

PARENTAL CHARACTERISTICS AND PRACTICES ASSOCIATED WITH
OUTCOMES FOR CHILDREN WITH LEARNING DISABILITIES

by

Melissa Marie Cain, B.S.A.S.

A thesis submitted to the Graduate Council of
Texas State University in partial fulfillment
of the requirements for the degree of
Master of Arts
with a Major in Sociology
December 2014

Committee Members:

Toni Terling Watt, Chair

Deborah Harris

Sandra Mayo

COPYRIGHT

by

Melissa Marie Cain

2014

FAIR USE AND AUTHOR'S PERMISSION STATEMENT

Fair Use

This work is protected by the Copyright Laws of the United States (Public Law 94-553, section 107). Consistent with fair use as defined in the Copyright Laws, brief quotations from this material are allowed with proper acknowledgement. Use of this material for financial gain without the author's express written permission is not allowed.

Duplication Permission

As the copyright holder of this work I, Melissa Cain, authorize duplication of this work, in whole or in part, for educational or scholarly purposes only.

DEDICATION

This thesis is dedicated to my wonderful son, Marcus Brayden Miller. Thanks for teaching me how to face the world head on despite all challenges. Thank you also for having the courage to talk, love, and live again. Most of all, thanks for being you! Not only have you changed me, you have changed the world with your strength, charm, and charisma. You will continue to be a beacon of light for many people to come in this lifetime. May your smile never fade and your presence continue to warm the hearts of many. I love you so much babe Marcus!

ACKNOWLEDGEMENTS

I want to thank my committee chair, Dr. Toni Watt whose faith in me successfully lead me through the winding road of graduate school. I would like to thank my other committee members Dr. Deborah Harris and Dr. Sandra Mayo. I want to thank Mr. Kevin Williams and our five children: DeAndre', Trey, Marcus, Heath, and Kasey. I would like to thank my mother, Dr. Janice Kreitner Collins and my father, Delmer Charles Cain. I would like to thank Bo, my horse, along with all included in this list, the proceeding document would not be possible.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	v
LIST OF TABLES	vi
CHAPTER	
I. INTRODUCTION TO THESIS	1
II. LITERATURE REVIEW.....	3
Identifying Learning Disabilities	3
Causes of Learning Disabilities	4
Outcomes for Children with Learning Disabilities.....	8
Parenting Children with Learning Disabilities	10
Gaps in Literature	14
III. METHODS	16
IV. RESULTS	18
Univariate Analysis.....	18
Bivariate Analysis.....	20
Multivariate Analysis.....	22
V. CONCLUSION	25
REFERENCES	29

LIST OF TABLES

Table	Page
1. Univariate analysis of dependent and independent variables	19
2. Relationship between dependent and independent variables	21
3. Logistic Regressions Predicting Conduct Problems for Children with and without Learning Disabilities.....	24

I. INTRODUCTION TO THESIS

Learning disabilities are a common and increasing problem that places strain on parents, schools, and communities. When a child has an average IQ but performs substantially lower than would be expected on standardized testing, a learning disability may be identified (Al-Yagon 2012). This unexplained gap between age, ability, and level of academic attainment when considered severe is usually a catalyst for an educator to identify a learning disability (Reynolds 1992). This can lead to a wide range of diagnoses to fall under the category of learning disability as long as the discrepancy between ability and academic performance is severe enough to cause the child to fall behind peers by two or more years (Croll 2002). Historically, learning disabilities have been studied as a general category, but recent research tends to be more specific, studying distinct categories such as ADHD, ADD, and dyslexia. Current research suggests that 5%-17% of children have dyslexia (Temple et al. 2003) and approximately 1 out of 20 children have ADD or ADHD in the United States (Faraone et al. 2003). These disorders are challenging for people working with the children that are affected.

Research conclusively reveals that parenting styles have a direct effect on children's social and emotional well-being. However, few studies have explored whether parenting strategies should be different for children with learning disabilities. The present study examines whether certain parenting variables are even more critical for children with learning disabilities than children who do not have learning disabilities. Comparing

these effects would be helpful because the more information obtained about children with learning disabilities, the more prepared society can be to handle the needs of this marginalized group. This investigation will focus on four parenting variables, mother's education, parent/child communication, parental rules, and children's participation extracurricular activities.

II. LITERATURE REVIEW

Identifying Learning Disabilities

Although the number of children being identified with learning disabilities is growing (Edgar and Hayden 1984), it is clear if learning disabilities are socially constructed (Fuchs et al. 2003). There are no specific guidelines to follow and the identification process of these children is generally left up to the teachers in charge of educating them. This creates inconsistencies as teachers are subjective, inconsistent, and their diagnoses unreliable (Croll 2002). Rabiner et al. (2010) found that a large percentage of students who had been diagnosed as having ADHD the previous year by their teacher, were not considered by their new teacher to have ADHD the following year. Research posits that learning disabilities arise through the process of sorting and tracking within the school system (Skidmore 1999). This affects the teacher's expectation of student performance and achievement abilities (Irvine 1991). Literature on the assessment of bilingual children argues that it is impossible to develop assessment tests that are not culturally biased. This can cause a lack of reliability as these tests are used on mainstream culture and are not accurate assessments for anyone that is different than the mainstream culture (Desforges 1995). In general, an investigation of learning disabilities must first acknowledge the subjective, controversial, and constantly changing nature of the subject matter.

G. Reid Lyons (1996) tells us that 5% of all students receiving a public school education are identified as having learning disabilities. He argues that identification of learning disabilities has grown steadily throughout the years since its conceptual inception. Reid (1996) lists both proper and improper reasons for the increase in students identified with learning disabilities. Among the proper reasons, he lists increases in areas such as better research, higher frequency of identification of girls, and the redefining of learning disabilities with broader terms. Improper reasons include lack of trained teachers, financial incentives being offered to schools for identification, and the vagueness of the definition of learning disabilities. Lyon's (1996) research finds that better identification of learning disabilities among girls is one of the most credible causes for the increase in students with learning disabilities. The most notable improper cause Lyons (1996) cites for the increase in learning disabilities is that students are not performing at a level that meets the expectations of teachers and parents.

Causes of Learning Disabilities

Children living in low income neighborhoods and those from families with low socio-economic status are more likely to be diagnosed with learning disabilities (Croll 2002; Deluca and Dayton 2009; Charles 2003; Sampson, Sharkley, and Raudenbush (2007). In addition, Croll (2002) found a positive correlation between social deprivation and the severity of educational difficulties. However, it is unclear whether this is due to biases in the tests, the teachers, or that poverty actually causes learning disabilities. With regard to teacher bias, Croll (2002) states that special educational needs are not

necessarily being based on achievement, but on teacher's judgments and these judgments are considered "local" judgments as they vary based on the teacher's perceptions. Croll (2002) points out that although his study is a correlational one, the direction of the correlation is clear in that deprivation precedes special educational needs.

Minorities (Artiles and Trent 1994; Harry 1992; Irvine 1991; Ong-Dean 2006), linguistic minority students (Desforges 1995), and males (Lyons 1996) are also overrepresented among children with learning disabilities in special education programs. A study conducted on the verbal ability among African-American children concluded that living in poor neighborhoods causes a deficit in verbal abilities compared to other children (Sampson et al. 2007). In addition, Deluca and Dayton (2009) contend that neighborhood effects are a predictor of outcomes for children regardless of socioeconomic status and academic performance which can cause learning disabilities. Another case of learning disabilities is that disparities in verbal ability have been shown to be a major predictor of life outcomes especially when children live in segregated neighborhoods with limited access to the English language (Sampson et al. 2007).

Artiles and Trent (1994) argue that overrepresentation is a continuing issue for minorities as they continue to be placed into the special education system at higher rates than non-minorities. Over the years litigation cases have called into question the fairness of intelligence tests and the social construction of terms such as mild mental retardation and social competence. This in turn prompted the reorganization of laws and practices which caused reevaluations and reclassifications of students with learning difficulties. Ongoing debates about systemic issues have been helpful, but have also failed to resolve

the issue of overrepresentation of minorities in the special education system. It has been suggested that the problems is attributable, in part, to an overreliance on IQ scores during the identification process.. Critics of intelligence testing contend that it is merely a device to determine the conformity to the dominant culture which causes to be biased and problematic (Artiles and Trent 1994). Overall, these researchers argue that a lack of cultural sensitivity in referral and assessment practices lead to a disproportionate number of minority students being placed in the special education system.

Artiles and Trent (1994) applied the term linguistic-minority student to students whose first language is not English. More schools are developing English as a second language classes (ESL). However, language still has an impact on the process of identifying students with learning disabilities (Artiles and Trent 1994). Students are particularly likely to be classified as learning disabled when they do not have good command of the English language (Ortiz and Ployzoi 1096).

Substance abuse (Fox and Forbing (1991) found that children's substance abuse causes them to exhibit behaviors similar to those with learning disabilities and that many of these students end up in the special education system. They recommend that a chemical dependency screening be a part of the assessment process for special education services. Their contention is that the education place designed for a student who is chemically impaired would be different than that of a student who has learning disabilities. If the two issues comorbidly exist, then it is suggested that the chemical dependency issue be addressed first (Fox and Forbing 1991). For example, it may be difficult to determine the difference between a student with learning disabilities and a student who is chemically imparted buy marijuana use because both cause a frontal lobe

malfunction that affects specific academic skills.

Van Dyke and Fox (1990) specifically found that fetal alcohol exposure is directly related to both attention and learning problems in school-aged children. The deficits found with fetal exposure to drugs that affect the central nervous system include abnormal brain wave patterns, delayed interactive behavior and slowed responses to environmental stimuli. These symptoms greatly affect a student's academic ability and educators need to keep updated on strategies on how to teach the students that are affected by fetal drug or alcohol exposure. Nutrition has also been identified as another cause of learning disabilities (Dani, Burrill, and Demmig-Adams 2005; Thatcher and Lester 2001). Dani et al. (2001) found that certain substances such as iodine, protein, and iron as well as eating breakfast help brain function. These researchers also contend that vitamins and minerals can aid in the prevention of learning and behavior disorders (Dani et al. 2005). Deficiencies in essential fatty acids have been linked to attention and behavior problems including ADHD which, in turn, can cause learning problems for children. One study even found that students receiving a vitamin-mineral tablet were almost 50% less likely to be involved in violent and antisocial behavior in an educational setting (Shoenthaler and Bier 2000).

Toxins such as lead and cadmium can also have a negative effect on learning. Thatcher and Lester (2001) found that both lead and cadmium have a negative effect on neuronal excitability. Specifically, they found that lead affects brain performance and cadmium, affects verbal IQ in children (Thatch and Lester 2001). Electroencephalogram's (EEG'S) were used to Determine that these toxins negatively affect neurotransmitters that assist with brain functioning and have an even more negative effect when non-nutritional

foods are present (Lester, Thatcher, and Monroe-Lord 1982). This can be problematic for children with current trends of fast food and processed food intake levels. Some researchers call for an assessment of both nutrition and toxins to be added to the current assessments of learning and behavioral problems due to the significance of negative effects (Thatcher and Lester 2001; Lester et al. 1982).

Outcomes for Children with Learning Disabilities

Research reveals that children with learning disabilities often have poor outcomes such as higher rates of conduct problems, social skill deficits, psychological maladjustments, depression, and suicide rates (Croll 2002; La Greca and Vaughn 1992; Shessel, Isabel, and Henry B. Reiff 1999). Their life chances are diminished as they remain stagnated and fall further behind their general education peers (Croll 2002) For example,, San Miguel, Forness, and Kovale (1996) noted that after studying 53 public elementary schools they found that 39.5% of children with learning disabilities were found to be depressed based on the Children's Depression Inventory. In addition, Bender et al. (1999) found that the higher rates of depression among children with learning disabilities also results in higher suicide rates among the group. Outcomes such as these make it important to generate more knowledge through research about these types of predicated outcomes as it will have an impact on society if this population continues at its current rate of growth.

Social skill deficits are identified as a particularly troublesome outcome for children with learning disabilities (Shessel et al. 1999; Elias 2004; San Miguel et al. 1996; Mishna 2003). Social isolation and the feeling of being different than other people

cause children with learning disabilities to feel isolated and alone. This feeling of isolation persists into adulthood and affects areas of life other than academic achievement (Shessel et al. 1999). Maurice Elias (2004) argues that a different style of teaching called social-emotional learning is needed for children with learning disabilities. This teaching style addresses poor social skills in children with learning disabilities as a part of the academic curriculum that will benefit them both in and out of the classroom.

Outcomes are hard to disentangle as research indicates that social skills deficits are even more prevalent among children with learning disabilities that are comorbidly affected by other diagnoses such as depression (San Miguel, Forness, and Kovals 1996). San Miguel et al. (1996) contend that children with learning disabilities who are affected by comorbidity will need psychological intervention in addition to an educational intervention as social skill training will not sufficient for children who are also affected by mental health issues (San Miguel et al. 1996). Social skill problems often lead children with learning disabilities to be bullied. This in turn affects their self-esteem (Mishna 2003). Social sill problems and impulsiveness may cause higher rates of suicide due to the fact that children with learning disabilities are less resilient and more susceptible to stress (Bender et al. 1999).

Children with learning disabilities also frequently display conduct problems (Mckinney 1989). James McKinney (1989) found that by second grade children with learning disabilities more consistently experienced conduct problems than children without learning disabilities. While conduct problems pose a significant threat to academic achievement and social skill development, there is little research on this outcome among children with learning disabilities.

Parenting Children with Learning Disabilities

Children with learning disabilities may need to be parented differently than children without learning disabilities. Although literature reveals that children with learning disabilities have more negative outcomes than children without learning disabilities, this is not always the case. Cosden et al. (1999) found that children with learning disabilities who feel good about their academic performance have higher self-esteem. This would indicate the importance of an awareness and manifestation of higher skills in areas other than academic performance. Parents could work to develop this awareness. However it is not clear how parenting affects outcomes or if parents can “moderate” the negative outcomes found in children with learning disabilities. If parents are able to influence these poor outcomes, it is important to know how.

Much research has been conducted that reveals how parenting can aid in children’s development. This research has been consistent about basic parenting styles that improve outcomes for children. Baumrind (1967) has perhaps been most influential in this area, along with Macoby and Martin who expanded upon Baumrind’s work (see Vilcherrez 2014). These scholars suggest there are four distinct parenting styles; autocratic (characterized by low parental support and high parental control), authoritative (*high parental support and high parental control), permissive (high parental support, low parental control), and unengaged (low parental support, low parental control). These authors suggest that the best outcomes occur for children with high support and high control.

Research indicates that children with learning disabilities need more support (Waggoner and Wilgosh 1990; Smith 2002; Will 1986; Bender et al. 1999). Most people

would agree that parenting is a tremendous responsibility and can be a difficult task at times. Research shows that parenting children with learning disabilities is even more difficult (Smith 2002). After a child is diagnosed with learning disabilities, a parent may immediately begin to deny that the problems exist. Parents also may experience anger, fear, and guilt which might cause confusing thoughts that sometimes have to do with feelings of inadequacy leading the parent to feel they may have caused the learning disability. Another stage is blaming others for their child's learning disability. Parents may also bargain at this stage thinking that if they move their children into another neighborhood or school all will be well. Grief is one stage parents may go through as they begin to think about what life outcomes could have been for their child if they did not have learning disabilities. Acceptance is a stage where parents can begin to develop a plan for helping their child and also begin to understand their child's strengths and weaknesses (Smith 2002) has reported on her 35 years of experience as the founder and director of a lab school in Washington, DC for children with learning disabilities. Smith (2002) advocates for "parenting approaches that include clear, concise instructions; structure without rigidity; nurturing a child's gifts and interests; and constant approval of positive behavior" (p.1).

Children with learning disabilities often have problems with disorganization. Smith (2002) attributes this to neuronal links being scattered throughout the brain instead of being patterned as found in children without learning disabilities. Due to this central nervous system dysfunction, parents may need to provide more structure and order for children with learning disabilities to help them with successful completion of tasks and projects whether academic or daily activities at home or elsewhere.

Parents should also monitor and facilitate healthy relationships between their child and the people with whom they interact. Smith (2002) argues that these children need to be explicitly taught how to relate and interact with other people. Intensively promoting self-esteem as well as empowerment is also important. Children with learning disabilities should be encouraged to be active learners by helping with household tasks so that they see that their efforts can actually make a difference in the lives of other people. While children without learning disabilities might learn on their own from these lessons, children with learning disabilities may need to be guided to the intended lesson to be learned (Smith 2002).

Parents of children with learning disabilities are often placed in multiple roles. They must be actively involved in the academic life of their children (Waggoner and Wilgosh 1990; Will 1986). They are called upon to be educators as instructional learning needs to take place at home as well as at school for children with learning disabilities. Waggoner and Wilgosh (1990) specifically found several themes in their in-depth interviews. These included parent's involvement in their child's education, parent's relationship with the school, the need for parental support, concerns about their child's future, emotional strain of the parents, and the effects on the entire family.

It is necessary for educators, parents and other professionals to work together in a cohesive way to create more resilience among children with learning disabilities so that they can better cope with difficult social issues (Bender et al. 1999). Parents must work at making the lives of children with learning disabilities about more than the learning disability. A high level of cohesiveness is necessary in order for parents to address the needs in children with learning disabilities. This is a challenge for parents because

children with learning disabilities spend so much time experiencing failure in the classroom. Parents also may need to work on developing partnerships with educators in order to ensure their child's academic success. This can prove to be difficult and time consuming as research indicates that some teachers are less knowledgeable about learning disabilities as well as less willing to accommodate them in the classroom (Waggoner and Wilgosh 1990).

All of the strategies suggested by Smith involve intensive parenting. These suggestions require parents to deliberately structure their own lives and parenting styles to accommodate the learning disability of their child. It would appear that maintaining this level of parenting would be time consuming due to the planning, implementing, and reflection stages. However, the literature on which these recommendations are built comes from clinical practice data rather than generalizable quantitative studies. This more research is needed with large representative samples of children with learning disabilities to better understand which parental practices are most beneficial for this population.

Not a lot of research has been done about how extracurricular activities affect children with learning disabilities. However, research on self-esteem shows that children who are aware of their strengths in areas besides academics tend to have higher self-esteem (Cosden et al. 1999). These children feel better about themselves when they realize that even though they struggle with academic performance; they are good at other things. Cosden et al. (1999) also found that the less information children have about their learning disabilities, the higher their self-esteem is as well. While variables such as

athletic competence, which can be pursued through extracurricular activities, were not found to be significantly correlated with self-esteem, variables not related to personal abilities such as physical appearance, conduct, and social acceptance were significantly related.

Other studies however show that positive experiences through extracurricular activities can serve as preventative measure to assist children with learning disabilities with social disabilities (Gentschel and McLaughlin 2000). Gentschel and McLaughlin (2000) specifically recommend extracurricular activities as a part of pro-active services offered to children with learning disabilities and suggest that consistent exposure leads to practice of proactive behaviors which will lead to more successful relationships for these children. This offers parents an area where they can apply their energies to assist their children with having positive social lives (Gentschel and McLaughlin 2000).

Gaps in Literature

Poverty, neighborhood effects, race, and language barriers have all been cited as correlates of a learning disability diagnosis. REasearch also reveals that children with learning disabilities have poorer outcmoes than children without learning disabilitieis. It parents so would be helpful to identify factors that are predicative of life oucomes for children with learning disabilitiies. Parenting literature suggests that parents of children with ldaring disabilitieis have the potential to play a significant rolei the oucomes of their children. There is some sense that parents should promote extracurricular activities, but his reasearhc is unclear. The literature also suggests that these children need extensive

support, assistance in developing self-esteem, and help developing cohesive relationships. However, few studies have quantified the relationship between parenting practices and outcomes in children with learning disabilities. Understanding if parents are able to moderate the negative effects of learning disabilities and if so how, is a relatively unexplored, but important area of research. In the proposed study several parental characteristics/practices will be examined as they relate to outcomes for children with learning disabilities. Mother's education, parent/child communication, parental rules about television viewing, and the child's participation in extracurricular activities will be examine for how they relate to conduct problems among children with learning disabilities. This study will also analyze how these factors relate to conduct problems for children without learning disabilities and note any differences observed.

III. METHODS

This study will use the National Survey for Children's Health (NSCH 2006) to analyze predictors and outcomes for children with and without learning difficulties. The NSCH dataset was obtained from the Data Resource Center for Child and Adolescent Health (DRC). The existing data in this dataset will be used to run analyses to explore relationships between variables in the proposed study. The questions to be analyzed include "Has a doctor, health care provider, teacher, or school official ever told you S.C. (selected child) had a learning disability?" Selected child indicates the randomly selected child of the parent being interviewed. In the data set there are 76, 410 children. Four predictors will be utilized; mother's education, parental/child communication, parental rules about television, and extracurricular activities. The following questions will be used to measure these concepts "What is the highest grade or year of school S.C.'s mother has completed?" The answer choices are less than high school, high school, and more than high school. The question that will be used to measure parent/child communication is "How well can you and S.C. share ideas or talk about things that really matter." and "are there family rules about types of television programs S.C. can watch? will measure family rules. The last predictor variable is extracurricular activities measured as "During the past 12 months, did he/she participate in any clubs or organizations after school or on weekends?" and "during the past 12 months, has S.C. participated in sports?"

The independent variables will be examined for their relationship with conduct problems. The question that will be used to measure conduct problems is "Has a doctor or other health care provider ever told you that S.C. had behavioral or conduct problems, such as Oppositional Defiant Disorder or Conduct Disorder?"

The variables that will be controlled for include neighborhood safety, poverty, age, sex, language, and race. The questions from the survey that will be used for these variables are “How often do you feel S.C. is safe in your community or neighborhood?” The answer choices will be “Would you say never, sometimes, usually, or always?” Poverty level was based on the answer choices of “at or below 100% poverty level, above 100% to at or below 133% poverty level, above 133% to at or below 150% poverty level, above 150% to at or below 185%, above 185% to at or below 200% poverty level, above 200% to at or below 300%, above 300% to at or below 400%, and above 400% poverty level.” “What age is S.C.?” The answer choices were recoded to 1-5, 6-10, 11-14, and 15-17 years of age. What gender is S.C.?” The answer choices are “male” and “female.” The language variable will be based on the question “What is the primary language in the household?” The answer choices are English and not English. “What is S.C.’s race?” The answer choices will be recoded to “Hispanic,” “white,” “black,” and “other.”

A bivariate analysis will be conducted to see if mother’s education, parental communication, parental rules, and extracurricular activities relate to conduct problems for children with learning disabilities. Next, regression models will be run to see if these parental factors predict outcomes when controlling for socio-economic factors. Finally, these same regressions for children without learning disabilities will be run to see if the influence of these factors is different for children with learning disabilities compared to children without learning disabilities.

IV. RESULTS

Univariate Analysis

A univariate analysis was run to identify frequencies and percentages on the independent and dependent variables (Table I). The univariate analysis was run separately for children with learning disabilities and for children without learning disabilities. Out of 76,410 children 10.5% had been identified by a professional as having learning disabilities (n=8023) and 89.5% have not (n=68,387). The frequencies for the dependent variable which is conduct problems show that 25.8% of children with learning disabilities have conduct problems whereas only 4.4% of children without learning disabilities have conduct problems. There are four independent variables which include mother's education, extracurricular activities, rules, and communication between parent and child. The majority of the mothers of children with learning disabilities were educated (50.4%) whereas the mothers of children without learning disabilities were more educated (62.5%). Most parents report that they communicate very well with their children (56.5%) that have learning disabilities and an even higher level reported for children without learning disabilities (69.8%). The vast majority of parents reported to have rules about for their children about television programs watched, 86.2% for children with learning disabilities and 85.7% for children without learning disabilities. Although fewer parents have their children with learning disabilities participating in extracurricular activities (20.6%), those children without learning disabilities are only participating at minimally higher rates (24.4%).

Table 1 Univariate analysis of dependent and independent variables

Variable	LD		Non LD		
	<i>f</i>	%	<i>f</i>	%	
Conduct problems					
Yes	1749	21.9%	3565	4.4%	
No	6222	78.1%	77469	95.6%	
Mother's education					
Less than high school	1240	17.0%	10464	12.3%	
High school grad	2384	32.7%	21491	25.3%	
More than high school	3674	50.3%	53148	62.5%	
Extracurricular activities					
Yes	564	20.9%	3838	24.4%	
No	2127	79.1%	11868	75.6%	
Communication between parent/child					
Very well	4239	57.4%	42568	69.8%	
Somewhat well	2438	33.0%	16533	27.1%	
Not well	407	5.5%	1370	2.2%	
Not well at all	299	4.1%	548	0.9%	
Rules					
Yes	6265	84.7%	52310	85.7%	
No	1128	15.3%	8697	14.3%	

Bivariate Analysis

A bivariate analysis was run to see if there is a relationship between the independent and the dependent variables. Separate tests were run for children with learning disabilities and for children without learning disabilities. There is not a significant relationship between the level of a mother's education and conduct problems in children with learning disabilities or for children without learning disabilities.

There is not a significant relationship between having rules and conduct problems for children with learning disabilities. However, there is a significant relationship between television rules and conduct problems for children without learning disabilities. Having rules about television is associated with lower rates of conduct problems, but only for children without learning disabilities.

There is a significant relationship between having conduct problems and the quality of communication between parents and children. Conduct problems are less likely to be present among parents and children who communicate well compared to those without good communication. This relationship was present for both children with and without learning disabilities. There is no significant relationship between conduct problems and extracurricular activities for children with learning disabilities and children without.

Table 2 Relationship between dependent and independent variables

Level of effects

Extracurricular activities

	Conduct problems: LD		Conduct problems: No LD		Significance:	
	Yes	No	Yes	No	LD	No LD
	Yes	19.0%	21.6%	26.1%	25.0%	
No	81.0%	78.4%	73.9%	75.0%		

Mom's education

	Conduct problems: LD		Conduct problems: No LD		Significance:	
	Yes	No	Yes	No	LD	No LD
	Less than H.S.	18.2%	16.6%	17.5%	11.2%	***
H.S. Grad	39.0%	30.9%	32.4%	24.8%		
More than H.S.	42.9%	52.4%	50.1%	64.0%		

T.V. rules

	Conduct problems: LD		Conduct problems: No LD		Significance:	
	Yes	No	Yes	No	LD	No LD
	Yes	85.0%	84.6%	81.2%	86.1%	***
No	15.0%	15.4%	18.8%	13.9%		

Table 2 Continued

Quality of communication

	Conduct problems: LD		Conduct problems: No LD		Significance:	
	Yes	No	Yes	No	LD	No LD
	Very well	40.3%	62.4%	46.9%	72.3%	***
Somewhat well	40.0%	31.0%	37.9%	25.9%		
Not well	11.1%	3.8%	9.8%	1.5%		
Not well at all	8.6%	2.8%	5.3%	0.3%		

*= .05

**= .01

***= .001

Multivariate Analysis

Logistic regressions were run to predict conduct problems using the independent variables. Two models were run, one for children with learning disabilities and one for children without learning disabilities. Similarities were found in the effects of parental characteristics and practices for both groups. Sex of the child and poverty were predictors of conduct problems in children with and without learning disabilities and the effects were similar. In general, females are less likely to have conduct problems than males and income decreases the incidence of conduct problems. The quality of communication was also a significant predictor of conduct problems for both groups. However the effects were larger for children without learning disabilities. Each additional level of poor parent/child communication increased the odds of conduct problems by 59% for children with learning disabilities whereas each additional level increased it by 125% for children

without learning disabilities. There were also some notable differences in the correlates of conduct problems for children with and without learning disabilities. Age is significantly associated with conduct problems in children without learning disabilities, with older ages being associated with more conduct problems. Age was not a significant predictor for children with learning disabilities. In addition, English speaking Hispanic children who have learning disabilities are 79.4% more likely to have conduct problems than Whites. However, English speaking Hispanic children without learning disabilities are 72% less likely to have children with conduct problems compared to Whites. The remaining variables such as rules about television, mother's education, extracurricular activities, safe neighborhoods, blacks were not found to be significantly related to conduct problems in children with or without learning disabilities.

Table 3 Logistic Regressions Predicting Conduct Problems for Children with and without Learning Disabilities

Independent variables	LD		No LD	
	Exp (B)	Sig.	Exp (B)	Sig.
Extracurricular	1.137		0.874	
Safe neighborhoods	1.031		0.913	
Mother's education	1.055		0.897	
Rules	1.171		1.063	
Sex	0.752	**	0.684	***
Quality of communication	1.587	***	2.251	***
Age	0.995		1.046	***
English speaking Hispanic	1.794	***	0.279	***
Spanish speaking Hispanic	2.119		5.057	
Black	1.249		0.921	
Other race	0.896		0.731	
Poverty	0.887	***	0.912	***

*= .05
 **= .01
 ***= .001

V. CONCLUSION

The purpose of this study is to look at factors associated with conduct problems in children with and without learning disabilities. A comparison was made to determine if these children should be parented differently. Statistical tests were run to see if mother's education, family rules about television programs watched, quality of communication, and extracurricular activities had an effect on conduct in children with and without learning disabilities. In addition, age, sex, income, safety of neighborhoods, and race/language were also looked at to determine if they affected conduct in these two groups. This is an important area of research because children affected by learning disabilities have been a rapidly increasing population (Edgar and Hayden 1984) that has not been sufficiently studied by the social sciences. Children with learning disabilities often have poorer outcomes such as depression, suicide, social skill deficits, psychological difficulties, and conduct problems than children without learning disabilities. Research shows that their life chances are diminished as they struggle throughout their life time with problematic psychological and social maladjustments (Croll 2002; La Greca and Vaughn 1992). It is important to determine what these children need in order to become happy, healthy, successful adults. Studying this population will also be helpful in determining how these children currently fit into society as well as later on in adulthood. This particular study merely scratches the surface and leaves a large area for future research to take place.

This study finds that when parents and children have a high quality of communication that the odds of conduct problems are reduced and this was found for children with and without learning disabilities. However, the effect was twice as strong

for children without learning disabilities compared to children with learning disabilities. Related studies found that parents of children with learning disabilities must explicitly teach their children how to interact with other people, discover their own strengths, and follow through with and complete daily tasks (Smith 2002). In order for this level of parenting to take place, it would suggest that communication would have to be of good quality. This research conflicts with the findings of this study. It is important to better understand why communication is less effective in reducing conduct problems among children with learning disabilities.

This study also found that English speaking Hispanic children who have learning disabilities are more likely to have conduct problems than Whites, whereas the opposite is true for children without learning disabilities. Findings also revealed that African-Americans were less likely than Whites to have conduct problems, but only for children without learning disabilities. Thus, it seems that there may be unique difficulties associated with parenting a child that has to navigate being both minority and learning disabled. Other studies have found that race matters with regard to placement, causes, and academic trajectory (Artiles and Trent 1994; Harry 1992; Irvine 1991; Ong-Dean 2006; Desforges 1995) of children with learning disabilities. And, Desforges' (1995) found that linguistic minorities were overrepresented in the Special education system. However, no studies have found a different effect of race/ethnicity/language on outcomes for learning disabled versus non-learning disabled children.

Children whose families have higher income have less chance of having conduct problems. This effect was found equally for children with learning disabilities and without. This study also found that female children in both groups are less likely to have

conduct problems. Extracurricular activities were not found to influence conduct in either group. However, Cosden et al. (1999) found that increased awareness of strengths in nonacademic areas improves self-esteem in children with learning disabilities. They specifically noted that athletic talent could be a variable that improves self-esteem among children with learning disabilities. In addition, Gentschel and McLaughlin (2000) found that extracurricular activities improve social skills in children with learning disabilities. These findings are inconsistent with the findings from the present study. Thus, additional research is needed on the influence of extracurricular activities, the types of activities that matter, and how the student views their talents in these other areas.

Family rules about allowable television content are not significantly associated with conduct problems in children with or without learning disabilities. This finding leaves an area of research open to study to determine if other rules affect conduct when parenting children with and without learning disabilities.

Mother's education is not significantly associated with conduct in either group of children when other controls are present. There are no studies that specifically measure the effect that a mother's education has on conduct in children with learning disabilities and thus this is a new area of investigation. Age was found to be positively associated with conduct problems in children without learning disabilities, but not in children with learning disabilities.

In general, the results suggest that there are many similarities in the risk factors for conduct problems for children with and without learning disabilities. However, there were differences in terms of the effects of communication, rules, age, and

race/ethnicity/language that warrant additional investigation. There may be a need to address risk factors that are unique to children with learning disabilities.

This study has strengths that help illuminate how parenting affects conduct in children with learning disabilities. It uses a large nationally representative sample and offers some of the first comparisons of the effects of parenting practices on conduct disorders for children with and without learning disabilities. However, this study is limited in that it does not explore other outcomes such as social skill problems and depression. It also does not address how a father's education affects conduct in children in both groups.

Although some research has been done to illuminate the needs of children with learning disabilities, more research is needed to help society understand this growing phenomenon. Further research in this area is needed to uncover some of the other factors that affect children with learning disabilities. It would also be helpful to explore what parental characteristics and practices affect depression and social skills in children with and without learning disabilities.

REFERENCES

- Al-Yagon, Michal. 2012. "Adolescents with Learning Disabilities: Socioemotional and Behavioral Functioning and Attachment Relationships with Fathers, Mothers, and Teachers." *J Youth Adolescence* 41:1294-1311.
- Artiles, Alfredo J and Stanley C. Trent. 1994. "Overrepresentation of Minority Students in Special Education: A Continuing Debate." *The Journal of Special Education* 27(4):410-437.
- Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs* 75(1):43-88.
- Bender, William N., Cecilia B. Rosenkrans, and Mary-Kay Crane. 1999. "Stress, Depression, and Suicide among Students with Learning Disabilities: Assessing the Risk." *Council for Learning Disabilities* 22 (2):143-156.
- Charles, Camille Zubrinsky. 2003. "The Dynamics of Racial Residential Segregation." *Annu. Rev. Sociol.* 29: 167-207.
- Cosden, Merith, Katherine Elliot, Sharon Noble, and Eve Kelemen. 1999. "Self-Understanding and Self-Esteem in Children with Learning Disabilities." *Learning Disability Quarterly* 22 (4):279-290.
- Croll, Paul. 2004. "Families, Social Capital, and Educational Outcomes." *British Journal of Educational Studies* 52(4):390-416.
- , 2002. "Social Deprivation, School-level Achievement and Special Educational Needs." *Educational Research.* 44:43-53.
- Dani, J., Burrill, C., & Demmig-Adams, B. (2005). "The Remarkable Role of Nutrition in learning and behavior." *Nutrition and Food.* 35:258-263.

- Deluca, Stephanie and Elizabeth Dayton. 2009. "Switching Social Contexts: The Effects of Housing Mobility and School Choice Programs on Youth Outcomes." *Annual Review of Sociology*. 35:457-91.
- Desforges, Martin F. 1995. "Assessment of Special Educational Needs in Bilingual Pupils: Changing Practice?" *School Psychology International*. 16:5.
- Edgar, E. and A.H. Hayden. 1985. "Who are the children special education should serve and how many children are there." *Journal of Special Education* 18(4):523-539.
- Elias, Maurice J. 2004. "The Connection between Social-Emotional Learning and Learning Disabilities: Implications for Intervention." *Learning Disability Quarterly*: 27(1):53-63.
- Faraone, Stephen V., Joseph Sergeant, Christopher Gillberg, and Joseph Biederman. 2003. "The Worldwide Prevalence of ADHD: Is it an American Condition?" *World Psychiatry* 2(2):104-113.
- Fox, Lynn C. and Shirley E. Forbing. 1991. "Overlapping Symptoms of Substance Abuse and Learning Handicaps: Implications for Educators." *Journal of Learning Disabilities* 24(1):24-39.
- Fuchs, Douglas, Devery Mock, Paul L. Morgan, and Caresa L. Young. 2003. "Responsiveness-to- Intervention: Definitions, Evidence, and Implications for the Learning Disabilities Construct." *Learning Disabilities Research and Practice* 18(3):157-171.
- Gentschel, Deborah A. and T.F. McLaughlin. 2000. "Attention Deficit Hyperactivity Disorder as a Social Disability: Characteristics and Suggested Methods of Treatment." *Journal of Developmental and Physical Disabilities*; 12(4):333-347.

- Harry, B. 1992. "Cultural diversity, families, and the special education system: Communication for empowerment." New York: Teachers College Press.
- Irvine, J.J. 1991. *Black Students and school failure: Policies, practices, and prescriptions*. New York: Praeger.
- Kohn, Alfie. 2005. *Unconditional Parenting: Moving from Rewards and Punishment to Love and Reason*. New York, NY: ATRIA Books.
- La Greca, A.M. and S. Vaughn. 1992. "Social Functioning of Individuals with Learning Disabilities." *School Psychology Review* 21:340-347.
- Lester, M.L, Thatcher, R.W. and L. Monroe-Lord. 1982. "Refined Carbohydrate intake, Hair Cadmium Levels, and Cognitive Functioning in Children." *Journal of Nutrition and Behavior* 1:3-13.
- Lyon, G. Reid. 1996. "Learning Disabilities." *The Future of Children* 6 (1): 54-76.
- McKinney, James D. 1989. "Longitudinal Research on the Behavioral Characteristics of Children with Learning Disabilities." *Journal of Learning Disabilities* 22(3):141-150.
- Mishna, Faye. 2003. "Learning Disabilities and Bullying: Double Jeopardy." *Journal of Learning Disabilities* 36(4):336-347.
- Ong-Dean, Colin. 2006. "High Roads and Low Roads: Learning Disabilities in California, 1976-1998." *Sociological Perspectives* 49(1):91-113.
- Ortiz, Alba A. 1997. "Learning Disabilities Occurring Concomitantly With Linguistic Differences." *Journal of Learning Disabilities*. 30:321-332.

- Rabiner, David L., Desiree W. Murray, Lisa Rosen, and Kristina Hardy. 2010. "Instability in Teacher Ratings of Children's Inattentive Symptoms: Implications for the Assessment of ADHD." *J Dev Behav Pediatr* 31(3):175-180.
- Reynolds, Cecil R. 1992. "Two Key Concepts in the Diagnosing of Learning Disabilities and the Habitation of Learning." *Learning Disability Quarterly* 15(1):2-12.
- Sampson, Robert J., Patrick Sharkey, and Stephen W. Raudenbush. 2007. "Durable Effects of Concentrated disadvantage on Verbal Ability Among African-American Children."
- San Miguel, Stephanie K., Steven R. Forness and Kenneth A. Kovale. 1996. "Social Skills Deficits in Learning Disabilities: The Psychiatric Comorbidity Hypothesis." *Learning Disability Quarterly* 19 (4):252-261.
- Shoenthaler, S.J, Byer, I.D., Young, K., Nichols, D., and S. Janssens. 2000. "The Effects of Vitamin-Mineral Supplementation on the Intelligence of American Schoolchildren; a Randomized, Double-Blind Placebo Controlled Trial." *Journal of Alternative and Complementary Medicine* 6(1):19-29.
- Shessel, Isabel and Henry B. Reiff. 1999. "Experiences of Adults with Learning Disabilities: Positive and Negative Impacts and Outcomes." *Learning Disability Quarterly* 22(4):305-316.
- Skidmore, David. 1999. "Continuities and Developments in Research into the Education of Pupils with Learning Difficulties." *British Journal of Educational Studies* 47(1):3-16.
- Smith, Sally L. 2002. "What Do Parents of Children with Learning Disabilities, ADHD, and Related Disorders Deal With?" *Pediatric Nursing* 22(3).

- Temple, Elise, Gayle K. Deutsch, Russell A. Poldrack, Steven L. Miller, Paula Tallal, Michael M. Merzenich, and John D.E. Gabrieli. 2003. "Neural Deficits in Children with Dyslexia Ameliorated by Behavioral Remediation: Evidence from Functional MRI." *Proceeds of the National Academy of Sciences of the United States of America* 2860:2860-2865.
- Thatcher, R.W. and M.L. Lester. 2001. "Nutrition, Environmental Toxins and Computerized EEG: A Mini-Max Approach to Learning Disabilities." *Journal of Learning Disabilities* 18(5):287-297.
- Van Dyke, Don C. and Alison A. Fox. 1990. "Fetal Drug Exposure and Its Possible Implications for Learning in the Preschool and School-Age Population." *Journal of Learning Disabilities* 23(3):160-163.
- Vilcherrez Pizzaro, Kathy. "Baumrind's Parenting style and Maccoby & Martin's Parenting Style Typologies." *scribd.com*. Retrieved 9 October 2014.
- Waggoner, Karen and Lorraine Wilgosh. 1990. "Concerns of Families of Children with Learning Disabilities." *Journal of Learning Disabilities* 23(2):97-113.
- Will, Madeleine C. 1986. "The Education of Special Needs Students: Research Findings and Implications for Policy and Practice." *Adaptation of Keynote address*.411-415.