volkmar, 1999). Due to this fact, many updated screening and assessment tools are used in diagnosing autism (National Research Council [NRC], 2001). Research regarding treatment is extensive as well (Rumsey, Vitiello, Cooper, & Hirtz, 2000). The NRC (2001) has noted that the vast majority of treatments for children with autism and parents who have a child
with autism focuses on education. In children, this education is often in the form of behavioral therapies and, for parents, it is often in the form of educational trainings.

Currently, there is substantial research regarding parents of children with disabilities, but only a select body of research has been extended to parents of children with autism. Parents of children with autism seem to have a parenting experience similar in many ways to parents of children with other disabilities; however, some experiences are more extreme with this specific population. In particular, cognitions and feelings associated with emotional well-being, such as depression, stress, and anxiety, appear to be more severe in parents of children with autism (Rodrique, Morgan, & Geffken 1990; Rodrigue, Geffken, & Morgan, 1993) since financial burdens and other external strains on the entire family are common (Reichman, Corman, & Noonan, 2008).

Parental self-efficacy is one area that has shown promising implications for the overall well-being of parents, with benefits extending to children as well. Past research has shown that self-efficacy in parents is significantly related to well-being (Ozer, 1995) and recent research has shown that higher levels of parental self-efficacy is related to decreased levels of depression (Bor & Sanders, 2004), stress (Hastings, 2002), and shame (K. Baldwin, J. Baldwin, & Ewald, 2006) in parents. Research has also shown that increased levels of parental self-efficacy are associated with many positive parenting practices (Coleman & Karraker, 1997) and higher levels of parental involvement (Hoover-Dempsey & Sadler, 1997), which can be very beneficial for children, especially those with a disability.
Statement of Problem

As the prevalence of autism has risen quickly and drastically, it has been necessary to focus research efforts on the identification, causes, and interventions for the individuals impacted with the disorder. While there is still a need for research in these areas, it is also extremely important for researchers to broaden the focus to include parents of children with autism. Currently, there is an understanding that having a child with autism can have many adverse effects on parental well-being and on the children in the household (Dumas, Wolf, Fisman, & Culligan, 1991; National Research Council, 2001; Rodrigue, Geffken, & Morgan, 1993). Given the fact that self-efficacy is often associated with levels of well-being variables and also has positive implications for children and other family members, further research on parental beliefs about self-efficacy in parents of children with autism would be extremely beneficial. Such research has the potential to enhance outcomes of intervention efforts and may even improve quality of life for parents, children with disabilities, and other family members.

Most previous research on parents, and specifically parents of children with disabilities, has focused largely on mothers or has not separated mothers and fathers to investigate differences. To date, few studies exist that focus on fathers, especially those with children having disabilities, including autism. McBride and Mills (1993) investigated mothers and fathers of typically developing children separately, focusing on gender differences in child involvement. Krauss (1993) also investigated mothers and fathers separately while looking at stress in parents of children with disabilities. Hastings and Brown (2002) conducted a study on mothers and fathers of children with autism in investigating gender differences in self-efficacy in the presence of behavior problems. Due to
differences in parenting roles and different experiences associated with parenting (Gray, 2003), it is important to better understand the role of self-efficacy and well-being in fathers of children with disabilities. Extending the research to focus on fathers of children with autism would be a logical next step for research in this field.

Purpose of the Study

There are several studies that investigate the emotional well-being of mothers raising children with disabilities. In addition, there is a respectable amount of research regarding the benefits of parental self-efficacy. While this study seeks to support some aspects of this research, it is mainly concerned with extending current research by focusing on three different areas.

First, this study focused on the specific child disability of autism as opposed to a general child disability. This is an important aspect because the rate of children with autism continues to grow, while an understanding of the impact and supports for parents of children with this specific disability is fairly unrecognized. Second, this study extended research to fathers who have rarely been the focus in general parenting and parenting children with disabilities literature. It is essential to extend research to include fathers because of the differences in experiences and feelings between mothers and fathers. It is important to gain a full understanding of the impact of having a child with autism on both parents. Third, this study sought to expand current literature on self-efficacy to fathers of children with autism. This is an important aspect to consider when looking at impact and experiences of raising a child with autism because previous research has shown that self-efficacy is related to emotional well-being (Ozer, 1995).
Current literature has yet to look at self-efficacy in the context of both fathers and children with autism.

This study investigated parental self-efficacy in fathers raising children with autism in an attempt to gain knowledge on how a father is impacted by a child with autism. Such an understanding can help mold design interventions specifically aimed at promoting well-being in fathers of children with autism. This study sought to understand the associations between parental self-efficacy and different factors associated with emotional well-being, namely depression, stress, and guilt.

In addition to understanding the associations with emotional well-being, it is important to understand how other factors are related to a father’s self-efficacy in order to develop effective interventions to promote healthy parenting habits. Since involvement has been recognized to be associated with self-efficacy (Hoover-Dempsey & Sadler, 1997), this study investigates the link between self-efficacy and agency, which is active involvement by the parent. This study also used the variable of knowledge of autism to test its relationship with paternal self-efficacy. Finally, this study investigated the relatedness of each of the well-being factors of depression, stress, and guilt, as well as the additional variables of parental agency and autism knowledge.

Theoretical Bases and Organization

The current study examines fathers’ perceptions of competence toward caring for a child with autism. To understand this complex perception, it is necessary to understand the beliefs, thoughts, and experiences in a father’s life that contribute to, or hinder
feelings of competence. This theoretical foundation is referred to as *self-efficacy theory*, which was developed by Albert Bandura.

Self-efficacy is the belief in one’s capabilities to do what is necessary to obtain desired results of a specific task (Bandura, 1997). It is important to understand this perception of competence because an individual can possess the skills to complete a task or obtain desired results, but if the perception of competence is not present, one may fail or not even attempt the task. The effect of parental self-efficacy has been shown in numerous research studies, including Coleman and Karraker’s (1997), which showed that self-efficacy is significantly related to positive parenting practices. Miller (2002) discussed how individuals with high self-efficacy may be more likely to assume an active role toward a given task than those with low self-efficacy. This occurrence may happen because individuals with high self-efficacy believe their actions are likely to make a difference in obtaining desirable results, while those with low self-esteem do not. This model of how beliefs impact motivation and behavior was examined in this study.

**Limitations of the Study**

The participants in this study present a possible limitation of sample bias. The sample was obtained through voluntary participation by fathers and participants were solicited through autism and parent support agencies. Therefore, the participants utilized for this study may represent a group of fathers who are actively involved in seeking help and information to help their child. Their active involvement could already reflect higher levels of parental self-efficacy. It is possible that participants for this study are not an accurate representation of all fathers raising children with autism. It may specifically
overlook fathers who are more passive when seeking information and help, which may represent lower levels of parental self-efficacy. This study also had a limited number of participants \((N = 28)\), which may impact results and conclusions. Therefore, results and conclusions for this study should be interpreted with caution.

The current study did not include a sample of mothers, presenting another limitation. This study instead focuses solely on the self-efficacy and well-being of fathers of children with autism. Since there is no sample of mothers in this study, gender comparisons on self-efficacy in parents of children with autism must rely on previous research.

Another limitation in this study is that fathers reported the diagnosis of autism in their child. The study did not include third-party verification that participants had a child with autism through medical documentation or observation and assessment of each participant’s child. The lack of verification and assessments may have resulted in fathers falsely identifying with a child on the autism spectrum. Further, this study did not separate the child’s disability as mild, moderate, or severe through assessments. It is possible that a father’s perceived self-efficacy and well-being are more severely impacted when their child has a more severe form of autism.

The demographics collected in this study also present a possible limitation. The demographic questionnaire only included variables were directly investigated in this study. The variables used were previously found to have significant relationships with self-efficacy in mothers of children with autism. The limited information gathered about
the study population in the demographic questionnaire may not accurately represent the population sample.

**Definition of Terms**

*Autism* is defined as a developmental disability in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision) (DSM-IV-TR) (APA, 2000). Autism is characterized by significant deficits in three areas of functioning: social interactions, communication, and restrictive or repetitive patterns of behavior. For the purpose of the current study and simplicity of discussion, the term refers to the spectrum of autism disorders including Autistic Disorder, Asperger’s, and High Functioning Autism.

*Self-efficacy* is defined as an individual’s perception of competence toward a specific task or behavior (Bandura, 1997). This concept is important because an individual with higher self-efficacy toward a specific behavior perceives that he or she can have a desirable impact or result, while a person with lower self-efficacy will have the perception that they cannot create a desirable result with their behavior.

*Parental well-being* is discussed throughout the literature to mean many different things and is often referred to only as well-being or emotional well-being, without an in-depth explanation of its definition. In this study, parental well-being reflects Kuhn and Carter’s (2006) definition where a low measure of well-being is associated with higher levels of depression, stress, and guilt, while a high measure of well-being is associated with low levels of depression, stress, and guilt.

*Depression* is a debilitating mood disorder defined extensively in the DSM-IV-TR (APA, 2000). In this study, depression is one of the components related to
emotional well-being. When individuals report high levels of depressive symptoms, it is assumed that emotional well-being is negatively impacted.

Another component identified as part of a father’s well-being in this study is *parental stress*, which is the amount of strain an individual experiences as a result of environmental conditions or thought processes. As there are many possible sources of stress in an individual’s life, this study focuses on feelings of stress experienced specifically with parenting a child with autism. This stress may be a result of interactions between parent and child, difficult child behaviors, or parent distress, which is the stress level directly associated to the parenting experience (Abidin, 1990).

The last component in well-being investigated in this study is *parental guilt*, which is the feeling of responsibility or remorse towards a condition or event. In this study guilt is defined as a parent having feelings of responsibility or remorse associated with parenting and having a child with autism.

*Agency* is defined as the level of active involvement by a parent (Kuhn & Carter, 2006). A parent who has a high level of agency is more likely to actively promote a child’s development or engage with a child more often than a parent with lower levels of agency.
CHAPTER II

LITERATURE REVIEW

Child rearing of typically developing children can be stressful and difficult (Deater-Deckard, 1998). However, for parents raising a child with a disability, the parenting experience is significantly different and more stressful than parenting children with normal development (Baxter, 2000; Bouma, 1990). A child with disabilities presents a unique series of challenges and stressors, which demand more time and energy from the parent. In fact, the amount of stress an individual experiences in parenting depends on the nature and severity of the disability (Blacher & McIntyre, 2006). Although children with intellectual disabilities or those with severe medical conditions previously dominated the literature regarding parenting children with disabilities, parents of children with autism are starting to gain more attention due to an increased prevalence and the unique set of challenges associated with autism (Autism and Developmental Disabilities Network [ADDM], 2009).

To date, the main focus of research in the field of autism has been largely on the individuals with autism and treating autism. Research has somewhat overlooked the impact on parents of children with autism. Since parents face extensive and multiple life-long challenges (National Research Council [NRC], 2001), there is a substantial need to focus research on understanding the impact of the disorder on this particular population.
Research in this area of autism and parenting has yet to look comprehensively at factors that influence the psychological well-being of parents, specifically well-being of fathers.

Parental well-being is often discussed in the literature as a combination of different cognitions and emotions including parental satisfaction, stress, depression, guilt, and anxiety. One significant area of well-being for parents raising children with disabilities is self-efficacy as it has been found to impact many of the cognitions and emotions associated with well-being (Johnson & Mash, 1989; Krauss, 1993). Specific to parenting, self-efficacy is related to involvement of parental figures in a child’s life (Hoover-Dempsey, 1997). These findings are particularly significant for parenting children with disabilities because parents are often required to be extremely involved in their child’s life in order to meet their special needs (Rupp, 2009). The vast majority of the literature regarding autism, self-efficacy, parenting, and well-being has focused on mothers of children with autism (Blacher, Shapiro, Lopez, Diaz, & Fusco (1997); Kuhn & Carter, 2006; Sahu & Roth, 2003). Currently, there is extremely little research focused on fathers of children with autism and the factors that contribute to paternal well-being. Hastings and Brown (2002) is one study that included fathers of children with autism along with mothers and found that self-efficacy decreased anxiety and depression in mothers much more than in fathers when problem behaviors were present in the child. Given the gap in the literature, research must begin to focus on fathers of children with autism and well-being, so a more comprehensive understanding of the impact of autism can be reached.

This chapter focuses on self-efficacy and how it is related to well-being in parents of children with autism. The examination includes an overview of autism,
parenting and factors related to raising children with autism and other disabilities, self-efficacy theory and its relation to parenting, the unique similarities and differences between mothers and fathers, and factors contributing to the well-being of parents. The examination of well-being as it relates to parental self-efficacy includes a discussion on depression, guilt, stress, agency, and knowledge of disability. Finally, this chapter concludes with a description of the current study.

**Autistic Disorder**

Autism is a complex neurological disorder that has seen recent increases in incidence (ADDM, 2009). Although the focus of the current study is on parents of children with autism, it is first important to understand the disorder of autism so that the psychological impacts of the disorder on parents can be better understood. This section discusses prevalence and characteristics of autism as well as prognosis and current treatments of autism.

Although difficult to determine the exact number of individuals diagnosed with autism in the United States, the ADDM Network conducted research as part of the Center for Disease Control in an effort to obtain accurate and ongoing numbers on autism. The results of this ongoing research showed that in the United States today, approximately 1%, or 1 in every 110 children, is diagnosed with autism. This estimate would put the number of individuals under the age of 21 diagnosed with autism in the United States at approximately 730,000. Furthermore, this research shows that males diagnosed with autism greatly exceed females. Approximately 1 in every 70 male
children is diagnosed with autism, while females are much less likely to have a diagnosis of autism, at 1 in every 310 females (ADDM, 2009).

Current estimates show a steady increase in the incidence of autism throughout the past decade (ADDM, 2007). In the state of California alone, the number of individuals being serviced under autism increase approximately 13.4% every year since 2002, and 1,148% since 1987 (California Department of Developmental Services, 2007). The number of individuals receiving services in California and nationwide is only expected to increase in future years (Newschaffer, Falb, & Gurne, 2005).

Autism is a developmental disorder diagnosed using behavioral assessments (Allen, 2008). The APA (2000) distinguishes impairments of autism in three core domains: social interactions, communication, and restrictive or repetitive behaviors. Additionally, autism is characterized by an onset of deficits prior to age three according to the DSM-IV-TR (APA, 2000).

The first domain outlined in the DSM-IV-TR for the diagnosis of autism is a deficit in how an individual relates to others in the environment. This domain outlines multiple deficits in relationships with others and deficits in the use of nonverbal behaviors and reciprocity (Kransny, Williams, Provencal, & Ozonoff, 2003; Mundy, Sigman, Ungerer, & Sherman, 1986). The second domain outlined for autism is a deficit in the use of communication and its use in a functional as well as a social capacity (Paul, 2007). The final domain for autism is a deficit in behaviors where an individual with autism may have stereotypical motor mannerisms, abnormal or severe interests, or specifically follow nonfunctional routines (Phetrasuwan, Miles, & Mesibov, 2009). These behaviors listed in
the final domain are most characteristic of individuals with autism. The detailed characteristics of the autism diagnosis, as outlined by the DSM-IV-TR (APA, 2000), are:

A. Six or more items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):
   1. Qualitative impairment in social interaction, as manifested by at least two of the following:
      a. Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
      b. Failure to develop peer relationships appropriate to developmental level
      c. A lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
      d. Lack of social or emotional reciprocity
   2. Qualitative impairments in communication as manifested by at least one of the following:
      a. Delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
      b. In individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
      c. Stereotyped and repetitive use of language or idiosyncratic language
      d. Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
   3. Restricted repetitive and stereotyped patterns of behavior, interest, and activities, as manifested by at least one of the following:
      a. Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
      b. Apparently inflexible adherence to specific, nonfunctional routines or rituals
      c. Stereotyped and repetitive motor manners (e.g., hand or finger flapping or twisting, or complex whole-body movements)
      d. Persistent preoccupation with parts of objects
   B. Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years: (1) social interaction, (2) language as used in social communication, or (3) symbolic or imaginative play.
   C. The disturbance in not better accounted for by Rett’s Disorder or Childhood Disintegrative Disorder. (p. 75)

   Autism is a pervasive developmental disability that affects each individual differently. While some individuals can make progress towards normal functioning with
appropriate intervention, most individuals will show deficits related to autism throughout their life (Howlin, Goode, Hutton, & Rutter, 2004). Often, individuals with autism require some degree of care for the duration of their life, ranging from vocational or living skills training to long-term, specialized care (Demyer & Goldberg, 1983).

Although each individual with autism varies in their outcome, specific factors have been associated to the best prognosis for autism. Demyer, Barton, Demyer, Norton, Allen, and Steele (1973) first recognized the best predictors for favorable prognosis include the child’s IQ at the time of diagnosis and the severity of the disability, where less severe cases have more favorable outcomes. More recently, Gillberg and Steffenburg (1987) found that the acquisition of communicative speech before the age of six is also a very strong predictor of better outcomes, in addition to the child’s IQ at the time of diagnosis. Lastly, many professionals in the field of autism believe that in order to have the best possible outcome for individuals with autism, intervention should begin as early as possible (NRC, 2001).

Intervention for children with autism is often very time consuming and expensive. It is recommended that school-age children receive between 25 and 40 hours of intervention each week (Lovaas, 1987; NRC, 2001). Interventions that use applied behavior analysis strategies are the most research-based and effective interventions for autism; however, there is inconsistent agreement among experts regarding the best intervention for autism (NRC, 2001). The National Autism Center (2009) currently recognizes 11 established interventions for autism and an additional 22 interventions that are classified as emerging and promising treatments, but not yet established practices (interested
readers should refer to the National Standards Project for additional information regarding detailed reviews of the recommended interventions for autism spectrum disorders). Though there are effective treatments for autism available for children with autism, many of these treatments are expensive. In addition, accessibility of treatments can be limited due to issues related to having properly trained personnel for intervention.

As the prevalence of autism is increasing at staggering rates, there is a significant and immediate demand for attention from researchers. With a strong knowledge base of autism, studies can begin to focus on the family members involved with raising a child with autism. Considering the extensive resources and support required from parents for autism interventions, it is necessary to understand parental self-efficacy and associated cognitions, including well-being, in order to develop better assistance and interventions for families.

**Parenting**

The experience of being a parent is a major life-changing event that can be rewarding, yet challenging. Many new parents report fairly easy transitions into parenthood while raising typically developing children (Kalmuss & Davidson, 1992). However, when the idealistic expectations for parenthood differ from actual experiences, the transition into parenthood has been found to be much more difficult and stressful (Kalmuss & Davidson). For example, having an atypically developing child can present distinctive demands and challenges to families as new roles and expectations develop. This section examines the cognitive and emotional impacts of raising a child with disabilities. In
addition, this section explores the unique stressors associated with parenting a child with autism.

**Parenting Children with Disabilities**

A child with disabilities can present a unique experience to parenting. Individuals who have children with disabilities often experience situations with their children that are more emotionally stressful, which may result in more depression and guilt than parents of typically developing children (Blacher et al., 1997; Reichman et al., 2008). A child with disabilities presents a complex variable to numerous other factors within a family as well.

Research has shown that the difficulty in caring for a child with disabilities impacts the relationships of the family (Seltzer & Heller, 1997). The extensive everyday care required for a child with disabilities negatively affects the quality of familial relationships as a significant amount of a parent’s time and energy is given to the child with disabilities (Reichman et al.). This results in a decrease in resources for other familial relationships. Siblings often report negative impacts such as stress and coping difficulties due to the presence of a child with disabilities (Faux, 1993). Other studies on siblings of children with disabilities have found that siblings have more behavior problems and lower social competence (Hannah & Midlarsky, 1999). Hannah and Midlarsky concluded that older siblings sometimes find themselves in a caretaker role to decrease some of the burden on the parents, which results in limited age-appropriate, social activities for the sibling. It is clear that the impact on siblings of children with disabilities is significant.
and appears to be largely a product of the overall family functioning (Dyke, Mulroy, & Leonard, 2009).

In addition to disrupting the normal routines with family life, behavioral problems of children with disabilities may increase a parent’s level of stress, depression, and anxiety due to not knowing how to react to the child’s behavior (Hastings, 2002). Hastings proposed that a parent’s competency in reacting to the child’s difficult behavior can, in turn, affect the problem behavior in a positive or negative way.

The presence of behavior problems has yet another effect: they can affect the relationship between a mother and father due to disagreements about child rearing and behavior management. Parents of children with disabilities often report marital difficulties. Couples with a child with disabilities are more likely to be divorced or separated than couples of typically developing children (Hodapp, 1994). Further, parents who remain married often report less marital satisfaction that parents of normal functioning children (Rodrique, 1990).

Due to decreased resources, especially time and energy, parents of children with disabilities are also less likely to participate in social activities as an extraordinary amount of time and energy is spent caring for the child (Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001). In addition, Seltzer et al. (2001) found that parents with disabilities report less contact and visits with friends and also have less involvement in the community than others. The research on strained family relationships, decreased contact with friends, and decreased community participation is alarming as this lack of social participation is linked to depression and stress. Blacher et al. (1997) studied mothers of
children with mental disabilities and found that there are more signs of depression when contact with others and social activities are limited.

Reichman et al. (2008) reviewed the impact a child with disabilities has on individuals in a family, finding many implications. Families of children with disabilities often have physical and emotional demands above and beyond normal rates. These exceptional demands can even affect a parent’s physical and mental health. Also, families are faced with many financial burdens. These burdens can include costs associated with intervention services and long-term specialized health care. Such families often have parents who work less than other adults, pointing to further financial difficulties.

Parenting Children with Autism

The difficulties of parents of a child with the specific disability of autism are comparable to those of parents with children with other disabilities; however, some aspects are more pronounced for the specific population. Research has shown that parents of children with autism report more stress than parents of other disabilities (Blacher & McIntyre, 2006) as parents of children with autism often find themselves in multiple, demanding roles such as caregiver, advocate, and teacher due to the nature of the disability (NRC, 2001).

Mothers and fathers of children with autism also report more depression and anxiety than parents of children with other disabilities (Dumas, Wolf, Fisman, & Culligan, 1991). Dumas et al. noted that significantly higher levels of depression and stress in parents of children with autism when related to parents of children with other disabilities is due to the nature of the child as opposed to other extraneous factors. Due to
the extensive time and energy required for daily care and extremely challenging behavior problems of children with autism, such as severe and prolonged tantrums, parents of children with autism often report less perceived competence in parenting skills than parents of children with other disabilities and parents of normal functioning children (Rodrigue, Morgan, & Geffken, 1990).

Children with autism frequently influence dynamics within a family as well. Siblings are more likely to be diagnosed with autism than children with typically developing siblings, pointing to a biological link of autism (Bailey, Palferman, Heavey, & Le Couteur, 1998). Siblings who do not have autism are also more likely to have behavior problems and experience feelings of sadness or anxiety than siblings of children with no disability or another disability (Rodrigue, Geffken, & Morgan, 1993).

Parents of children with autism experience a wide range of emotions that can change throughout the life of their child. The NRC (2001) detailed how parents can feel a wide range of emotions including depression, anger, or disappointment at the time of diagnosis of their child and throughout a child’s life. As the needs of the child change, so can these complex emotions. Early in the child’s life, many parents focus on understanding the implications of autism and intensely seek out appropriate interventions and services for their child. As a child with autism gets older, parents begin to realize that their child may have significant life-long needs, depending on the child’s prognosis. Parents may have many emotions related to this realization and also begin to seek out adult living options when appropriate. Many parents of children with autism feel strong emotions related to the long-term prognosis of their child and the uncertainty of their future.
Koegel, Schreibman, Loos, Dirlich-Welhelm, Dunlap, Robbing, and Plenisi (1992) looked at profiles of mothers of children with autism, which showed that mothers were often concerned about the well-being of the child after the parent is no longer able to care for them properly. Similarly, mothers of children with autism frequently worry about their child being able to function independently in the future.

Health care and behavioral health services are another area of unique challenge for parents of children with autism. Croen, Najjar, Ray, Lotspeich, & Bemal (2006) found that health care, including behavioral health expenditures, are much more expensive for children with autism. This is a large area of concern that can cause emotions such as anxiety, depression, or stress in parents because most insurance companies currently limit or completely exclude coverage for the important behavioral health services necessary for children with autism (Bouder, Spielman, & Mandell, 2009). Although many services are available for children with autism, they can be very expensive and are often not covered by insurance providers. In fact, financial burdens on parents of children with disabilities can be extensive and may include costs associated with health care, long-term specialized care, or private or specialized educational programs. In addition to extra costs associated with raising a child with disabilities, parents often have less income because they are more likely to have the mother out of work to care for the child (Lukemeyer, 2000). In order to provide moral support for the mother, the father often working reduced hours as well (Noonan, Reichman, & Corman, 2005).

While every parent has a period of adjustment to parenthood, parents of children with disabilities, including autism, encounter unique challenges related to raising
their child. Many of the difficulties associated with raising a child with autism can impact
the well-being of individual parents, the parenting unit, family relationships, and commu-
nity or professional relations. The well-being of parents and families raising children with
disabilities is an important and timely aspect for researchers to understand because of the
dramatic risk of autism.

Self-efficacy

Self-efficacy is one area of research that has shown promising positive
impacts on a parent’s well-being and also shows potential benefits to children. Many
cognitions and emotions are mediated by self-efficacy, as it is associated with an indi-
vidual’s perception of competence. This concept of self-efficacy is especially important
to consider in the area of parenting. The current section reviews the theory of self-
efficacy and discusses the concept as it relates specifically to well-being and parents of
children with autism and other disabilities.

Parental Self-efficacy

Self-efficacy is an individual’s perception of competence to impact the sur-
rounding environment and obtain desirable results in a specific task or behavior
(Bandura, 1997; Miller, 2002). Self-efficacy is normally discussed in reference to a
specific behavioral domain such as parenting. The theory of self-efficacy is derived from
a larger body of work known as social cognitive theory (Miller). The central concept of
social cognitive theory is that individuals learn and develop perceived efficacy and com-
petence towards domains by considering personal history of success or failure, watching
others engage in the behavior or task, receiving feedback from others, and anticipating outcomes (Coleman & Karraker, 1997).

In parenting, self-efficacy is the degree to which a parent feels competent to engage in parenting effectively. Bandura (1997) believed that parents must have qualities related to a strong sense of self-efficacy in order to parent successfully. Increased emotional well-being and positive parenting practices have been linked to high parenting self-efficacy (Coleman & Karraker).

Further evidence that parental self-efficacy is linked to well-being is shown by Krauss (1993), who found that a low level of self-efficacy is related to more parental associated stress. Johnson and Mash (1989) concluded that low levels of parental self-efficacy result in poorer persistence in positive parenting practices and low parenting satisfaction. Other research has found that the difficulties of having a child with significant behavior problems will often decrease characteristics associated with self-efficacy (Mouton & Tuma, 1988). Another factor that has been found to decrease parental self-efficacy is criticism from others (Herbert, 1995). Herbert found that criticism specifically towards parenting style significantly influenced a parent’s perceived self-efficacy towards parenting.

The ramifications of a high self-efficacy toward a specific domain are approaching situations as opposed to avoiding them, a higher quality of performance in behavior, and persistence when faces with challenges (Betz, 2004). While many parents of children with disabilities have lower levels of parenting self-efficacy, Sofronoff (2002) found that parents who engage in behavior management training to increase knowledge in
a targeted area experience an increase in parental self-efficacy. Aside from the findings of Sofronoff, research on the relationship between parental self-efficacy and knowledge is extremely sparse. Conrad, Gross, Fogg, and Ruchala (1992) conducted a study about a mother’s knowledge of child development and parenting practices and found that confidence in parenting was related to knowledge, but efficacy was not. Hess, Teti, and Hussey-Gardner (2004) found that reports of high self-efficacy paired with higher scores of parental knowledge resulted in much higher parenting competence. This study showed that interventions for parents should focus on increasing parent’s knowledge as well as increasing a parent’s self-efficacy. Although research on the links between knowledge and self-efficacy is sparse, there is a strong research base that shows benefits of knowledge. Wolfson, Lacks, and Futterman (1992) concluded that new mothers who did not attend parent training classes had increasing stress levels when compared to new mothers who did attend parent training classes. In the form of literacy, knowledge has also been shown to influence depression rates in individuals (Weiss, Francis, Senf, Heist, & Hargraves, 2006).

Parental self-efficacy has also shown promising associations with parental agency. Kuhn and Carter (2006) described parental agency as active involvement in a child’s development. Similar to Kuhn and Carter, previous research has found that parents who have higher levels of parental self-efficacy tend to be more involved in their child’s lives (Hoover-Dempsey & Sadler, 1997). This relationship is believed to exist because parents who have higher levels of self-efficacy feel that their efforts and time can help impact their child in a positive manner, while parents with lower self-efficacy avoid
more involvement because they do not have competence in their ability to impact their child in a desirable way.

**Well-being and Parental Self-efficacy**

Parental self-efficacy is an important consideration for parent emotional well-being. Ozer (1995) concluded that positive and negative characteristics associated with well-being are significantly associated with parental self-efficacy. Previous research most often defines well-being as positive emotions associated with life satisfaction reports or low rates of negative emotional cognitions such as depression, stress, and anxiety (Fredrickson & Joiner, 2002; Vandeleur, Jeanpretre, & Perrez, 2009). While there is not a universal agreement on the exact components of well-being, most research tends to focus on the combination of positive and negative emotions or either positive or negative emotions only.

Research concerning self-efficacy and parental well-being has focused largely on mothers. Kuhn and Carter (2006) conducted a study on self-efficacy and the maternal well-being factors of depression, guilt, and stress. In addition, the study investigated the effect of maternal knowledge of child disability and parental agency on self-efficacy. The study was conducted with 170 mothers of children with autism who competed the survey either online or using a paper copy. The results indicated that each well-being measure, depression, guilt, and stress, accounted for a significant variance in a mothers’ self-efficacy. Results also indicated that agency was related to increased self-efficacy.
Research in the area of parental self-efficacy and well-being has found similar results to Kuhn and Carter (2006). Many studies have found that the presence of low self-efficacy is correlated with increased depressive symptoms (Bor & Sanders 2004; O’Neil, Wilson, Shaw, & Dishion, 2009; Weaver, Shaw, Dishion, & Wilson, 2008). Parental stress is also an area of research that has been linked to parental self-efficacy. Hastings (2002) concluded that parents who have lower self-efficacy experience more stress related to raising their child because they do not feel competent to handle problem behaviors properly. In contrast, Spielman and Taubman (2009) found that parental stress was related to health and care issues in raising a newborn child, but higher self-efficacy did not influence the level of stress.

There is little research that has looked at the relationship between parental self-efficacy and guilt. K. Baldwin, J. Baldwin, and Ewald (2006) looked at the relationship between shame, guilt, and parental self-efficacy and found that shame was correlated to self-efficacy for both parents, while guilt, although not overall significant, appeared to differ by gender. The study noted that mothers’ feelings of guilt were related to self-efficacy much more than guilt in fathers. With the guilt often associated with having a child with autism or another disability, more research on the effects of self-efficacy is necessary.

Previous research has shown a significant relationship between parental self-efficacy and well-being (Ozer, 1995). Having a low sense of parental self-efficacy clearly has adverse affects on a mother’s well-being, while a higher sense of self-efficacy seems to have a positive impact on well-being and parenting competence. While there is an
understanding of this relationship in general, research has focused mostly on mothers and there is a need to include fathers in this area of literature.

**Gender Differences in Parenting**

One possible reason for the past focus on mothers in parenting and well-being research is current literature shows mothers are often more involved in their children’s development than fathers (McBride & Mills, 1993); however, mothers and fathers both have the potential to be affected by difficulties associated with parenting. While there is sufficient amount of some research regarding mothers and factors of well-being, there is insufficient research on the gender differences in parenting well-being or factors that contribute to a father’s well-being.

Both mothers and fathers report stress related to parenting (Krauss, 1993). Specific to children with disabilities, Beckman (1991) showed that mothers raising a child with a disability generally have higher levels of stress than fathers. Similarly, Bruce, E. Schultz, Smyrnios, and N. Shultz (1994) also found that mothers report much more stress associated with parenting children with disabilities than fathers do. In contrast to these studies that show higher levels of stress in mothers than in fathers, Deater-Deckard and Scarr (1996) and Krauss (1993) conducted research on gender differences in parenting stress and concluded that mothers and fathers report similar amounts of stress associated with parenting. While it is clear that both mothers and fathers experience stress related to parenting, there is currently conflicting research regarding differences gender differences in stress.
There is extremely little research regarding gender differences of parents raising a child with autism or other disabilities. Gray (2003) has conducted one study on gender differences of parents raising a child with autism. Results indicated that while mothers and fathers both report significant stressors related to parenting, they differed on the types of stress. While mothers were negatively affected by the impact of parenting itself, fathers reported that they were not significantly affected by the difficulties. Instead, fathers were more likely to report indirect stress as a result of having a child with autism, such as the negative impacts they saw in their spouses or the negative effects on the family environment.

It is also clear that mothers and fathers with a child with autism experience higher than normal levels of depression than other parents (Dumas et. al, 1991), but very few studies have included the differences between maternal and paternal depression. Although research has shown that both parents experience higher rates of depression than other parents, select research has shown that mothers experience much higher levels of depression than fathers do in raising a child with autism or intellectual disability (Olsson & Hwang, 2001).

Gender differences in agency and involvement is another area of parenting where there is not a large amount of research. While research in the area has clearly shown that mothers tend to be more involved than fathers in the child-rearing process (Lamb, 2000), there is not sufficient research regarding how involvement plays a role in paternal well-being or self-efficacy. A study conducted by McBride and Mills (1993) investigated mother and father involvement in pre-school-aged children, finding that
fathers tend to take on much less of the parenting responsibility than mothers. Also, the interactions between father and child tend to focus more on play and less on the parental care aspect. Given that children with autism have significant delays in essential play skills, it is important to understand the role of involvement and agency in fathers of children with autism.

The role of fathers in parenting has become more active and involved in recent years (Lamb, 2000). This research is encouraging as there is growing evidence that children with present and involved father figures report higher levels of well-being and adjustment (Amato, 1994). Amato found that both sons and daughters are generally more happy, report more life satisfaction, and less psychological distress when there is a strong father-child relationship. Research in the past has focused almost solely on parenting impact on mothers and must now begin to include fathers and gender differences. While mothers and fathers are both potentially impacted by difficulties associated with raising a child, impacts may differ between genders. Research has yet to look at the role of self-efficacy and well-being on fathers.
CHAPTER III

METHODOLOGY

Design of the Investigation

The purpose of this study was to extend research on fathers of children with autism. The study examines fathers’ emotional well-being, agency, and knowledge of autism to understand their individual and collective roles in paternal self-efficacy. There were five hypotheses investigated in this study. Three of the hypotheses examined paternal self-efficacy and specific correlates of well-being: (a) that paternal self-efficacy would be negatively associated with depression; (b) that paternal self-efficacy would be negatively associated with stress; and (c) that paternal self-efficacy would be negatively associated with guilt. The fourth hypothesis examined self-efficacy and agency and specifically hypothesized that self-efficacy would be positively associated with agency. Last, self-efficacy and knowledge of autism were examined, where it was hypothesized that self-efficacy would be associated with a father’s knowledge of autism.

Participants for the study were solicited through local autism agencies and completed surveys online or with a paper copy. The study used a combination of seven surveys with fathers of children with autism to test each hypothesis. Each survey was used to examine a different aspect of a father’s cognition related to his child with autism. Data obtained from participants were statistically analyzed to test each hypothesis.
Sample

A sample of fathers (N = 28) raising a child with autism was obtained for this study. The participants were solicited through an autism community support group called Temecula Autism and Asperger’s Group and an autism support agency called New Visions Autism Center. Both groups are located in Temecula, California, and provide services and support in Riverside and San Diego counties.

Treatment

Procedure

The study used a combination of surveys from Kuhn and Carter (2006), as well as a demographic survey designed by the researcher. Surveys in the initial research by Kuhn and Carter (2006) included three existing measures and three original measures designed for their study. Permission to use original instruments developed by Kuhn and Carter (2006) was granted.

Participants were solicited from local autism support agencies by emailing individuals using lists obtained by voluntary sign-up. Data were collected through either an internet survey site or by paper copy. Twenty-four participants filled out the survey over the internet. The electronic survey began with a short explanation regarding the nature of the study followed by informed consent (Appendix A). Participants gave their consent of voluntary participation by clicking “I agree” at the bottom of the informed consent web page. Upon completion, participants using the online survey had the option of providing their email address to be provided with a study debriefing (Appendix B) sent out by the researcher.
Participants who preferred a paper copy to fill out the survey \( (n = 4) \) were also solicited through email and then given the survey by one of the agencies. Participants using this method were given the same introduction and informed consent form as participants using the online survey, but were asked to give consent by signing and dating the bottom of the form. After completing the paper survey, participants returned them to the agency, where they were given the debriefing form.

The survey used in this study was transferred to the internet and piloted in March 2009. Permission was granted by California State University, Chico in September 2009, which was followed by meeting and gaining participation from local autism agencies. Participants were solicited for data collection beginning October 2009 and ending in March 2010.

All subjects \( (N = 28) \) completed a 138-item survey covering seven areas: demographic information, parental agency, parental guilt, parental stress, parental depression, knowledge of autism, and parental self-efficacy. The survey took participants approximately 25 minutes to complete. Each participant was invited to contact the researcher by email or phone if there were any questions or additional information requested. All data were entered into SPSS 15.0 for analysis.

**Instruments**

**Demographic questionnaire.** The brief demographic questionnaire was developed by the researcher to gather pertinent background information. This tool included eight open-ended questions. Parents were asked information about their child with
autism, including time since diagnosis, school placement, the presence of additional disabili-
ties in the family, children ages, and adult presence in the home.

**Maternal efficacy scale.** The maternal self-efficacy scale (Teti & Gelfand, 
1991) was developed to study parental perceived self-efficacy in the area of child care. 
The scale consists of ten questions related to parental self-efficacy in different areas of 
caring for a child. Each question was answered on a four-point scale, where parents 
selected one response: not good at all, not good enough, good enough, or very good. Teti 
and Gelfand reported good internal consistency ($\alpha = .79$) and concurrent validity with 
negative correlations with stress in competency scales ($r = -.75, p < .001$).

**Maternal agency scale.** The maternal agency scale (Kuhn & Carter, 2006) was 
constructed to test the level of agency related to raising a child with autism. It consists of 
20 questions that are answered on a five-point scale: never, seldom, sometimes, often, 
and almost always. Questions in this scale focus on areas such as how much direct 
involvement a parent has with their child with autism, if the parent is involved in the 
education of the child, and how much a parent seeks to gain knowledge regarding their 
child’s disability. This scale also had good internal consistency ($\alpha = .79$) (Kuhn & 
Carter). Results from the Kuhn and Carter study also showed a mild positive correlation 
between agency and knowledge of autism ($r = .21, p < .01$) and significant negative cor-
relations between agency and guilt ($r = -.20, p < .05$), stress ($r = -21, p < .01$), and 
knowledge ($r = .21, p < .01$).

**Maternal guilt questionnaire.** The maternal guilt questionnaire (Kuhn & 
Carter, 2006) was created to gauge if a parent feels guilt associated with having a child
with autism and in what circumstances a parent is most likely to feel this guilt. The questionnaire consisted of two concrete questions followed by an identification of context of feelings of guilt. Mothers are first asked whether they feel responsible or guilty because they are not doing as much as they think they should be doing for their child with autism. If the parent answered yes, they were asked to indicate how often they felt guilt and under which circumstances. Participants are scored as experiencing guilt “less than monthly,” “monthly,” “weekly,” or “almost every day.” If a parent reported no feelings of guilt, they are instructed to move to the next section. This measure does not lend itself to reliability analyses because it only asked about the presence, frequency, and context of guilt. Concurrent validity was demonstrated with correlations between guilt and depression ($r = .32, p < .001$) and stress ($r = .35, p < .001$) (Kuhn & Carter, 2006).

**Maternal autism knowledge questionnaire.** The autism knowledge questionnaire (Kuhn & Carter) was developed to measure an individual’s knowledge of autism. It is composed of 41 questions about symptoms, diagnosis, and interventions for autism. Questions are presented in a true/false format where parents also have the option of answering “don’t know.” The autism knowledge score is calculated as a percent of questions answered correctly. The measure was found to have good internal consistency ($\alpha = .79$) and was correlated with agency ($r = .21, p < .01$), showing concurrent validity (Kuhn & Carter).

**Center for Epidemiological Studies depression scale (CES-D).** The Center for Epidemiological Studies depression scale (Radloff, 1977) is a widely used screening tool used to assess depressive symptoms in individuals (Gatz & Hurwicz, 1990; Hook, 2009).
The scale asks individuals how often they have had particular feelings or emotions in the past week. The 20-question measure is rated on a four-point scale, where 0 represents never or rarely and 3 represents often. The measure has been found to be valid assessment of depressive symptoms across a wide variety of populations (Kazarian, 2009). The measure has shown good reliability ($\alpha = .84 - .90$) (Radloff). Kuhn and Carter found that this scale showed concurrent validity in mothers of children with autism with correlations between depression and guilt ($r = .32, p < .001$) and depression and stress ($r = .54, p < .001$).

**Parenting stress index-short form (PSI-SF).** The parental stress index-short form (Abidin, 1990) measures a parent’s perceived stress across three areas of functioning: parental distress, parent-child dysfunctional interaction, and difficult child. The short form is comprised of 36 items and has a high degree of internal consistency ($\alpha = .91$). The instrument has shown a very strong correlation with the original 120-question form ($r = .94$). The parental stress index was shown to correlate with the maternal stress and guilt measures in mothers with autism, showing construct validity (Kuhn & Carter). Further, a wide body of research on the PSI-SF has shown validity across many different domains including parents of children with developmental disabilities (Abidin).

Four of the surveys used in this study were made specifically for research on mothers, as indicated by their titles. Since the nature of each instrument was to investigate different feelings and emotions, the tests were not specific to different gender issues and differences. Therefore, each instrument remained relevant for the population of the
present study and no questions in any of the instruments needed to be changed or excluded due to the population in the study.

Data Analysis Procedures

Data analysis was completed using SPSS 15.0 statistical analysis software. When a participant survey was incomplete, that portion of the incomplete survey was excluded from analysis. Descriptive statistics were completed on demographic information and each individual questionnaire. Reliability was obtained for the questionnaires using Chronbach’s alpha, with the exception of the demographics survey and the guilt questionnaire due to the open ended structure which did not lend itself to reliability analysis. To investigate the relationship between paternal self-efficacy and the three measures of well-being, bivariate correlational analysis was conducted between self-efficacy and depression, stress, and guilt. Bivariate correlational analysis was also used to investigate the relationships between self-efficacy and agency and self-efficacy and knowledge of autism. A post-hoc stepwise regression analysis was then completed to test each variable’s unique variance in paternal self-efficacy. Demographic information was also added to the stepwise regression for purpose of comparison to Kuhn and Carter (2006).
CHAPTER IV

RESULTS

Presentation of the Findings

The current study investigated the relationship between self-efficacy and different cognitions in fathers of children with autism. It was hypothesized that paternal self-efficacy would be negatively related to the well-being measures of depression, stress, and guilt. Additionally, self-efficacy of fathers of children with autism was hypothesized to be positively related to agency and knowledge of autism.

This research was conducted with fathers of children with autism ($N = 28$) in the Inland Empire region of California. Fathers reported having children that ranged from 3- to 17-years-old ($M = 10.0$ years). Demographic data also showed that only four of the fathers were in single parent households and half of the fathers ($n = 14$) reported having at least one adult in the home full-time.

Participants stated that their children were diagnosed with autism on average of 4.1 years ago with elapsed time ranging between a half year and five or more years. The majority of fathers ($n = 17$) noted that their child was diagnosed with autism five or more years ago. Only three fathers had a child who was diagnosed with autism within the last year. Almost half of the participants ($n = 13$) had a total of two children in the home and four fathers reported that more than one of their children was diagnosed with autism. The children of the fathers in this study were in a variety of school settings, including
special day class, severely handicapped class, regular education, home school, or not currently in school/not school age. Descriptive data are presented in Table 1.

Table 1

*Descriptive Sample Data*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Mdn</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child autism age</td>
<td>10.0</td>
<td>10.0</td>
<td>4.5</td>
<td>3-17</td>
</tr>
<tr>
<td>Years since diagnosis</td>
<td>4.1</td>
<td>5.0</td>
<td>1.4</td>
<td>.5-5.0</td>
</tr>
<tr>
<td>Number of children</td>
<td>2.2</td>
<td>2.0</td>
<td>.9</td>
<td>1-4</td>
</tr>
<tr>
<td>Additional child with autism age (N = 4)</td>
<td>8.3</td>
<td>9.0</td>
<td>1.5</td>
<td>6-9</td>
</tr>
<tr>
<td>Adults in the home</td>
<td>1.9</td>
<td>2</td>
<td>.5</td>
<td>1-4</td>
</tr>
</tbody>
</table>

To test the study hypotheses, seven instruments were combined for a 138-question survey. The instruments were given in the following order: demographic questionnaire, agency, guilt, depression, efficacy, knowledge of autism, and stress. Since the original intention of the scales was for mothers of children with autism, reliability of the scales was calculated. Reliabilities for each scale, excluding the demographic survey and the guilt questionnaire, were calculated using Chronbach’s alpha and are presented in Table 2.

The sample in this study had an average self-efficacy score (\(M = 30.82\)) that was similar to mothers in Kuhn and Carter (2006) who were given the same measure. Similarly, the measure for guilt showed that fathers reported feelings of guilt most often when they felt overwhelmed or when spending time with a typically developing child. The average father agency (\(M = 69.64\)) was observed to be much lower than that observed in Kuhn and Carter (2006) where the same instrument was used. The levels of
Table 2

*Psychometric Data for Survey Instruments*

<table>
<thead>
<tr>
<th>Instrument</th>
<th># items</th>
<th>α</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-efficacy</td>
<td>10</td>
<td>.826</td>
<td>28</td>
<td>30.82</td>
<td>4.64</td>
</tr>
<tr>
<td>Stress</td>
<td>36</td>
<td>.947</td>
<td>27</td>
<td>89.67</td>
<td>22.77</td>
</tr>
<tr>
<td>Depression</td>
<td>20</td>
<td>.921</td>
<td>28</td>
<td>12.75</td>
<td>10.48</td>
</tr>
<tr>
<td>Guilt</td>
<td>3</td>
<td>-</td>
<td>28</td>
<td>2.46</td>
<td>1.99</td>
</tr>
<tr>
<td>Agency</td>
<td>20</td>
<td>.924</td>
<td>28</td>
<td>69.64</td>
<td>15.34</td>
</tr>
<tr>
<td>Knowledge</td>
<td>41</td>
<td>.778</td>
<td>27</td>
<td>34.69</td>
<td>.11</td>
</tr>
</tbody>
</table>

*Note: Actual n fluctuated due to missing data.*

stress \((M = 89.67)\) in the sample approached the clinically significant level of stress, a score of 90. Depression scores \((M = 12.75)\) with this population did not meet the cutoff for clinically significant depression, a score of 16.

To investigate the relationship between self-efficacy and the well-being measures of depression, stress, and guilt, a correlational analysis was conducted. Results of the analysis between self-efficacy and depression revealed a significant negative relationship between self-efficacy and depression \((r = -.61, p < .01)\). Analysis between self-efficacy and stress also exhibited a negative significant correlation \((r = -.59, p < .01)\). The last well-being relationship between self-efficacy and guilt did not show a significant relationship \((r = -.11)\).

As part of the self-efficacy and well-being analysis, each well-being variable was tested for a significant relationship with the other well-being variables. A significant positive correlation was observed between paternal depression and stress \((r = .63,\)
However, no relationship was found between depression and guilt ($r = .32$) or stress and guilt ($r = .35$). This study also hypothesized that self-efficacy would have a positive relationship to paternal agency. Correlational analysis results indicated no significant relationship ($r = .29$). Finally, it was hypothesized that self-efficacy would be positively related to knowledge of autism, but again results failed to demonstrate a significant relationship ($r = .001$). The results of the correlational analyses are presented in Table 3.

Table 3

*Bivariate Correlations Among Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Paternal Self-efficacy</td>
<td>-</td>
<td>.29</td>
<td>-.11</td>
<td>.001</td>
<td>-.61**</td>
<td>-.59**</td>
</tr>
<tr>
<td>2. Agency</td>
<td>-</td>
<td>-</td>
<td>.14</td>
<td>.01</td>
<td>-.22</td>
<td>.12</td>
</tr>
<tr>
<td>3. Guilt frequency</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.06</td>
<td>.32</td>
<td>.35</td>
</tr>
<tr>
<td>4. Autism knowledge</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.14</td>
<td>.06</td>
</tr>
<tr>
<td>5. Depression</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>.63**</td>
</tr>
<tr>
<td>6. Stress</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

**$p < .01$**

A post-hoc simultaneous regression analysis was completed to determine the impact of both stress and depression in predicting paternal self-efficacy. Guilt was included in the regression as the final measure of well-being. The variables of agency and autism knowledge, as well as the demographic variables, were excluded from the regression analysis since they were not significantly correlated with self-efficacy. Results indicated that approximately 39% of the variance was accounted for by well-being ($r^2 =$
.387), while only paternal stress accounted for a unique variance in predicting paternal self-efficacy ($B = -0.652$, $p < .01$). When only stress was used as a predictor of self-efficacy, approximately 35% of the variance in self-efficacy was accounted for ($r^2 = .351$). The results of the simultaneous regression analysis are presented in Table 4.

Table 4

**Simultaneous Regression Analysis for Variables Predicting Paternal Self-efficacy**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Standardized β</th>
<th>$r^2$</th>
<th>$F$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>-.652**</td>
<td>.387</td>
<td>4.83</td>
<td>.009</td>
</tr>
<tr>
<td>Depression</td>
<td>-.017</td>
<td></td>
<td></td>
<td>.935</td>
</tr>
<tr>
<td>Guilt</td>
<td>.203</td>
<td></td>
<td></td>
<td>.259</td>
</tr>
</tbody>
</table>

*Note: $r^2 = .387; p < .01$*

Discussion of the Findings

The current study examined self-efficacy and the relationships with depression, stress, guilt, agency, and knowledge of autism in fathers of children with autism. A similar study by Kuhn and Carter (2006) was conducted with mothers of children with autism. Results from the current study are discussed for their implications on fathers of children with autism and are compared to previous findings for mothers of children with autism.
Reliability analysis was conducted on each measure with a sample of fathers of children with autism. Every measure in the current study showed a strong reliability, except for the maternal autism knowledge. The maternal self-efficacy scale showed excellent reliability for fathers ($\alpha = .826$), which is slightly higher than was observed by Teti and Gelfand (1991) ($\alpha = .79$). Reliability was also excellent for the maternal agency scale in this study, which was much higher ($\alpha = .924$) than the agency scale reliability for mothers in Kuhn and Carter (2006) ($\alpha = .79$). The maternal autism knowledge scale in this study ($\alpha = .78$) was comparable to the reliability found in Kuhn and Carter. The depression measure and stress measure used in this study were not specific to mothers. Reliability analysis was very strong for both measures with the study population and are comparable to previously reported scale reliabilities.

The first group of hypotheses in this study focused on paternal self-efficacy and the three well-being measures. The first hypothesis in this group was paternal self-efficacy would have a negative association to depression. This hypothesis was supported as the study found a significant negative correlation between self-efficacy and depression. This shows that when fathers of children with autism experience higher levels of depression, there is a negative correlation with perceived self-efficacy. This finding was also observed in Kuhn and Carter with mothers of children with autism. However, in a post hoc analysis in the current study, depression did not contribute unique variance in estimating self-efficacy of fathers. This is contrary to Kuhn and Carter, who found that depression causes a unique impact on self-efficacy in mothers of children with autism.
Previous research has found that increased levels of depression is common in parents of children with disabilities and even more pronounced in parents of children with autism (Blacher et al., 1997; Dumas et al., 1991). These higher levels of depressive symptoms are associated with lower levels of self-efficacy in parents (Bor & Sanders, 2004). Research also shows that paternal depression is associated with a significant decrease in positive parenting practices (Wilson & Durbin, 2010). The findings of this study support the finding that parents of autism experience high levels of depression that affects self-efficacy, but also show that depression has a different effect on mothers and fathers. Previous research does show gender differences in depression where women are twice as likely to experience depression as men are (Blazer, Kessler, McGonagle & Swartz, 1994). Mother’s self-efficacy may also be more affected by depressive symptoms because they are often more actively involved in the daily care of children (McBride & Mills, 1993). Depression may have less of an effect on fathers due to this secondary role in care giving present in many households.

The second hypothesis in the group of well-being variables was stress and self-efficacy would have a negative association. This hypothesis was also supported in this study, as there was a moderate negative correlation between self-efficacy and stress. Further, post hoc analysis indicated that only stress accounted for a significant amount of variance in self-efficacy in fathers of children with autism, where it accounted for approximately 35% of the variance. Kuhn and Carter (2006) had similar findings with mothers and stress, where self-efficacy was significantly correlated with stress and stress accounted for 11% of the variance in maternal self-efficacy. Prior research has shown
that both mothers and fathers report significant amounts of stress in raising a child with a
disability (Krauss, 1993), although mothers and fathers of children with autism report
different sources of the stress (Gray, 2003). While mothers typically report stress related
to caring for their child with autism and fathers report more indirect forms of stress such
as family dysfunction, financial burdens, or the effect of direct stress on his spouse, both
have a significant impact on each parent’s self-efficacy.

The final hypothesis regarding well-being in this study was that guilt would be
negatively associated with self-efficacy. This hypothesis was not supported by this par-
ticular research, which revealed that a father’s level of guilt does not have a significant
relationship with self-efficacy. Though fathers in this study reported feelings of guilt
approximately 64% of the time, only 22% of the sample reporting guilt believed that the
feelings interfered with their parenting ability. Kuhn and Carter found a significant rela-
tionship between a mother’s guilt and self-efficacy and also found that guilt accounts for
a unique variance in maternal self-efficacy. They also reported that a much larger amount
(80%) of mothers of children with autism have feelings of guilt, while mothers reporting
that reported guilt interferes with being an effective parent occurred at roughly the same
rate (21%) as that of fathers.

The very limited research in this area has not found a significant relationship
between guilt and self-efficacy, but has noted that mothers report guilt more often than
fathers (Baldwin et al., 2006). The current study also showed that mothers report guilt
associated with parenting more often than fathers, but the rate of parents reporting that
guilt affected parenting is similar across genders. One possible reason this study did not
find a significant relationship between guilt and self-efficacy even though the rate of guilt affecting parenting was similar between mothers and fathers is that intensity and duration of guilt was not examined. It is possible that fathers were more likely to identify with feelings of guilt when it overtly affected their parenting, while mothers were more sensitive to feelings of guilt whether it affected parenting or not. As with depression, women may be more susceptible to feelings of guilt and in particular with childrearing.

The current study found one positive relationship between the well-being measures of depression, stress, and guilt. A significant relationship was observed between depression and stress, but there was no relationship between depression and guilt or stress and guilt. Kuhn and Carter (2006) found a significant relationship between all three variables in mothers of children with autism. The differences in the findings may show that depression, stress, and guilt function differently in mothers and fathers of children with autism. Since different kinds of stress have been observed in mothers and fathers of children with autism (Gray, 2003), and the fact that depression tends to occur at much higher rates in mothers than in fathers (Olsson & Hwang, 2001), indirect sources of stress and guilt may have a separate role in mothers and fathers of children with autism.

This study also hypothesized that a father’s agency would be positively associated with self-efficacy, where agency is the level of active involvement with a child. Results indicated that this relationship was not significant in this study, showing that the level of a father’s agency is not related to his level of self-efficacy. This result is contrary to the relationship between agency and self-efficacy in mothers of children with autism, which has been found to be significant and accounted for a unique variance in predicting
maternal self-efficacy (Kuhn & Carter). Previous studies on involvement show that mothers are significantly more involved than fathers across almost all domains related to caring for a child (Finley, Mira, & Schwartz, 2008). Also, the nature of involvement between the parents is often different (McBride & Mills, 1993). A father’s self-efficacy may be unaffected by agency because interactions between a father and a child are more likely to focus on play rather than parental care for the child, which is a large focus of a mother’s interactions (McBride & Mills). It was observed in this study that agency scores differ significantly between mothers ($M = 82$) and fathers ($M = 69.64$, $t(196) = 6.48$, $p < .001$), while self-efficacy scores were not significantly different. Therefore, a father’s feelings of competency toward parenting and self-efficacy may be unaffected by agency due to the significantly lower levels of involvement.

The last hypothesis in the current study was that knowledge of autism would have a positive association with self-efficacy. This hypothesis was not supported, showing that the amount a father knows about autism is not associated with his perceived self-efficacy. These results are consistent with research on mothers of children with autism in that a mother’s knowledge of autism is also not associated with her self-efficacy (Kuhn & Carter, 2006). Although Kuhn and Carter did not find this to be a significant relationship, it remained an important hypothesis for the current study. Gaining an understanding on the association between knowledge of autism and self-efficacy for fathers and mothers was essential because it can help guide interventions and classes for parents of children with autism. If knowledge of autism was found to have an association with paternal self-efficacy, interventions for parents could focus on helping fathers gain this practical
knowledge of the disability. Since knowledge of autism was not found to increase self-efficacy in fathers or mothers, interventions for parents may begin to look in additional directions and emphases to help parents gain feelings of competence and self-efficacy.

The current study did not find any associations between demographic variables and self-efficacy or well-being. Due to this reason, none of these variables was included in a post hoc analysis. Kuhn and Carter found multiple demographic variables to be significantly correlated with self-efficacy in mothers of children with autism and, therefore, included these variables in the stepwise analysis. Results showed time since diagnosis of autism was a significant predictor for mothers. These results indicate that mothers’ sense of self-efficacy changes significantly with the age of their child and the time since their child’s diagnosis of autism. While these two demographic variables account for a significant variance in a mother’s level of self-efficacy, a father’s sense of self-efficacy is not significantly affected by the age of their child and the time since their child’s diagnosis of autism.

Of the five hypotheses in the current study, only depression and stress were found to have a significant relationship with paternal self-efficacy in fathers of children with autism. Further, analysis indicated that only stress accounted for a significant variance in predicting paternal self-efficacy. These results differ from research on mothers of children with autism that found depression, stress, guilt, and agency all account for a significant variance in maternal self-efficacy (Kuhn & Carter). The current study shows that the presence of a child with autism impacts the self-efficacy of mothers and fathers in different ways.
CHAPTER V

SUMMARY AND CONCLUSIONS

Parents of children with autism are an often overlooked population in research. While the vast amount of current research focuses on mothers of children with autism, research on fathers of children with autism is nearly non-existent. It is clear that parents of children with autism have a unique experience with their children that result in higher rates of depression (Dumas et al., 1991) and stress (Blacher & McIntyre, 2006) than those seen in other disabilities. Given this unique experience and the rising numbers of children with autism, a strong understanding regarding the impact of autism on both fathers and mothers is necessary. A focus on the well-being of parents of children with autism can aide in understanding this unique experience and help guide family-oriented interventions.

One area related to parental well-being is self-efficacy. Defined as an individual’s perceived competence toward a specific behavior (Bandura, 1997), self-efficacy has been found to play a very important role in overall mental health and well-being. Ozer (1995) concluded that self-efficacy has a strong association with overall parental well-being. Other research has found that self-efficacy is negatively related to an individual’s level of depression (Bor & Sanders, 2004) and stress (Hastings, 2002). Also, a higher level of self-efficacy in parents is significantly related to more parent involvement (Hoover-Dempsey & Sadler, 1997) and parental agency (Kuhn & Carter, 2006). Given
the exceptional experience of parents of children with autism and the importance of self-efficacy in well-being, it is important to investigate the relationship between self-efficacy and well-being in fathers and mothers of children with autism.

One aspect of this research investigates paternal self-efficacy as it relates to three specific well-being measures: depression, stress, and guilt. Previous research has found that mothers and fathers of children with autism have different experiences with depression, stress, and guilt (Gray, 2003; Olsson & Hwang, 2001), but they generally occur at higher rates than in other parents (Dumas, et al., 1991). Due to the different experiences in well-being between parents of children with autism, it is possible that parental self-efficacy is also affected differently. This study hypothesized negative correlations in fathers between self-efficacy and the three well-being measures of depression, stress, and guilt.

Another aspect of this research looks at two possible positive associations with paternal self-efficacy in fathers of children with autism: agency and knowledge of autism. Agency, which is the level of active involvement by a parent, has been found to have a significant positive interaction with self-efficacy in mothers of children with autism (Kuhn & Carter, 2006). This is a significant finding because it shows that self-efficacy can be increased in mothers because they traditionally have had more active involvement with their child. This variable was tested in the current study to see if agency increases self-efficacy in fathers similar to that seen in mothers. Although mothers are traditionally more involved than fathers (McBride & Mills, 1993), fathers are increasingly involved in their child’s lives (Lamb, 2000).
Knowledge of autism in fathers was investigated for its possible positive association with self-efficacy as well. This variable was investigated in this study because an observed positive association between knowledge of autism and paternal self-efficacy would provide a very practical and fairly simple way to help fathers gain a higher level of parental self-efficacy. Kuhn and Carter did not find this to be a positive association in mothers of children with autism, but an understanding of this interaction in fathers is still needed. Conrad et al. (1992) concluded that an increase in parenting knowledge is positively associated with parenting confidence, but not parental self-efficacy.

The sample in this study was collected using two local autism groups to solicit participants. A total of 28 fathers raising at least one child with autism participated in this study. The study used a combination of seven surveys, totaling 138 questions, that participants answered using an internet website or a paper copy. Data collected from participants were statistically analyzed to test each research question.

Results for the current study indicate that fathers of children with autism have significantly lower levels of self-efficacy as depressive symptoms increase. However, a post hoc regression analysis revealed that although significantly correlated, depressive symptoms in fathers did not account for a significant variance in self-efficacy. While depressive symptoms in fathers with autism are associated with self-efficacy, they cannot help predict or account for a distinct difference in self-efficacy. This finding differs from research on mothers of children with autism, which shows that maternal depression is correlated with self-efficacy, but additionally shows that depression accounts for a distinct variance in self-efficacy (Kuhn & Carter, 2006).
The current study also found that increased levels of stress in fathers of children with autism significantly impacts paternal self-efficacy. Further, stress in fathers accounts for a unique variance in self-efficacy. This finding regarding fathers of children with autism is substantial because it shows stress levels significantly predict a variance in self-efficacy in fathers of children with autism. This finding is also consistent with findings on mothers of children with autism that has found stress to account for a significant variance of self-efficacy for mothers of children with autism (Kuhn & Carter). Given the significant impact stress has on parental self-efficacy in parents of children with autism, family-oriented interventions for autism should include a focus on parent stress.

This study extends the understanding of depression and stress in fathers of children with autism. Both variables were correlated with self-efficacy while only stress was able to predict a variance in self-efficacy. One possible reason for this occurrence is that this study found stress and depression to be correlated as well. It is possible that an association was found between depression and self-efficacy due partly to the association between depression and stress. Since stress has a strong predictability effect on self-efficacy and depression and stress tend to increase simultaneously, it may be that depression and self-efficacy are linked through their shared association with stress.

The well-being variable of guilt did not have an association with self-efficacy in this study. This finding shows a difference between mothers and fathers of children with autism as previous results with mothers show guilt significantly impacts maternal self-efficacy (Kuhn & Carter). Although fathers of children with autism reported that feelings of guilt affected parenting approximately 22% of the time, it did not have any
association with the level of self-efficacy in fathers. This finding is consistent with Baldwin et al. (2006) who did not find associations between guilt and self-efficacy.

This study also examined self-efficacy and two possible positive associations, agency and knowledge of autism. Results indicated that agency is not related to paternal self-efficacy in fathers of children with autism. This is contrary to results reported for mothers of children with autism where agency is significantly associated with maternal self-efficacy and is also the best predictor of maternal self-efficacy (Kuhn & Carter). The differences between mothers and fathers relationship between agency and self-efficacy is not surprising because previous research shows that mothers are often much more involved than fathers (Lamb, 2000). Also, parental self-efficacy may not be influenced by agency because involvement with a child is often different between mothers and fathers. While mothers tend to focus involvement on caring for the child, a father tends to focus interactions more on play (McBride & Mills, 1993). Even though agency was not found to have a significant relationship with self-efficacy, this is still an area worth focusing on for future research as recent literature suggests fathers are becoming more involved than in the past (Lamb).

The relationship between self-efficacy and knowledge of autism was investigated for a positive association as well. This study found that a father’s knowledge of autism was not related to his level of self-efficacy. Kuhn and Carter did not find a relationship between knowledge of autism and self-efficacy either. This finding has immediate implications for parent classes and interventions. While it may be beneficial for parents of children with autism to understand the key features of autism, interventions
aimed at increasing self-efficacy may not find this focus to be beneficial. To date, very little research has been conducted on the impact of knowledge on different cognitions. While this study shows that knowledge of autism does not increase self-efficacy, much more research is needed in the area.

Each research question was successfully answered in this study. Well-being factors of depression and stress were both found to have a significant negative correlation with paternal self-efficacy. Previous research has found that the type of stress a father of a child with autism tends to experience is a more indirect stress, such as stress felt when the mother is experiencing high levels of stress, depression, or guilt, stress from financial burdens, or stress from other family difficulties such as a lack of time and resources (Gray, 2003). The final well-being measure of guilt was not significantly correlated with paternal self-efficacy. It was also found that paternal agency and knowledge of autism are not positively correlated with paternal self-efficacy in fathers of children with autism.

Stress was found to be the only significant predictor of paternal self-efficacy in the study, showing that levels of stress significantly predict a variance in the self-efficacy of fathers of children with autism while the other variables of depression, guilt, agency, and knowledge of autism do not have any significant predictive value in paternal self-efficacy.

Although this study has many strengths, there are also limitations to the research. First, the current study had a limited number of participants ($N = 28$). The target population for this study was found to be an extremely difficult population to reach. When data collection began, an email with a link to the survey was sent to fathers and mothers who have been associated with local autism agencies. In addition, paper forms of
the surveys were placed at autism agencies where fathers were asked to participate by the receptionist. After initial efforts produced minimal results, the researcher held a father support night at a local library in conjunction with a local autism support agency and participation was again minimal. Participation in the survey finally had positive results when in conjunction with a local autism agency, fathers were given $10 in raffle tickets to win a new computer. This reward for completing the survey acted as a donation to the autism agency and provided a possibility of a prize for the fathers. Future research on this specific population should strongly consider beginning with a reward to entice participation from fathers. It may even be beneficial to include a prize for the child of the father to get better participation.

Participants were solicited through local autism support agencies, which may present a limitation by not representing the full spectrum of fathers of children with autism. Fathers of children with autism who are involved in a local autism agency may represent a group of fathers who have higher than average agency, higher knowledge of autism, and lower levels of stress, depression and guilt than fathers who are not involved in an agency developed for parents and children with autism.

The current study also did not verify that fathers had a child diagnosed with autism through assessments or direct observation. This study instead relied on self-report regarding participants having a child diagnosed with autism. It is possible that some fathers in this study identify as having a child with autism, while assessments may find the child to have sub-threshold deficits or not meet the criterion for autism at all. Further, this study did not classify children as being mildly, moderately, or severely impacted. It
is possible that the severity of autism plays a role in the perceived self-efficacy of the father. Although the findings in this study present a solid foundation of understanding, results should be interpreted with caution due these study limitations.

The current research provides a strong initial study regarding fathers and children with autism, but also helps clarify needs for future research. Based on the finding that stress is a significant predictor of paternal self-efficacy, it is recommended that future research look further into the stress and fathers of children with autism. Previous research concluded that fathers often experience indirect stress associated with raising a child with autism (Gray, 2003). Future research on stress and paternal self-efficacy should focus on these factors of indirect stress in order to gain a more in-depth understanding regarding the significant sources of stress for a father caring for a child with autism.

It is also recommended that this research be conducted with a larger sample size and considering more demographic variables. Since the current study was conducted with a limited number of participants, who were all solicited from the same support agencies and region, expanding this research across multiple regions and using various modes to obtain participants is needed to get a more true representation of fathers caring for children with autism. In addition, due to the extraordinary financial burdens for families of children with autism, future research should specifically investigate the influences of socioeconomic status within the population. While the current research provides an initial, basic understanding of self-efficacy and related cognitions, more research is needed to validate the findings to a broader population.
Based on the current study, future research should consider revising the autism knowledge questionnaire. It is possible that parents either possess the necessary knowledge on autism or not, but it is also possible that the current scale shows a ceiling effect where a full range of autism knowledge is not properly represented. It may also be beneficial to create subscales within the autism knowledge questionnaire, such as treatment and diagnosis, to give a more helpful representation of where parents have a strong understanding of autism and where parents have a weak understanding of autism. This information may help practitioners and researchers gain a better understanding of how knowledge of autism is related to other variables.

This study found a significant correlation between perceived self-efficacy and stress where stress accounted for a significant amount of the variance in self-efficacy. Future studies should consider investigating the subscales within the Parenting Stress Index (Abidin, 1990) to investigate whether a specific area of stress accounts for the majority of variance in self-efficacy. Also, since stress accounts for a significant variance in self-efficacy, future studies should focus on stress as the dependent variable to investigate associations with other variables.

Based on the findings of this study, it is also recommended that future research continue to focus on all of the factors of well-being and their association to self-efficacy. More research is needed on depression in fathers of children with autism. This study found a significant association between depression and self-efficacy and depression and stress, but depression was not observed to account for a unique variance in self-efficacy. Follow up research should focus on this interaction to gain a better understand-
ing of the role of depression in paternal self-efficacy and other well-being variables. Also, in fathers who reported feelings of guilt, approximately the same rate of reported feelings of guilt affecting parenting as that observed in mothers. Although, guilt was not found to have a significant association on self-efficacy, this research warrants more in-depth research regarding the effects of guilt on parenting children with autism.

Finally, severity of autism was not a variable included in this study. However, this is an important factor to understand because of its impact on parents and significant demands on child care (Crowe & Florez, 2006). Future research on fathers of children with autism should include the variable of disability severity because of its possible association with self-efficacy and the cognitions used in this study.

Conclusion

The current study’s focus on self-efficacy in fathers of children with autism has important implications. It was found that one factor significantly impacting self-efficacy in fathers is level of stress. When the stress levels of a father increased, perceived competency toward parenting decreased. This is an important finding that also impacts the child because self-efficacy is linked to positive parenting practices (Coleman & Karraker, 1997) and parent involvement (Hoover-Dempsey & Sadler, 1997).

Possibly the largest implication in this study is for interventions focused on fathers of children with autism. While previous research shows associations between maternal self-efficacy and a wide range of variables (Kuhn & Carter, 2006), this study shows that paternal self-efficacy is largely impacted by stress alone. Therefore, mothers and fathers of children with autism may find benefit in different focuses in intervention.
For fathers, interventions that focus on reduction of stress can be very beneficial to the father and the child. Sofronoff and Farbotko (2002) also showed that behavior management training has a positive impact on paternal self-efficacy. By focusing interventions for fathers on stress reduction and behavior management, self-efficacy will be impacted in a positive manner, benefiting the father and the child greatly.

Even though none of the other variables in this study was found to significantly impact paternal self-efficacy, they should not be ignored when developing interventions for fathers of children with autism as there may be benefits in other areas. In particular, a father’s knowledge of autism may impact other areas such as anxiety when a child is initially diagnosed with autism. While it may not by a top priority when developing interventions aimed at increasing self-efficacy in parents of children with autism, the other variables in this study may have significant implications in other areas.
REFERENCES
REFERENCES


APPENDIX A
INFORMED CONSENT FORM

Study Title: Paternal Self-Efficacy and Associated Parenting Cognitions Among Fathers of Children with Autism

Study Description: This study investigates different aspects of fathers caring for a child or children with autism and is part of a Master's degree thesis project with California State University, Chico. This research has the potential to have many practical implications for interventions and services for families who have a child with autism. Your time and participation is greatly appreciated.

In order to participate in this research study, it is necessary that you give your informed consent. This informed consent form indicates that you understand the nature of the research study, your role in that research, and that you agree to participate in the research. Please consider the following points before continuing:

• I understand that I am participating in psychological research;

• I understand that my participation will be completely confidential. That is, my name will not be linked with my data and any personal information I provide will be kept absolutely confidential.

• I understand that participation in research is voluntary, and that, after any individual research project has begun, I may refuse to participate further without penalty.

• By signing this form, I am verifying that I understand the above information and consent to participate in this study being conducted at California State University, Chico.

________________________________________  _____________________
Signature                              Date

If you have any further questions, please feel free to contact Blake R. Burnham at bburnham03@yahoo.com or Dr. Leesa Huang at lvhuang@csuchico.edu
STUDY DEBRIEF

Perceived Self-Efficacy and Well-Being in Fathers of Children With Autism

This study investigates different aspects of fathers’ thoughts and feelings related to caring for a child or children with autism. Specifically, it investigates how these different thoughts and feelings relate to a father’s self-efficacy, which is his feeling that he can have a positive impact on his child and his child’s development.

Previous research has shown that a mother’s well-being and her agency or involvement positively relate to parental self-efficacy, while the presence of guilt is negatively related to self-efficacy. There is not a clear understanding regarding this relationship for fathers who have a child or children with autism.

Hypotheses

Similar to results found when looking at self-efficacy in mothers, we expect to find that a father’s well-being, which is defined by lower stress and depression levels will be associated positively with parental self-efficacy. We also expect to find that a father’s agency is positively related to his knowledge of autism and that his agency will be positively related to parental self-efficacy. Lastly, we expect to find that that guilt will be negatively associated with parental self-efficacy in fathers.

Why is this study important?

This study is important to aide in the understanding of parental self-efficacy as it relates to raising children with autism. Understanding factors and specific cognitions that influence a parent’s self-efficacy can lead to more effective family-based interventions in the field of autism. Furthermore, gaining an understanding of influences on parental self-efficacy may help design interventions that can better aim to empower parents raising children with autism.

If you are interested in learning more about this particular study, including self-efficacy, or have any questions, comments, or concerns regarding this study. Please feel free to contact the main researcher, Blake R. Burnham, at bburnham03@yahoo.com or the researching supervisor Dr. Leesa Huang at Lvhuang@csuchico.edu.

Thank you for your valued time and participation.