Reducing juvenile justice involvement through a childhood truancy intervention

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REDUCING JUVENILE JUSTICE INVOLVEMENT THROUGH A CHILDHOOD TRUANCY INTERVENTION

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College
in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The School of Social Work

by

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................................................................................ ii

ABSTRACT ........................................................................................................................... vi

CHAPTER 1: INTRODUCTION ......................................................................................... 1
  Truancy Assessment and Service Centers (TASC) ......................................................... 1
  Scope of the Problem: Truancy ..................................................................................... 5
  Scope of the Problem: Juvenile Offending ................................................................. 8
  The Association between Truancy and Juvenile Offending ...................................... 10
  Rationale for the Current Study .................................................................................. 13

CHAPTER 2: LITERATURE REVIEW .............................................................................. 14
  Historical Overview of Juvenile Delinquency ......................................................... 14
  History of Truancy Laws ............................................................................................ 20
  Theoretical Framework ............................................................................................... 22
  Risk and Protective Factors: Truancy ....................................................................... 30
  Risk Factors: Juvenile Offending ............................................................................... 32
  Protective Factors ....................................................................................................... 43
  Social Work Case Management ................................................................................ 45
  Truancy Intervention Literature ............................................................................... 45
  Juvenile Delinquency Interventions ......................................................................... 55
  Research Questions .................................................................................................... 61

CHAPTER 3: METHODOLOGY ....................................................................................... 62
  Methods for Quantitative Study ................................................................................ 62
  Research Design .......................................................................................................... 72
  Logistic Regression ...................................................................................................... 75
  Power Analysis ............................................................................................................. 77
  Methodology for Qualitative Study .......................................................................... 78

CHAPTER 4: ANALYSIS AND RESULTS .................................................................... 83
  Analysis for Quantitative Study ................................................................................ 83
  Participant Characteristics ......................................................................................... 84
  Attrition Group ............................................................................................................ 86
  Logistic Regression Analysis ...................................................................................... 91
  Regression Discontinuity Design to Examine the Effectiveness of TASC .......... 93
  Qualitative Analysis Using a Grounded Theory Research Design ...................... 101

CHAPTER 5: DISCUSSION ............................................................................................ 109
  Extent of Juvenile Justice Involvement .................................................................. 109
  Predicting TASC Re-Referral .................................................................................... 111
  Effectiveness of TASC Using the Regression Discontinuity Design .................... 115
  Perceptions of TASC Case Managers ....................................................................... 119
  Limitations of the Quantitative Study ..................................................................... 121
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations of the Qualitative Study</td>
<td>123</td>
</tr>
<tr>
<td>Implications for Future Research</td>
<td>124</td>
</tr>
<tr>
<td>Implications for Social Work Practice</td>
<td>125</td>
</tr>
<tr>
<td>Implications for Social Work Policy</td>
<td>126</td>
</tr>
<tr>
<td>Merits of the Current Study</td>
<td>127</td>
</tr>
<tr>
<td>Conclusion</td>
<td>131</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>133</td>
</tr>
<tr>
<td>APPENDIX A: TRUANCY ASSESSMENT AND SERVICE CENTER REFERRAL FORM</td>
<td>145</td>
</tr>
<tr>
<td>APPENDIX B: RISK I SURVEY</td>
<td>146</td>
</tr>
<tr>
<td>APPENDIX C: TASC REGRESSION DISCONTINUITY SCORING ALGORITHM</td>
<td>148</td>
</tr>
<tr>
<td>APPENDIX D: INSTITUTIONAL REVIEW BOARD APPLICATION</td>
<td>150</td>
</tr>
<tr>
<td>VITA</td>
<td>151</td>
</tr>
</tbody>
</table>
ABSTRACT

This study employed a mixed methods design to evaluate an elementary school truancy intervention in terms of reducing rates of juvenile delinquency over six years. Few (n = 11) participants became involved in the formal justice system, so the intervention’s effectiveness was measured by re-referrals for continued truancy. The regression discontinuity design was used to compare the intervention group to the comparison group. The intervention group received intensive case management and the comparison group received a warning letter. A regression discontinuity design using multivariate logistic regression indicated that the intervention did not reduce the likelihood of subsequent re-referrals, and the null hypothesis was retained. The qualitative portion of the study employed a grounded theory research design to examine the perspectives of the truancy intervention’s case managers. A core category emerged that the case manager was the agent of change. Hence, this author postulated that the participants’ long-term success was based on the case managers’ commitment to the participant’s family, the case managers’ ability to help the family build a collaborative support network, and the case managers’ support in helping the family to overcome treatment barriers. Implications for social work policy, practice, and future research are presented.
CHAPTER 1: INTRODUCTION

Since the 1980s, Louisiana has consistently maintained the highest adult incarceration rate and one of the highest juvenile delinquency rates in the United States. One out of every 55 adults is locked up in Louisiana, which represents a 100% increase in the prison population over the past 20 years. Prison costs have tripled due to the increasing incarceration rates, while the state budget has declined at a record pace in recent years (Louisiana Sentencing Commission, 2012). One approach the Louisiana Legislature adopted to address the high delinquency and incarceration rates was a statewide early childhood truancy intervention known as Truancy Assessment and Service Centers (Schroeder, Guin, Chaisson, & Houchins, 2004). TASC mandated early identification, rapid assessment, and intensive treatment using truancy as a mechanism to trigger intervention services for children at risk of delinquency and adult criminality (Louisiana State University [LSU], 2012).

Truancy Assessment and Service Centers (TASC)

The Louisiana Legislature passed the TASC Act (1999) after in-depth testimony regarding the missed opportunities to intervene in the lives of three death row inmates. These inmates endured untreated psychiatric and learning disorders in addition to chronic abuse and neglect during their childhoods. The testimony highlighted a systemic failure in addressing the inmates’ mental health, educational, and child welfare needs throughout their life course. Furthermore, the testimony advocated for a comprehensive, state-wide, research-based, early intervention program to prevent such inequities (Schroeder et al., 2004). In 1999, funding was appropriated for two pilot TASC sites to serve truant elementary school children in Caddo and Jefferson parishes (LSU, 2012). Parishes are the equivalent of counties in Louisiana.
The pilot sites experienced success in reducing truancy rates among elementary school children, which led to the establishment of 19 sites serving 29 parishes by 2008. In 2011 there were 13 TASC sites serving 21 parishes due to budget cuts in 2009 and 2010. These sites administer an array of individually tailored interventions to high risk, elementary age youth identified by school staff (LSU, 2012; Schroeder et al., 2004). The Louisiana Legislature rescinded funding again in 2013, which eliminated LSU’s involvement with the TASC program. These cuts forced individual TASC sites to maintain responsibility for administrative functions, quality assurance, and evaluative research (Gomila, 2013).

TASC began as a prevention measure to interrupt the pathway to juvenile delinquency and adult criminality (Schroeder et al., 2004). The TASC model mandates early identification and assessment of elementary age truant children, followed by intensive intervention. Once a child is identified truant (i.e., five unexcused absences), the school submits a referral form and a Risk I survey (Barthelemy & Kim, 2011; Rhodes, Thomas, Lemieux, Cain, & Guin, 2010). The Risk I survey has been validated as a risk assessment tool for elementary school children and can be found in Appendix A (Kim & Barthelemy, 2011). The TASC case worker determines whether the child is at-risk or low risk based on the information provided by the school. Low risk children receive a letter to their parents informing about state truancy laws, and their absences are monitored for the remainder of the school year (LSU, 2012).

The students, deemed at-risk by the Risk I survey and TASC referral form, receive an individually tailored case management intervention. This intervention begins by the TASC case manager scheduling a conference to educate the family on truancy laws and to assess family strengths and needs. The case manager then develops a service plan with the family to increase school attendance and address underlying issues of truancy. Family members follow the service
plan with ongoing assistance from the case manager. The case manager monitors the student’s attendance and academic performance throughout the remainder of the school year and adjusts the service plan as necessary (LSU, 2012).

The services referred by the case manager are numerous and vary by parish because TASC sites are located in urban, rural, and suburban areas. The proportion of service referrals among all TASC sites during the 2011-2012 school-year were the following: mental health (24%), family support (20%), other (12%), basic necessities (11%), educational (11%), medical (10%), home visits (7%), and behavioral support (4%). The case manager assists the family in developing individualized treatment plans and accessing these community-based services (LSU, 2012).

TASC represented the only research-based truancy intervention program in Louisiana. The administrative office, entitled Office of Social Service Research and Development (OSSRD), was housed in the School of Social Work at Louisiana State University (LSU). OSSRD monitored and evaluated all TASC sites across state. Each TASC site received a yearly audit and submitted annual reports to ensure program efficacy (Rhodes et al., 2010). However, 2013 funding cuts eliminated LSU’s role with the TASC program effective July 1, 2013 (Gomila, 2013). The individual TASC sites that continued to receive funding are located within various agencies depending on the parish. Some TASC sites are located on school grounds, while others may be located in social service agencies or within the offices of elected officials such as the district attorney and mayor (LSU, 2012).

TASC has demonstrated high success rates in decreasing truancy. Since 1999, TASC has served approximately 82,000 school children in 450 public schools. The 2011-2012 school year consisted of 6,302 TASC referrals in which 78% of the children improved their attendance by the
end of the year. Twenty-seven percent displayed no truant behaviors after TASC referral, while 48% had only 1 – 5 unexcused absences post referral (LSU, 2012). Overall, there was a 53% reduction in unauthorized absences after referral (LSU, 2012).

TASC’s effectiveness in reducing truancy rates was rigorously evaluated in a 2011 study that used secondary data to compare an at-risk TASC group to a low risk TASC group from a metropolitan area in south Louisiana (Thomas, Lemieux, Rhodes, & Vlosky, 2011). The groups were differentiated by their scores on the pre-intervention risk measures. Students with a risk score of 27 or above were classified as high risk and received intensive case management services for the remainder of the school year. The low risk group, who scored 26 or below, received letters explaining the Louisiana compulsory attendance law. Findings indicated that the high risk group decreased their truancy rates slightly over the low risk group at the end of the school year. However, the intensive case management was less effective in reducing absences for the high risk participants with higher pre-program risk scores (Thomas et al., 2011). The current study builds upon these findings by using six years of longitudinal data to evaluate juvenile justice outcomes. The current study also included a qualitative component to assess the perspectives of TASC staff members.

The academic literature lacks rigorous studies that evaluate childhood truancy interventions in terms of juvenile justice outcomes even though a connection has been demonstrated between childhood truancy, juvenile delinquency, and adult criminality (Maynard, McCrea, Pigott, & Kelly, 2012; McCord & Ensminger, 1997; Van Domburgh, Loeber, Bezemer, Stallings, & Stouthamer-Loeber, 2009). TASC represents a feasible and cost-effective truancy intervention with potential justice system implications. Empirical studies, however, have not evaluated TASC’s impact on juvenile delinquency or re-offending. The current study used a
mixed methods design to evaluate TASC’s long-term effects on juvenile justice outcomes. The quantitative study used the regression discontinuity (RD) design (Thistlewait & Campbell, 1960) to determine the effectiveness of the TASC case management intervention for an at-risk student group within six years post intervention. The qualitative study involved a grounded theory research design (Glaser & Strauss, 1967) that used TASC case manager perceptions to provide a deeper understanding about the effectiveness of TASC.

**Scope of the Problem: Truancy**

Truancy may be the first sign in a progression of behaviors that lead to antisocial outcomes like delinquency, dropout, and drug use (Teasley, 2004). The National Center for School Engagement (NCSE) defines truancy as any unexcused absence without the expressed permission of a parent, legal guardian, teacher, or school administrator (Seeley, 2006). Hundreds of thousands of youth are truant from school every day (Baker, Sigmon, & Nugent, 2001). The truancy ‘epidemic’ received a great deal of attention in 1999 when a national report mentioned truancy as one of the most problematic issues in all schools across the U.S. (DeKalb, 1999).

Statistics from various cities have shown the prevalence of truancy. New York City statistics estimated that over 150,000 students are absent from school each day (DeKalb, 1999). A Los Angeles study found that approximately 10% of students were absent each day and only about half returned with written excuses (DeKalb, 1999; Garry, 1996). A study in Detroit, Michigan reported 66,440 investigations of chronic truancy in the 1994-1995 school years (Garry, 1996) and Wisconsin statistics revealed that 31.1% of all student absences were due to truancy (Wisconsin Legislative Audit Bureau, 2000). More recently, a study in Denver, Colorado found that 30% of high school, 20% of middle school, and 14% of elementary school
students exhibited chronic truancy (MacGilivary, 2006). A secondary data analysis using results from the Monitoring the Future Survey revealed that 10.5% of 8th graders and 16.4% of 10th graders reported recent truancy (Henry, 2007).

Understanding the prevalence of truancy is an important, yet daunting task (National Center for School Engagement [NCSE], 2006). Currently, no validated mechanism exists to track truancy at the national level (NCSE, 2006). State departments of education typically track truancy through attendance rates, which are defined as the percentage of students present on a given day (NCSE, 2006). However, these data do not distinguish between excused absences and unexcused absences. Excused absences occur when written permission is obtained from a parent, guardian, or teacher; whereas unexcused absences occur when no written permission is given (Bye, Alvarez, Haynes, & Sweigart, 2010; Seeley, 2006). Due to these inconsistencies in tracking truancy, the extent of the problem is largely unknown (NCSE, 2006).

A New York Times article highlighted the emerging trend of schools that report misleading statistics on truancy by citing attendance rates (Levy & Henry, 2007). Schools that report 90% attendance rates may also show that 30% of the students are chronically truant because the same students do not always miss school on the same day (Levy & Henry, 2007). Inadequate reporting of truancy may be an unintended consequence of the No Child Left Behind Act (2002), which mandated tracking of attendance rates rather than truancy rates. Hence, schools were incentivized to inflate attendance statistics that underestimate truancy (Simpson, Lacava, & Graner, 2004). These misleading attendance statistics may serve in the best interest of school districts to avoid consequences such as funding rescissions (Smink & Heilbrunn, 2005). Therefore, attendance rates represent a misleading and ineffective means to tracking truancy.
Juvenile courts represent another widely utilized mechanism to understand the national prevalence of truancy. From 1995 – 2004, juvenile courts in the U.S. experienced a 69% increase in truancy cases (Stahl et al., 2007). Petitioned truancy cases rose each year and outnumbered all other status (i.e., misdemeanor) offenses (Stahl et al., 2007). Juvenile courts processed over 33,000 truancy cases in 1995, a figure that rose to 55,700 in 2004 (Stahl et al., 2007). During this time period, truancy rates rose across gender, ethnic groups, and geographic location (Stahl et al., 2007). Although juvenile court statistics illustrate the growing trend of formal truancy processing, these statistics underestimate the informally processed cases such as those assigned to diversion programs like TASC.

Graduation rates represent another questionable way to approximate the extent of the truancy problem (Bye et al., 2010). Previous studies indicated a high correlation between dropout and truancy rates (Bye et al., 2010; MacGilivary, 2006). However, truancy rates cannot be inferred from dropout statistics because dropouts are not always truant and truants do not always dropout (Bye et al., 2010; MacGilivary, 2006; NCSE, 2006).

The passing of the No Child Left Behind Act of 2002 resembled progress to address truancy, as the federal government mandated attendance tracking for the first time in U.S. history (U.S. Department of Education, 2004). However, positive effects have been mitigated due to the inconsistencies among states regarding the legal definition of truancy. Definitions of truancy vary from state to state, which prohibits truancy data from being aggregated at the national level (Seeley, 2006; Smink & Heilbrunn, 2005). Some states such as Louisiana and Wisconsin define truancy as 5 unexcused absences in a semester (Louisiana Children’s Code, 2011; Wisconsin Legislative Audit Bureau, 2000), whereas Florida statutes define truancy as 21 total absences in a school year (Levy & Henry, 2007). South Carolina defines truancy as either three consecutive
days missed or five total days missed (Smink & Heilbrunn, 2005). The variability in these definitions creates inherent problems in understanding the extent of truancy across the nation.

The Louisiana Children’s Code defines truancy as five unexcused absences in one semester and mandates school attendance for youth between the ages of 7 – 18. The law also requires the school to notify the child’s parents on the third unexcused absence. Parents of elementary and middle school children found in violation are subject to fines, community service, parenting classes, or family counseling (R.S. 17:221 A2). Truant high school students are subject to fines, community service, or losing driver’s license privileges. An amendment to this law was passed in 2010 that requires all students to attend at least 167 or 94% of the total number of school days (Louisiana Department of Education [LDOE], 2011). The previous law required that high school students attend 162 days and younger students attend at least 160 in a given school year.

**Scope of the Problem: Juvenile Offending**

Youth crime has declined significantly over the last two decades (Puzzanchera & Adams, 2011). Recent statistics indicate that violent crime arrests have decreased by 50% since the peak of youth crime in 1994 (Puzzanchera & Adams, 2011). However, youth crime persists as a problem across the U.S. In 2009, U.S. law enforcement agencies arrested approximately 1.9 million juveniles. Although this figure marks a 17% decrease since 2000, murder rates remained stable and robbery rates increased by 15%. Youth offenders accounted for 15% of all violent crime arrests and 24% of all property offenses in 2009 (Puzzanchera & Adams, 2011). A 2011 report indicated an increased number of young offenders and female offenders. Offenders younger than 15 accounted for 27% of youth arrests in 2009 (Puzzanchera & Adams, 2011) and female arrests increased 12% between 1999 and 2008 (Puzzanchera, 2009). African
American youth remained overrepresented in the justice system accounting for 51% of violent crimes and 33% of property crimes (Puzzanchera & Adams, 2011). Most arrested juveniles were referred to court (67%), while 22% were processed and released by local law enforcement agencies (Puzzanchera, 2009). Of those referred to court, an estimated 9% were referred directly to adult court, whereas the remainder was referred to social service agencies (Puzzanchera & Adams, 2011).

Although researchers collect data from various sources (FBI, juvenile court records, interviews, etc.), grasping the true extent of juvenile delinquency is difficult. The FBI’s Uniform Crime Reporting (UCR) program only reports the most serious offense per arrest. Many times juveniles are arrested for multiple crimes, and therefore, UCR serves as a better indicator for tracking arrests rather than the number of offenses actually committed (Puzzanchera & Adams, 2011). The true extent of delinquency is also hard to grasp because most youth are not arrested for every offense they commit. This phenomenon was evident in a 2007 study that found 2.4 self-reported offenders for every adjudicated (i.e., judged as delinquent) offender and 80 self-reported offenses per every petitioned (i.e., formally charged) offense (Loeber & Homish, 2007).

**Juvenile Offending in Louisiana**

Louisiana’s juvenile violent crime rates were the highest in the U.S. in 2009 followed by Maryland, Delaware, Florida, Pennsylvania, and California (Puzzanchera & Adams, 2011). Approximately 627 out of 100,000 Louisiana juveniles committed violent offenses such as robbery, assault, or weapons charges (Puzzanchera & Adams, 2011). In 2010, slight decreases were shown for all property crimes and violent crimes with the exception of murder/manslaughter, which nearly doubled (Louisiana Uniform Crime Reporting Program [LAUCR], 2012).
In addition to juvenile violent crime, Louisiana hosts its share of other social problems. Louisiana ranked first in murder/manslaughter rates and was ranked among the top ten states in robbery, aggravated assault, and burglary (LAUCR, 2012). From 2007 – 2011, 56,800 students dropped out of school and 44% of schools were rated at failing performance levels due to the number of students performing below grade level (Council for a Better Louisiana [CABL, 2011). Moreover, a 2010 report from the Annie E. Casey Foundation found that one out of four Louisiana children live in poverty. Decades of research has linked truancy, dropout, and poverty to juvenile delinquency and adult criminality (Shader, n.d.; Wasserman et al., 2003).

**The Association between Truancy and Juvenile Offending**

Truancy represents a significant predictor of juvenile offending (Garry, 1996; Pritchard & Williams, 2001; Wang, Blomberg, & Li, 2005; Zhang, Katsiyannis, Barrett, & Willson, 2007). Although few studies have sought to determine truancy interventions’ effectiveness in reducing later delinquency, a strong association between truancy and juvenile offending has been demonstrated (Garry, 1996). Relevant studies that linked truancy to juvenile offending are described below.

Van Domburgh and colleagues (2009) used secondary data from the Pittsburgh Youth Study to examine the effects of childhood risk and promotive factors on desistence and persistence of offending. Desistence characterized youth who had stopped offending by early adolescence, whereas persistence referred to youth that continued to offend. The study differentiated between serious persisters, moderate persisters, and desisters. The sample included 310 boys who began offending prior to age of 12. Findings indicated that youth with truancy issues in elementary school were 3.5 times more likely to become persistent serious offenders in their adolescence than desisters. Results also showed that truancy increased the
likelihood of serious persistent offending over moderate persistent offending (OR=1.7; Van Domburgh, et al., 2009)

Zhang et al. (2007) used secondary data from the South Carolina Department of Juvenile Justice to track youth who were first referred into the juvenile justice system for truancy (Zhang et al., 2007). The sample consisted of 12,468 juvenile offenders born in 1985. Children who were first referred to the juvenile court for truancy were compared to non-truancy first time offenders. Chi-square and phi coefficient analyses revealed significant differences between the truancy and non-truancy groups. The truancy group was significantly younger, referred to juvenile court at an earlier age, and subsumed a higher number of lifetime juvenile court referrals. These findings support the relationship between childhood truancy and juvenile crime, which provides policy and practice implications for addressing truancy at an early age to prevent subsequent problems including later delinquent behaviors (Zhang et al., 2007).

Wang, Blomberg, and Li (2005) linked truancy to juvenile delinquency using a similar, methodology involving an analysis of state-wide, juvenile justice data from Florida. A sample of 6,125 juvenile delinquents were compared to a group of non-delinquents (n=5,187) who were matched in terms of age, race, gender, socioeconomic status, exceptionality status, and school. Participant age ranged from 10 – 22 in the 1999 – 2000 school years. The groups were compared on attendance, academic achievement, and disciplinary problems. Chi-square and independent t-tests showed significant group differences on all the outcome measures. The delinquent group exhibited higher truancy rates, were promoted less frequently to the next grade, and earned lower grade point averages than the non-delinquent group. Examinations of past educational records suggested fewer disciplinary problems among the non-delinquent group (Wang, et al., 2005). This study provided evidence of the disproportionate number of
educational deficiencies among juvenile delinquents. Thus, early intervention programs like TASC can provide the comprehensive educational services that may increase the likelihood of future academic success, which in turn, may decrease the likelihood of later delinquency.

Risk factor studies of juvenile delinquency have also linked truancy to delinquency. McCord and Ensminger (1997) linked low school attendance in first grade to violence 26 years later. The sample consisted of 605 boys and 637 females from an impoverished area on the southside of Chicago. Initial assessments took place in 1966 and then 26 years later in 1992. Low school attendance was defined as missing more than 182 days and violence referred to criminal violence, which was identified through official law enforcement records. Participants were classified as violent if they were arrested for robbery, assault, battery, threat, weapons charges, kidnapping, manslaughter, domestic violence, rape, murder, or attempted. Findings indicated that low school attendance increased the probability of later violence for males and females (McCord & Ensminger, 1997). These findings further emphasized the need for early intervention programs at the elementary school level.

Although the previously mentioned studies demonstrated the association between truancy and juvenile delinquency, few studies have examined the risk factors of childhood truancy (Henry & Huizinga, 2007). Most educational systems treat truancy as a discipline problem rather than addressing its underlying causes such as psychiatric disorders, family issues, and school or neighborhood problems (Egger, Costello, & Angold, 2003). Typically, school administrators and other professionals ignore truancy until the behavior becomes chronic or persistent (Baker, Sigmon, & Nugent, 2001; Dembo & Gulledge, 2009). Therefore, truancy deserves more attention from criminologists, researchers, policy makers, and school
administrators, counselors, and social workers due to its high association with juvenile offending (Dembo & Gulledge, 2009).

**Rationale for the Current Study**

Substantial evidence links truancy to juvenile offending and adult criminality (Garry, 1996; Zhang et al., 2007). “Truancy is the gate to all future crime,” stated East Baton Rouge District Attorney, Hillar Moore in *The Baton Rouge Advocate* (Vetter, 2009). “It’s rare when you get people with serious crimes that have not had problems with school and being truant (Vetter, 2009).” The Louisiana Legislature sought to reduce truancy and juvenile delinquency by creating the TASC intervention, which utilizes a community-based approach in providing a myriad of services to elementary age, truant youth. TASC’s comprehensive approach was developed to deter truant behaviors by addressing the underlying causes of delinquency that involve the family, school, peer group, and community. To this date, no study has examined TASC’s impact on reducing rates of juvenile delinquency. This author sought to fill this knowledge gap by using a longitudinal, quasi experimental design to examine the effectiveness of the TASC case management intervention in reducing involvement in the juvenile justice system.
CHAPTER 2: LITERATURE REVIEW

This chapter describes the relevant policies, theories, risk and protective factors, social work case management, interventions, and knowledge gaps that are relevant to juvenile delinquency and truancy. The first section provides an historical overview of juvenile delinquency and truancy followed by policy responses from the United States’ government. Second, a theoretical framework will be provided for the current study. The third section gives an overview of juvenile delinquency and truancy risk factors, and is followed by a section on social work case management. A review and critique of truancy and delinquency interventions comprise the fourth section. The final section describes the purpose of the current study and lists the research questions.

Historical Overview of Juvenile Delinquency

Throughout the 18th and 19th centuries, juvenile delinquency was addressed informally by families, charities, or other community resources (Olson-Raymer, 1983). The federal government played no role in addressing juvenile crime, which allowed for total discretion in local courts (Olson-Raymer, 1983). During this time period, children as young as seven were tried and convicted as adults. Some children were even sentenced to death (U.S. Department of Justice, 1999).

The year 1825 marked the first movement for juvenile justice reform in the creation of the Society for the Prevention of Juvenile Delinquency (U.S. Department of Justice, 1999). This society advocated for separate juvenile courts and rehabilitative rather than punitive treatment (Olson-Raymer, 1983; U.S. Department of Justice, 1999). The House of Refuge was also built in 1825, which was the first attempt in the U.S. to house misbehaving or neglected children (Olson-Raymer, 1983).
The momentum continued into the late 1800’s as evident by the creation of the first juvenile court in 1899, which was formed in Chicago, IL (U.S. Department of Justice, 1999). By 1910, 32 states had established juvenile courts, but the U.S. federal government did not respond until 1912 (U.S. Department of Justice, 1999). The establishment of the Children’s Bureau in 1912 marked the first federal response to juvenile delinquency. Subsequent landmark legislation included the Juvenile Delinquency and Youth Offenses Control Act of 1961 and the Juvenile Justice and Delinquency Prevention Act of 1974.

**Children’s Bureau of 1912**

Increasing delinquency rates across the U.S. were brought to the forefront at the White House Conference on Children and Youth in 1909 (Olson-Raymer, 1983; Snyder & Sickmund, 2007). Jane Adams, a well-known social work pioneer, attended this conference to advocate on behalf of children’s rights (Lascarides, 1991). The conference resulted in the establishment of the Children’s Bureau in 1912, a federally funded program designed to investigate and report on child welfare across the U.S. (Olson-Raymer, 1983). The Bureau possessed broad powers to advocate for children on a national stage, conduct research, publicize facts, and examine social, economic, and legal issues affecting children (Lascarides, 1991).

**Juvenile Delinquency and Youth Offenses Control Act of 1961**

Federal legislation regarding juvenile delinquency remained silent during the next few decades. Franklin Delano Roosevelt’s New Deal brought along many welfare reforms, but none specifically addressed the juvenile justice system (Olson-Raymer, 1983). During the 1950’s, juvenile crime rates increased causing public concern over the juvenile court system (U.S. Department of Justice, 1999). The rising crime rates were blamed on the lack of formality in juvenile courts (U.S. Department of Justice, 1999). Judges and attorneys held much more
discretion in adjudicating and sentencing as compared to adult courts (U.S. Department of Justice, 1999). The public’s unease made juvenile delinquency a national priority and led to the creation of the Juvenile Delinquency and Youth Offenses Control Act of 1961 (Olson-Raymer, 1983).

The Juvenile Delinquency and Youth Offenses Control Act (1961) was the first national law addressing juvenile delinquency and set the framework for today’s juvenile justice policies (Olson-Raymer, 1983). The law was enacted to help state and local governments prevent delinquency by implementing new strategies. Large sums of federal funds were directed toward state governments to develop programs that treated and prevented delinquency (Olson-Raymer, 1983). The law authorized grants and contracts for training personnel in treating juvenile delinquents and for technical assistance in disseminating research on delinquency prevention (Olson-Raymer, 1983). This law represented a federal partnership with state and local governments to control juvenile delinquency across the U.S.

**The Juvenile Justice and Delinquency Prevention Act of 1974**

The Juvenile Justice and Delinquency Prevention Act (JJDPA) represented the most historic piece of juvenile justice legislation in the U.S. (Olson-Raymer, 1983). The JJDP A provided the first unified and comprehensive plan to address juvenile delinquency (U.S. Department of Justice, 1999). The first measure of the JJ DPA transferred the responsibility of juvenile crime from the Department of Health, Education, and Welfare to the Department of Justice, and established an organized block grant funding method to help local and state agencies prevent juvenile crime (Olson-Raymer, 1983; U.S. Department of Justice, 1999). Next, the created the Office of Juvenile Justice and Delinquency Prevention, an organization that still
provides the leading voice for juvenile justice in the U.S. (Olson-Raymer, 1983; U.S. Department of Justice, 1999).

The JJDPA required four core principles that remain deeply rooted in today’s juvenile justice system (Olson-Raymer, 1983; U.S. Department of Justice; U.S. Department of Justice, 1999). First, the Act required the deinstitutionalization of status offenders (Olson-Raymer, 1983; U.S. Department of Justice, 1999). Prior to 1974, many youths were placed in secure detention facilities for committing status offenses like running away, homelessness, and truancy (U.S. Department of Justice, 1999). The federal government mandated that all status offenders be removed from juvenile detention facilities within a two year period (U.S. Department of Justice, 1999). The next principle called for the separation of juvenile and adult offenders in all correctional facilities. Prison facilities were required to prevent all contact between adult and juvenile prisoners (U.S. Department of Justice, 1999). Similarly, the third principle called for all juveniles to be removed from adult correctional institutions (U.S. Department of Justice, 1999). The fourth principle occurred as a result of 1992 amendments to the JJDPA. These amendments highlighted disproportionate minority contact and instituted measures to decrease this phenomenon (U.S. Department of Justice, 1999). Disproportionate minority contact refers to the disproportionate number of minorities who come into contact with the juvenile justice system (Huizinga et al., 2007). The JJDPA remains the leading piece of legislation that addresses juvenile crime in the U.S. (Snyder & Sickmund, 2007).

Amendments to the Juvenile Justice and Delinquency Prevention Act

Congress has reauthorized and amended the JJDPA numerous times. The 1992 Amendments provided additional funding through formula grants and mandated that states implement strategies to focus on educational needs, gender specific needs, as well as treatment
and prevention in rural areas (U.S. Department of Justice, n.d.). Even with additional funding and widespread intervention, the juvenile violent crime rates sky rocketed during the late 1980’s and early 1990’s due to the introduction of crack cocaine, increasing gang membership, and the proliferation of hand guns (Jenson & Howard, 1998; Myers, 2008). The spike in juvenile crime received much media attention, which put Congress in the national spotlight to address the issue (Myers, 2008; U.S. Department of Justice, 1999). The public cried out for tougher policies with more punitive measures that were perceived to hold youth offenders more accountable (U.S. Department of Justice, 1999). State legislatures responded first by passing ‘get tough’ policies that loosened criteria for waiving juveniles to adult courts (45 states), expanded sentencing options for juvenile court judges (31 states), and removed court confidentiality provisions allowing juvenile hearings to take place in an open court (47 states; U.S. Department of Justice, 1999). Congress responded next by amending the JJDPA to include the Juvenile Accountability and Incentive Block Grant Act of 1997 (JAIBG; Myers, 2008).

The intended purpose of the JAIBG was to decrease violent juvenile crime by reforming juvenile courts to treat offenders more like adult criminals (Myers, 2008). JAIBG provided state and local funding to increase prosecution of juvenile offenders and implement tougher sanctions (Myers, 2008). Other mandates included an increase in waiving serious offenders to adult courts, increased court discretion in sanctioning, measures to hold parents accountable for youth behavior, increased drug testing in juvenile court, and a record keeping system that mimicked adult courts (Myers, 2008). The Act also loosened restrictions on core principles from the original JJDPA, thus allowing the transfer of adjudicated delinquents to adult prisons and permitting juveniles to be housed with adult criminals in certain facilities (U.S. Department of Justice, 1999).
The policies implemented in the JAIBG remain controversial today because this law’s intent illustrates a sharp contrast to previous reform efforts (Myers, 2008). Early reformers sought to rehabilitate rather than punish youth offenders, which was evident by the JJDPA and the previously mentioned court cases (Olson-Raymer, 1983). As a result of the JAIBG Amendment, many serious juvenile delinquents receive adult sanctions even though empirical evidence suggests that these punitive measures are not appropriate or effective for juveniles (Annie E. Casey Foundation, 2009; Myers, 2008).

**Current Status of the Juvenile Justice and Delinquency Prevention Act**

The JJDPA has been awaiting reauthorization since 2007 even though its status was extended through 2010 (American Bar Association, 2009). The bill passed in the Senate Judiciary Committee with bi partisan support and was introduced to the Senate in March 2009 (American Bar Association, 2009). No further congressional action has taken place since 2009 (American Bar Association, 2009). The 2009 JJDPA bill contains two primary changes from the 2002 version, the Cardin Amendment and the Kennedy Amendment (American Bar Association, 2009). The Cardin Amendment increases restrictions on placing status offenders in secure facilities (American Bar Association, 2009). Even though this requirement was included in the original JJDPA, a 1980 amendment along with the ‘get tough’ policies of the 1990’s loosened restrictions on placing these offenders in lock down care (American Bar Association, 2009; Snyder & Sickmund, 2007). The Kennedy Amendment requires mental health screening and treatment for all offenders that come into contact with the juvenile justice system (American Bar Association, 2009).
Future Directions for Juvenile Justice

The Annie E. Casey Foundation, one of the leading advocates for juvenile justice reform, lobbies for an increased federal role in addressing the delinquency problem (Annie E. Casey Foundation, 2009). The Casey Foundation’s website highlights the diminishing role of the federal government in handling this issue over the last decade (Annie E. Casey Foundation, 2009). Federal funding has declined 60% since 2000 and research and dissemination efforts have decreased by over 90%, from $6.8 million to $700,000 (Annie E. Casey Foundation, 2009). Although the 2002 JJDPA Amendments called for an increase in the use of evidence-based practices, only 40% of juvenile court programs utilize these interventions (Snyder & Sickmund, 2007). In addition to increased funding and evidence-based practices, other Casey Foundation recommendations include: reducing the numbers in secure care facilities, reducing disproportionate minority contact with the juvenile justice system, eliminating abuse in secure care facilities, reducing the numbers of juveniles tried in adult court, and supporting further research and demonstration projects (Annie E. Casey Foundation, 2009).

History of Truancy Laws

The first compulsory attendance laws in the United States were passed in the Massachusetts Bay Colony in 1642 (Katz, 1976). Puritan immigrants viewed schooling as a moral obligation and sought attendance laws to preserve the social fabric of the colonies. In other words, attendance laws would protect against parents who did not value education or vocational training (Katz, 1974). Most schooling throughout the U.S. was informal and took place at various locations such as the home or religious institutions. The diversity of schooling during this time period made compulsory attendance laws impossible to enforce (Katz, 1976).
All states enacted compulsory attendance laws nearly three centuries later in 1918. Louisiana passed its first attendance laws in 1905 and Mississippi was the last state to do so in 1918 (Katz, 1974). Provisions of compulsory attendance laws varied widely from state to state and were consistently unenforced. No mechanism existed to report compliance and many families in rural towns did not even have access to schools (Katz, 1976).

Compulsory attendance laws gained strength in the 1920’s and 1930’s due to effective means of enforcement. Many states specifically defined truancy, called for truancy officers, and addressed a host of child labor laws. The child labor mandates called for prerequisite school for certain types of employment and thus emphasized the necessity of schooling (Katz, 1976). The practice of preventing truancy was further enhanced by professionally qualified truancy officers, institutionalized daily student censuses, and the practice of tying state aid to attendance rates (Katz, 1976).

The Louisiana Legislature directly addressed childhood truancy for the first time in 1999 with the passage of the TASC Act. This legislation sought to reduce truancy among elementary school students, and thereby, prevent school dropout and juvenile delinquency. Truancy was determined to represent the mechanism through which high risk children could be most easily identified (Schroeder et al., 2004). The TASC program illustrated the first statewide, research-based, truancy prevention initiative that was developed under the strong theoretical framework of ecological theory (Bronfenbrenner, 1979) and the social development model (SDM; Catalano & Hawkins, 1996).
Theoretical Framework

Ecological Theory

Ecological theory attempts to explain how complex relationships between the child, family, and society affect human development (Bronfenbrenner, 1979). Ecological theory heavily influenced research and practice by integrating the social science fields. Prior to this theory, each social science field only studied one targeted area of expertise. For instance, psychologists studied the individual, anthropologists studied cultures, political scientists studied political structures, and economists studied economies (Siegel & Welsh, 2012). Ecological theory, however, identified that these disciplines are not mutually exclusive and must be studied together in the way they impact human development (Bronfenbrenner, 1979).

The underlying framework of ecological theory is captured in five systems that contain rules, norms, and roles that shape human development (Bronfenbrenner, 1979). First, the microsystem represents a child’s immediate environment such as the family, the peer group, the school, and the neighborhood. Entities within the microsystem are those in which the child has every day contact.

The mesosystem is the second of the five systems, which consists of the connections between the child’s immediate environments. For example, the mesosystem would depict the interactions between the child’s parents and teachers, and would hypothesize that these interactions directly affect the child. Third is the exosystem, which represents the external settings that indirectly affect the child’s development. The education system, governmental politics, and the economy represent factors in the exosystem (Bronfenbrenner, 1979).

The macrosystem, Bronfenbrenner’s fourth system, consists of values or overarching beliefs within the child’s culture. The macrosystem helps the child assign meaning and value,
while controlling the interactions of all other systems. The final addition to Bronfenbrenner’s theory was the chronosystem, which depicted a dimension of time. In other words, this system refers to the historical context in which the child is raised such as a world war or a major technological discovery (Bronfenbrenner, 1979; Siegel & Welsh, 2012; Siegel, Welsh, & Senna, 2003).

Ecological theory facilitated a broader conceptualization of delinquency by incorporating social, environmental, and cultural factors into the understanding of human behavior. Ecological theory pertains to the TASC intervention due to the individualized case management component. Multiple individual, family, and societal factors must be taken into consideration in developing a treatment plan for each high risk TASC participant. Truancy can be a manifestation of problems at one or multiple systems in the framework of ecological theory.

Social Development Model

The SDM depicts a synthesis of the empirically validated assumptions of control theory (Hirschi, 1969), social learning theory (Akers, 1973), and differential association theory (Sutherland, 1947). The two major assumptions that underlie SDM were derived from control theory and social learning theory. Differential association theory was the final addition to SDM that answered an early criticism involving the explanation of deviant behavior that does not evolve into delinquency (Catalano & Hawkins, 1996).

Control theory (Hirschi, 1969) represents a popular social process theory. Hirschi (1969) theorized that delinquency results from weakened bonds to conventional institutions such as family, school, peers, and community. He believed that all people have the potential to commit crime, but that social bonds can keep youth from committing delinquent acts. Weak bonds, on the other hand, free youth to engage in delinquent behaviors (Hirschi, 1969). A major criticism
of control theory addressed its contention that antisocial youth did not have strong bonds to peers (Conger, 1976). Research has shown the contrary in that antisocial youth bond to others who engage in delinquent behaviors (Conger, 1976).

Social learning theory posits that behavior is shaped by reinforcement as well as modeling of others (Akers, Krohn, Lanza-Kaduce, & Radosevich, 1979). Social behavior is enhanced through positive and negative reinforcement or weakened by punishment. The reinforcement of behavior can be pro social or antisocial, which can impact the development of a child’s beliefs, morals, and values. In contrast to control theory, social learning theory argues that the quality of social bonds alone is not sufficient to explain pro social behaviors. Rather, the perceived risk of disapproval (i.e., loss of reinforcement) from pro social entities would prevent delinquent behavior (Conger, 1976). Modeling is another component of social learning theory, which explains how parents’ problem behaviors relate to a child’s problem behaviors (Akers et al., 1979). Studies have demonstrated strong relationships between poor parenting skills (e.g. high physical punishment, poor verbal communication) and delinquency (Conger, 1976).

Edwin Sutherland’s (1947) differential association theory remains one of the most popular social process theories today. Sutherland believed that children are socialized to learn pro social or antisocial behaviors. This theory postulated that delinquency occurs when antisocial values outweigh pro social values and that different associations with antisocial and pro social influences can vary in frequency, intensity, and duration (Sutherland, 1947). Differential association theory sheds light on the numerous separate paths that lead to pro social or antisocial behavior and may explain the processes through which ‘high-risk’ individuals take pro social paths and ‘low-risk’ individuals take antisocial paths (Sutherland, 1947; Tittle, Burke, & Jackson, 1986). In other words, factors that lead to antisocial paths such as bonding to
antisocial peer groups vary in frequency, duration, and intensity for every individual. Therefore, a child may proceed on a pro social path if the positive influences outweigh the negative and vice versa (Sutherland, 1947).

The Social Development Model (SDM) attempts to explain and predict the etiology of both pro social and antisocial behavior (Catalano & Hawkins, 1996). The SDM takes a life course perspective by assuming dynamic processes through which bonding and behavior evolve over four distinct developmental periods, preschool, elementary school, middle school, and high school (Catalano & Hawkins, 1996). This model considers the influence of relationships among social structures (e.g., family, school, peers, etc.) at different points in time across these four time frames (Hawkins & Weis, 1985). SDM also recognizes that risk and protective factors influence behavior. Biological, psychological, and social factors within the family, school, peer group, and community may influence antisocial behaviors as well as demographic variables like socioeconomic status, race gender, and age (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). Furthermore, SDM attempts to identify the specific processes through which risk and protective factors interact in the etiology of antisocial and pro social behaviors (Catalano & Hawkins, 1996).

SDM theorists posit that children learn behavior in a sequential manner through socializing units such as the family, school, or community activities (Hawkins & Weis, 1985). This model describes the socialization process in the following order: 1) perceived opportunities to engage in activities and interactions, 2) the degree of involvement and interaction 3) the level of skill to participate in activities and interactions, and 4) the reinforcement they receive for their participation and interactions (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). The reinforcement for their behavior affects their emotional bonds to socializing units from which
they develop beliefs and values. These emotional bonds, beliefs, and values are hypothesized to impact perceived opportunities in the next developmental period. This basic socialization process occurs four times during the developmental periods, which include preschool, elementary school, middle school, and high school. Thus, the reinforcement in the preschool sub model could influence the perceived opportunities in the elementary school sub model (Catalano & Hawkins, 1996).

SDM predicts a pro social pathway and an antisocial pathway using the same general socialization model. The pro social pathway occurs when a child is given pro social opportunities, participates in pro social activities and interactions, develops or improves skills, and is positively reinforced by a socializing unit. For instance, a child in elementary school is given the opportunity to go on family outings and participate in school activities. Through this participation, the child develops interpersonal and academic skills and is positively reinforced by good grades, teacher support, and peer acceptance. The reinforcement is perceived as a reward, which enhances the child’s attachment to pro social units like the parents or teacher. Attachment to a pro social teacher or family member leads to the development of pro social beliefs and values. The perceived rewards coupled with attachments, beliefs, and values lead to pro social opportunities in the middle school developmental period (Catalano & Hawkins, 1996; Hawkins & Weis, 1985).

The antisocial pathway occurs within the same context, except with opportunities for antisocial involvement, antisocial skills, and perceived rewards for problem behaviors. Once the problem behavior is reinforced by antisocial socializing units, attachments are formed which lead to the development of antisocial beliefs and values. Risk factors play a key role in the antisocial pathway because they may overwhelm opportunities for pro social involvement (Catalano &
Hawkins, 1996). For example, a family from an impoverished, rural neighborhood may not have access to after-school programming or other community resources.

Accounting for risk factors represents a key feature of the SDM even though they are secondary to the model. Moreover, risk factors are assumed to have only an indirect impact on antisocial behavior (Catalano & Hawkins, 1996). SDM’s conceptualization of risk factors involves exogenous factors and internal constraints. Exogenous factors consist of demographic variables like race, gender, and SES as well as psychological and biological factors such as impulsivity and cognitive ability. External constraints are also exogenous factors, which are defined as social reactions to behaviors that affect the degree of reinforcement (Catalano & Hawkins, 1996). An example of a formal external constraint is school discipline policies, whereas peer disapproval depicts an informal external constraint.

Internal constraints consist of morals, beliefs, and values. The SDM postulates that bonds to pro social institutions prevent delinquent behavior because these institutions facilitate the internalization of pro social norms and values (Catalano & Hawkins, 1996). Furthermore, different risk factors are assumed to manifest in each of the four developmental periods. Family risk factors are more prevalent in the preschool period, while peer risk factors typically manifest in the high school period (Catalano & Hawkins, 1996).

SDM explains juvenile offending through perceived opportunities for antisocial behavior, degree of involvement in antisocial activities and interactions, skills for such activities and interactions, and perceived rewards for antisocial behaviors (Catalano & Hawkins, 1996). Risk factors also influence antisocial behavior because risks in the family, community, school, or peer group can overwhelm opportunities for pro social behaviors.
Early stages of development are key timeframes to consider when assessing the etiology of delinquency (Garry, 1996). Intervening in the early developmental periods like preschool or elementary school can decrease risk factors or increase protective factors, thus facilitating more pro social opportunities in the subsequent developmental periods. Early detection and intervention programs, such as TASC, may be crucial to preventing delinquency and other long-term problems like substance abuse and dropout (Catalano & Hawkins, 1996; Catalano et al., 1996; Garry, 1996).

Several studies have demonstrated SDM’s validity in predicting and explaining antisocial and pro social behaviors in children and adolescents (Catalano, Loeber, & McKinney, 1999; Fleming et al., 2008; Huang, Kosterman, Catalano, Hawkins, & Abbott, 2001). A 2001 study surveyed a sample of fifth graders from Seattle, WA (N=808) on SDM constructs to predict violence at age 18 (Huang et al., 2001). These SDM constructs included: 1) violent behavior at age 10, 2) violent behavior at age 13, 3) opportunities for pro social involvement, 4) opportunities for antisocial involvement, 5) amount of involvement in pro social activities, 6) interactions with antisocial peers, 7) skills for interactions with others, 8) rewards for pro social involvement, 9) rewards for antisocial involvement, 10) bonding to pro social peers, 11) bonding to antisocial peers, and 12) moral beliefs. Structural equation modeling confirmed that all but one construct were significant and in the expected direction. In other words, a construct like rewards for antisocial involvement was positively associated with violence at age 18, whereas opportunities for pro social involvement was negatively associated with violence at 18. The only insignificant path specified by SDM involved the construct of bonding to antisocial peers (Huang et al., 2001). A 1996 study, however, reported contradictory findings in that antisocial bonding predicted other delinquent behaviors such as drug use (Catalano et al., 1996).
SDM has been empirically shown to predict early antisocial behaviors during the earlier elementary school years as well (Catalano et al., 1999). First and second grade students from ten public elementary schools ($N = 938$) were sampled to determine the predictive ability of SDM constructs for more immediate behavior problems in subsequent elementary school grades. Children, parents, and teachers completed surveys measuring SDM constructs such as opportunities for family involvement, involvement in family activities, rewards for family involvement, skills for interaction and involvement, attachment to parents, and beliefs in family values. Third and fourth grade behavioral problems represented the outcome variable. Structural equation modeling using confirmatory factor analyses indicated that the model explained 25% of the problem behaviors. Contrary to the hypothesis, skills were not related to rewards (positive reinforcement), but were inversely correlated with antisocial beliefs and problem behaviors (Catalano et al., 1999).

An additional analysis compared a problem parent subgroup to a non-problem parent subgroup. Findings indicated that skills had stronger protective effects in the problem parent group than the non-problem group (Catalano et al., 1999). Implications from this finding emphasized the role of skill development in young children, especially for those youth whose parents model negative behavior. Findings may also suggest that school-based programs should seek to enhance cognitive, social, and emotional skills during the early developmental periods and to reduce parents’ modeling of problem behaviors through interventions such as parenting skill classes (Catalano et al., 1999).

Many previous SDM studies were limited due to their homogenous samples, which limited external validity. For instance, a 1999 study’s sample consisted of only 18% minorities and 25% low SES families (Catalano et al., 1999). To address this limitation, a 2005 study
examined whether SDM risk factors generalize to different ethnicities and income levels in terms of predicting substance abuse and violent behaviors (Choi, Harachi, Gilmore, & Catalano). The risk factors included poor parental monitoring, lack of neighborhood safety, antisocial peer beliefs, lack of family socialization, low bonding with parents, and youth antisocial beliefs. Findings indicated that different racial and ethnic groups shared common risk factors for antisocial behaviors and thus provided evidence that risk factors from SDM could explain behaviors across ethnic and income groups (Choi et al., 2005).

A similar study used pro social SDM constructs to test the model across gender and income level (Fleming et al., 2002). An examination of skills, opportunities, involvement, positive reinforcement, attachment, beliefs, and problem behaviors revealed similarities across gender and income level (Fleming et al., 2002). TASC serves many African Americans from low SES households (LSU, 2012), and thus, the SDM represents an empirically validated model from which to explain problem behaviors and predict pro social and antisocial pathways among TASC participants.

**Risk and Protective Factors: Truancy**

Relatively few studies have examined truancy risk and protective factors and the existing studies rarely included elementary school children. Due to the strong relationship with juvenile crime, more truancy risk factor research is needed to inform intervention development (Baker et al., 2001; Teasley, 2004). Relevant studies on truancy risk factors are described below.

In a secondary data analysis of the Denver Youth Study, researchers examined truancy risk and protective factors of truancy for a sample of at-risk elementary school students (Henry & Huizinga, 2007). The strongest predictors of truancy were feeling unsafe at school, delinquent peer group, and gangs in the school. In contrast, predictors for fewer absences were high
academic performance, sports participation, positive teaching practices, positive student-teacher relationships, and association with pro social peers (Henry & Huizinga, 2007). Other protective factors such as parental participation in their child’s schooling were observed in a 2002 study. The probability of truancy decreased when parents monitored the child’s homework and school performance as well as communicated with school personnel (Epstein & Sheldon, 2002).

A similar study sought to examine the characteristics among truant students from an older sample of 8th and 10th graders (Henry, 2007). Using data from the Monitoring the Future survey, the author compared a truant group of students to a non-truant group. The strongest predictors of truancy were low parental education, unsupervised time after school, low educational aspirations, poor grades, and drug use (Henry, 2007). No significant differences were found for size of the community and gender, and only slight differences were observed across race (Henry, 2007). A 2002 study, however, found that truancy was worse in inner city and urban school districts consisting of high minority populations, especially African Americans and Hispanics (Epstein & Sheldon, 2002).

Other studies have taken the examination of risk factors a step further to differentiate truancy first time offenders to non-truancy first time offenders. Zhang and colleagues (2010) examined a large sample (N=100,955) of juvenile offenders from the South Carolina Department of Juvenile Justice database. Findings showed that the first referral truancy group was more likely to be younger, from low income families, have a family criminal history, and receive special education services. In addition, Caucasian females were more likely to receive first time referrals for truancy offenses (Zhang et al., 2010). These findings suggest that first time truancy offenders are a unique group that may require specialized interventions.
Lastly, a 2011 qualitative shed light on the complex interplay among the risk factors that produce truant youth (State Justice Institute, 2011). The study sought to investigate the context of truancy in Baltimore, MD and its surrounding counties by conducting focus groups with knowledgeable informants. The focus groups consisted of participants from law enforcement agencies, social service providers, parents, and school staff. A total of 64 participants from five study jurisdictions participated in the focus groups. Findings indicated several themes highlighting the underlying causes of truancy. The themes included poverty (lack of food, clothing, and person hygiene), unstable housing (frequent student moves), insufficient parental values placed on education, individual needs of the children (mental health and learning disabilities), inadequate supervision (lack of early identification for truancy), transportation challenges, safety (gangs and neighborhood violence), and family difficulties (substance abuse, incarceration, and neglect). The study concluded that truancy is a complex behavior composed of inter-related risk factors that necessitate a complex solution involving the entire community (State Justice Institute, 2011).

School social workers must understand risk and protective factors to effectively address truancy. These practitioners must understand the context of truancy through an examination of individual, family, socioeconomic, and community influences (Teasley, 2004). Moreover, the developmental context of these factors must be considered in developing individually tailored treatment plans to prevent continued truancy and subsequent juvenile offending (Teasley, 2004).

**Risk Factors: Juvenile Offending**

Howell (2003) defined risk factors as elements in a person’s life that increase vulnerability to negative developmental outcomes and increase the likelihood of maintaining
problem conditions. Protective factors can serve to buffer the impact from risk factors, interrupt their causal process, or prevent their initial occurrence.

Common risk factors for juvenile offending include poverty, poor parenting skills, impulsivity, low intelligence, perinatal complications, large family size, and parental criminal behavior (Farrington, 1996). Many more risk factors exist, though, making them difficult to classify for the purpose of intervention development. To address this issue, a group of 39 experts in the fields of psychology, sociology, and criminal justice categorized risk factors in five domains, which are as follows: 1) individual, 2) family, 3) peer group, 4) school, and 5) neighborhood or community (Wasserman et al., 2003).

**Individual Factors**

**Demographics**

Studies have shown mixed findings regarding gender, race, and age as demographic predictors of juvenile delinquency. A 2007 study used a combination of childhood factors to predict a number of adult outcomes including school success, incarcerations, and conviction. Female gender significantly reduced the likelihood of incarcerations and convictions, and was positively associated with school success (i.e., high school completion). African American race was not significantly associated with incarcerations or convictions (Ou, Mersky, Reynolds, & Kohler, 2007). Another study found similar results using data from a sample of high risk youth in Seattle, WA to predict offense trajectories. Male gender was a significant predictor of serious offending in adolescence, whereas African American race was not (Chung, Hill, Hawkins, Gilchrist, & Nagin, 2002). A 1998 study using a Denver, CO sample found no differences between African Americans and Caucasians at age six. However, differences in offending emerged over time and by age 15, 51% of the African American group had committed a serious
delinquent offense as compared to 28% of the Caucasian group (Loeber, Farrington, & Waschbusch, 1998). Furthermore, the African American group maintained a higher rate of offending at the age of 16 (27%, 19%, respectively). A study using a sample of high-risk youth from Pittsburgh, PA indicated that age was positively associated with delinquency and increased the odds of becoming a persistent delinquent offender. A similar study shed light on differences between two groups of juvenile offenders, a first offense truancy group and a first offense non-truancy group (Zhang et al., 2010). The group whose first offense was truancy differed significantly in terms of age, race, and gender. Young age, Caucasian race, and female gender were significantly associated with the first offense truancy group.

**Childhood behavioral problems**

Multiple studies have linked childhood behavioral problems to later delinquency. A study based on Pittsburgh Youth Study (PYS) data found childhood conduct problems to be the strongest predictor of persistent delinquent behavior (Pardini, Obradovic, & Loeber, 2006). Another PYS study showed strong correlations between multiple child characteristics and persistent serious offending (Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikstrom, 2002). Predictors included: being cruel to people, low accountability for behaviors, low trustworthiness, being manipulative, and inability to feel guilt (Stouthamer-Loeber et al., 2002). Furthermore, children with high measures in being cruel, manipulative, and lacking guilt were more than three times likely to engage in persistent serious offending (Stouthamer-Loeber et al., 2002). Studies have also consistently demonstrated that aggression is a childhood predictor of later offending (Bor, McGee, & Fagan, 2004; Chung et al., 2002; Herrenkohl et al., 2001). Chung et al. (2002) found that aggressive behaviors in childhood predicted serious offending in a Seattle, Washington sample. Another Seattle study showed that teacher-rated antisocial behavior among
a sample of ten year olds significantly predicted later violence (Herrenkohl et al., 2001). A similar Australian study found that aggressive behaviors at age five predicted antisocial behaviors at age 14 (Bor et al., 2004). Logistic regression analyses showed that children’s problem behaviors at age five tripled the likelihood of adolescent antisocial behavior (Bor et al., 2004). Additionally, externalizing behaviors such as bullying, disrespectfulness, fighting, and temper control have shown strong correlations with juvenile delinquency referrals (Green, Gsten, Greenwald, & Salcedo, 2008).

**Academic factors**

Academic factors such as low IQ, poor academic achievement, special education status, and grade retention have been shown to predict delinquency (Bor et al., 2004; Farrington, Coid, & Murray, 2009; McCord & Ensminger, 1997). A 2009 study found that childhood risk factors for criminal offending included: low non-verbal IQ, low verbal IQ, and low academic achievement (Farrington et al., 2009). Low academic performance at age 10 has also been linked to self-reported violent behavior at age 18 (Herrenkohl et al., 2001). Additionally, poor language ability at age five was shown to predict adolescent antisocial behavior in an Australian sample (Bor et al., 2004). On the other hand, high intelligence reduced the probability of criminal violence and offending in both a Chicago and Pittsburgh sample (McCord & Ensminger, 1997; Stouthamer-Loeber et al., 2002).

In regard to special education status, a 2001 meta-analysis found that a history of special education status was predictive of criminal recidivism in juveniles (Cottle, Lee & Heilbrun, 2001). A 2010 study indicated that special education status was more common among a group of truancy offenders in comparison to a group of non-truancy offenders. In contrast, special
education status between the ages of 7 – 14 was not a significant predictor of adult crime according to a 2007 study (Ou et al., 2007).

Previous studies have also linked grade retention, or previous grade failure, to delinquency and adult crime. A 1989 meta-analysis indicated that grade retention in early elementary school had a negative impact on long-term behavioral outcomes (Holmes, 1989), while cascade modeling in a 2008 study showed that grade retention predicted adolescent violence (Dodge, Greenberg & Malone, 2008). A 2005 study compared a delinquent cohort to a non-delinquent cohort, and indicated that grade retention was a significant predictor of delinquency (Wang et al., 2005). In contrast, a 2007 study indicated that grade retention between the ages of 7-14 did not significantly predict adult crime (Ou et al., 2007).

**Impulsivity and hyperactivity**

Impulsivity and hyperactivity in childhood represent risk factors for delinquency (Bor et al., 2004; Farrington et al., 2009; Herrenkohl et al., 2001). A 2001 study found that teacher rated hyperactivity and low attention span at age 10 was linked to violent behavior at age 18 (Herrenkohl et al., 2001). A 2004 study showed that inattention and restlessness assessed at age five were related to adolescent antisocial behavior (Bor et al., 2004). More recently, researchers found that poor concentration and high impulsivity in childhood were risk factors for criminal offending (Farrington et al., 2009). On the other hand, a 2006 study did not find a significant correlation between impulsivity/hyperactivity when controlling for interpersonal callousness, conduct problems, and inattention (Pardini et al., 2006). These mixed findings indicate that hyperactivity and impulsivity may indirectly affect juvenile offending through a mediating variable.
Lack of empathy

A 2004 meta-analysis examined 35 studies to assess the relationship between empathy and offending (Joliffe & Farrington). The analysis differentiated cognitive empathy and affective empathy. The authors defined cognitive empathy as one’s ability to understand the emotional state of another. Affective empathy, on the other hand, involved the ability to share someone’s emotional state (Joliffe & Farrington, 2004). Findings indicated that low cognitive empathy was strongly related to offending whereas low affective empathy showed a weak relationship to offending. In addition, low empathy in general was strongly related to violent offending, and weakly related to sexual offending.

Family factors

Genetics

The intergenerational transmission of offending was demonstrated in the Cambridge Study of Delinquent Development (Farrington et al., 2009). Findings indicated that convictions of fathers predicted convictions of their sons even after controlling for other risk factors (Farrington et al., 2009). However, controlling for childhood risk factors reduced the odds of second generation offending. Thus, reducing childhood risk factors may impact the intensity of the genetic factors (Farrington et al., 2009).

Socioeconomic characteristics

Low family income represents a strong childhood risk factor for offending (Bor et al., 2004; Farrington et al., 2009; Herrenkohl et al., 2001). A 2001 study indicated that low family income at age 10 was associated with violent offending at age 18 (Herrenkohl et al., 2001). Similar studies have found that low family income, large family size, young age of the mother at childbirth, and poor housing were childhood factors related to later criminal offending (Bor et
al., 2004; Farrington et al., 2009). In addition to mother’s young age at childbirth, low mother education attainment and single parent households predicted later serious offending (Green et al., 2008).

**Parenting techniques**

Problematic parenting techniques and low parenting skills represent risk factors for antisocial behavior. Harsh discipline measures, poor supervision, and low parent interest in education were linked to criminal offending in a 2009 study (Farrington et al., 2009). A 2004 longitudinal study examined the relationship between problematic parenting, history of antisocial parental behavior, and subsequent offspring aggression during adulthood (Johnson et al., 2004). Findings indicated that problematic parenting behavior during the childhood years mediated the relationship between a history of parental antisocial behavior and subsequent adult offspring aggression (Johnson, Smailes, Cohen, Kasen, & Brook, 2004). Another study examining parenting techniques found that variables such as ‘allows much freedom’ and physical punishment showed strong relationships with the later offending. Furthermore, high parental affect and ‘teaches baby’ showed a negative correlation with antisocial behavior (Bor et al., 2004). Moreover, Chung et al. (2002) found that poor family management practices like inconsistent rules and low supervision significantly predicted offending at age 13.

On the other hand, some studies have produced mixed findings regarding parenting skills. For instance, a 2010 study found that high parental monitoring was related to antisocial behavior, but only in single parent households. The opposite was found for high monitoring two parent households (Tiet, Huizinga, & Byrnes, 2010).

Perinatal and prenatal factors have also been linked to antisocial behavior. Mothers’ prenatal use of alcohol and tobacco depict risk factors for adolescent antisocial behavior and
delinquency referrals (Bor et al., 2004; Green et al., 2008). Low birth weight is another predictive factor of later antisocial behavior (Bor et al., 2004).

These findings provide implications for parenting skill classes, especially for those parents with a history of criminal behavior. Parents with a history of antisocial or criminal behavior may need to attend classes to improve upon their parenting techniques due to the strong relationship between poor parenting practices and adult offspring offending (Johnson et al., 2004). By enhancing parenting skills while the offspring are still young, parents may reduce the rates of later aggression regardless of the parents’ history of criminal problems (Johnson et al., 2004).

**Family volatility**

The relationship between family volatility and antisocial behavior has been demonstrated in many studies. A 2009 study found that parental conflict and a disrupted family were associated with criminal careers in adulthood (Farrington et al., 2009), whereas a 2001 study linked parental attitudes towards violence to later offending (Herrenkohl et al., 2001). A 2004 study found that multiple marriages, marital conflict, parental arrest, and parental imprisonment during childhood were linked to antisocial behavior at age 14 (Bor et al., 2004). Similarly, a 1997 study used early home leaving during adolescence (age 15-16) as a proxy for unstable home life (McCord & Ensminger). Findings showed that early home leaving increased the risk of adulthood violence among both males and females (McCord & Ensminger, 1997). A 2002 study used data from the Pittsburgh Youth Study to reveal that poor parent-child relationships predicted persistent serious offending (Stouthamer-Loeber et al., 2002). Furthermore, strong family bonds were related to better adjustment and low rates of antisocial behaviors in a high risk sample from Denver, CO (Tiet et al., 2010).
School Factors

Low school attendance, poor school bonding, and school delinquency rates represent school-related risk factors (Chung et al., 2002; McCord & Ensminger, 1997; Stouthamer-Loeber et al., 2002). A 1997 study revealed that low school attendance during the first grade (fewer than 182 days attended) increased the risk of later violence for both males and females (McCord & Ensminger). Chung et al. (2002) identified the link between low academic achievement, low school bonding, and persistent offending in a Seattle, WA sample. School bonding was defined by the child’s commitment and attachment to school. Commitment referred to the child’s work habits in class, while attachment reflected the extent to which the child liked school (Chung et al., 2002). Low school bonding and low standardized test scores predicted the likelihood of persistent minor and serious offending at age 13 (Chung et al., 2002). Bonding to teachers, on the other hand, predicted lower rates of antisocial behavior in a 2010 study (Tiet et al., 2010). In a sample of high risk males from the Denver Youth Study, Tiet and colleagues found school commitment also predicted better adjustment. Low levels of school commitment predicted increased involvement with delinquent peers, which in turn, predicted higher rates of antisocial behavior (Tiet et al., 2010). High delinquency rates in the school have also been shown to increase the likelihood of later offending (Farrington et al., 2009). Farrington and colleagues demonstrated this relationship using secondary data from the Cambridge Youth Study (Farrington et al., 2009).

The relationships between childhood risk factors and violence at age 18 are largely mediated by adolescent factors, especially those that fall within the individual and school domains such as academic performance, level of commitment to school, and aspirations to advance an education (Herrenkohl et al., 2001). Therefore, interventions should target risk
factors identified in the elementary school years to address the adolescent processes that may lead to later violence (Herrenkohl et al., 2001).

**Peer Factors**

Research has demonstrated that peer factors influence offending, especially during adolescence. Antisocial peers, peer delinquency, gang membership, and peer violence have been shown to predict juvenile offending (Chung et al., 2002; Herrenkohl et al., 2001; Stouthamer-Loeber et al., 2002; Tolan, Gorman-Smith, & Henry, 2003). In a Seattle, WA sample of high risk youth, Chung and colleagues found that antisocial peers and availability of drugs increased the likelihood of the serious offenses such as robbery, assault, and theft by the age of 13 (Chung et al., 2002). Herrenkohl et al. found similar results in a 2002 study that linked involvement with antisocial peers with offending at age 18. Another study found a relationship between gang membership and violent behaviors, but other factors like peer violence weakened this relationship (Tolan et al., 2003). In regard to promotive factors, a recent study found that antisocial behaviors were less likely among youth not involved with delinquent peers (Tiet et al., 2010). Involvement with antisocial peers represented a significant risk factor for offending at age 18 according to a 2001 study (Herrenkohl et al., 2001).

**Community Factors**

Risk factors for delinquency and adult criminality also manifest within the broader community. Drug availability, poverty, neighborhood disorganization, and discrimination have been linked to juvenile offending (Chung et al., 2002; Herrenkohl et al., 2001; McCord & Ensminger, 1997; Stouthamer-Loeber et al., 2002; Tolan et al., 2003). A 2002 study found that drug availability during childhood increased the likelihood of serious offending by age 13. Similarly, a 2003 study revealed that availability of drugs at ages ten and 14 were associated
with offending at age 18 (Herrenkohl et al., 2001). In regard to poverty, a 2002 study found that serious delinquency was more heavily concentrated in low SES areas, whereas higher SES areas were characterized by more promotive factors (Stouthamer-Loeber et al., 2002).

Another study examined poverty as well as other neighborhood structural characteristics such as ethnic heterogeneity, economic resources, and violent crime (Tolan et al., 2003). Findings suggested that these community characteristics significantly predicted higher self-reported rates of neighborhood problems and marginally predicted lower rates of neighborliness (Tolan et al., 2003). Despite living in high risk neighborhoods, though, a 2010 study found that protective factors like strong family and teacher bonds, low parental discord, few adverse life events, and low peer delinquency predicted resilience over time (Tiet et al.). Resilience was defined by high adjustment and low levels of antisocial behavior (Tiet et al., 2010).

Exposure to discrimination represents another predominant community risk factor. A 1997 study linked exposure to discrimination to criminal violence among a predominantly African American sample (N=953) from an impoverished area in Chicago, IL (McCord & Ensminger, 1997). Findings showed that exposure to discrimination increased the risk of violence and alcoholism among men. Women, on the other hand, were at increased risk of depression after exposure to discrimination in their community (McCord & Ensminger, 1997).

**Cumulative Impact of Risk Factors**

Studies have identified the cumulative impact of risk factors in that an increased number of risk factors increase the probability of later offending (Green et al., 2008; McCord & Ensminger, 1997). One study compared a high-risk group to a low-risk group in terms of juvenile delinquency referrals. The groups were classified according the number of risk factors. Findings showed that the high risk group was eight times more likely to receive a juvenile
delinquency referral than the low risk group, demonstrating this cumulative effect (Green et al., 2008). These findings imply the need for practitioners to identify and target highest risk subgroups for intensive interventions.

Findings from juvenile delinquency intervention studies agree about targeting the most at-risk subgroups. Two meta-analyses on school based delinquency prevention programs revealed higher success rates for the most at risk children (Wilson, Lipsey, & Derzon, 2003; Wilson & Lipsey, 2007). Risk indexes may be an appropriate strategy for schools to accurately identify and treat these high risk groups (Green et al., 2008). The TASC program targets the highest risk students by utilizing the RISK I assessment and the teacher referral form as a mechanism to differentiate the high risk group from the low (LSU, 2012).

**Protective Factors**

The term resilience is used to describe those vulnerable children who overcome a number of risk factors and graduate from high school while avoiding contact with the justice system (Howard, Dryden, & Johnson, 1999; Tiet et al., 2010). Research has demonstrated that the more protective factors, the more likely children are to exhibit resilience (Howard et al., 1999). In addition, protective factors have been shown to interact with risk factors and buffer their effects (Stouthamer-Loeber et al., 2002).

Major findings from the Denver Youth Study (DYS) addressed protective factors by identifying predictors of successful adolescence (Browning & Huizinga, 1999). Success was defined as minimal involvement in delinquency and drug use, placement in the age appropriate grade, graduation from high school, and good self-esteem (Browning & Huizinga, 1999). Only 39% of the youth were considered successful by ages 15-19, but results identified protective factors from multiple domains. Stable family life, good parental monitoring, pro social peers,
and positive expectations for the future represented the best predictors of success. The chance of success was very small when the number of risk factors exceeded the number of protective factors (Browning & Huizinga, 1999).

Tiet and colleagues (2010) explored predictors of resilience in another study using data from the Denver Youth Study. Despite living in high risk neighborhoods, the authors found that resilience was related to strong family and teacher bonds, low parental discord, few adverse life events, and low peer delinquency (Tiet et al., 2010). Another DYS study found that strong family bonds, school commitment, few adverse life events, and low involvement with delinquent peers predicted high levels of adjustment and low levels of antisocial behavior (Tiet, et al., 2010).

A similar 2007 study used a low income, minority sample to determine the promotive factors associated with school success. Findings indicated that reading scores, classroom adjustment, parental involvement with the school, and female gender predicted school success (Ou et al., 2007). Although vast amounts of literature address risk, relatively few studies examine protective factors (Shader, n.d.; Tiet et al., 2010).

Preventing juvenile delinquency is a very complicated endeavor since risk and protective factors vary from child to child (Shader, n.d.; Wasserman et al., 2003). Studying risk and protective factors is crucial to intervention development and improvement. By understanding these factors in the context of child development, practitioners can better tailor their programs to specific youth and communities (Shader, n.d.). Thus, risk and protective factor research can increase program efficiency and cost effectiveness for delinquency prevention programs (Shader, n.d.).
Social Work Case Management

Social work case management as a professional role was considerably expanded in the national push for deinstitutionalization for severely mentally ill people in the 1970’s (Rose, 1992). Due to the lack of social services and healthcare resources, the U.S. government supported the expansion of case management to help ensure that individuals could gain access to needed services (Rose, 1992). In 2005, the National Association of Social Workers (NASW) released a report on case management that clarified its definition and shed light on the expectations for social work case managers.

According to the report, case management in the social work profession involves assisting clients by planning, seeking, advocating for, and monitoring the delivery of social or healthcare related services. The process of social work case management should facilitate professional teamwork through a coordination of efforts among multiple agencies. Case management should mitigate issues relating to fragmented services, inadequate collaboration among providers, and staff turnover (Barker, 2003). Guiding principles of social work case management include individualized services, a therapeutic relationship, treatment in the context of the client’s environment, strength-based treatment, collaborative teamwork, and intervention at the micro, mezzo, and macro levels (NASW, 2005).

Truancy Intervention Literature

Truancy interventions have been developed and implemented in various ways. Some interventions are school-based, while other interventions are carried out by the court system, law enforcement, or human service organizations. Multifaceted interventions also exist, which involve close collaboration between the school, the court, law enforcement agencies, and human service organizations (LSU, 2010). Program evaluation studies of truancy intervention programs
have varied as well. Inconsistencies among studies are typically related to differences in sample sizes, focus of the intervention, and time period of the data collection. Most studies are riddled with methodological shortcomings such as small sample sizes, short-term follow-up evaluations, and lack of meaningful comparison or control groups (Sutphen, Ford, & Flaherty, 2010). Some prominent intervention studies are discussed and critiqued in the following subsections.

**School-Based Interventions**

The Check and Connect model illustrated an effective truancy intervention program for elementary school students (Lehr et al., 2004). A sample of 147 students was selected from nine elementary schools in an urban area of Minnesota. The sampling criteria involved an age range between 5 and 12 years old, high absence rates, low parental support, behavior problems, and low academic achievement. The Check and Connect intervention consisted of seven key components that included: 1) relationship building, 2) constant monitoring of improvements and setbacks, 3) individually tailored intervention plans, 4) a long-term commitment of at least two years, 5) close contact and involvement with the youth and family, 6) solution focused problem solving, and 7) access to and participation in school activities (Lehr et al., 2004). Participants in this study received the Check and Connect intervention for at least two years. Outcome variables were measured by student engagement (i.e., tardies and absences) during the most recent four months of the school year. Prior to the program’s implementation, 83% of the youth were categorized as ‘disengaged’, which was defined on a continuum between 2 and 20 days absent per month (Lehr et al., 2004). Results reflected a 135% improvement when compared to engagement baseline levels and a 63% overall improvement of attendance rates (Lehr et al., 2004).
Check and Connect shared similarities with the TASC program in terms of addressing multiple factors associated with childhood truancy and implementing the intervention with elementary age students. However, substantial variations existed in regard to sample demographics affecting the external validity of this study. About 75% of the participants in Check and Connect were Caucasians from Minnesota, whereas TASC serves many African Americans from Louisiana (LSU, 2012). Internal validity of the Check and Connect model was threatened by the reliance on a pretest-posttest methodology rather than using a control or matched comparison group (Lehr et al., 2004). Failure to use a comparison or control group can result in threats such as history, maturation, and statistical regression to the mean (Rubin & Babbie, 2008).

Another school-based truancy intervention program involved a family-school-community partnership where services were housed in twelve elementary schools located in Maryland, California, Minnesota, and Pennsylvania (Epstein & Sheldon, 2002). A school representative completed surveys on the attendance rates prior to and after the intervention. The intervention consisted of tracking attendances rates, a school contact person for truancy issues, awards for improving, after-school programming, referrals to counselors, home visits and educational workshops for parents, and truancy officers from the juvenile court (Epstein & Sheldon, 2002). Partial correlation coefficients revealed that all services had meaningful associations with improved attendance rates over a three year period with three exceptions. The use of counselors, truancy officers, and the practice of calling home to report truancy were not significant. Data collected in this study also assessed barriers to attendance through a parent survey. Parents indicated that homelessness, taking children on vacation with them, and lack of clerical staff at
the school to handle attendance issues represented the barriers to school attendance for their children (Epstein & Sheldon, 2002).

This study is distinguishable from other truancy intervention evaluations due to the universal nature of the intervention and because schools were used as the units of analysis (Epstein & Sheldon, 2002). The sample of 12 elementary schools from different geographic locations in rural and urban areas enhanced the external validity of the study. However, limitations existed because no suburban schools were included in the study. In regard to internal validity, this study did not utilize a control group. Lacking a control group may result in the internal validity threat of history (Rubin & Babbie, 2008). For instance, unmeasured variables such as classroom management practices could have explained the change in attendance rates (Epstein & Sheldon, 2002). Maturation may have characterized another threat since the follow-up was conducted after a three year period, and thus developmental changes may have explained the outcome variable.

The family-school-community partnership intervention outlined above differs from the TASC program because it represents a school-wide intervention. Participants in the TASC program are selected due to inclusion criteria such as five absences and scores on a risk assessment. Future research is needed to determine whether truancy prevention programs should be offered universally to all students or specially designated to the most high risk students.

Community-Based Interventions

Operation Weed and Seed represents a comprehensive community-based intervention targeting elementary school students (N=281) that involved collaboration between the court and the state department of social services in an urban, midwestern city (McCluskey, Bynum, & Patchin, 2004). This study utilized a pretest-posttest design to determine the programs’
effectiveness in reducing absentee rates among chronically truant elementary age students who had missed 20% or more days (McCluskey et al., 2004). Operation Weed and Seed consisted of four intervention stages that included: an initial letter to the family, truancy officer involvement, caseworker involvement from the department of social services, and formal petitions (charges) against the youth or parent from the court. Findings indicated mixed results in regard to the different interventions. Paired samples t-tests revealed that the first two intervention stages (letter and truancy officer) significantly reduced absentee rates after nine months. However, the second two intervention stages (caseworker and prosecution) did not reduce truancy rates during the same time period (McCluskey et al., 2004).

These results suggest alarming implications for TASC’s effectiveness by citing evidence that less intensive services, such as the letter, may be more effective in reducing truancy rates. Although the low risk TASC families receive a similar letter, the high risk group receives intensive case management services (Louisiana State University, 2010). According to Weed and Seed’s findings, the letter and a warning from a truancy officer would be sufficient to decrease truancy rates (McCluskey et al., 2004).

Further evaluations of Operation Weed and Seed must take place to address this study’s multiple limitations. This study failed to use an effective control group, which increased the risk of internal validity threats such as history, maturation, and statistical regression toward the mean. This study also used a short-term evaluation of only one academic school year and had a large amount of missing data that resulted in using only 58% of the sample (McCluskey et al., 2004). Treatment fidelity and geographic setting represent the primary concerns regarding Operation Weed and Seed’s external validity. The authors did not assess the impact or completion rates of case management interventions such as resources to address family issues (McCluskey et al., 2004).
2004). Also, this study took place in an urban city located in the Midwestern United States. Therefore, the findings may not generalize to various TASC sites due to their rural locations and service provision.

The Truancy Reduction Program (TRP) represents a similar approach to combating truancy through the use of various services that include assessments, home visits, case management, incentives, counseling, and mentoring (Van Ry & King, 1998). Probation officers served the role as case managers for students after four unexcused absences and worked with the families to identify and obtain needed services. Like the TASC program, the TRP staff would send a letter or call the parents prior to referral to more intensive services. A diverse sample of students (N=200) were selected from schools in different geographical regions of California. Findings indicated that 41.5% of the sample had no absences following the case management intervention and 60.5% had fewer than four unexcused absences. However, findings were mixed depending on the location of the school. Many schools’ communities had fewer community resources, and therefore, the intervention may have lacked fidelity to obtain optimal success. Another limitation involved the teachers’ limited participation and lack of input in the planning process (Van Ry & King, 1998).

The variation of services depending on geographic location and the necessity of the teacher’s role in the treatment planning provide implications for the TASC program. TASC sites are located all over the state of Louisiana, which include rural, suburban, and urban areas. One can assume that substantial variations exist regarding access to services and the quality and quantity of services offered. The teacher’s role, however, is emphasized in the TASC program because teachers make the referrals and assist in attendance monitoring (LSU, 2012).
Court-Based Interventions

In addition to school-based programs, some court-based interventions have provided evidence of limited effectiveness. One such court-based intervention in Idaho was evaluated through an exploratory study in 2006 (Mueller, Giacomazzi, & Stoddard, 2006). A sample (N=144) of truant students were referred to attendance court where the judge worked with the parents and youth. Once the family circumstances were assessed, the judge mandated social services, education classes, or monetary fines. Data were collected four months prior to the intervention and four months post intervention. Descriptive statistics indicated that attendance rates improved for 77% of the sample, and grades improved for 73% of the sample (Mueller et al., 2006). This study provided a strong description of the court-based truancy intervention and provided some initial positive results through descriptive statistics.

A more rigorous design using inferential statistics is needed to effectively evaluate this court-based intervention. For instance, this study’s limitations could be improved by utilizing a larger sample size, including a comparison group, and extending the time period of the follow-up. Future studies must also differentiate excused from unexcused absences in measuring the outcome variable(s).

Project Stop Truancy and Recommend Treatment (START) represented a more comprehensive truancy intervention that utilized the family court, school district, human service agencies, and other social service organizations to reduce truancy in a large urban setting. Project START targeted elementary, middle, and high school age youth (N=567) in a large urban setting located in the northeast United States (Fantuzzo, Grim, & Hazan, 2005). An intervention group and two comparison groups were compared at 30 days into the intervention, 60 days into the intervention, and at a one year post intervention follow-up.
The intervention group received Project START, the community-based treatment program, through a court referral. This process involved moving the court hearing to the child’s school to eliminate transportation and participation barriers for the family. Furthermore, case workers from human service organizations attended the hearings to educate and involve the families in their community-based services (Fantuzzo et al., 2005). Traditional court services were implemented for one comparison group while the other comparison group received no court referrals. Findings suggested that the two groups referred to court (Project START and traditional court groups) reduced their rates of truancy at one month post intervention. After 60 days, however, the intervention group (Project START) showed significantly lower rates of truancy than the traditional court group. The findings at one year post intervention suggested that truancy rates rose for each group, but the Project START group maintained significantly fewer unexcused absences than the other two groups according to Tukey post hoc comparisons (Fantuzzo et al., 2005). Thus, a comprehensive approach involving multiple stakeholders was recommended to reduce and prevent long-term truancy rates. TASC utilizes a similar approach as evident by involving stakeholders from juvenile court, the school system, and social service agencies into the treatment planning process (LSU, 2012; Rhodes et al., 2010).

Project START addressed previous methodological shortcomings from other truancy intervention evaluations. Few other studies have utilized a longitudinal follow-up to the intervention or collected data at three different time frames. The study also involved a large sample and utilized meaningful comparison groups (Fantuzzo et al., 2005). However, certain limitations existed in reference to both internal and external validity.

Internal validity was limited due to the use of secondary data. The authors were restricted to archival databases and were unable to control for known truancy risk factors such as
special education status, number of suspensions, and socioeconomic status. In regard to external validity, truancy was defined by the local municipality and not specified in the study. Truancy interventions located elsewhere may refer services at different points in time based on the severity of the truant behaviors. Varying definitions of truancy across studies represent a major limitation in the truancy intervention literature (Sutphen et al., 2010).

In a rare mixed-methods design, Kimberly (2007) used focus groups consisting of teachers, administrators, and counselors to discuss the effectiveness of the Truancy Prevention through Mediation Program in Ohio. Participants were selected from various counties in rural and urban locations to enhance external validity of the study. Overall, there was much similarity among participant responses. Findings indicated that the program had a dramatic effect in improving attendance rates and other academic outcomes for the students. The analysis also identified themes around increased self-confidence among the children and less frustration among teachers. These findings were noted as residual effects of the program. Another unintended effect of the program was bridging the gap between parents and school staff. Participants reported that the school staff valued their time spent with the parents and developed a greater appreciation for the adversity that these families faced. Suggestions for program improvement involved the use of parenting skills classes helping families navigate logistical issues such as transportation barriers (Kimberly, 2007).

A limitation in the study was its sole focus on child outcomes rather than the intervention process. The role of the professional staff was not adequately addressed because questions were tailored toward outcomes rather than the process of serving the children and their families.
Law Enforcement Interventions

Studies on law enforcement interventions to reduce truancy have shown mixed findings. These interventions depict a widely utilized, but questionable approach to addressing truancy. A 2001 study evaluated a collaborative and non-punitive effort to reduce truancy in Richmond, California. Truants (N=178) were picked up by police who immediately contacted the youths’ parents and returned them to school (White, Fyfe, Campbell, & Goldkamp, 2001). Collaboration between the law enforcement agency, juvenile justice system, and the school influenced the enforcement of fines and other consequences. Outcomes were measured in terms of grade point averages, attendance, and discipline sanctions. Findings indicated a significant decrease in disciplinary incidents, but only an insignificant decrease in unexcused absences after 18 – 21 months. Results also suggested that formal arrests of the truants increased considerably in an 18 – 21 month post intervention follow-up (White et al., 2001).

Bazemore, Stinchcomb, and Leip reported similar findings in a 2004 study. This study compared 350 formally processed (charged and sentenced) truants to a control group of 200 truants who were questioned and released (Bazemore, et al., 2004). A 30-day post-intervention analysis indicated significantly decreased truancy rates for the formally processed group. Long-term truancy rates were then assessed by measuring absences through the end of the school year. Multiple linear regression models indicated significantly worse truancy rates for the formally processed group in comparison to the informally processed group (Bazemore, et al., 2004). These findings provide policy implications against the sole use of law enforcement and court sanctioning to reduce truancy.

The literature on law enforcement intervention adds to the overall knowledge on truancy prevention, but has little relevance to the TASC program. Regarding external validity, TASC
consists of a much younger population who are rarely arrested or formally processed in court (LSU, 2010). However, the strong association between formal juvenile court processing (arrested and charges filed) and later delinquency provides implications supporting programs like TASC. Rather than sanctioning the youth in a formal court setting, TASC attempts to divert youth away from the juvenile justice system by providing early intervention services to stop negative behaviors before they progress into middle and high school (LSU, 2010).

**Juvenile Delinquency Interventions**

Juvenile delinquency intervention studies for young children are numerous, especially in comparison to truancy interventions. A 2003 meta-analysis found 172 rigorous studies, whereas a 2007 follow up identified 249 (Wilson & Lipsey, 2007; Wilson et al., 2003). Some particularly effective interventions, as noted by the University of Colorado’s Blueprints for model programs, have included the Incredible Years (Webster-Stratton, Jamila Reid, & Stoolmiller, 2008), PATHS (Greenberg, Kusche, Cook, & Quamma, 1995; Kam, Greenberg, & Walls, 2003), and the Seattle Social Development Project (Hawkins et al., 1992).

The Incredible Years program was designed to promote emotional and social competence among prekindergarten and elementary school students. This program involved three curriculums for parents, teachers, and children. Parents received training in parenting skills like using positive reinforcement and discipline strategies, while teachers received training in classroom management techniques. The training for children, also known as the Dinosaur curriculum, involved social skill training, perspective taking, and anger management (Webster-Stratton et al., 2008). This program was evaluated in a randomized control trial targeting schools with a high percentage of low income students in Seattle, WA (N=1,768). The authors matched pairs of schools and then randomly assigned them to either an intervention or control condition.
Multiple dependent variables were measured through direct observation and questionnaires. At one year post intervention, findings indicated that the intervention group of students showed more social competence, self-regulation, and exhibited fewer conduct problems, whereas the teacher group used more positive classroom strategies. In addition, more teacher-parent communication was noted for the intervention group (Webster-Stratton et al., 2008).

This study depicted a substantially more rigorous design than the truancy interventions previously mentioned. The authors used a large sample size and control condition as well as randomly assigned groups. However, a few steps could have been taken to improve this study. The authors could have conducted additional follow-ups to determine the sustainability of the intervention. Also, a parent report measurement could have been used to assess behaviors at home rather than only teacher report measures and in-class observations.

External validity may have been sacrificed in this study due to the high level of internal validity. All schools were matched on size, geographic location, and demographic characteristics of the students (Webster-Stratton et al., 2008). Therefore, the results may not generalize to other student populations across the U.S.

The PATHS intervention represents another Blueprints Model Program (University of Colorado, 2012) that was tested in a 1995 study on a Seattle, WA sample of first and second grade students (Greenberg et al., 1995). PATHS is a school-based curriculum in which teachers receive a three day training and weekly consultation. The goal of the intervention is to reduce child behavior problems by increasing emotional and social competence. In a randomized control trial with randomization at the school level, the authors compared two intervention schools to two control schools. Findings showed that the intervention increased emotional competence and reduced disruptive behaviors, but did not improve social competence.
A similar study in Harrisburg, PA followed up on PATHS’ program effects in 2003 by examining the role of program implementation (Kam et al., 2003). Using a quasi-experimental matched group design, the authors examined PATHS’ impact on emotional competence and aggressive behaviors. Findings indicated that PATHS increased emotional competence and reduced aggressive behaviors only when principal support and implementation ratings were high. Thus, this study highlighted the need for treatment fidelity and administrative support in delinquency prevention programs (Kam et al., 2003).

PATHS studies reflected more rigorous designs than the previously mentioned truancy studies. A randomized control trial (RCT) is the gold standard for intervention research because it contains a control condition with random assignment to groups (Rubin & Babbie, 2008). RCT’s prevent many threats to internal validity like history, maturation, statistical regression to the mean, and selection bias (Rubin & Babbie, 2008). However, these studies used random assignment at the school level, which created the potential for selection bias due to different characteristics in the school samples. For instance, Kam and colleagues found that the ‘riskiest’ three schools received the PATHS intervention (2003).

Typically, RCT’s reflect high levels of internal validity, but lower levels of external validity (Rubin & Babbie, 2008). This phenomenon was evident in the 2003 study that used a predominantly African American sample from one city in the northeastern U.S. It is questionable how these results generalize to predominantly minority sample of TASC participants in Louisiana.

The Seattle Social Development project (SSDP) represents another effective intervention that the University of Colorado has labeled a promising program based on its evidence (Hawkins et al., 1992; University of Colorado, 2012). SSDP was similar to the Incredible Years because of
its multimodal approach involving teacher, student, and parent components. The teacher component consisted of classroom management and interactive teaching skills. Cooperative learning comprised the student component, while the parent portion involved voluntary parenting skills training (Hawkins et al., 1992).

SSDP was tested on a sample of first graders from eight Seattle, WA public schools using a quasi-experimental design with a ‘no intervention’ comparison group and four year follow-up. The dependent variables reflected constructs in the social development model, which included family practices, school attachment, beliefs and norms, and delinquency (Catalano & Hawkins, 1996). Findings showed that the intervention reduced rates of delinquency and alcohol use in addition to improved family management, and increased attachment and commitment to school (Hawkins et al., 1992).

A few limitations were evident in this evaluation of SSDP, even though it utilized a rigorous research design. For instance, the voluntary component of the parent training may have created a selection bias based on the motivation of some parents to attend. Also, self-reports from young children may not have been a reliable measure to assess complicated constructs like school attachment and commitment (Hawkins et al., 1992).

**Truancy Interventions versus Delinquency Interventions**

The previously mentioned studies differ from the truancy intervention literature in many ways. First, the research is extremely rich in the area of delinquency prevention interventions as evident by a 2007 meta-analysis that identified 249 rigorous studies on school-based delinquency prevention interventions (Wilson & Lipsey, 2007). Second, delinquency prevention research is much more rigorous than that of truancy interventions as evident by the use of experimental and quasi-experimental designs with comparison groups (Gandy & Schultz, 2007; Wilson & Lipsey,
Third, the sample sizes of delinquency prevention interventions are much larger than truancy interventions. For instance, the SSDP evaluation had a sample of 808 students (Kam et al., 2003). The fourth difference relates to the outcome variables used. Truancy intervention studies typically assessed the changes in truancy rates, whereas delinquency prevention studies examined aggressive behavior, emotional and social competence, and school bonding (Gandy & Schultz, 2007; Greenberg et al., 1995). Fifth, the delinquency prevention interventions were typically funded as research demonstration projects that paid careful attention to program fidelity (Wilson et al., 2003). Researchers pointed out the need for more evaluations of practical programs that can be sustained over time (Wilson et al., 2003; Wilson & Lipsey, 2007). Lastly, the delinquency interventions were universal in nature, meaning that the intervention targeted every student in the school. TASC represents a selected intervention due to its use with a specific population that engages in truant behaviors. The selected intervention approach is also more common in the truancy literature with the exception of Epstein and Sheldon’s 2002 study (Gandy & Shultz, 2007).

Delinquency prevention interventions provide interesting implications for TASC and other truancy interventions, even though they differ in many ways. For instance, a 2007 meta-analysis found that program implementation was the most important variable regarding program effectiveness (Wilson & Lipsey, 2007). Therefore, TASC and other truancy programs should emphasize the importance of treatment fidelity by including measures to examine the treatment process.

Another finding from the meta-analyses identified that school-based delinquency prevention interventions are effective, especially with high risk individuals (Wilson et al., 2003; Wilson & Lipsey, 2007). However, effect sizes were smaller for the multimodal approaches like
the Incredible Years, which involved the family, teacher, and student (Webster-Stratton et al., 2008). This limitation, though, highlights an advantage of the TASC program because the model separates low risk from high risk and mandates individualized treatment planning (LSU, 2012).

In regard to treatment differences, findings from two meta-analyses on delinquency prevention interventions indicated no significant differences between the single component interventions. Some studies used cognitive behavioral intervention components, while other used behavioral classroom techniques (Wilson et al., 2003; Wilson & Lipsey, 2007). Regardless of the intervention, the programs worked. Although this phenomenon must be investigated further, these findings may imply the need for the wide-spread use of universal single component interventions in high risk elementary schools. Truancy programs like TASC may consider adding a universal, classroom-based intervention for high risk schools in Louisiana.

Another finding from the meta-analyses revealed that most delinquency prevention studies were research led demonstration projects (Wilson et al., 2003; Wilson & Lipsey, 2007). These findings were consistent with Incredible Years, PATHS, and SSDP studies. The authors suggested that more non-researcher led, practical programs must be evaluated in order to determine a real-world, sustainable approach to preventing delinquency (Wilson et al., 2003; Wilson & Lipsey, 2007).

Lastly, delinquency prevention programs do not address truancy or evaluate truancy rates as an intermediary predictor of future behavioral outcomes. To this author’s knowledge, none of these programs use truancy as a criterion for participation in the intervention. This author will contribute to the knowledge base on delinquency prevention programs by evaluating a truancy intervention on juvenile justice outcomes.
Research Questions

The purpose of this study was to evaluate the effectiveness of the case management component of the TASC intervention on juvenile justice outcomes within a six year, post intervention time period. This study also examined the extent of juvenile justice involvement and predictive factors of juvenile justice involvement among TASC participants. The final portion of this study involved the collection of original qualitative data from TASC case managers to gain a deeper understanding about the case managers’ role in the intervention process. The research questions are as follows:

1) What is the extent of juvenile justice involvement among all TASC participants in East Baton Rouge Parish from 2006-2012?

2) What are the characteristics of all the TASC participants that predict juvenile justice system involvement within six years post intervention?

3) Does the case management component of TASC reduce the likelihood of subsequent juvenile justice involvement within six years post intervention?

   Hypothesis 1: The case management component of TASC will reduce the likelihood of juvenile justice involvement over a six year period.

4) What are the perspectives among TASC case managers regarding the effectiveness or ineffectiveness of the TASC intervention?
CHAPTER 3: METHODOLOGY

The proposed study utilized a mixed methods design. The quantitative portion consisted of a retrospective quasi experimental comparison group design using secondary data from the TASC and the Louisiana Office of Juvenile Justice (LAOJJ) databases. A regression discontinuity (RD) design was used to determine the effectiveness of the case management component of the TASC intervention. The qualitative study employed a grounded theory research design, which involved the collection of original data from TASC case managers through structured interviews.

This chapter addresses the methodology for the quantitative and qualitative portions of the study. The first section focuses entirely on the quantitative portion. It consists of a description of the sample, data collection methods, instrumentation, the research questions, and the variables. Next, the author discusses the data analysis for the quantitative study. The final section of this chapter addresses the qualitative investigation. The author discusses the grounded theory research design and then describes the methods for data collection and analysis.

Methodology for Quantitative Study

Sample

The sample for the quantitative analysis was drawn from a population of all the children referred to TASC during the time period of August, 2006 – December, 2012 (N = 4098). Data came from one urban parish in South Louisiana. Convenience sampling procedures were utilized because the TASC site in this parish was consistent in assigning group participation based on pre-intervention cutoff scores. Cutoff scores measured risk levels among participants and were derived from an algorithm based on the TASC referral form and RISK I survey. Participants who scored under 27 were placed in a low risk group (n = 2205), whereas those scoring 27 or
above were placed in the at-risk group \((n = 1893)\). The low risk group received a letter explaining compulsory attendance laws and continued attendance monitoring. The at-risk group received an individualized case management intervention. Using the RD design, the author compared the two groups to determine if case management reduced subsequent involvement in the juvenile justice system.

The population under investigation was composed of elementary school students (kindergarten – 5\(^{th}\) grade), who missed five school days or more in the parish’s (i.e., county) public school system. This population consisted of predominantly African American children (92\%) that attended failing schools in impoverished areas (LSU, 2009). The children who received TASC services are considered among the most vulnerable and at-risk children living in a mid-sized urban city located in south Louisiana. Caution should be exercised in generalizing the results of this study to broader populations because probability sampling procedures were not employed (Rubin & Babbie, 2008). Findings provided implications for similar populations, but should not be over-generalized to different regions of the United States or other TASC sites located in rural or suburban Louisiana parishes.

**Variables**

Independent variables for research questions two and three consisted of demographic characteristics, academic characteristics, a pre-intervention risk score, and group membership in the TASC program. Five variables were associated with demographic information including gender, race, grade, and age. Gender and race were dichotomous variables (male = 1, female = 0; African American = 1, other races = 0), and age was an interval-level variable that reflected the participants’ age at TASC referral. Grade was an ordinal variable that indicated the participants’ grade level (K – 5\(^{th}\)) at referral.
Special education status and grade retention comprised dichotomous, academic variables. Special education status was indicated if a student received special accommodations for a diagnosed disability. Grade retention was indicated if the participant ever failed a grade in school.

The pre-intervention risk score, taken from the RISK I survey and TASC referral form, was an interval independent variable that reflected risk severity. The final independent variable was group membership in the TASC case management intervention, which was determined by the pre-intervention risk score. This dichotomous treatment variable depicted whether the participant was placed in the treatment or comparison group (treatment = 1; comparison = 0). Although the pre-intervention risk score and dichotomous treatment variable are closely associated, Shadish and colleagues (2002) recommend including the pre-intervention assignment score as an independent variable along with the treatment variable (Shadish, Cook, & Campbell, 2002).

Juvenile justice involvement among TASC participants was the dependent variable. This variable was defined as any contact with the juvenile justice system after completing the TASC intervention. Involvement could be characterized as any arrests, referrals to the juvenile court, or re-referrals to TASC. Due to the vulnerable nature of the TASC population, the author assumed that formal justice contact would be sufficient to comprise the dependent variable. However, an investigation into the Louisiana Office of Juvenile Justice database revealed that very few TASC participants from 2006-2012 experienced formal contact with the justice system. Therefore, the author expanded the definition to include TASC re-referrals. TASC re-referrals are justified in the context of the dependent variable because the Louisiana Children’s Code states that truancy offenses are grounds for referrals to the Families in Need of Services (FINS). FINS is a
designation for status offenders in juvenile court that requires the youth and family to engage with a FINS intake officer to receive social services that aim to prevent future offending (Louisiana Supreme Court, n.d.). Services provided through FINS are monitored by the juvenile court and elementary school children would be referred directly to FINS if TASC did not exist. Furthermore, some TASC sites work interchangeably with FINS services. The Jefferson Parish TASC site, for instance, designates TASC case managers as FINS intake officers, who follow FINS processes in working with families (Jefferson Parish Juvenile Court, n.d.). Therefore, counting TASC re-referrals as juvenile justice involvement is warranted due to similarities with FINS.

Extent of juvenile justice involvement was a key term for answering research question one. This term was defined as the number of juvenile justice contacts and disposition severity among the TASC cases identified in the LAOJJ database. The number of juvenile justice contacts referred to the number of arrests or referrals to the juvenile justice system within six years post intervention.

Disposition severity was defined by the judges’ most severe disposition (i.e., sentence) rendered within six years post intervention. The five categories of dispositions are as follows in order from most to least severe: 1) custody secure, 2) custody non-secure, 3) custody non-secure and FINS, 4) probation, 5) probation and FINS, and 6) TASC re-referral (proxy for FINS due to truancy offense).

Custody secure referred to juveniles that were taken into state custody and placed in a long-term secure care facility (e.g., juvenile detention) that was operated by the LAOJJ. Offenders placed in these facilities were adjudicated (i.e. charged) with a delinquent offense that may have included: murder, assault, theft, burglary, and rape among other serious offenses.
Custody non-secure, the second disposition type, depicted participants who were also adjudicated delinquent and placed in the state’s custody. These youth typically receive less punitive dispositions by being sentenced to either community-based services (e.g., in-home family therapy or intensive case management) or non-secure facilities such as residential treatment facilities, group homes, or therapeutic foster homes (Louisiana Supreme Court, n.d.).

The third disposition type, custody non-secure and FINS, referred to youth who were charged with status (i.e., misdemeanor) offenses and placed in the state’s custody. Status offenses are those that would not be considered illegal if the offense was committed by an adult. Examples of status offenses include running away, ungovernable behavior, and truancy. These youth are typically placed in non-secure facilities (e.g., group homes or therapeutic foster care), and their families are referred to a FINS intake officer who assists them in accessing various community-based services such as parenting classes or mental health counseling (Louisiana Supreme Court, n.d.).

Probation was the fourth disposition type and may occur when the youth is charged with either a status or delinquent offense. In probation dispositions, the judge typically rules that the youth can remain in the parents’ custody under certain stipulations. These stipulations vary depending on the judge and court location, but may include drug tests, community service, and regular school attendance (Louisiana Supreme Court, n.d.).

The fifth disposition type was probation and FINS. This disposition is rendered when the youth is charged with a status offense, yet remains in the custody of the parents or primary caregiver. The youth and family are referred to a FINS case manager who assists them with obtaining necessary social services.
TASC re-referrals represent the final disposition and least severe disposition. Re-referrals are included as dispositions because of program similarities with Families in Need of Services (FINS), a juvenile court designation for status offenders. This group accounted for children who completed the TASC intervention (either at-risk or low-risk groups) and were later re-referred for truancy issues.

Deferred disposition agreement and informal adjustment agreement make up two other possible disposition options in Louisiana juvenile courts that were reported. Deferred disposition agreements occur when the youth admits to committing an offense, but the disposition is withheld pending certain circumstances (L.H. Abrusley, personal communication, December 13, 2013). For instance, the disposition may be contingent upon the youth completing a treatment program. An informal adjustment agreement is a similar court process in which the youth does not confirm or deny the charge, but meets certain conditions prior to court date so that the charges are not pursued (L.H. Abrusley, personal communication, December 13, 2013).

Instrumentation

TASC data were collected using two paper-and-pencil instruments, the TASC referral form and the RISK I survey. The original data from these instruments were entered into the TASC case management system database by staff members from the TASC site. This author extracted this secondary data from the TASC database for the purpose of the current study.

TASC referral form

Children are referred to TASC upon their fifth unexcused absence from school. The TASC referral form consists of four sections that request information about the person making the referral (typically the teacher), the child, school, and TASC function status. The first section requests the referral date, contact information of the referring person, the referring school, and
grounds for the complaint. Next, the referral form requests the child’s information such as contact information, date of birth, social security number, gender, race, and if the child receives free or reduced lunch. The third section involves school information as it relates to the referred child. These questions address the child’s current grade, number of grades failed, number of absences and tardies, special education status, current year suspensions, and number of overall expulsions. The fourth and final section is completed by a TASC caseworker and involves the date the referral was received and screened as well as the function status. The function status refers to the determination of the child’s risk level based on the RISK I. Children are deemed either low risk or at-risk. TASC protocol requires that the school’s teacher or another school staff person complete a referral form for any child after five unexcused absences (LSU, 2012).

**TASC RISK I survey**

The RISK I survey is completed by the teacher at the same time as the referral form. In some instances, the attendance clerk completes the referral form and gives the RISK I to the teacher for completion. The RISK I is a checklist that covers 12 areas that describe risk factors for continued truancy. These risk factors encompass individual and family characteristics and are broadly defined as: defiant, aggressive, parental attitudes, emotional response, risk-taking behavior, developmental issues, manipulative, isolated, attention seeker, unmotivated, and unstable home life. Under each area is a short list of more descriptive characteristics that illustrate the child’s risk level. For instance, the defiant category lists 1) Argues with authority figures, 2) Uses obscene language or gestures, and 3) Other. The teacher places a checkmark by each descriptive item under the broad category that applies to the child being referred. The RISK I survey and TASC referral form are faxed to the TASC site upon completion (LSU, 2012).
The RISK I survey has been empirically validated through a 2011 study that examined a large random sample \((N = 6239)\) from the 2004-2005 TASC cohort (Kim & Barthelemy, 2011). Exploratory (EFA) and confirmatory factor analyses (CFA) were used to examine the factor structure of the RISK I and to establish predictive validity by examining the association between the RISK I and the number of unexcused absences. Six new subscales emerged as a result of the EFA that included: conduct-related problems, lack of motivation, social problems, unstable home life, self-harm, and attention problems. A CFA was then used to confirm truancy risk with the six subscales. Four of the six subscales were significant and accounted for 49% of the variance in risk of truancy. Significant subscales were conduct related problems, lack of motivation, unstable home life, and social problems. The self-harm and attention problems subscales were removed due to low factor loadings. The total item score for reliability was .88, which indicates acceptable internal consistency for the 29 item RISK I survey (Kim & Barthelemy, 2011).

The RISK I survey and TASC referral form played an integral role in the proposed study because the composite risk score taken from these instruments was used for pre-intervention group assignment, which is necessary for the regression discontinuity (RD) design. The low risk participants made up the comparison group, while the at-risk participants comprised the treatment group. TASC researchers developed an algorithm that automatically calculates the risk score once the information is entered into the TASC database. In the current study, a score of 26 or below was categorized as low risk and these students received a parental notification letter that described Louisiana’s compulsory school attendance laws. A score of 27 or above was classified as at-risk and these participants were referred to the intensive case management intervention of TASC.
Data Collection

Individual level, administrative data was extracted from the Louisiana Office of Juvenile Justice (LAOJJ) database, which is housed in the LSU School of Social Work. Data were extracted from this database to cover the period of investigation from January 2006 through December 2012. LAOJJ data provided information for all juveniles involved in the justice system and information for each episode that occurred during this six year period.

TASC data were extracted from the TASC database, which is housed in the School of Social Work at LSU. These data provided demographic and academic information for all TASC participants in one urban parish in South Louisiana between the years of 2006 to 2012. The pre-intervention risk score and group membership (treatment vs. comparison) were also extracted for this study.

The researcher merged the TASC and LAOJJ datasets into an SPSS file. TASC participants with subsequent LAOJJ involvement were identified through a variable that combined social security numbers and birthdays. Participants who were re-referred to TASC were tracked by their client ID number to ensure accuracy.

Secondary data issues

There are several advantages and disadvantages to using secondary data. Secondary data analyses enable the researcher to use a large amount of data with numerous measured variables (Rubin & Babbie, 2008). Cost and efficiency depict other positive aspects of secondary data analyses. Studies using secondary data are often cheaper and less time consuming, than collecting original data (Rubin & Babbie, 2008). Many large secondary data sets contain information over a number of years. Thus, researchers can conduct longitudinal studies without spending many years on data collection (Rubin & Babbie, 2008). The final advantage of
secondary data analyses involves the avoidance of ethical concerns in the data collection procedures. In many instances, researchers do not have to obtain consent and participant risks are limited (Rubin & Babbie, 2008).

Certain problems are commonplace when using secondary data. Missing data, incorrectly entered data, or improperly coded data illustrate threats to large secondary data sets (Rubin & Babbie, 2008). Therefore, this researcher cannot assume that the data is free from error and must carefully check the data prior to analyses. In addition, the variables may be operationalized differently in subsequent studies than the original researcher intended. These differences in variable definitions may limit the construct validity of the secondary data analyses. Researchers using secondary data also cannot fully understand the quality of the original methods used to collect the data. Bias may have been introduced in the data collection due to lack of personnel training or invasive collection techniques (Rubin & Babbie, 2008).

Protection from Harm

The quantitative portion of the proposed study used secondary data, so there were no psychological, legal, or social risks to participants. Neither child nor parental consent was necessary due to a memorandum of understanding between the Louisiana Department of Education, LAOJJ, and the LSU School of Social Work. The research proposal was approved by the Louisiana State University Institutional Review Board (no. E8311). The approved Institutional Review Board application can be found in Appendix D.

However, all precautions were taken to protect the identity of study participants because the data sets contained names and social security numbers. Due to the identifiable information, these datasets were locked in a safe inside the LSU School of Social Work. Only two full-time social work staff possessed the code to the safe and would access the data when requested. Data
analyses were conducted on a specific computer in the LSU School of Social Work that was disconnected from the Internet. The data was secured after each usage and was never removed from the LSU School of Social Work building.

**Research Design**

The regression discontinuity (RD) design is a pretest-posttest two group quasi experimental design with assignment based on cutoff scores (Trochim, 1984). The pre-intervention cutoff scores for this study were based on the composite risk score derived from the Risk I survey and TASC referral form. The RD design was originally developed by Thistlewait and Campbell (1960) in educational psychology (Lee & Munk, 2008) and used to determine the effectiveness of remedial education programs (Jacob & Lefgren, 2002). RD designs are unique due to group assignment based on cutoff scores (Trochim, 1984). The notation of a RD design is as follows, where C depicts group assignment based on preprogram score, O represents the pretest and posttest and X is the intervention.

\[ C \text{ } O \text{ } X \text{ } O \]

\[ C \text{ } O \text{ } O \]

There are three minimal requirements to use RD designs. First, there must be a pretest value for each participant. Second, a cutoff score must determine which group each participant will be assigned. Third, a posttest value must exist for each participant (Lee & Munk, 2008; Trochim, n.d.).

Similar to other regression designs, several assumptions must be met in order to preserve internal validity when using RD (Lee & Munk, 2008). Group assignment represents the most important assumption of an RD design. Participants must be correctly assigned to groups based on the cutoff score. If over 5% of participants are incorrectly assigned to groups, the design is
considered fuzzy, which poses a major threat to internal validity (Shadish et al., 2002). Next, the RD design assumes that the regression model holds for the pretreatment relationship between the independent and dependent variables (Lee & Munk, 2008). In other words, the pretreatment regression line is assumed to be linear across the cut point. Third, RD design assumes that only treatment rather than other factors explain the discontinuity at the cut point. The fourth assumption is stable unit treatment value, which means that the treatment affects each participant independently (Lee & Munk, 2008). Thus, the number of participants or other group dynamics do not change the effects of the treatment. The final assumption of an RD design holds that the regression lines for the treatment and control groups should continue to be parallel beyond the cutoff boundary (Lee & Munk, 2008).

RD designs are commonly compared to randomized control trials (RCT’s) and nonequivalent group designs (Trochim, 1984). RCT’s are considered the gold standard for intervention research because of random group assignment, but are sometimes considered unethical due to withholding treatment from the control group. These designs are also plagued by high attrition rates due to high intensity treatments or the control group participants seeking services elsewhere. Nonequivalent group designs are criticized for inadequate comparison groups since the researcher does not control group assignment. Typically, selection bias threatens these studies because many involve volunteers in the treatment group (Trochim, 1984). RD designs are considered somewhere in the middle of RCT’s and nonequivalent groups design in terms of rigor. In comparison to the nonequivalent groups design, the researcher controls group assignment in the RD design, which may protect against selection bias (Trochim, n.d.). RD designs may also be favorable to RCT’s due to ethical concerns about the control group not receiving any intervention. RD designs are characterized by the group in most need receiving
the intervention (Shadish et al., 2002; Trochim, 1984). Furthermore, RD designs do not require a ‘no treatment’ comparison group and thus both groups receive some form of intervention (Trochim, n.d.). RD designs are at a disadvantage to RCT’s in regard to statistical power. Larger sample sizes are needed in RD designs due to the lack of random assignment. Specifically, an RD sample should be 2.75 times the sample of an RCT. Due to the need to maintain a large sample, attrition also represents a major threat to RD designs (Shadish et al., 2002).

**External Validity of RD Design**

External validity refers to ability to generalize results to broader populations. Several threats limit the external validity of quasi experimental research studies such as small samples, inadequate sample descriptions, issues with treatment fidelity, and undefined constructs or variables. This researcher employed a few strategies to enhance external validity of the current study. A large sample was used ($N = 4098$) and sample demographics such as race, gender, and age were differentiated. The researcher also examined academic characteristics such as grade retention and special education status as well as pre-intervention risk score to provide a clear description of the participants. Next, the researcher addressed treatment fidelity threats by removing participants from the analysis that did not complete the TASC intervention. Cases whose intervention status changed from the comparison group to the treatment group during the intervention were also removed from the analysis. Furthermore, quality assurance checks were conducted annually by LSU School of Social Work staff to preserve treatment fidelity (LSU, 2012). Lastly, the researcher utilized variables and constructs that are theoretically based in the academic literature (Rubin & Babbie, 2008).
Internal Validity of RD Design

Internal validity refers to the confidence that one variable did or did not cause another (Rubin & Babbie, 2008). History and attrition depict internal validity threats to the RD design. A history threat takes place when an unrelated event explains the treatment effect (Rubin & Babbie, 2008). This threat is plausible, but is unlikely in the proposed research study because extraneous events would have to occur in only one group (Shadish et al., 2002). Attrition threats are another common limitation that can skew the impact of treatment due to participants dropping out of the study (Shadish et al., 2002). In order to maximize internal validity, the author will determine group differences between the overall sample and the group that withdrew prematurely from the TASC intervention. Demographic and academic variables were analyzed to determine group differences.

Logistic Regression

Multiple logistic regression analyses were used to answer research questions two and three. Logistic regression enables the prediction of discrete outcomes or group membership from a set of predictor variables (Tabachnick & Fidell, 2007). The goal of logistic regression is to find the best linear combination of predictors to maximize the likelihood of obtaining an outcome. In contrast to linear regression, the outcome variable must be discrete since it depicts group membership (Tabachnick & Fidell, 2007). The predicted outcome is the probability of having one outcome over another. In the current study, a series of risk factors were entered into a logistic regression equation to predict the probability of whether or not a participant was subsequently involved in the juvenile justice system. Therefore, logistic regression aims to predict the category of the outcome (juvenile justice involvement/no juvenile justice involvement) for individual cases based on a set of predictors (Tabachnick & Fidell, 2007).
Assumptions of logistic regression involve the absence of multicollinearity, absence of outliers, linearity in the logit, and independence of errors. The logistic regression model is sensitive to multicollinearity, which can be detected by high standard errors. Absence of outliers can be identified by an examination of the residuals. Outliers should be deleted or transformed to avoid inflated means. Linearity in the logit refers to the continuous predictors’ relationship to the logit of the outcome variable. Although the predictor variables are not assumed to have a linear relationship to the outcome variable, a linear relationship is assumed to exist between the continuous predictors and the logit (Tabachnick & Fidell, 2007). Independence of errors assumes that responses of cases are independent of each other and that each response comes from a different, unrelated case. Therefore, logistic regression is only feasible as a between-subjects method.

Logistic regression can be favorable to linear regression in certain instances because predictor variables do not have to be linear or normally distributed. Also, equal variance within each predictor group (homoscedasticity) is not necessary in logistic regression (Tabachnick & Fidell, 2007). However, multivariate linear regression has stronger statistical power than logistic regression.

Several limitations to logistic regression must be considered when choosing this technique for an analysis. First and most importantly, the probability of correctly predicting group membership in logistic regression does not imply causation. Logistic regression is typically used in correlational studies to predict group membership based on a set of predictor variables. The predictor variables must be selected on a well justified or theoretical model because the elimination of predictors can be devastating to the overall effects. Similar to linear regression, too many or too few predictor variables will negatively impact the model. The next
limitation is the possibility of low frequencies in the outcome categories, which can cause low statistical power. Categories less than five should be collapsed or deleted (Tabachnick & Fidell, 2007).

Variable entry into the model is an important consideration in a logistic regression analysis. Three options for variable entry include: standard, sequential, and stepwise. A standard analysis occurs when all predictors are entered simultaneously and each predictor is evaluated as if it entered the equation last. A sequential analysis occurs when previous research specifies the order of variable entry. The third option, stepwise, enters and removes predictors based solely on statistical criteria (Tabachnick & Fidell, 2007).

Once the variables are entered into the equation, the author must assess the effect size of the model and determine which variables are significant predictors (p<0.05). The odds ratio is used to interpret the effect size in logistic regression analyses and is defined as the change in the odds of being in an outcome category when the value of a predictor variable increases by one unit (Tabachnick & Fidell, 2007). Odds greater than one reflects an increase in odds and those less than one depict a decrease.

Caution should be taken in the interpretation of logistic regression results. Large effect sizes do not imply causation and the strength of relationships could be confounded by a small sample size, too many predictors, or too few predictors (Tabachnick & Fidell, 2007). Lastly, the analysis could be missing important predictor variables that better explain the outcome.

**Power Analysis**

A statistical power analysis examines the relationships among the sample size (N), the significance level (alpha), power, and effect size (Cohen, 1992). The sample size must be known to determine the desired statistical power. As the sample size increases, power increases while
the significance level decreases (Cohen, 1992). The significance level, alpha, is a reflection of
the probability of committing a Type I error. A Type I error occurs when the null hypothesis is
incorrectly rejected (Cohen, 1992). In most social science research, alpha is assumed to be .05,
which means that there is a 5% chance of committing a Type I error. Power represents the
chance of committing Type II error and is denoted as 1 – beta (Cohen, 1992). A Type II error
occurs when the null hypothesis is incorrectly accepted. As power increases, so does the
probability of rejecting the null hypothesis when it is false (Pagano, 2001). A power of .80 is
considered acceptable in social science research, but can be difficult to obtain. Powers of .40 or
.60 are more common with smaller sample sizes (Pagano, 2001). Effect size is the most difficult
part of the statistical power analysis. The effect size should depend on the research question and
the statistics used (Cohen, 1992). In a regression analysis, effect sizes of .10 are considered
small, .30 considered medium, and .50 and higher considered large (Cohen, 1992).

In the current study, an RD design was used to examine the effectiveness of the case
management component of TASC in reducing juvenile justice involvement. This author
hypothesized that the TASC intervention would reduce the likelihood of juvenile justice
involvement. The RD design requires 2.75 times the participants as a randomized control trial
(Shadish et al., 2002). Sample size calculation for logistic regression analyses can be a complex
inquiry, but following guidelines for a minimum number of cases is suggested. Tabachnick and
Fidel (2007) recommend at least 10 cases per predictor variable. The current analysis used six
independent variables to predict an outcome among 4,098 TASC participants. This study should
yield ample statistical power.

**Methodology for Qualitative Study**

In order to answer research question four regarding the perspectives of TASC staff, the
author carried out a qualitative analysis by conducting structured interviews with six TASC staff
members from the site where the quantitative data was collected. This sample consisted of a TASC director, TASC assistant director, and four TASC case managers. A grounded theory (Glaser & Strauss, 1967) research design was utilized.

**Grounded Theory Research Design**

Grounded theory represents one of the most popular qualitative research designs in the world (Birks & Mills, 2011). It was developed by Glaser and Strauss in their 1967 work, *The Discovery of Grounded Theory*. Grounded theory research differs from other qualitative approaches because it emphasizes the generation of new theories (Strauss & Corbin, 1994). Thus, grounded theory provides a framework to gain a deeper understanding of TASC through the perspectives of current TASC staff members (Glaser & Strauss, 1967).

**Sample**

Purposive sampling strategies are recommended for grounded theory research (Corbin & Strauss, 1990). According to Corbin and Strauss (1990), the sample should theoretically reflect the researcher’s area of interest and thus the researcher should seek out a sample that is most representative of the phenomenon being studied. Therefore, the author obtained a sample of six TASC staff members from the same TASC site where data was obtained for the quantitative portion of this study. This sample was composed of a TASC director, TASC assistant director, and four TASC case managers. Although director and assistant director served in administrative capacities, they each maintained their own caseloads throughout the year. The director was responsible for one target school and the assistant director was responsible for two. The other case managers were each responsible for four target schools. Overall, the staff from this TASC site received referrals from 19 schools located in an urban parish (i.e., county) in south Louisiana. Caseloads for each staff member varied throughout the year, but each case manager
reported they would serve over 100 families during the school-year. All the staff members possessed a master’s degree in a social science related field and had worked for the TASC program for at least five years.

**Protection from harm**

TASC staff members participated in this study on a voluntary basis. Prior to the interviews, the participants were informed of the purpose of the study as well as risks and benefits to their voluntary participation. Social, legal, physical, and psychological risks were minimized due to the anonymity of the participants. This research project was approved by LSU’s Institutional Review Board (no.E8311).

**Data collection**

Data collection in a grounded theory research design can involve many sources such as interviews and observations as well as various documents such as letters, emails, or books (Corbin & Strauss, 1990). This researcher used structured interviews as the method of data collection. Data collection procedures in grounded theory should be flexible, but formalized questions are acceptable to guide initial interviews (Corbin & Strauss, 1990). Ideally, questions are revised or changed once some initial data is collected. Therefore, data collected in previous interviews can inform the researcher’s adjustments throughout the data collection process. This researcher may adjust or add questions based on concepts that emerge. The researcher’s initial questions for the structured interviews are listed below:

1) Let’s start with successful TASC kids that received the case management intervention. Can you tell me a story about one or two of your cases that were really successful?

2) Can you help me understand ‘why’ these cases were so successful and what do you attribute the success to?

3) In a broader sense, why do you think TASC works?

4) I understand that not all TASC cases are successful. Can you tell me a story about a case management intervention case that wasn’t so successful?
5) In your opinion, why didn’t this case have a successful outcome and what would you attribute this outcome to?

6) What could TASC do better to help children like the one you just mentioned?

Data collection and analysis occur simultaneously in grounded theory methods’ designs. The researcher constantly compares the data to evaluate patterns and variations (Corbin & Strauss, 1990). Constant comparisons also guard against researcher bias and help the researcher avoid conceptual errors due to preconceived notions regarding the phenomenon (Strauss & Corbin, 1994). New hypotheses and broader conceptual categories may emerge as a result of making constant comparisons (Corbin & Strauss, 1990). Categories represent groupings of concepts and are of utmost importance to the data analysis (Corbin & Strauss, 1990). This researcher used coding notes, known as memos, to keep track of categories, hypotheses, and possible theories (Charmaz, 2006; Corbin & Strauss, 1990). Memos were used throughout the entire experiment to capture details and serve as the intermediary between coding and writing the results (Corbin & Strauss, 1990).

**Data analysis in a grounded theory design**

The coding process in grounded theory research designs involve three sequential phases that include open coding, axial coding, and selective coding (Corbin & Strauss, 1990). Open coding is the initial phase in which data is broken down into segments and labeled according to concepts. Conceptual labels are based on events, actions, interactions, or consequences. These concepts will eventually make up the broader categories that have deeper conceptual meanings (Corbin & Strauss, 1990). Although data is analyzed and interpreted in open coding, certain authors recommend against making broad interpretations in the initial phase and to stick close to the data by focusing on actions (Charmaz, 2006). As recommended by Charmaz (2006), this
author segmented the data during transcription and coded line by line with a focus on actions and actual words of the participant.

The second phase, axial coding, consists of assigning labels to categories and subcategories and making comparisons. Similarities or differences observed can lead to the emergence of underlying or abstract concepts. Relationships between categories should be examined and categories can be changed as necessary. Hypotheses may also be revised and tested in the axial coding phase (Corbin & Strauss, 1990).

Selective coding comprises the third and final phase in which the author develops a core category representing the central aim of the research. This core category may be an existing category or emerge as a deeper abstraction of the other categories. All the other categories are evaluated in relation to the core category based on events, actions, interactions, and consequences. In essence, the core category summarizes the overall findings (Corbin & Strauss, 1990). The presentation of the findings in a grounded theory research design should address the categories and subcategories, theoretical formulations, procedural changes, hypotheses, and the core category (Corbin & Strauss, 1990).

Using multiple coders in a qualitative design can enhance inter-rater reliability and protect against researcher bias (Rubin & Babbie, 2008). In the current study, the author used one co-coder to review the interview transcriptions and ensure coding accuracy. This co-coder was briefed on grounded theory designs and the current study’s methodology. All transcriptions were stripped of identifying information to ensure participant anonymity. Once the co-coder reviewed the transcriptions, a meeting took place to identify and address any discrepancies between the author and the co-coder.
CHAPTER 4: ANALYSIS AND RESULTS

Analysis for Quantitative Study

The original sample was extracted from TASC database in Microsoft Access. The entire sample consisted of 6,289 TASC referrals, which was merged into SPSS for analysis. The first step of managing the data was to identify the number of re-referrals to code them as the dependent variable. The author identified 1,072 cases that were re-referred to the TASC program. Approximately 867 cases were re-referred once while 205 participants had more than one re-referral. The participants that were re-referred were coded as meeting criteria for the dependent variable and their subsequent referral cases were removed from the dataset to prevent the same cases from appearing more than once.

The second step consisted of identifying and removing the attrition sample. Cases that completed either TASC intervention (low-risk and at-risk) were coded as having a successful or unsuccessful case closure status, and were retained in the sample. Case closure status was based on reduced truancy rates, parents’ cooperation with the intervention, and reduced behavior problems for children with multiple presenting issues (J. Ponder, personal communication, September 4, 2013). The attrition sample \( n = 888 \) dropped out of the intervention for one of the following reasons: 1) child to home-school, 2) could not locate the family, 3) inability to complete, 4) family petitioned to court, and 5) relocation of family. Inability to complete services and could not locate the family were the most common reasons for attrition (65% and 21%, respectively).

Detecting a change of intervention status was the next phase in data screening. The author found and deleted 210 cases whose intervention status changed from the comparison group to the treatment group during the intervention. The regression discontinuity design
requires sharp group assignment, so these cases were deleted from the sample (Trochim, 1984).

In the final data management step, the author examined the variables to screen for missing cases and outliers. Thirteen cases were removed due to missing a participant’s age and one case was removed due to extreme value of 153 on the pre-intervention assignment score. The risk score outlier case was deleted because a residual analysis showed that it was more than three standard deviations away from the mean. Next, the author examined the grade variable and deleted five cases that were not in an elementary school grade (K – 5th) at the time of the initial referral. The author removed one prekindergarten case, three sixth grade cases, and one ninth grade case. Lastly, the author removed two cases because of missing pre-intervention assignment scores. The final sample consisted of 4,098 TASC participants.

**Participant Characteristics**

Information for the independent variables consisted of race, gender, age, grade, grade retention, special education status, and pre intervention risk score. Race was coded as a dichotomous variable (African American = 1; other races = 0), and the sample was composed of 3,778 (92.2%) African Americans and 320 (7.8%) of other races. Gender was another dichotomous variable and there was a relatively even distribution with 1,973 females (48.1%) and 2,125 males (51.9%). Age comprised an interval variable representing age of the participant at the time of TASC referral. The mean age was 7.97 with a standard deviation of 2.09. The minimum age was 4 and the maximum age was 15. The next variable was participants’ grade level at referral. Kindergarteners comprised the largest proportion of the sample (30.5%) followed by first graders (19.9%), fourth graders (14.5%), second graders (13.5%), third graders (12.1%), and fifth graders (9.5%).
The academic predictors included grade retention and special education status. Grade retention was coded as a dichotomous variable (yes/no), which indicated that 862 (21.0%) participants had previously failed one or more grades. Special education status was also a dichotomous variable and indicated that 323 (7.9%) participants received services for special education. The final variable was the pre intervention risk score, a scale variable that measured risk and determined membership in the treatment or comparison group. The mean risk score was 30.76 with a standard deviation of 16.71. The minimum value was seven while the maximum value was 129. Participant characteristics are listed in Tables 1 and 2.

Table 1
Participant Characteristics (N = 4098)

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>1251</td>
<td>30.5</td>
</tr>
<tr>
<td>1st</td>
<td>816</td>
<td>19.9</td>
</tr>
<tr>
<td>2nd</td>
<td>553</td>
<td>13.5</td>
</tr>
<tr>
<td>3rd</td>
<td>497</td>
<td>12.1</td>
</tr>
<tr>
<td>4th</td>
<td>593</td>
<td>14.5</td>
</tr>
<tr>
<td>5th</td>
<td>388</td>
<td>9.5</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>3778</td>
<td>92.2</td>
</tr>
<tr>
<td>Other Races</td>
<td>320</td>
<td>7.8</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2125</td>
<td>51.9</td>
</tr>
<tr>
<td>Female</td>
<td>1973</td>
<td>48.1</td>
</tr>
<tr>
<td>Previous Grade Retention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>862</td>
<td>21.0</td>
</tr>
<tr>
<td>No or Unknown</td>
<td>3236</td>
<td>79.0</td>
</tr>
<tr>
<td>Special Education Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>323</td>
<td>7.9</td>
</tr>
<tr>
<td>No or Unknown</td>
<td>3775</td>
<td>92.1</td>
</tr>
</tbody>
</table>

Table 2
Descriptive Statistics for Participant Age and Pre-intervention Risk Score (N = 4098)

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>4 - 15</td>
<td>7.97</td>
<td>2.09</td>
</tr>
<tr>
<td>Pre-intervention risk score</td>
<td>7 - 129</td>
<td>30.76</td>
<td>16.71</td>
</tr>
</tbody>
</table>
Attrition Group

The next step was to determine any differences between the 4,098 participants that were included in the study and the attrition sample who left the intervention ($n = 888$). Demographic information (i.e., race, grade, gender, special education status, previous grade retention) were compared. Among the 888 participants in the attrition sample, 91.6% were African American and 57% were male. The rate of African Americans was similar across samples (91.6%, 92.2%), but the attrition sample consisted of 57% males as compared to 51.9% in the overall sample. In regard to grade, the attrition sample consisted of 32.1% kindergarteners, 18.6% first graders, 14.0% second graders, 11.0% third graders, 14.2% fourth graders, and 10.0% fifth graders. These proportions were very similar to the study sample. The attrition sample was also compared to the study sample on previous grade retention and special education status. Approximately 28% of the attrition sample had previously been retained in a grade and 8.8% received accommodations for special education. The study sample contained 21% of students who were previously retained and 7.9% with special education status.

Analyses were conducted in SPSS version 21 to determine associations and significant differences between the study sample and attrition sample. A Pearson chi-square test was conducted to evaluate differences among grade-levels in both samples. Findings indicated that the samples did not differ ($X^2 = 2.218$, $df = 5$, $p > .05$). Phi coefficients were computed to test differences for race, gender, grade retention, and special education status. Gender ($phi = .039$, $p < .01$) and previous grade failure ($phi = .062$, $p < .01$) in the attrition sample were significantly different from the study sample. However, no significant differences were found for race ($phi = -.009$, $p > .05$) and special education status ($phi = .013$, $p > .05$).
In sum, the attrition and study samples were compared to examine differences among
demographic characteristics. Findings indicated that the samples differed on gender and
previous grade failure. The attrition sample contained a higher proportion of males and children
who previously failed a grade in school. Attrition group characteristics are provided in Table 3.

Table 3
Attrition Group Characteristics (N = 888)

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>285</td>
<td>32.1</td>
</tr>
<tr>
<td>1st</td>
<td>165</td>
<td>18.6</td>
</tr>
<tr>
<td>2nd</td>
<td>124</td>
<td>14.0</td>
</tr>
<tr>
<td>3rd</td>
<td>99</td>
<td>11.1</td>
</tr>
<tr>
<td>4th</td>
<td>126</td>
<td>14.2</td>
</tr>
<tr>
<td>5th</td>
<td>89</td>
<td>10.0</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>813</td>
<td>91.6</td>
</tr>
<tr>
<td>Other Races</td>
<td>75</td>
<td>8.4</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>506</td>
<td>57.0</td>
</tr>
<tr>
<td>Female</td>
<td>382</td>
<td>43.0</td>
</tr>
<tr>
<td>Previous Grade Retention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>247</td>
<td>27.8</td>
</tr>
<tr>
<td>No or Unknown</td>
<td>641</td>
<td>72.2</td>
</tr>
<tr>
<td>Special Education Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>78</td>
<td>8.8</td>
</tr>
<tr>
<td>No or Unknown</td>
<td>810</td>
<td>92.2</td>
</tr>
</tbody>
</table>

Research Question 1: What is the extent of juvenile justice involvement among all TASC participants in East Baton Rouge Parish from 2006-2012?

Research question one required a descriptive analysis to determine the extent of involvement in the juvenile justice system among TASC participants who completed the TASC intervention. Extent of involvement was defined as number of contacts with the juvenile justice system, disposition severity, and number of re-referrals to TASC. Number of contacts simply refers to the number of times the youth was arrested or referred to the juvenile justice system for any reason. Disposition severity refers to the harshest disposition (sentence) rendered by the
judge. Five types of dispositions were available in the data, which included: 1) custody secure, 2) custody non-secure, 3) custody non-secure and Family in Need of Services (FINS), 4) probation, 5) probation and FINS, and 6) TASC re-referral. Deferred disposition agreement and information adjustment agreement comprised two other possibilities regarding disposition decisions.

The analysis indicated that eleven (.3%) TASC participants were found in the LAOJJ database. This meant that only eleven TASC participants out of the entire sample (N = 4098) became formally involved in the juvenile justice system. All eleven of the participants were African American (100%) and ten out of the eleven were male (91%). In regard to juvenile justice contacts, seven participants had one contact (63.6%), one participant had two contacts (9.1%), one participant had three contacts (9.1%), and two participants had four contacts (36.4%).

The harshest dispositions were then evaluated to determine the extent of juvenile justice involvement. Custody-secure, the most punitive disposition was assigned to six of the participants (54.5%), while three participants received a custody non-secure disposition (27.3%). The remaining two participants received a deferred disposition agreement (9.1%) and an informal adjustment agreement (9.1%).

The small number of TASC participants involved in LAOJJ (n = 11) was surprising due to the vulnerable nature of the TASC population. In order to provide context for this small subsample, this author analyzed the total number of juveniles that became involved with LAOJJ from 2006 – 2012. Across the state of Louisiana, the author found that almost 24,000 (n = 23,723) youth came into contact with LAOJJ. Next, the author determined the number of non-TASC youth involved in LAOJJ, who resided in the same parish as the TASC site of the current
study. Over 700 ($n = 723$) non-TASC youth came into contact with the justice system in this parish.

A concern regarding the dependent variable was that many youth who completed TASC were not old enough for formal involvement in LAOJJ. Therefore, the author analyzed the ages of the non-TASC youth in the LAOJJ subsample. Findings showed that 283 youth would have technically been in the eligible age range to participate in TASC during the time period of the current study. The mean age of the 283 youth was 15.6 with a standard deviation of 1.3. The majority of the LAOJJ, non-TASC group was between the ages of 15 and 17 (81%), while the remainder of this group was between 11 and 14 years old (19%). This subsample was predominantly African American (88%) and male (84%). Regarding disposition decisions, the majority of the non-TASC group was comprised of custody secure (42%), probation (21%), custody non-secure (17%), and custody non-secure FINS dispositions (12%).

TASC re-referrals were also counted as juvenile justice involvement because of the close relationship with the FINS disposition. This author expanded the definition of the dependent variable to include TASC re-referrals after discovering that few TASC participants ($n = 11$) became formally involved in LAOJJ during the time period of this study (i.e., 2006-2012). The analysis revealed that 710 (17.3%) participants were re-referred to the TASC program. Hence, the dependent variable consisted almost entirely of re-referrals for truancy rather than arrests or referrals to the formal justice system. Only four participants were identified in the LAOJJ database, who were not re-referred to TASC. The dependent variable encompassed these four cases in addition to the 710 TASC re-referrals. Therefore, 714 cases in the sample met criteria for involvement in the juvenile justice system; a measure primarily defined by TASC re-referrals. Frequencies and percentages are displayed in Table 4.
Table 4
Frequencies for the Dependent Variable of Juvenile Justice Involvement (N = 4098)

<table>
<thead>
<tr>
<th>Juvenile Justice Involvement (TASC Re-referral or Formal LAOJJ Involvement)</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>714</td>
<td>17.4</td>
</tr>
<tr>
<td>No</td>
<td>3384</td>
<td>82.6</td>
</tr>
</tbody>
</table>

Research Question 2: What are the characteristics of all TASC participants that predict juvenile justice system involvement within six years post intervention?

Variables

The dependent variable in this analysis was juvenile justice involvement. Juvenile justice involvement was defined as formal contact with LAOJJ or TASC re-referrals. An identifier variable was created in the TASC and LAOJJ databases by combining participants’ social security numbers and birthdays. This variable enabled the author to merge the data, and thus determine how many TASC cases became involved in the juvenile justice system. The previous analysis of the LAOJJ data revealed that only eleven TASC cases from the sample had formal involvement with the juvenile court. These eleven cases were combined with the cases that were re-referred to TASC after completing the initial TASC intervention. Overall, there were 714 (17.4%) cases coded as meeting criteria for the dependent variable of juvenile justice involvement. Almost all of these cases were re-referred to TASC rather than being involved in the formal justice system. Hence, the dependent variable of juvenile justice involvement was more representative of TASC re-referrals rather than LAOJJ contacts. Frequencies and percentages of the dependent variable are listed in Table 4.

The independent variables entered into the model for research question two were race (African American = 1; other races = 0), gender (male = 1; female = 0), grade (K – 5th), grade
retention (yes/no), special education status (yes/no), and pre intervention assignment score (i.e., risk score). Frequencies and percentages of these variables were provided in Table 1.

**Logistic Regression Analysis**

A stepwise logistic regression model was fitted to the data to determine significant predictors of juvenile justice involvement. The author employed the Forward Wald procedure, which creates the best model by entering and removing predictors based solely on statistical criteria (Tabachnick & Fidell, 2007). SPSS version 21 was used to carry out the logistic regression analysis.

The best model revealed that grade, race, and grade retention increased the likelihood of subsequent juvenile justice involvement. Grade was negatively associated with the outcome variable \( (B = -.292, p < .05) \), whereas African American race \( (B = .610, p < .05) \) and male gender \( (B = .235, p < .05) \) were positively correlated with juvenile justice involvement. The odds ratio for the grade variable \( (K – 5^{th}) \) was .747, which suggested that higher grade levels reduced the odds of juvenile justice involvement by 23.5%. In contrast, the odds of juvenile justice involvement almost doubled for African Americans \( (OR = 1.841) \). African American race increased the likelihood of juvenile justice involvement by roughly 84%. Grade retention also increased the likelihood of juvenile justice involvement by increasing the odds by 26.5% \( (OR = 1.265) \).

A relatively weak Nagelkerke R Square statistic \( (R^2 = .052) \) indicated that 5.2% of the variance in juvenile justice involvement was attributed to a combination of the three significant predictors. Although the model was significant \( (X^2 = 130.17, p < .01) \), the Hosmer and Lemeshow Goodness-of-Fit statistic \( (H-L < .000) \) revealed a poor model fit (Tabachnick & Fidell, 2007). Furthermore, the classification table indicated that no improvement in the
prediction of the outcome variable occurred when the predictors were entered into the model.

The results of this stepwise regression analysis can be found in Tables 5 – 7.

Table 5
Logistic Regression Analysis to Determine Significant Predictors of Juvenile Justice Involvement among TASC Participants (N = 4098)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade (K-5)****</td>
<td>-.292</td>
<td>.028</td>
<td>106.287</td>
<td>1</td>
<td>.000</td>
<td>.747</td>
</tr>
<tr>
<td>Race (African American)**</td>
<td>.610</td>
<td>.186</td>
<td>10.759</td>
<td>1</td>
<td>.001</td>
<td>1.841</td>
</tr>
<tr>
<td>Grade Retention*</td>
<td>.235</td>
<td>.108</td>
<td>4.697</td>
<td>1</td>
<td>.030</td>
<td>1.265</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.700</td>
<td>.184</td>
<td>85.651</td>
<td>1</td>
<td>.000</td>
<td>.183</td>
</tr>
</tbody>
</table>

*p<.05, **p<.01, ***p<.001

Table 6
Model Summary for Predicting Juvenile Justice Involvement Using the Forward Wald Regression

<table>
<thead>
<tr>
<th>Test</th>
<th>X²</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of Overall Model (Omnibus Test)</td>
<td>130.170</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Goodness of Fit Test (Hosmer and Lemeshow Test)</td>
<td>40.940</td>
<td>7</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 7
Correlation Matrices among Significant Predictors of Juvenile Justice Involvement

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Grade (K – 5th)</td>
<td>1.000</td>
<td>-.020</td>
<td>-.279</td>
<td>-.161</td>
</tr>
<tr>
<td>2 Race (African American)</td>
<td>-.020</td>
<td>1.000</td>
<td>-.037</td>
<td>-.950</td>
</tr>
<tr>
<td>3 Grade Retention</td>
<td>-.279</td>
<td>-.037</td>
<td>1.000</td>
<td>-.024</td>
</tr>
<tr>
<td>4 Constant</td>
<td>-.161</td>
<td>-.950</td>
<td>-.024</td>
<td>1.000</td>
</tr>
</tbody>
</table>

In summary, the author used race, age, gender, grade, age, grade retention, special education status, and pre-program intervention score to predict the likelihood of juvenile justice
involvement. A forward stepwise logistic regression analysis revealed that race, grade, and
grade retention were significant predictors ($p < .05$). Findings indicated that being in a higher
grade reduced the likelihood of juvenile justice involvement, whereas African American race and
grade retention increased the odds of juvenile justice involvement.

Research Question 3: Does the case management component of TASC reduce the likelihood
of subsequent juvenile justice involvement within six years post intervention?

Hypothesis 1: The case management component of TASC will reduce the likelihood of juvenile
justice involvement over a six year period.

Regression Discontinuity Design to Examine the Effectiveness of TASC

The RD analysis was utilized to examine the effectiveness of the intensive case
management component of the TASC intervention in reducing the likelihood of future juvenile
justice involvement. Juvenile justice involvement was defined by TASC re-referrals for
continued truancy issues as well as LAOJJ contacts (i.e., arrests or referrals to juvenile court). In
order to determine the effectiveness of the TASC case management intervention, this section first
describes the pre-intervention risk score. Second, the author describes the process of building
the logistic regression model and concludes with the results from the RD analysis.

Pre-intervention Risk Score

The pre-intervention risk score was based on information collected from the Risk I
survey and TASC referral form. Each risk indicator on the Risk I survey was assigned a risk
score from 0 to 5 (LSU, 2012). Zero indicated no risk and 5 indicated the highest risk. Risk I
scores could range from 0 – 57 (Kim & Barthelemy, 2011; see Appendix A). Indicators on the
TASC referral form were assigned a score between 0 and 10, where 0 indicated no risk and 10
indicated the highest risk (See Appendix B). The pre-intervention risk score represented a
composite risk score derived from these two instruments that determined placement in the
treatment group or comparison condition. The scoring algorithm for the pre-intervention risk score can be found in Appendix C.

The cut point for the intervention assignment score was determined by TASC personnel prior to the 2006-2007 school year. The mean of all risk scores was used to determine group membership. Participants were assigned to the intensive case management intervention if they scored a 27 or above. Scores of 26 and below were assigned to the comparison condition that consisted of parent notification and attendance monitoring. Among the treatment group who received the case management in the current study \((n = 1893)\), pre-intervention risk scores ranged from 27 to 129. The pre-intervention risk scores from the comparison group \((n = 2205)\) ranged from 7 to 26. The pre-intervention risk score was treated as interval level data because the intervals were spaced equally across the continuums of low risk and high risk. Case outcomes for the comparison and treatment conditions are listed in Table 8.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Case Outcomes for Comparison and Treatment Conditions ((N = 4098))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Comparison Condition: Low Risk ((n = 2205))</td>
</tr>
<tr>
<td>Juvenile Justice Involvement</td>
<td>N</td>
</tr>
<tr>
<td>Yes</td>
<td>360</td>
</tr>
<tr>
<td>No</td>
<td>1845</td>
</tr>
</tbody>
</table>

**Building the Logistic Regression Model**

Building a sharp design is of utmost importance in a regression discontinuity analysis. A sharp design is obtained when less than 5% of the sample is incorrectly assigned to groups or switch groups during the intervention (Trochim, 1984). The author examined the data to ensure that all pre-intervention risk scores aligned correctly with group placement. Hence, scores of 27 and above corresponded with the treatment group, while scores of 26 and below corresponded
with the comparison condition. Next, the author examined how many cases switched groups during the intervention. The author discovered 210 cases (4.9%) where the comparison group switched to the treatment group during the intervention. These cases were deleted from the sample for the purpose of maintaining the sharpest design possible.

The next step was to examine group differences and correlations between the treatment variable and the juvenile justice involvement outcome variable. According to this author’s directional hypothesis, a negative relationship should exist between treatment and the outcome variable. However, a bivariate analysis indicated the opposite, and thus, a positive relationship was observed between treatment and juvenile justice involvement. Moreover, a higher proportion of the treatment group (18.7%) met criteria for the outcome variable than the comparison group (16.3%). Although a chi-square test showed significant group differences ($X^2 = .046, p < .05$) and the phi coefficient indicated a significant relationship ($phi = .031, p < .05$), the relationship between treatment and juvenile justice involvement was opposite to the hypothesized direction. The RD analysis was continued, though, to assess whether the treatment variable increased the odds of juvenile justice involvement.

The independent variables in the RD analysis were group membership (treatment = 1; comparison = 0) and pre-intervention risk score. Covariates included demographic variables such as age, race, gender, grade, grade retention, and special education status. The author examined correlations among the independent variables and covariates to ensure absence of multicollinearity in the regression model. In the RD design, high correlations between the pre-intervention assignment variable and group membership are common, but it is recommended to include the pre-intervention assignment score in the model as an independent variable (Shadish et al., 2002).
As anticipated, a high correlation existed between the pre-intervention risk score and group membership ($r = .892$). However, standard errors were below the suggested cutoff value of 1, ranging from .017 to .397. A strong correlation was also found between grade and age ($r = .926$) suggesting that grade level was an appropriate proxy measure for age. Therefore, age was removed from the analysis to reduce possible inaccuracies in the findings. Correlations among the other variables were weak to moderate, ranging from -.001 to .490. The correlation matrix is presented in Table 9.

Table 9
Correlation Matrices among Predictors and Covariates ($N = 4098$)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Treatment</td>
<td>1.00</td>
<td>.892</td>
<td>-.956</td>
<td>-.066</td>
<td>.159</td>
<td>-.014</td>
<td>-.006</td>
</tr>
<tr>
<td>2</td>
<td>Pre-intervention assignment score</td>
<td>.892</td>
<td>1.000</td>
<td>-.976</td>
<td>-.062</td>
<td>.157</td>
<td>-.031</td>
<td>-.013</td>
</tr>
<tr>
<td>3</td>
<td>Treatment*Pre-intervention assignment score</td>
<td>-.956</td>
<td>-.976</td>
<td>1.000</td>
<td>.048</td>
<td>-.148</td>
<td>.017</td>
<td>-.014</td>
</tr>
<tr>
<td>4</td>
<td>Age</td>
<td>-.066</td>
<td>-.062</td>
<td>.048</td>
<td>1.000</td>
<td>.926</td>
<td>-.022</td>
<td>-.036</td>
</tr>
<tr>
<td>5</td>
<td>Grade (K-5th)</td>
<td>.159</td>
<td>.157</td>
<td>-.148</td>
<td>.926</td>
<td>1.000</td>
<td>.007</td>
<td>.023</td>
</tr>
<tr>
<td>6</td>
<td>Race (African American)</td>
<td>-.014</td>
<td>-.031</td>
<td>.017</td>
<td>-.022</td>
<td>.007</td>
<td>1.000</td>
<td>-.001</td>
</tr>
<tr>
<td>7</td>
<td>Gender (Male)</td>
<td>.006</td>
<td>-.013</td>
<td>-.031</td>
<td>.017</td>
<td>-.022</td>
<td>.007</td>
<td>1.000</td>
</tr>
<tr>
<td>8</td>
<td>Constant</td>
<td>-.593</td>
<td>-.644</td>
<td>.645</td>
<td>-.626</td>
<td>.490</td>
<td>-.306</td>
<td>-.040</td>
</tr>
</tbody>
</table>

**Linearity in the logit**

Ensuring linearity in the logit was the next step in the analysis. Linearity in the logit is a logistic regression assumption that refers to the relationship between the logit of the outcome and
the continuous independent variables (Shadish et al., 2002). The logit is the natural log of the odds (i.e. probability/[1-probability]) and logistic regression predicts the logit of a discrete outcome from a set of predictor variables (Peng, Lee, & Ingersoll, n.d.). The author created an ordinal pre-intervention assignment score variable by dividing the scores into quartiles. A variable for the natural log of the odds ratio was created by dividing the logarithm of the predicted probabilities by one minus the predicted probabilities:

\[ \text{Ln*Predicted probabilities}/(1-\text{predicted probabilities}) \]

The author plotted a graph using the natural log of the odds ratio as the dependent variable and the quartile pre-intervention assignment score variable as the independent variable. This graph of the plotted means resembled a linear relationship, and thus, satisfied this assumption.

**Fitting the logistic regression model**

In the first step of fitting the logistic regression model, the author conducted an analysis to predict the likelihood of juvenile justice involvement using treatment as the sole independent variable. Results indicated a significant relationship \((B = .165, p < .05)\), and the odds ratio suggested that the treatment condition increased the odds of juvenile justice involvement by almost 18%. Second, the author entered the pre-intervention risk score into the regression model. The pre-intervention risk score variable was not significant \((B = .002, p > .05)\) and weakened the relationship between the treatment variable and the outcome. The model containing the treatment variable and pre-intervention risk score was not statistically significant \((p > .05)\).

Shadish et al. (2002) recommends adding an interaction effect to examine differences in treatment effects among the participants in the experimental condition. An interaction term
between treatment and pre-intervention risk score was introduced to the model as the third independent variable. The model containing the treatment variable, pre-intervention risk score, and the interaction term was significant, \(X^2(3, N = 4098) = 41.99, p < .001\). This finding suggested variability in the effects of the intervention across the treatment group based on pre-intervention risk scores. Hence, lower risk scores in the treatment group increased the odds for juvenile justice involvement. In order to ensure this interpretation was accurate, this author created multiple bar graphs in SPSS to observe the risk levels of the re-referred cases.

Next, the author examined quadratic and cubic relationships between the treatment variable and pre-intervention assignment as recommended by Shadish and colleagues (2002). These transformations were entered into the model, but were removed because they were not significant (\(p = .677\) and \(.660\), respectively). The independent variables that remained in the model were treatment (i.e., case management intervention), pre-intervention risk score, and the interaction term (i.e., treatment *pre-intervention assignment score).

The next step involved creating a demographic covariate model to compare to the independent variables. Covariates included gender, race, grade, age, grade retention, and special education status. Gender, age, and special education status were not significant (\(p > .05\)) and were removed from the model. The final covariate model consisted of race, grade, and grade retention.

A hierarchical logistic regression analysis was conducted to predict the likelihood of juvenile justice involvement among a sample of 4098 TASC participants. Model 1 contained the covariates of race, grade, and grade retention. Model 2 represented the final model and included the following variables: group membership (treatment = 1; comparison = 0), pre-intervention risk score, and interaction term (treatment*pre-intervention risk score), race (African American = 1;
other races = 0), grade (K - 5th), and grade retention (yes/no). The results from the final model are provided in Tables 10 - 13.

Table 10
Covariates included in Regression Discontinuity Analysis for Model 1

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race (African American)</td>
<td>.610</td>
<td>.186</td>
<td>10.759</td>
<td>1</td>
<td>.001**</td>
<td>1.841</td>
</tr>
<tr>
<td>Grade (K – 5th)</td>
<td>-.292</td>
<td>.028</td>
<td>106.287</td>
<td>1</td>
<td>.000***</td>
<td>.747</td>
</tr>
<tr>
<td>Grade retention</td>
<td>.235</td>
<td>.108</td>
<td>4.697</td>
<td>1</td>
<td>.030*</td>
<td>1.265</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.700</td>
<td>.184</td>
<td>85.651</td>
<td>1</td>
<td>.000***</td>
<td>.183</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001

Table 11
Summary of Covariates in Regression Discontinuity Analysis for Model 1

<table>
<thead>
<tr>
<th>Test</th>
<th>X²</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of Overall Model (Omnibus Test)</td>
<td>130.170</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Goodness of Fit Test (Hosmer and Lemeshow Test)</td>
<td>40.940</td>
<td>7</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 12
Independent Variables and Covariates in Regression Discontinuity Analysis for Model 2

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>Df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>1.157</td>
<td>.397</td>
<td>8.506</td>
<td>1</td>
<td>.004**</td>
<td>3.181</td>
</tr>
<tr>
<td>Pre-intervention risk score</td>
<td>.048</td>
<td>.017</td>
<td>8.305</td>
<td>1</td>
<td>.004**</td>
<td>1.049</td>
</tr>
<tr>
<td>Treatment*pre-intervention risk score</td>
<td>-.049</td>
<td>.017</td>
<td>8.131</td>
<td>1</td>
<td>.004**</td>
<td>.952</td>
</tr>
<tr>
<td>Race (African American)</td>
<td>.585</td>
<td>.187</td>
<td>9.775</td>
<td>1</td>
<td>.002**</td>
<td>1.794</td>
</tr>
<tr>
<td>Grade (K – 5th)</td>
<td>-.261</td>
<td>.030</td>
<td>76.988</td>
<td>1</td>
<td>.000***</td>
<td>.770</td>
</tr>
<tr>
<td>Grade retention</td>
<td>.113</td>
<td>.121</td>
<td>.872</td>
<td>1</td>
<td>.350</td>
<td>1.119</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.818</td>
<td>.395</td>
<td>50.850</td>
<td>1</td>
<td>.000***</td>
<td>.060</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
<table>
<thead>
<tr>
<th>Test</th>
<th>X²</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of Overall Model (Omnibus Test)</td>
<td>140.295</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Goodness of Fit Test (Hosmer and Lemeshow Test)</td>
<td>9.317</td>
<td>8</td>
<td>.316</td>
</tr>
</tbody>
</table>

**Regression discontinuity results**

Model 1 contained the covariates of race, grade, and grade retention. The overall model was significant and explained 5.2% of the variance in juvenile justice involvement \((R^2 = .052)\). Findings indicated that all covariates were statistically significant \((p < .05)\). African American race \((OR = 1.84)\) and grade retention \((OR = 1.27)\) increased the odds of juvenile justice involvement, while grade-level \((OR = .75)\) reduced the odds. These findings indicated that African American race and previous grade failure increased the likelihood of juvenile justice involvement. Conversely, children in higher elementary school grade levels were at reduced odds for juvenile justice involvement. However, the prediction value of this covariate combination in Model 1 was limited because a poor model fit was indicated by the Hosmer and Lemeshow statistic. Model 1 also did not improve the correct classification of cases in comparison to the model containing only the constant (82.6%).

Model 2 contained a combination of the independent variables and covariates. This model was significant \((p < .001)\) and explained 5.6% of the variance in juvenile justice outcomes \((R^2 = .056)\). The \(R^2\) value indicated that Model 2 (i.e., final model) produced only a .4% improvement from Model 1 (i.e., covariate model). The addition of the independent variables improved the overall model fit according to the Hosmer and Lemeshow statistic, but did not
improve the correct classification of cases, which remained static at 82.6%. In Model 2, statistical significance was found for all the variables except for grade retention. Findings suggested that membership in the treatment group increased the likelihood of juvenile justice involvement by more than 300% ($OR = 3.18$). The pre-intervention risk score variable indicated a positive relationship with the outcome and increased the odds of juvenile justice involvement by about 5% ($OR = 1.05$). The interaction term, on the other hand, indicated a negative association with the outcome and thus reduced the likelihood of juvenile justice involvement by approximately 5% ($OR = .95$). This phenomenon suggested that participants in the treatment group with lower risk scores were at increased odds for juvenile justice involvement.

This author hypothesized that TASC’s intensive case management services would reduce the likelihood of juvenile justice involvement (i.e., TASC re-referral) among participants. Results from the study do not support this directional hypothesis, and thus, the null hypothesis was accepted. Odds ratios showed that TASC’s case management intervention actually increased the likelihood of juvenile justice involvement (i.e., TASC re-referral). However, the independent variables of treatment, pre-intervention risk score, and the interaction term only improved the model by .4% when compared to the covariates. Thus, covariates of race, grade, and grade retention explained most of the variance in the final model (5.2%). Overall, this model produced weak prediction capabilities and treatment effects were minimal among the independent variables.

**Research Question 4: What are the perspectives among TASC staff members regarding the effectiveness or ineffectiveness of the TASC intervention?**

**Qualitative Analysis Using a Grounded Theory Research Design**

The author conducted six structured interviews independently with all the TASC case managers ($N = 6$) from a TASC site located in an urban city in south Louisiana. The interviews
took place in September 2013 at the TASC office. Interviews lasted between 25 and 45 minutes. This author transcribed the interviews verbatim and coded in three separate phases that included open coding, axial coding, and selective coding. Memos (i.e., coding notes) were used throughout the coding process to enhance the data analysis. Once the coding process concluded, a co-coder reviewed the interview transcriptions independently. The author employed a co-coder to strengthen the trustworthiness of the data and reduce researcher bias.

Categories

The core category that emerged in the final phase of coding was case manager as the agent of change. This category was generated through three related categories: 1) commitment to families, 2) collaborative support network, 3) barriers to treatment success. Each category and their subcategories are listed in Table 14 and described in the following sections.

Table 14
Categories Based on Case Manager Perspectives of TASC

<table>
<thead>
<tr>
<th>Core category</th>
<th>Categories</th>
<th>Subcategories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case manager as the agent of change</td>
<td>Commitment to families</td>
<td>Trust Persistence</td>
</tr>
<tr>
<td></td>
<td>Collaborative support network</td>
<td>Interagency collaboration Building support systems</td>
</tr>
<tr>
<td></td>
<td>Barriers to treatment success</td>
<td>Family distress Adverse events Family values placed on education</td>
</tr>
</tbody>
</table>

**Commitment to families**

Commitment to families refers to the case managers’ role in working with their cases. According to the case managers, their role was to help the entire family because they saw truancy as a parent problem rather than a child problem. Trust and persistence depicted the two subcategories of commitment to families. Case managers noted the importance of establishing relationships to build trust with their families. Persistence was defined as never giving up on a
family and doing whatever it takes to help a family be successful. The commitment category is illustrated in examples 1 – 3.

Example 1: Trust and Persistence
The consistency of the weekly phone calls, contact that you make with the families. Sometimes it’s not weekly, sometimes it’s daily…And just that the rapport and relationships that you build with the families, the schools, law enforcement, court, community resources, and different agencies.

Example 2: Trust
So, what I want to do is be a person that you (the family) can trust, and then I want to be there to help them because it’s just a matter of getting over the hump. If I can get them over the hump, then they can run….And most of the parents I’ve had that are successes, I had to hold them by the hand and lead and guide them. But, once they got to that place, they did it on their own.

Example 3: Persistence
I would go by there (the family’s home) in the morning and wake them up and wait for her (the child) to catch the bus. Once she got to school it was fine because I knew she would get breakfast and lunch. If I missed going by there, I would at least give her a call and tell her to get up.

Collaborative support network
Collaborative support network was the second category that emerged in the analysis. This category was defined as the case managers’ role in helping their families increase formal and informal support systems. Formal support systems referred to various professional agencies (e.g., social services, school, community resources, etc.), while informal support systems may be family, friends, or neighbors. This category was composed of two subcategories including interagency collaboration and building support systems. Interagency collaboration described the case managers’ role in collaborating and coordinating services with community agencies to assist families. Building support systems encompassed the case managers’ direct role in helping families navigate and utilize formal and informal supports. Examples of the collaborative support network category are provided in examples 4 – 6.
Example 4: Interagency Collaboration and Building Support Systems.
She (the mom) said she would go on to counseling. But, it’s a waiting list to go to counseling. It can be several months even. The social worker at the school where the children went was an employee of a counseling agency so she was able to help me get mom into services more quickly. Really, my job in this was a facilitator for the services and the uniforms and the things like that. Helping and showing them how they could get things. I provided different agency numbers and things like that, but with this particular parent, I couldn’t depend on her to do the calls herself. And so we would be there together but I would make the calls for her and therefore we could see that she got the proper treatment.

Example 5: Interagency Collaboration
The two younger ones (children), I got them involved with the guidance counselor. Guidance counselor got them involved in a behavior plan that she had and they finished the year with no more referrals or behavioral issues. (The children) Did well. The fifth grade little girl was actually very interested in basketball. She was tall, thin, and we got her involved in a basketball group. She continued to play basketball, did very well. And she was kind of having some little issues with coping an attitude in the 5th grade. It all worked out and she became an actual hands-on helper of the guidance counselor. She went to her office to work on all kinds of things. She finished the year and they (the school) chose so many kids to take to Disney World and she was one of the students chosen. She finished the year with all A’s.

Example 6: Building Support Systems
The aunt and I stayed in touch with each other probably every week because I would check the attendance and any time the child was out, she (the aunt) would give me a call to let me know that she was out of school and then she would send a note to the school. We worked together all of last year and had no problems.

**Barriers to treatment success**

The third category was barriers to treatment success. This category provided a deeper understanding about the issues that the families faced and the case managers’ role to help families overcome difficult circumstances. Family distress, adverse events, and family values placed on education comprised the three subcategories of barriers to treatment success. Family distress referred to issues surrounding poverty and instability. TASC case managers frequently reported mental health issues, homelessness, high mobility rates, and lack of basic needs (food, clothing, medical, etc.) among their families. In regard to the adverse events subcategory,
parental substance abuse, incarceration, and child neglect were commonplace. Examples of barriers to treatment are provided in examples 7 - 9.

Example 7: Family Distress
In this city there’s lots of moving. It can be that somebody broke in a house where they (the family) were living or they couldn’t pay the light bill so they had to move. Or, they couldn’t pay their rent or they were evicted or they have transportation issues so they move somewhere with steady transportation. It’s a common thing for families to move. For instance, you may go to three different schools in the school year just right here in the city.

Example 8: Adverse Events
We actually did an intervention with all the different agencies sitting around. At that point, we realized the mom had a drug problem. She had also been in an accident two years before that basically tore up her leg so badly that it (the wound) had to be at least 12 inches long…open wound!...And, now we know that we have a medical problem, a drug problem, and as she talked with us at the agency, we realized that she had been diagnosed as bipolar…so, all these things were affecting the mom as well as the children.

Example 9: Family Distress
The week before the Christmas holidays, I went over to the house to see them because I was going to get the kids something for Christmas. They were sleeping in their car because it was freezing cold and their electricity was off and they didn’t have any heat. So, I went and paid their bill for them. I just couldn’t stand it.

Family values placed on education emerged as the final subcategory of the analysis. This subcategory emerged as a coding variation between the author and co-coder. The co-coder identified this theme and recommended its inclusion in the results. Family values placed on education referred to the parent or guardians’ lack of understanding about the importance of education. The author and co-coder decided that this theme was most appropriate in the context of the treatment barriers category because case managers frequently discussed their role in emphasizing the importance of education to the parents of TASC participants. Therefore, family values placed on education was added as a subcategory of treatment barriers to TASC effectiveness. Evidence for this subcategory is provided in examples 10 - 11.
Example 10: Family Values Placed on Education
A lot of our problems are with parents who didn’t value education for themselves. They were not successful, so with them not being successful in school, they didn’t consider it a priority to send their children to school.

Example 11: Family Values Placed on Education
We have a motto that in K through 5 (fifth grade), there are no truant children and only truant parents. And it’s just the parent not doing what she has to do; not making it a priority that my children’s education comes first, and no matter what, they have to go to school.

Core Category

The core category of case manager as the agent of change emerged due to the intensive role of the case manager in helping the families of their clients. Originally, this author hypothesized that the case manager’s role consisted of only referring out to services and monitoring progress. Because the narratives emphasized the intensive role of the case managers as opposed to the referred services, the author had difficulty differentiating these roles. Therefore, the author added questions during the interviews to help clarify how external social service agencies contributed to the TASC process. For instance, this author asked one interviewee to discuss the most effective and most widely utilized services. Another interviewee was asked to comment on the effectiveness of the referred services in general.

A pattern emerged implying that services from outside agencies were more effective if certain case management conditions were met. These conditions related directly to the case manager’s role regarding the three categories. In other words, the effectiveness of the external services depended upon the case manager’s commitment to the family (persistence and trust), the case manager’s ability to help the family develop a collaborative support network (interagency collaboration and building support systems), and the case manager’s ability to help the family overcome treatment barriers (family distress, adverse events, and family values placed on education). Thus, the case manager represented the agent of change for TASC effectiveness.
**Discrepancies**

A discrepancy emerged that challenged the validity of the core category. A common theme indicated that truancy court was an effective service regardless of the case manager’s role in the treatment process. Hence, the categories of commitment, support networks, and treatment barriers did not seem to be related to the effectiveness of the truancy court. However, a further analysis revealed that the truancy court relied heavily on case managers to work closely with both the court and the families to inform the judge’s decisions. Therefore, this phenomenon was coded as interagency collaboration in the category of collaborative support network. Evidence of this finding is presented in example 12.

**Example 12: Truancy Court Discrepancy Coded as Collaborative Support Network**

Actually the truancy court is considered a service. That has been one of our biggest success points in EBR parish. The fact that we developed that particular mediation process. That adds another tier of intervention… it’s a mediation process in which we partner with the juvenile court justices and they agree to appoint a hearing officer, who wears a robe. It takes place at juvenile court in a court room. The case manager gives report about everything that’s been done. Court has a copy of the IFSPA (Informal Family Service Plan Agreement) that they give (to the family) on the date of their appearance. They give the most updated attendance information. What’s become a very key part of the process is a letter from the teacher that says this is what’s happening in the classroom and this is what I’ve tried to do. After the information is presented, the judge goes back to the parent and child and asks the parent and child to give their take. Parent and child get opportunity to explain their side of the story. Then there’s a mediation process where they work together and the judge will order the family to comply with the IFSPA.

**Program specific barriers**

Program specific barriers emerged as a common theme during the analysis, but were not coded in the context of the three categories. This theme refers to problems inherent in the TASC program that may affect treatment outcomes. It was included in this analysis to further the understanding of why TASC is not always effective. During the interviews, case managers were asked how to improve TASC services. They frequently responded by mentioning macro-level
problems such as funding and staff shortages. In particular, the staff identified the need for each case manager to serve only one school rather than four, and their difficulty maintaining a caseload of over 100 families. Examples of program specific barriers are provided in examples 13 - 15.

Example 13: Program Specific Barriers to Treatment Success
And if each school could have one TASC officer (case manager), you might really be able to do a good job because you become part of that school family. And then you could work with and them (the truant students) and catch them…but we only have us and we’re spread pretty thin.

Example 14: Program Specific Barriers to Treatment Success
In an ideal world, we would have more resources just like any other social service program. If we had one TASC person to work at every school, you could quickly see the cases, have a smaller caseload, have more time for intensive case management, and cover more cases. We target the most high risk schools; it’s 100-200 cases a year per case worker. This limits the ability to intensely case manage that many cases.

Example 15: Program Specific Barriers to Treatment Success
We have four schools a piece and sometimes we have to, well you know how the squeaky wheel gets the oil…It (referring to high risk cases) could be a lot. Some of our schools have 600 kids. If you really want to make a complete impact, you would say have one school a piece.

In sum, this study used a grounded theory research design to gain a deeper understanding of the TASC intervention through case manager perspectives. The analysis revealed three interrelated categories of commitment to families, collaborative support network, and barriers to treatment success. Case manager as the agent of change emerged as the core category. Furthermore, the author developed a new concept assuming that referred services are more often effective when the case manager’s role meets the conditions outlined in the categories and subcategories of this analysis. Finally, the author commented on barriers to treatment success that were specifically related to the structure of the TASC program.
CHAPTER 5: DISCUSSION

This study assessed the effectiveness of the TASC case management intervention in reducing long-term juvenile justice involvement. The extent of juvenile justice involvement among TASC participants was assessed, which indicated an extremely low number of TASC participants in the formal juvenile justice system. The analysis on the extent of juvenile justice involvement was followed by an analysis to determine significant predictors of TASC re-referral. Next, the author used the regression discontinuity design to evaluate the effectiveness of TASC case management in comparison to the less intense comparison condition. Finally, the author conducted a qualitative study to inquire about case managers’ perspectives regarding the effectiveness of TASC. This chapter summarizes the results for each research question and then discusses the major findings in the framework of the reviewed literature. Implications for future research, policy, and practice are also provided. The chapter concludes with a discussion on the limitations of this study and how the findings contribute to the overall knowledge base on truancy interventions.

Extent of Juvenile Justice Involvement

The author used data from the LAOJJ and TASC databases to determine how many TASC participants became formally involved in the juvenile justice system. Only eleven TASC participants were identified in the LAOJJ database. Next, the author determined the number of non-TASC youth in LAOJJ who would have been age eligible to participate in TASC during this study. Findings showed that 283 non-TASC youth became involved in LAOJJ, who resided in the same parish of the TASC site under investigation. The author then assessed the number of re-referrals to the TASC program. The analysis revealed that 710 (17.3%) TASC participants who completed the intervention were re-referred for continued problems with truancy. Overall,
there were 714 cases that met criteria for the dependent variable. Due to these findings, the author determined that the dependent variable more accurately represented TASC re-referral than formal contact with the Louisiana juvenile justice system. From this point forward, the author will refer to the dependent variable as TASC re-referral.

Considering the empirical link between truancy and juvenile offending, results from the current study are surprising. Previous research indicates a strong correlation between childhood truancy and future offending (Garry, 1996). According to Teasley (2004), truancy is the first behavioral issue that leads to future offending. A 2009 study found that truancy in elementary school was the most robust predictor of future offending and more than tripled the odds of becoming a serious persistent offender (Van Domburgh et al., 2009). A 2005 study found similar results in differentiating a delinquent cohort from a matched, non-delinquent cohort. Significantly higher truancy rates were found in the delinquent cohort (Wang et al., 2005).

However, limitations existed in the current study due to the young age range of the sample. In Louisiana, children must be at least ten years old to be referred to juvenile court (Louisiana Supreme Court, n.d.). The author found that 723 youth in the LAOJJ database from the TASC site’s parish did not participate in TASC. Among this non-TASC group, only 283 would have been of eligible age to participate in TASC because TASC only treats elementary school youth. Hence, the study sample (N = 4098) consisted of many elementary school students who were not old enough for juvenile court involvement by the time the data was collected. Future studies should measure an adequate time frame to ensure that the sample of children meets the minimum age for formal juvenile court involvement.
Predicting TASC Re-Referral

The aim of the second analysis was to predict the likelihood of TASC re-referral based on TASC participant characteristics. The author used a forward stepwise logistic regression analysis using demographic and academic variables. The final model contained grade, race, and grade retention. Variables that were not in the final regression model included age, gender, special education status, and the pre-intervention risk score.

The negative association between grade (K – 5th) and the outcome indicated that participants in higher grades (i.e., proxy variable for older age) had reduced odds for TASC re-referral \( (OR = .75) \). On the other hand, African American race was positively correlated to the outcome variable and increased the odds of TASC re-referral \( (OR = 1.84) \). The final variable in the model was grade retention, which indicated whether or not the TASC participant had failed a previous grade. Grade retention was positively correlated with the outcome variable, and thereby increased the odds of TASC re-referral \( (OR = 1.27) \).

The TASC participants’ grade-level at referral was strongly associated with age \( (r = .926) \) in the current study, and many studies have included age as a demographic variable to predict youth crime and other behavioral outcomes. In contrast to the findings from this study, higher ages were associated with juvenile offending according to a 2002 study (Stouthamer-Loeber et al.). However, a 2005 study found that youth with truancy offenses were younger in comparison to a group of non-truancy offenders (Wang et al.). Mixed findings regarding age are likely due to the differing outcome variables in these studies. In the current study, the significant findings regarding grade-level at TASC referral may be because the younger TASC participants have more years to be re-referred since TASC only treats elementary school students. Further
investigations should examine if young age at first truancy offense influences the rate of re-
offending.

Previous research has shown that African American race is a demographic predictor of 
juvenile offending. For instance, a 1998 panel investigation revealed significant differences in 
offending rates for African Americans (51%) in comparison to their Caucasian counterparts 
(28%; Loeber et al.). Statistics from the Office of Juvenile Justice and Delinquency Prevention 
(OJJDP) have also illustrated the disproportionate number of African American involved in the 
juvenile justice system. In 2009, African American youth accounted for over 50% of arrests for 
viable crimes and over 30% for property crimes (Puzzanchera & Adams, 2011).

Disproportionate minority contact (DMC) is the term used to describe the 
overrepresentation of minorities in the juvenile justice system. It is commonly argued that racial 
bias in the justice system is an underlying cause of DMC. A 2007 report from the Office of 
Juvenile Justice and Delinquency Prevention concluded that differences in offending behavior 
among racial groups did not explain DMC. Hence, minority youth did not commit more offenses 
than their white counterparts even though they were disproportionately represented in the justice 
system (Huizinga et al., 2007).

Mixed findings on race have shown that African American race does not always predict 
juvenile offending. For instance, a study on the offense trajectories of adolescent offenders 
indicated that African American race was not a significant predictor of persistent serious 
offending (Chung et al., 2002). In order to clarify the relationship between race and offending, 
further investigations of TASC should include a more diverse sample because African American 
children comprised over 90% of the sample in the current study.
Grade retention made up the next significant predictor in the current study, and has been empirically linked to juvenile offending in previous studies. A 2008 study used cascade modeling to demonstrate the prediction capability of grade retention on adolescent violence (Dodge et al.), while findings from a 2005 study showed a strong correlation between grade retention and juvenile delinquency (Dodge et al., 2008; Wang et al., 2005). Inconsistent findings, however, were evident in a 2007 study where grade retention did not significantly predict adult crime (Ou et al., 2007). Although this study’s findings on grade retention are consistent with much of the previous literature, a further analysis could determine the reasons for grade retention. Other variables like the family’s socioeconomic status may mediate the relationship between grade retention and juvenile justice involvement.

The independent variables that were not in the final prediction model included gender, special education status, and the pre-intervention risk score. The finding that male gender did not predict juvenile justice involvement was a surprise considering the number of studies that have shown strong correlations between male gender and juvenile offending (Chung et al., 2002). Perhaps the reason for the inconsistency was because outcome variable represented TASC re-referral rather than the anticipated outcome variable of formal juvenile court involvement.

Another reason for the discrepancy with previous research may be due to the empirical association between female gender and truancy. A 2005 study compared a group of first-time truancy offenders to a group of first-time non-truancy offenders (Wang et al.). Findings showed that female gender was significantly associated with the first-offense truancy group (Wang et al., 2005). In other words, a higher proportion of females were referred to juvenile court for first-
time truancy offenses (Wang et al., 2005). This finding may explain why male gender did not significantly predict juvenile justice involvement in the current study.

Special education status also failed to significantly predict TASC re-referral. This finding was inconsistent with previous research that linked special education status to criminal recidivism in juveniles (Cottle et al., 2001). The current study’s finding may be due to the high number young elementary school students in the sample. Over 50% of the sample was composed of kindergarten and first grade students, and therefore, school staff may not have had sufficient time to identify issues requiring special education accommodations. Also, the criminal recidivism outcome variable of criminal recidivism differed from the TASC re-referral variable in the current study.

The pre-intervention risk score was the third independent variable not included in the prediction model, and served as a proxy for risk level among the TASC participants. This score was a composite value taken from the TASC referral form and Risk I survey prior to the intervention. The scores ranged from 7 to 129 with a mean of approximately 31. According to the prediction model, the higher risk scores did not significantly predict TASC re-referral.

The bulk of the juvenile delinquency literature has indicated the opposite of this finding. Studies have demonstrated that the cumulative impact of risk factors increases chances of juvenile offending (Shader, n.d.). A 2008 study compared a high-risk group to a low risk group based on several demographic, academic, and family variables (Green et al.). Findings showed that a higher number of risk factors increased odds of a juvenile delinquency referral by 800%. However, a meta-analysis on youth violence prevention provided insight on the current study’s findings on the risk score. The meta-analysis revealed that the highest risk groups who received a school-based intervention exhibited the greatest reductions in problem behaviors (Wilson et al.,
2003). Perhaps the TASC cases with the highest risk scores sustained greater benefits from the case management intervention than the lower risk cases.

Another explanation for the pre-intervention risk score’s inability to predict TASC re-referral may be due to the number of predictor variables that were not included in the model. For instance, this study did not include variables that have been shown to predict juvenile offending in previous research such as low IQ, low empathy, criminal involvement of family members (Farrington et al., 2009), low family income, large family size, and young age of mother at childbirth (Bor et al., 2004; Farrington et al., 2009; Herrenkohl et al., 2001; Joliffe & Farrington, 2004).

**Effectiveness of TASC Using the Regression Discontinuity Design**

The author sought to determine the effectiveness of TASC using the RD design. The low-risk (i.e., comparison) group scored a 26 or below on the pre-intervention assignment score and received a parental notification and attendance monitoring. The at-risk group scored 27 or above on the pre-intervention assignment score and were placed in the intensive case management (i.e., treatment) group. For the purpose of this study, juvenile justice involvement was defined as any formal contact with the juvenile court system or being re-referred to TASC within six years of completing the intervention. However, the dependent variable consisted almost entirely of TASC re-referral, and thus, the author re-labeled this variable in order to ensure clarity of the study’s findings.

A logistic regression analysis revealed that the intensive case management intervention did not reduce the likelihood of TASC re-referral. In fact, the case management intervention slightly increased the odds. Approximately 18.7% of the treatment group met criteria for TASC re-referral, whereas 16.3% of the comparison group met criteria. The overall model fit consisted
of the following independent variables: participation in the treatment group, the pre-intervention risk score, and the interaction between treatment and risk score. Covariates consisted of race (African American), grade (K – 5th), and grade retention. The author compared the covariate model (i.e., Model 1) to the final model that included independent variables and covariates. Nagelkerke R-squared values showed that the independent variables only slightly improved the model by .4% (5.2% to 5.6%) and that most of the variance was attributed to the demographic covariates of race, grade, and grade retention. Therefore, the prediction capability was very weak among the independent variables of treatment, assignment score, and the interaction.

An explanation for why the case management intervention did not reduce the odds of TASC re-referral may be due to high caseloads among the case managers. TASC case managers typically carry caseloads of over 100 families and some of these cases require intense monitoring due to family circumstances. Research has shown that high caseloads can reduce the effectiveness of case management. A 2000 study found that higher caseloads predicted lower performance scores among a sample of mental health case managers. The median caseload was 33 and maximum self-reported performance was found at between 15 and 20 cases (King, Le Bas, & Spooner, 2000). Higher caseloads were correlated with poor performance scores in several different areas including: 1) being familiar with the client’s home environment, 2) having adequate time to respond to family needs, 3) helping clients to access services, and 4) responding to acute needs of clients (King et al., 2000). According to these results, TASC case managers’ maintain more than five times the recommended caseload for ideal performance. One can assume that these extremely high TASC caseloads negatively impact treatment effectiveness.

Findings from this study are difficult to compare to other truancy interventions because of different outcome variables. Most truancy intervention studies assess outcomes based on
reductions in truancy rates. For instance, a prior analysis of the TASC program indicated that the intensive case management group exhibited a significantly higher reduction in truancy rates than the comparison group (Thomas et al., 2011). Project START, another truancy intervention, produced similar outcomes in reducing truancy rates at one year post intervention (Fantuzzo et al., 2005). To this date, no known truancy studies have measured a program in terms of juvenile justice outcomes.

The current study is also difficult to compare with childhood delinquency prevention programs. Although these programs are more rigorously evaluated than truancy interventions, their outcomes are typically measured through social, emotional, or behavioral outcomes (Wilson et al., 2003). For example, the school-based PATHS intervention increased emotional competence and reduced subsequent disruptive behaviors (Greenberg et al., 1995). Findings from the Incredible Years intervention yielded similar results including increased social competence and self-regulation, and decreased conduct problems (Webster-Stratton et al., 2008).

Similarities with the current study’s design, however, were observed in a 1992 evaluation of the Seattle Social Development Project (SSDP), a school-based delinquency prevention program (Hawkins et al.). In a four year follow-up, findings indicated that SSDP reduced rates of delinquency as well as increased bonding to family and school. These findings reinforced the validity of the social development model (Catalano & Hawkins, 1996) and implied the need for future studies to evaluate intermediate outcomes such as academic, social, emotional, and family outcomes. Therefore, subsequent analyses of TASC should include multiple outcome variables that have been empirically linked to juvenile offending.
**Relationship between the Treatment Variable and Pre-Intervention Risk Score**

The interaction term (treatment*pre-intervention risk score) enhanced the overall model fit and strengthened the effects of treatment and the pre-intervention assignment score. The pre-intervention assignment score was not initially a significant predictor in the model until the interaction term was added. This phenomenon suggested that treatment effects were distributed differently among the pre-intervention risk scores of TASC participants in the treatment group. The negative correlation of the interaction term indicated that TASC participants with scores closer to the cut point of 27 were at increased odds of TASC re-referral. In other words, participants with lower risk scores who received the case management intervention were at greater risk for being re-referred to TASC than the participants with higher risk scores.

This finding is in stark contrast to previous studies that examined the cumulative impact of risk factors, and concluded that more risk factors increased the chances of offending (Green et al., 2008; Shader, n.d.). Even a previous TASC evaluation indicated that treatment effects were reduced for the higher risk participants (Thomas et al., 2011). Thomas and colleagues (2011) found that TASC participants with highest risk scores benefited less from the case management intervention exhibited a smaller reduction in unexcused absences than the other participants in the intervention group.

In contrast, studies on school-based behavioral interventions have shown that the highest risk cases received the greatest benefits (Wilson et al., 2003). Perhaps the TASC case managers’ intense work with the highest risk participants led to greater program effects. Another explanation may be due to the TASC case manager’s high caseloads. Based on the empirical relationship on high caseloads and low case management performance, it is plausible that the TASC case managers prioritized their highest risk cases and had little time to focus on the less
severe cases (King et al., 2000). The qualitative portion of the current study provided further evidence that the high caseloads and severity of the participants’ issues may have detracted from program effectiveness.

**Perceptions of TASC Case Managers**

The author interviewed six TASC staff members to gain a deeper understanding of the TASC intervention. A grounded theory qualitative research design was used to interpret the data. The core category was the case manager as the agent of change, and emerged from the three categories of 1) commitment, 2) collaborative support network, and 3) treatment barriers. The three categories referred to the case managers’ roles in working with their cases.

Commitment was defined by persistence and trust. Collaborative support network was defined by interagency collaboration and building social support, and treatment barriers referred to helping families overcome family distress (e.g., poverty, homelessness, instability), adverse events (e.g., substance abuse, incarceration, child neglect), and family values placed on education. A new concept emerged from the data assuming that the case manager must meet criteria of the three categories in order for referred services to be effective. Hence, the author postulated that the case manager must be committed, build a collaborative support network, and help their families overcome treatment barriers in order for the various referred services to be effective.

Qualitative studies on truancy interventions are rare in the literature base. Kimberly (2007) employed a qualitative investigation to understand child outcomes from the Truancy Prevention through Mediation Program. Findings indicated that the program was effective in increasing attendance and improving academic performance, facilitating parent-teacher relationships, and instilling self-confidence. TASC effectiveness may be associated with these
findings on child outcomes, but the current study focused on the role of the case manager rather than specific child outcomes. Differences between studies likely arose due to the questions asked in the structured interviews. The author’s interview questions in the current study were open-ended, whereas the questions in the 2007 study were tailored toward child outcomes.

Another qualitative study assessed the underlying causes of truancy in the Baltimore, MD area (State Justice Institute, 2011). Focus groups with law enforcement agencies, social service providers, parents, and school personnel convened to discuss the environmental context of truancy. Findings shared similarities with the current study in regard to the treatment barrier category. The researchers identified themes of poverty, unstable housing, values placed on education, individualized academic needs of children, inadequate supervision, transportation problems, neighborhood safety, and family problems (domestic violence, substance abuse, incarceration, etc.). Each theme from the 2011 study was identified in the current study with the exception of neighborhood safety. Neighborhood safety referred to children’s exposure to neighborhood risks such as gang battles, and that children frequently missed school to avoid harassment or bullying (State Justice Institute, 2011). Neighborhood safety, gang battles, harassment, and bullying did not emerge as themes in the current study. Perhaps study differences were due to higher rates of gang activities in the Baltimore, MD area. Another explanation may involve differences in population density between Baltimore, MD and the city in the current investigation. Baltimore is a more densely populated city (U.S. Census Bureau, 2010), which could be associated with a higher rate of gang-related turf wars.

**Social Work Case Management**

Findings from the current study were also compared to social work case management standards. A 2005 report released by the National Association of Social Workers outlined
guiding principles for social work case management. Among the guiding principles, the report recommended that case managers should establish therapeutic relationships with their clients. The report also identified the importance of collaborative teamwork and recommended coordination across disciplines with multiple agencies or organizations (NASW, 2005).

Similarities were observed between these guiding principles and the current findings. The category of commitment in the current study reflected similarities with the therapeutic relationship principle. TASC case managers established therapeutic relationships with their families by earning their trust and being persistent in their work to help the families. Further, the category of collaborative support network resembled the case management principle of teamwork. Findings indicated that TASC case managers worked as a team with other agencies to build support systems for their families. Thus, TASC case manager roles seemed to align with the guiding principles of social work case management.

Limitations of the Quantitative Study

The current study was limited by threats to internal and external validity. Threats to internal validity arose because of secondary data issues, reliability of instruments, treatment fidelity, and the operationalization of the outcome variable. Threats to external validity involved the demographics of sample, the location of the intervention, and differences regarding the attrition sample.

The use of secondary data limited the internal validity of the study because of missing data and the unavailability of certain variables. For instance, the author could not use the number of suspensions as a predictor variable because over 65% of the entries were missing. The suspension variable was also inadequate because schools entered these data differently when making referrals. Some schools counted the total number of suspensions, whereas others
counted only suspensions from the current school year (Thomas, 2011). Academic (e.g., grades or standardized test scores) and family variables (e.g., family management practices) depicted other relevant predictors that were not included because these data were not available.

Reliability of the TASC referral form and RISK I survey comprised the next threat to internal validity. The TASC referral form contains face validity and content validity (Rubin & Babbie, 2008), but has never been empirically evaluated. The RISK I survey has been empirically evaluated (Kim & Barthelemy, 2011), but there is no evidence to suggest that teachers complete the survey in a consistent manner. Teachers may not have sufficient information to answer all questions accurately, which could lead to skewed risk scores and assignment to the wrong intervention group.

Treatment fidelity of the intensive case management intervention represents the next threat to this study. The TASC model requires individualized treatment plans so that services are tailored to meet specific family needs. Therefore, intervention differences are inherent in the model and the case managers’ roles may differ depending on the severity of the case. Treatment fidelity was a limitation because this author did not monitor the number of services or the amount of case manager contact with the participants’ families. This author intentionally refrained from including the number and types of service referrals because a 2011 TASC evaluation indicated no significant relationships between services and TASC effectiveness (Thomas, 2011). The amount of case manager contact time was not included in this study because this variable was not measured in the TASC process.

Limitations to external validity were also present in the current study. The sample lacked diversity due to the high number of African Americans (92%) and the targeted TASC schools were located in inner-city neighborhoods in an urban city. According to TASC case manager
interviews, most of the clients they served came from impoverished families. Therefore, findings from this study may not generalize across race, geographic location, or income levels.

The juvenile justice outcome represented another limitation to this study. This outcome consisted of almost entirely TASC re-referrals rather than delinquent offenses. Although truancy is a status offense, this study could not generalize findings across different groups of offenders such as those adjudicated for severe delinquent offenses (e.g., robbery, assault, etc.).

Significant differences between the study sample and the attrition sample comprised the next limitation. Although the 22% attrition rate was lower than Project START and Operation Weed and Seed (37% and 42%, respectively), significant differences were found regarding gender and grade retention (Fantuzzo et al., 2005; McCluskey et al., 2004). The attrition sample contained a higher proportion of male participants and participants who had previously failed a grade. These variables are deeply rooted in the literature as risk factors for juvenile offending (Greene et al., 2008), which may imply that the attrition sample was at greater risk for juvenile justice involvement than the study sample. This finding makes sense through the lens of the social development model. According to the social development model, weak bonds to pro social institutions (e.g., school or TASC program) place children at a higher risk of engaging in future antisocial behaviors.

Limitations of the Qualitative Study

Inter-rater reliability comprised the major threats to the qualitative study. Inter-rater reliability refers to the consistency of coding the qualitative data among other researchers (Rubin & Babbie, 2008). It is recommended to use two co-raters to independently code the transcripts and then calculate the percent agreement among the codes (Rubin & Babbie, 2008). The current
study utilized only one master’s level co-coder, who reviewed the transcripts after the final coding phase in order to ensure the trustworthiness of the data.

Implications for Future Research

Future research can build upon the current study by including intermediary outcome variables in addition to long-term rates of juvenile justice involvement. Variables such as family management practices (e.g., structure, supervision), academic measures (e.g., grades, standardized test scores), and behavioral variables (e.g., disciplinary incidents) should be used to evaluate short-term success rates, and may help explain the long-term impact of TASC in the prevention of juvenile offending. The exploration of other intermediary outcomes may also shed light on the childhood trajectories towards juvenile offending.

Grasping the true nature of the TASC case management intervention is another implication for future research. Researchers should attempt to quantify the TASC case management by measuring the case managers’ number of contact hours with each family. In particular, future studies should differentiate the amount of time spent with the highest risk cases and less severe cases. An examination of contact hours may confirm this author’s assumption that the intense monitoring of the highest risk cases reduced the case managers’ ability to assist less severe cases.

A further examination may also be warranted to investigate the impact of high caseloads among the case managers. Previous research has recommended caseloads at around 20 cases per case manager (King et al., 2000). TASC required over 100 cases per case manager, which may have detracted from program effectiveness.

Finally, future research should build upon this study by interviewing TASC families. Obtaining family perspectives could provide further clarification about the effectiveness of the
case management process and shed more light on case manager roles. Interviews should also be conducted with TASC staff from other sites in rural and suburban locations to evaluate how cultural and geographic differences affect the intervention.

**Implications for Social Work Practice**

Findings from the current study can inform the development of childhood truancy interventions. The qualitative findings of this study provided a more in-depth understanding about family risk factors associated with the target population of truant children. Poverty, family mobility, homelessness, child neglect, substance abuse, and parent incarcerations were just a few examples of treatment barriers to TASC effectiveness, which likely made program success difficult to attain. Truancy interventions may be able to better serve at-risk children in urban areas by lowering caseloads, lengthening the time of the intervention, and incorporating a school-wide intervention for all youth who attend the targeted schools.

Large caseloads have been associated with higher distress and lower performance among case managers (King et al., 2000). Moreover, case managers reported optimal performance with caseloads that ranged from 15 to 20 (King et al., 2000). TASC case managers typically maintain caseloads of over 100, and it is plausible that the high caseloads interfere with treatment success.

Case manager burnout may be a product of high caseloads and prohibit optimal treatment success. A 2004 study indicated that urban case managers reported higher stress levels than rural case managers, especially in terms of interagency collaboration, service coordination, and dealing with crisis situations (Gellis, Kim, & Hwang, 2004). Previous research has also suggested that social work supervisors can reduce staff burnout by increasing their support. In particular, creating a comfortable work environment, encouraging peer support, and reducing caseloads have been associated with lower rates of staff burnout (King et al., 2000).
Practitioners should consider this phenomenon and ensure that truancy programs are developed within the environmental context of the at-risk populations. Hence, strong supervisor support and reduced caseloads may be necessary for case managers who serve families in impoverished, inner-city communities with high crime rates and failing schools.

Practitioners should also consider increasing the length of time for childhood truancy interventions to sustain long-term success. Project START, for instance, demonstrated high rates of long-term success in reducing truancy after participants completed a two-year intervention (Fantuzzo et al., 2005). TASC services typically last between six months to a year, which may be inadequate to meet the needs of each case. Increasing the duration of TASC and other childhood truancy interventions may lead to higher long-term success rates.

The development and implementation of school-based interventions comprise the final implication for social work practitioners. School-wide interventions targeting all youth at high-risk schools have shown effectiveness in reducing long-term rates of youth violence and delinquency (Hawkins et al., 1992). A teacher-led curriculum, for instance, demonstrated success in promoting social competence and reducing aggressive behaviors among a large sample of elementary school students (Webster-Stratton et al., 2008). Similar programs should be implemented at inner-city elementary schools that have a history of high truancy rates. Perhaps school social workers can advocate for these school-based interventions in order to supplement other anti-truancy efforts.

**Implications for Social Work Policy**

The qualitative portion of the current study indicated that the TASC case managers wanted to increase their outreach for at-risk children, but did not have the resources in terms of personnel or finances. The case managers identified the need for each case manager to cover
only one school rather than four, which would presumably decrease caseloads and improve collaboration with school staff to better serve truant youth.

A TASC expansion with reduced caseloads would require additional personnel, and thus, increased funding from the Louisiana Legislature. However, the Louisiana Legislature’s support for TASC has dwindled in recent years. In fact, TASC funding was substantially reduced in 2009, which forced the closure of three TASC sites around the state (Gomila, 2013). The funding cuts also eliminated the partnership between TASC and LSU, whose staff had provided administrative oversight, performance monitoring, and ongoing research into TASC effectiveness. These administrative responsibilities were transferred to TASC staff members in addition to their large client caseloads. The funding rescissions have likely impacted the effectiveness of the TASC program due to increased roles and responsibilities without additional support. Therefore, policy-makers should consider program efficacy when making financial decisions regarding TASC or other interventions that target truants and other at-risk youth.

**Merits of the Current Study**

Few studies have rigorously examined elementary school truancy interventions and the existing studies have been plagued by multiple limitations (Gandy & Schultz, 2007; Sutphen, Ford, & Flaherty, 2010). Research limitations have involved small sample sizes, lack of long-term follow-ups, inadequate comparison groups, differences in participant age, inconsistent definitions of truancy, lack of program fidelity, and limited outcome variables (Dembo & Gulledge, 2009; Mueller, et al., 2006; Sutphen, Ford, & Flaherty, 2010). In the following section, this author will describe the common limitations of truancy interventions and discuss the current study’s contributions to the literature base.
Small sample sizes are a common threat to truancy intervention studies. Mueller and colleagues used a small sample \((N = 144)\) to evaluate a court based intervention, while Lehr and colleagues examined a school-based intervention with a sample of 147 (Lehr et al., 2004; Mueller et al., 2006). Adequate samples have proven difficult to maintain due to the vulnerable nature of the population (Dembo & Gulledge, 2009). The current study addressed this limitation by including a sample of 4,098 TASC participants. Furthermore, this author analyzed the attrition sample \((n = 888)\) to determine differences with the study sample.

Another limitation of truancy intervention research has involved the lack of long-term, post-intervention follow up measures. This limitation was evident in the Operation Weed and Seed intervention where the posttest took place after only one academic school year (McCluskey et al., 2004). Some studies have evaluated even shorter rates of success. For example, Mueller et al. (2006) employed the posttest four months after the intervention with no subsequent follow-ups. Truancy researchers have recommended more longitudinal program evaluations to provide implications regarding the long-term benefits of childhood truancy interventions (Dembo & Gulledge, 2009). The current study consisted of a longitudinal program evaluation that measured the outcome variable at up to six years post intervention.

Comparison groups depict the next major limitation of truancy intervention studies. Most studies lacked a meaningful comparison group or relied too heavily on pretest-posttest methodology that could not infer causation (Gandy & Schultz, 2007). For example, Lehr et al. (2004) and McCluskey et al. (2004) failed to use comparison groups in evaluating the Check & Connect and Operation Weed and Seed interventions. When randomized control trials are not possible, it is recommended that researchers use meaningful comparison groups that are matched on individual, family, and school-level characteristics (Rubin & Babbie, 2008). Therefore, the
current study employed an RD analysis, which consisted of a pretest-posttest, two-group quasi-experimental design with group assignment based on a pre-intervention cutoff score (i.e., risk score; Trochim, 1984). The RD design is rare in the truancy literature and has been used in only one other truancy intervention study (Thomas et al., 2011).

The next major limitation in truancy intervention studies is the variability of participant age. Many studies have utilized middle or high-school aged participants rather than an elementary aged sample (Bazemore et al., 2004; White et al., 2001). Truancy interventions should be developmentally tailored to a certain age group, and interventions for older youth will likely not be effective for younger populations (Bye et al., 2010). The limitation was addressed in the current study by using a sample composed of elementary school students.

Inconsistent definitions of truancy have also caused variability in truancy intervention samples, and have limited the external validity of many studies. Currently, no national definition of truancy exists and states legislatures have full autonomy to create their own truancy laws (Bye et al., 2010). The Louisiana Children’s Code defines truancy as five or more unexcused absences in one semester. Florida statutes, however, define chronic truancy as 21 absences, while Colorado law mandates intervention at 10 unexcused absences (Bye et al., 2010; Levy & Henry, 2007; Smink & Heilbrunn, 2005). Researchers have also used their own definitions of truancy for the purpose of referral to a specific intervention. For instance, White et al. (2001) defined truancy as four or more absences from school, whereas Mueller et al. (2006) defined truancy as missing 10% of the entire school year. Other studies such as Fantuzzo et al. (2005) did not specifically define truancy, but indicated that over 20% of the sample had missed over 25 days of school in the current year. In the current study, the author maintained a consistent
definition of truancy at five unexcused absences in one semester. According to TASC protocol, participants were referred immediately after the fifth absence (LSU, 2012).

Program fidelity is another problem in the truancy literature. Truancy intervention studies typically lack information on the fidelity of the treatment intervention, which inherently limit replication studies (Dembo & Gulledge, 2007). For example, McCluskey et al. (2004) did not specify the services rendered by the truancy officer or the caseworker in the evaluation of Operation Weed & Seed. Conversely, some studies have described the intervention in great detail, but did not use inferential statistics to confirm the intervention’s effectiveness (Mueller et al., 2006). The current study adequately described the TASC intervention, employed a rigorous statistical analysis, and used qualitative interviews to clarify the case managers’ roles.

The geographic locations of truancy interventions have threatened the external validity of multiple studies. Many studies took place in urban settings in the midwestern (Lehr et al., 2004; McCluskey et al., 2004), northeastern (Fantuzzo et al., 2005), or western United States (Van Ry & King, 1998). Few truancy intervention studies have been conducted in the Deep South, and intervention studies in other states may not be sufficient to explain local circumstances due to differences in sample characteristics. The findings from truancy programs in Florida, Colorado, or Idaho, for example, may differ from a study conducted in the Deep South due to cultural differences, inconsistent truancy definitions, or differences among demographic characteristics such as race and socioeconomic status (Dembo & Gulledge, 2009; Henry & Huizinga, 2007; Mueller et al., 2006). The current study built on previous research by evaluating an intervention located in an urban city in south Louisiana.

Lastly, previous truancy literature has measured success using rigid outcome variables. Most intervention studies only examine short-term reductions in truancy rates, which are usually
measured at post intervention or at the end of the school year (Gandy & Schultz, 2007). No known studies have assessed truancy interventions’ long-term effects in preventing subsequent offending or delinquency. Only correlational studies have drawn connections between truancy and youth offending (Zhang et al., 2007). Therefore, this author used a proxy for a juvenile justice outcome variable (i.e., TASC re-referral) in the current study to determine long-term benefits of the TASC program.

In sum, the current study contributed to the literature base in several ways. This author used a large sample ($N = 4098$), a long-term outcome measure, and a meaningful comparison group. The young age range of the elementary school sample and constant definition of truancy (i.e., 5 unexcused absences) also expanded the knowledge base. Furthermore, this author provided a detailed description of the intervention and used a qualitative analysis to better understand the case managers’ role. Finally, the current study is the only known truancy program evaluation that used juvenile justice involvement as the outcome variable.

**Conclusion**

Childhood truancy is a complex phenomenon that results from the interplay of multiple risk factors within the child’s family, school, neighborhood, and community (State Justice Institute, 2011). Truancy is considered the gateway to youth crime, and studies have demonstrated a strong correlation between childhood truancy and juvenile delinquency (Garry, 1996; Zhang, 2007). This study examined the effectiveness of an elementary school truancy intervention in terms of reducing juvenile justice involvement. This juvenile justice variable was almost exclusively defined by re-referrals to the TASC program rather than formal juvenile court involvement. Based on the findings from the RD analysis, the null hypothesis was retained. The TASC case management intervention did not reduce the odds of TASC re-referral.
This study also contained an exploratory qualitative analysis using a grounded theory design. Six TASC case managers were interviewed to clarify their roles in the TASC case management process. Case manager as the agent of change comprised the core category, which emerged from three categories: 1) commitment, 2) collaborative support network, and 3) treatment barriers. This author identified a new concept postulating that the case manager must meet certain conditions outlined in the categories and subcategories for the referred services to be effective.

Results from the current study should be interpreted with caution because of limitations to internal and external validity. Future research can build upon these findings by including different outcome variables and evaluating other TASC sites across Louisiana. Furthermore, policy-makers and practitioners should consider the impact of large caseloads and the level of risk among clients, and attempt to design interventions that address the environmental context of the child’s problems.
REFERENCES


# APPENDIX A:
## TRUANCY ASSESSMENT AND SERVICE CENTER REFERRAL FORM

<table>
<thead>
<tr>
<th><strong>Referral Date:</strong></th>
<th>____________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name of Person Making Referral:</strong></td>
<td>____________________________</td>
</tr>
<tr>
<td><strong>Referring School:</strong></td>
<td>____________________________</td>
</tr>
<tr>
<td><strong>Referral Person’s Position:</strong></td>
<td>____________________________</td>
</tr>
<tr>
<td><strong>Primary Grounds of Complaint:</strong></td>
<td>____________________________</td>
</tr>
<tr>
<td><strong>Secondary Grounds of Complaint:</strong></td>
<td>____________________________</td>
</tr>
</tbody>
</table>

### Child’s Information

| **Name:** | ____________________________ |
| **SSN:** | ____________________________ |
| **DOB:** | ____________________________ |
| **Gender (circle): M or F** | ____________________________ |
| **Race:** | ____________________________ |
| **Caregiver’s Name:** | ____________________________ |
| **Relationship to Child:** | ____________________________ |
| **Mailing Address:** | ____________________________ |
| **City:** | ____________________________ |
| **Zip code:** | ____________________________ |
| **Free/Reduced Lunch? (circle) Yes No Unknown:** | ____________________________ |

### School Information

| **Current Grade:** | ________ |
| **Absences at Referral:** | Unexcused:_____  Excused:_____  Tardies:_____ |
| **Has the student ever failed a grade? (circle): Yes or No** | If yes, please circle each grade failed: PK K 1 2 3 4 5 6 Unknown |
| **Student in Special Education? (circle): Yes or No** | If Yes, which status? __________________________ |
| **Number of Suspension Days:__________** | |
| **Number of Expulsions (all time):__________** | |

### FOR TASC USE ONLY

| **Date Complaint Received:** | ____________________________ |
| **Date Function Changed:** | ____________________________ |
| **Has this child or other family member ever had a history of attendance problems? (circle): Yes or No** | New Function Status: __________________________ |
| **Function Score:** | ____________________________ |
| **Function Status:** | ____________________________ |

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Office of Social Service Research and Development
### APPENDIX B:
#### RISK I SURVEY

| Child’s Name: __________________________ | Completed By: __________________________ |
| Date: __________________________ | Position: __________________________ |

**Defiant**  
- Argues with authority figures  
- Uses obscene language or gestures  
- Other ____________________________

**Manipulative**  
- Sneaky  
- Distorts truth  
- Blames others for mistakes  
- Other ____________________________

**Aggressive**  
- Bullies/threatens/intimidates others  
- Hits/Bites peers or teachers  
- Breaks or throws object  
- Other ____________________________

**Isolated**  
- Ignored by peers  
- Rejected by peers  
- Withdrawn  
- Other ____________________________

**Parental Attitudes**  
- Minimizes child’s problems  
- Blames others for child’s behavior/performance  
- Unresponsive to attempts to make contact  
- Other ____________________________

**Attention Seeker**  
- Wants teacher’s undivided attention  
- Causes class disruptions  
- Talks at inappropriate times  
- Other ____________________________

**Emotional Response**  
- Inappropriate response to correction  
- Lack of empathy  
- Flat affect – just stares  
- Does not express joy  
- Other ____________________________

**Unmotivated**  
- No desire to learn  
- Not prepared daily  
- Frequently has no homework  
- Exhibits little curiosity  
- Other ____________________________

**Risk Taking Behaviors**  
- Harms self intentionally  
- Sexual acting out  
- Suspected substance use/experimentation  
- Risky physical behaviors  
- Steals  
- Other ____________________________

**Unstable Home Life**  
- Poor hygiene  
- Regularly complains of hunger  
- Inappropriate clothing for weather  
- Suspected substance abuse by adult in home  
- Chronic illness/ lack of medical care  
- Lack of school supplies  
- Other ____________________________

**Developmental Issues**  
- Sucks thumb  
- Enuresis  
- Sleeps at inappropriate times  
- Eating problems  
- Speech/language/hearing problems  
- Other ____________________________

**Hyperactivity**  
- Can’t sit still  
- Short attention span for age/grade  
- Other ____________________________
## APPENDIX C:
### TASC REGRESSION DISCONTINUITY SCORING ALGORITHM

### Referral Information

<table>
<thead>
<tr>
<th>Number of unexcused absences</th>
<th>1 point per unexcused absence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of excused absences</td>
<td>1 point for every three excused absences (NOTE: the published RD article cites 1 pt. per excused absence)</td>
</tr>
<tr>
<td>Grade Level</td>
<td>K = 10 points</td>
</tr>
<tr>
<td></td>
<td>1st = 5 points</td>
</tr>
<tr>
<td></td>
<td>2nd = 4 points</td>
</tr>
<tr>
<td></td>
<td>3rd = 3 points</td>
</tr>
<tr>
<td></td>
<td>4th = 4 points</td>
</tr>
<tr>
<td></td>
<td>5th = 1 point</td>
</tr>
<tr>
<td></td>
<td>(K assigned more points because of less suspension, expulsion, etc.)</td>
</tr>
<tr>
<td>Previous Suspensions</td>
<td>10 per previous expulsion</td>
</tr>
<tr>
<td>Number of Tardies</td>
<td>1 point for every three tardies</td>
</tr>
<tr>
<td></td>
<td>(6 tardies =2 pts, 9 tardies = 3 pts, etc.)</td>
</tr>
<tr>
<td>Special Education</td>
<td>3 points</td>
</tr>
<tr>
<td>Previous grades failed</td>
<td>10 points per grade failed</td>
</tr>
<tr>
<td>Month of referral</td>
<td>September = 9 points</td>
</tr>
<tr>
<td></td>
<td>October = 8 points</td>
</tr>
<tr>
<td></td>
<td>November = 7 points</td>
</tr>
<tr>
<td></td>
<td>December = 6 points</td>
</tr>
<tr>
<td></td>
<td>January = 5 points</td>
</tr>
<tr>
<td></td>
<td>February = 4 points</td>
</tr>
<tr>
<td></td>
<td>March = 3 points</td>
</tr>
<tr>
<td></td>
<td>April = 2 point</td>
</tr>
<tr>
<td></td>
<td>May = 1 point</td>
</tr>
</tbody>
</table>

### Risk Indicator Checklist

| Defiant                       | Argues with authority figures – 5 points |
|                              | Uses obscene language/gestures – 5 points |
|                              | Other = 1 point                         |
| Aggressive                   | Bullies/threatens/intimidates others – 5 points |
|                              | Hit/bites peers or teachers – 5 points |
|                              | Breaks or throws objects – 5 points     |
|                              | Other – 1 point                         |
| Parental Attitudes           | Minimizes child’s problems – 3 points  |
|                              | Blames other for child’s problems – 3 points |
|                              | Unresponsive to attempts contact – 5 points |
|                              | Other – 1 point                         |
| Emotional Response           | Inappropriate response to correction – 2 points |
|                              | Lack of empathy – 1 point               |
|                              | Flat affect – just stares – 1 point     |
|                              | Does not express joy – 1               |
|                              | Other – 1 point                         |
| Risk –Taking Behaviors                  | Harms self intentionally – 5 points |
|                                        | Sexual acting out – 5 points        |
|                                        | Suspected substance use/experimentation – 5 point |
|                                        | Risky physical behaviors – 2 points |
|                                        | Steals – 5 points                   |
|                                        | Other – 1 point                     |
| Developmental Issues                   | Sucks thumb – 1 point               |
|                                        | Enuresis – 1 point                  |
|                                        | Sleeps at inappropriate times – 1 point |
|                                        | Eating Problems – 1 point           |
|                                        | Speech/Language/Hearing Problem – 1 point |
|                                        | Other – 1 point                     |
| Manipulative                           | Sneaky – 1 point                    |
|                                        | Distorts truth – 2 points           |
|                                        | Blames others for mistakes – 2 points |
|                                        | Other – 1 point                     |
| Isolated                               | Ignored by peers – 1 point          |
|                                        | Rejected by peers – 1 point         |
|                                        | Withdrawn – 3 points                |
|                                        | Other – 1 point                     |
| Attention Seeker                       | Wants teacher’s undivided attention – 1 point |
|                                        | Causes class disruption – 3 points  |
|                                        | Talks at inappropriate times –1 point |
|                                        | Other – 1 point                     |
| Unmotivated                            | No desire to learn – 4 points       |
|                                        | Not prepared daily – 1 point        |
|                                        | Frequently has no homework – 1 point |
|                                        | Exhibits little curiosity – 1 point |
|                                        | Other – 1 point                     |
| Unstable Home Life                     | Poor hygiene – 3 points             |
|                                        | Regularly complains of hunger – 1 point |
|                                        | Inappropriate clothing for weather – 1 point |
|                                        | Suspected substance abuse by adult – 3 points |
|                                        | Chronic Illness/Lack of med. Care – 3 points |
|                                        | Other – 1 point                     |
| Hyperactivity                          | Can’t sit still – 4 points          |
|                                        | Short attention span for age/grade – 4 points |
|                                        | Other – 1 point                     |

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APPENDIX D: 
INSTITUTIONAL REVIEW BOARD APPLICATION

Application for Exemption from Institutional Oversight

Unless qualified as meeting the specific criteria for exemption from institutional review board (IRB) oversight, ALL LSU research/ projects using human subjects as subjects, or samples, or data obtained from humans, directly or indirectly, with or without their consent, must be approved or exempted in advance by the LSU IRB. This Form helps the PI determine if a project may be exempted, and is used to request an exemption.

Applicant, please fill out the application in its entirety and include the completed application as well as parts A-F, listed below, when submitting to the IRB. Once the application is completed, please the completed application to the IRB Office or to a member of the Human Subjects Screening Committee. Members of this committee can be found at http://research.lsu.edu/CompliancePoliciesProcedures/InstitutionalReviewBoard/2828891293/Item297327.html

- A Complete Application Includes All of the Following:
  (A) A copy of this completed form and a copy of parts I thru F.
  (B) A brief project description (adequate to evaluate risks to subjects and to explain your responses to Parts 1 & 2)
  (C) Copies of all instruments to be used.
  (D) If this proposal is part of a grant proposal, include a copy of the proposal and all recruitment material.
  (E) Certificate of Completion of Human Subjects Protection Training for all personnel involved in the project, including students who are involved with testing or handling data, unless already on file with the IRB. Training link: http://phpn.nihtraining.com/users/login.php
  (F) IRB Security of Data Agreement: http://research.lsu.edu/files/item26774.pdf

1) Principal Investigator: Brett Blackmon
   Dept: Social Work  Ph: 225-242-8003  E-mail: bblackm@lsu.edu
   Rank: Doctoral Student

2) Co-investigator(s); please include department, rank, phone, and e-mail for each
   *If student, please identify and name supervising professor in this space

3) Project Title: Triacycyclic Assessment and Service Centers (TASC) and the Long-Term Impacts on Juvenile Justice Outcomes

4) Proposal? (yes or no) Yes  If Yes, LSU Proposal Number 4054
   Also, if YES, either
   ( ) This application completely matches the scope of work in the grant
   OR
   ( ) More IRB Applications will be filed later

5) Subject pool (e.g., Psychology students)
   TASC participants and case managers
   *Circle any "vulnerable populations" to be used: children, < 18, the mentally impaired, pregnant women, the elderly, other. Projects with incarcerated persons cannot be exempt.

6) PI Signature __________________ Date 5/4/2013  (no per signatures)

** I certify that my responses are accurate and complete. If the project scope or design is later changed, I will resubmit for review. I will obtain written approval from the Authorized Representative of all non-LSU institutions in which the study is conducted. I also understand that it is my responsibility to maintain copies of all consent forms at LSU for three years after completion of the study. If I leave LSU before that time the consent forms should be preserved in the Departmental Office.

Screening Committee Action: Exempted  [✓] Not Exempted  [ ] Category/Paragraph 2

Signed Consent Waived? [✓] Yes  [ ] No

Reviewer  ____________  Signature  __________________  Date  5/4/13

150
VITA

Bret James Blackmon, a native of Baton Rouge, Louisiana, received his bachelor’s degree from Louisiana State University in 2004, and thereafter, worked for a non-profit organization that specialized in the treatment of at-risk youth. Blackmon received his master’s degree in community counseling from Louisiana State University in 2009. He expects to graduate with a Ph.D. from the Louisiana State University School of Social Work in May, 2014 and plans to pursue a career in academia.