AN EXAMINATION OF SOCIAL CAPITAL AS A DELINQUENCY

PROTECTIVE FACTOR FOR YOUTH LIVING

IN IMPOVERISHED NEIGHBORHOODS

by

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ABSTRACT

This research utilized the Mobile Youth Study (MYS), a community-based multiple cohort longitudinal study of at-risk behaviors of youth living in the Mobile, Alabama Metropolitan Statistical Area (MSA). The extent that social capital serves as a protective factor in deterring juvenile delinquency for youth living in impoverished neighborhood was examined. Social capital included neighborhood connectedness, routine activities, attachment to school, hope, caring, attachment to friends, and warmth toward mother. Juvenile delinquency included gun carrying, knife carrying, weapon brandishment, and weapon use. Using multiple linear regression, within the Granger Causality framework, this study explored social capital as a protective factor in deterring juvenile delinquency. Results indicate a juvenile was more likely to carry a knife or gun depending on their age and if they identified their birth mother as the person most like a mother to them. Social capital factors of attachment to school and hours spent weekly hanging out with friends serve as a protective factor in deterring juveniles to brandish a weapon. Social capital factors of caring about others, hours spent working at a paid job, and attachment to school serve as protective factors in deterring juveniles from using a weapon. Implications for social work practice in schools, families, and communities are discussed in light of social capital factors deterring juvenile delinquency.
DEDICATION

This dissertation is dedicated in loving memory of my mother, Deborah Jean Massengill (September 26, 1951—July 15, 2012). School never came easy to me and my mother always encouraged me to keep trying and to never quit. The last two years of completing this dissertation, I felt her with me and encouraging me to finish. This dissertation is a testament to her constant love and support.
LIST OF ABBREVIATIONS AND SYMBOLS

Adjusted R²  A truer, smaller estimate of the degree to which the independent variables in a regression analysis explain the dependent variable. It is a measure of strength of association.

β  Standardized regression coefficient

b  The slope in a regression line

CAP  Chicago Area Project

DYS  Denver Youth Study

FBI  Federal Bureau of Investigation

GIS  Geographic Information Systems

M  Mean: the sum of a set of measurements divided by the number of measurements in the set

MSA  Metropolitan Statistical Area

MYS  Mobile Youth Study

η²  Most commonly called eta-squared. An association of the variance associated with all the independent variables.

N  Sample Size

NASW  National Association of Social Workers

p  Probability associated with the occurrence under the null hypothesis of a value as extreme as or more than the observed value

PHDCN  Project on Human Development in Chicago Neighborhoods

PYS  Pittsburgh Youth Study

r  Pearson product-moment correlation
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>$R^2$</td>
<td>Symbol for a coefficient of multiple determination between a dependent and two or more independent variables. It is commonly used measure of the goodness-of-fit of a linear model.</td>
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<tr>
<td>RYDS</td>
<td>Rochester Youth Development Study</td>
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<tr>
<td>SD</td>
<td>Standard Deviation</td>
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<td>SSDP</td>
<td>Seattle Social Development Project</td>
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<tr>
<td>$t$</td>
<td>Computed values of a $t$ test</td>
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<tr>
<td>X</td>
<td>Independent Variable</td>
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<td>Y</td>
<td>Dependent Variable</td>
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<td>$&lt;$</td>
<td>Less Than</td>
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Chapter 1

Research Problem

Introduction

There is a dearth of research concerning juvenile delinquency. However, the need to continue researching the many facets of juvenile delinquency remains. In fact, some researchers find it difficult to even define it (Bonnie, Johnson, Chemers, & Schuck, 2012; Scott & Grisso, 2005). Other studies have demonstrated that many risk factors contribute to delinquency (Bonnie et al, 2012; Schehr, 2005; Scott & Grisso, 2005), thus making it difficult to determine what youth are “at-risk.” Continued research into juvenile delinquency takes on a new sense of urgency when considering that there was a 9.9% increase in the number of persons under the age of 18 between years 2000 and 2010 (U.S. Census Bureau, 2010). According to the 2010 census (U.S. Census Bureau, 2010), there was an estimated 74,181,467 juveniles, or roughly, 25% of the U.S. population. Continuing the effort to adequately and accurately assess risk is an important endeavor.

Creating change at the community level is the key to successful interventions in communities. Most research pertaining to community organization practice is largely qualitative, and community practice interventions involve “clinical interventions at the community level” (Ohmer, 2008, p. 522; Thyer, 2001). Nicotera (2008) suggests that activities fostering a sense of civic engagement among juveniles have increased social development outcomes such as self-esteem, participation in pro-social behaviors, and awareness of juveniles’ own capacities. Social
workers involved in community practice are in a position to develop spaces for implementing activities to foster civic and community identity in young people as well as empowering juveniles to make changes within themselves and the communities in which they reside (Nicotera, 2008; Richards-Schuster & Dobbie, 2011). Social workers can also engage in social capital assessment with community residents in an effort to identify the strengths and limitations of a community and to improve local neighborhood initiatives (Fellin, 2008). This assessment and development of social capital within communities mirrors social work’s commitment to social and economic justice among all persons (Fellin, 2008; National Association of Social Workers, 2013).

Communities may be more susceptible to deviant behavior when they are disorganized and lack collective efficacy. This susceptibility is due in large part to community instability and high proportions of community disorganization, such as broken and/or single parent families (Bursick & Grasmick, 1993; Hoffman, 2002). The social work field is well equipped to respond to the risk and protective factors facing the juvenile population at risk for involvement in the juvenile justice system from an interdisciplinary perspective.

There is an abundance of research that has examined delinquency from the individual level and from the individual’s immediate social environment (i.e. family, peer group, local community, and school). Major theories of delinquency look for causes to explain why individuals engage in delinquency. The theories also describe situations most conducive to delinquency. This dissertation gives a brief overview of delinquency prevalence, etiology of delinquency, risk and protective domains, and the effects of social disorganization and social capital upon delinquency. Gaps in the scholarly literature will be discussed in light of the following research questions needing further inquiry: Does social capital serve as a protective
factor in deterring gun carrying among juveniles? Does social capital serve as a protective factor in deterring knife carrying among juveniles? Does social capital serve as a protective factor in deterring weapon brandishment among juveniles? Does social capital serve as a protective factor in deterring weapon use among juveniles?

**Delinquency Prevalence and Measurement**

The estimated number of juvenile arrests in 2012 totaled 968,534 (Federal Bureau of Investigation, 2014). The Uniform Crime Report states that arrests for all juvenile offenses decreased at a rate of 10.4 percent in 2012 from 2011 (Federal Bureau of Investigation, 2014). Snyder and colleagues (2003) assert that juveniles between the ages of seven and twelve who have had contact with the juvenile justice system have a greater risk of becoming chronic offenders. They often have longer offending careers due to engaging in delinquency at a younger age, and consume a disproportionate amount of resources from schools, the juvenile justice system, child welfare, and mental health agencies (Agnew, 2009; Snyder et al., 2003).

In order to determine the prevalence of juvenile delinquency, researchers often focus on three sources of data: official statistics, self-report data, and victimization data (Agnew, 2009; Kirk, 2006; Snyder et al., 2003). Official reports constitute juvenile arrest data, as well as how courts choose to handle delinquency cases (Agnew, 2009; Kirk, 2006; Snyder et al., 2003). The reports include data from official institutions such as the courts, police, and juvenile correctional agencies (Agnew, 2009; Kirk, 2006). Official report data can aid in our understanding of delinquency prevalence by providing a picture of how many juveniles come into contact with the juvenile justice system in a given year and the types of offenses. While official report data is useful, it does not come without problems. Agnew (2009) suggests that arrest data can
underestimate most forms of delinquency and their extent as well as provide misleading information regarding delinquency trends. This is especially relevant in assessing race-crime and ethnicity-crime relationships (Piquero & Brame, 2008). Piquero and Brame (2008) assert that studies pertaining to official records of crime consistently show that “Blacks exhibit higher levels of involvement in criminal offending than Whites do” (p. 1). Official crime statistics often report rates of involvement in serious violence as higher for Blacks than for Whites (Piquero & Brame, 2008).

Self-report data can be obtained by asking juveniles about the extent of their involvement in delinquency (Agnew, 2009; Kirk, 2006; Lynam, Piquero, & Moffitt, 2004; Snyder et al., 2003). It has become a major way criminologists have measured delinquency since the 1960’s (Agnew, 2009). Juveniles can complete questionnaires or be interviewed with a focus on delinquency committed during the previous year. Self-report data is anonymous or respondents are assured that their responses will remain confidential (Agnew, 2009; Kirk, 2006; Lynam et al., 2004). As juveniles assessed through such measures are more likely to report data not officially noted in criminal records. (Agnew, 2009; Kirk, 2006; Lynam et al., 2004; Snyder et al., 2003).

However, researchers have tried to estimate the accuracy of self-report data to determine truth in reporting through several ways: official record comparisons; comparisons with peer, family, or school reports; lie detector tests; comparisons with drug tests, and comparisons between groups known to differ in their level of delinquency (Agnew, 2009; Kirk, 2006; Lynam et al., 2004). Additionally, self-report data only provides a moderately accurate estimate of the extent of delinquency. Piquero and Brame (2008) suggest that self-report studies suggest a lower percentage of overrepresentation of Blacks in offending activity regarding less serious delinquent acts, whereas there is considerable evidence suggesting that Blacks are disproportionately
involved in more serious delinquent acts. There are few long-term self-report surveys focusing on delinquency, and many may underestimate the extent of delinquency due to only employing vague response categories focusing on minor offenses, which creates an under sampling of the most serious delinquents (Agnew, 2009; Kirk, 2006; Lynam et al., 2004).

Victimization data is similar to self-report data as it can provide information on crimes coming to the attention of police, as well as those that have not. The data is obtained by crime victims reporting on their experiences (Agnew, 2009; Kirk, 2006). Victimization data has been compiled on an annual basis since the early 1970s through the National Crime Victimization Survey (Agnew, 2009). There have been problems with victimization data as the data focuses on crimes against persons twelve and older, it does not focus on drug use or status offenses, and it does not provide information on crimes against businesses such as shoplifting (Agnew, 2009; Kirk, 2006). Groups with high rates of criminal victimization, such as homeless persons, are under sampled, and many victims do not report victimization. Additionally, the victim may not be able to estimate the age of the offender (Agnew, 2009; Kirk, 2006).

Research

longitudinal studies that have each contributed to understanding delinquent behavior. Each study sampled children or adolescents and followed them over time to examine their overall development.

The Denver Youth Study (DYS) focused on a probability sample of households deemed to be in high-risk neighborhoods in Denver, Colorado (Henry & Huizinga, 2007). The neighborhoods “were selected on the basis of their social ecology in terms of population and housing characteristics” and of these characteristics “only socially disorganized neighborhoods with high official crime rates (top one third) were included” (Henry & Huizinga, 2007, p. 11). The sample included 1528 children and youth “8, 10, 12, 14, or 16 years of age in 1988, and one of their guardians” randomly selected from households (Henry & Huizinga, 2007, p. 11). The youth were interviewed annually from 1988 until 1992, with a study retention rate of over 90% (Henry & Huizinga, 2007). The sample included 806 boys and 721 girls from 1988-1992 and 1995-1999 (Thornberry, Huizinga, & Loeber, 2004).

Tiet, Huizinga, and Byrnes (2010) used data consisting of 877 youths from the DYS to “identify predictors of resilience, longitudinal interrelations among predictors, and bi-directional relationships between resilience and life context factors” (p. 360). The authors hypothesized that children and adolescents with strong conventional bonding with family and school would be more resilient to the environmental risks of living in a socially disorganized neighborhood that encompassed poverty, crime, living in close quarters, and instability. Conventional bonding was defined as strong bonds with teachers and parents close, parental monitoring, school commitment, and extracurricular activity involvement supervised by adults (Tiet et al., 2010). Findings suggested that parental monitoring did predict antisocial behavior in some youths and pointed to the importance of parental monitoring being carried out in a way that youths do not
feel they are being controlled. Strong bonding with family and teachers moderately predicted resilience, as did involvement in extracurricular activities. Strong predictors of antisocial behavior and maladjustment included parental discord, involvement with delinquent peers, and adverse life events (Tiet et al., 2010).

Henry and Huizinga (2007) examined the relationship between truancy and the onset of drug use from ages 12 to 15, utilizing data from the DYS. Their analyses focused on a cohort of 304 youth. The cohort included 54.6% males, 9.5% White, 33.2% African American, and 47.7% Hispanic. Henry and Huizinga (2007) used drug use as an outcome because adolescence is a time when individuals begin drug experimentation and involvement in truancy. The authors found that juveniles who are truant increased their odds of initiation to drug use after adjusting for race, gender, and other potential confounders. Delinquent behavior, such as drug use, is more likely to occur where juveniles are unsupervised and are engaged in unstructured time with peers (Henry & Huizinga, 2007).

The Pittsburgh Youth Study (PYS) consisted of 1,517 boys located in inner-city Pittsburgh, Pennsylvania, from 1987-1988 (Loeber et al., 2012; Thornberry et al., 2004). The study examined the development of risk factors for juvenile offending, mental health problems, and drug use. The researchers initially screened students for problem behaviors in the first, fourth, and seventh grades of the public school system to identify high risk students (Loeber et al., 2012; Thornberry et al., 2004). Loeber and colleagues (2012) utilized data from the PYS to summarize key research findings from 1987 to the present. The authors also focused on the delinquency in the 1,517 males who were followed from late childhood into their early twenties (Loeber et al., 2012). Findings from the study encompassed developmental pathways to delinquency, such as the overt, covert, and authority conflict pathways. Juveniles followed an
orderly progress from minimal to serious antisocial behaviors from childhood to adolescence (Loeber et al., 2012). Findings showed that “physical aggression tends to increase between ages 6 to 7 and 9 to 10 years, well before adolescence” (Loeber et al., 2012, p. 1137). The prevalence of aggression, including physical aggression, decreases between childhood and adolescence. This indicates that some aggressive juveniles may “out-grow physical fighting and verbal aggression” (Loeber et al., 2012, p. 1137). Serious violent acts (i.e. robbery, rape, aggravated assault, homicide) as well as theft only constitute a minority of juveniles (Loeber et al., 2012). Therefore, the causes of delinquency can be said to encompass the individual, family, school, neighborhood, and peer group. The predictors of theft and violence were strongest at younger ages in African American males because they were more likely to be exposed to more risk factors for violence and theft (Loeber et al., 2012).

Defoe, Farrington, and Loeber (2013) utilized data from the PYS to test causal linkages between hyperactivity, low academic achievement, low socioeconomic status depression, and delinquency. The authors followed up with 503 boys in the youngest cohort and used comparable measures at each age from 11 to 15. Interviews were conducted with the male participants and caretaker. Self-administered questionnaires were completed by the teacher and caregiver. The information was combined with annual data from ages 7 to 19 (Defoe et al., 2013). Findings suggest that hyperactivity and low SES are independent causes of low academic achievement, which causes delinquency, and then depression. However, hyperactivity and low SES only have an indirect influence on delinquency, which is mediated by low academic achievement (Defoe et al., 2013). Low academic achievement was found to have the most direct influence upon delinquency. Hyperactivity and low SES were only found to have indirect influences upon delinquency.
The Rochester Youth Development Study (RYDS) included a sample of 729 boys and 271 girls, aged 13-14, and in the seventh and eighth grades of the public schools in Rochester, New York, in 1988 (Thornberry et al., 2004). The RYDS’ primary purpose “was to examine the development of serious delinquency, violence, and drug use” (Henry, Thornberry, & Huizinga, 2009, p. 7). Henry and colleagues (2009) utilized data from the RYDS to access the effect of truancy and the initiation of marijuana use. The study used five years of panel data collected from the juveniles and their primary caregiver every six months throughout adolescence (Henry et al., 2009). The authors focused on the initiation of marijuana use following truant behavior; they were able to establish that truancy is a risk factor for marijuana use.

The Seattle Social Development Project (SSDP) promotes positive and healthy behaviors through positive social development among children, adolescents, and young adults. The project began in 1979 as a social development strategy providing a theoretical basis for risk and protection focused prevention (Hawkins, Catalano, & Miller, 1992). The SSDP began in 1981 to test strategies for reducing childhood risk factors for school failure, drug abuse, and delinquency (Farrington, Jolliffe, Hawkins, Catalano, Hill, & Kosterman, 2010; Herrenkohl, Lee, & Hawkins, 2012). SSDP started in five Seattle area first-grade classrooms. Each class was designated as a control or intervention classroom. In the intervention classrooms, parents and teachers learned how to actively engage children in learning, strengthen bonding to family and school as well encouraging positive behavior among children. The program expanded in 1985 to eighteen elementary schools; 808 participants, including both parents and children, have been interviewed regularly since 1985 (Farrington et al., 2010; Herrenkohl et al., 2012). Children in the study were annually assessed at 16 years of age and then at 18 years of age (Farrington et al., 2010; Herrenkohl et al., 2012). Since then, assessments have continued at three-year intervals.
The social development model is theoretically grounded (Catalano & Hawkins, 1996; Hawkins & Weis, 1985). Findings from the model indicate a direct effect of interventions on childhood and adolescent problem behaviors such as aggression, violence, drug use, delinquency, school misbehavior, and risk and protective factors (Hawkins et al., 2012; Herrenkohl, et al., 2012; Herrenkohl et al., 2006; Herrenkohl et al., 2000; Losel & Farrington, 2012). Herrenkohl and colleagues (2000) investigated developmental predictors of violence at 18 years of age. They measured risk factors at ages 10, 14, and 16 where violence was coded dichotomously, indicating whether or not the participant engaged in the following delinquent acts at age 18: hitting a teacher, picking a fight, hitting someone with the intent to hurt, threatening someone with a weapon, using force or threats to get things from others, and beating someone so badly to the extent that they required medical attention. The authors found that at ages 10, 14, and 16 risk factors strongly related to violence at 18 years of age “were distributed across these domains” (Herrenkohl et al., 2000, p. S42). This finding is further supported by Herrenkohl and colleagues’ (2006 and 2012) studies assessing risk for violent behavior in adolescence. Researchers have published numerous papers from the study focused on
intervention; substance use; delinquency, crime, and violence; intergenerational relationships; school outcomes; gangs; sex; ethnicity; and mental health and positive functioning.

The Chicago Area Project (CAP) was founded in the 1930s by sociologist Clifford Shaw. Shaw believed that by improving community life, every neighborhood in Chicago could reduce juvenile delinquency (Kubrin, Stucky, & Krohn, 2009; Sorriento, 1995). CAP was established as a method to control delinquency and the project sought to encourage participation from community members in democratic social action programs (Kubrin et al., 2009; Sorriento, 1995). Community building is still at the heart of CAP and CAP firmly believes that low income residents have the capacity to address critical neighborhood issues. Currently, more than 40 grassroots organizations as well as CAP special projects work together to promote positive youth development and utilize community-building to prevent juvenile delinquency (Kubrin et al., 2009; Sorriento, 1995). Clifford Shaw and Henry McKay studied ecological and social psychological aspects of juvenile delinquency at the Institute for Juvenile Research in Chicago as part of CAP (Kubrin et al., 2009; Sorriento, 1995). The approach of CAP was to change community situations that potential values of children are molded (Kubrin et al., 2009; Sorriento, 1995).

The Project on Human Development in Chicago Neighborhoods (PHDCN) began in the early 1990s and was developed with the purpose of advancing the understanding of developmental pathways of human behavior (Sampson, 2013; Sampson, 2012). The large-scale interdisciplinary longitudinal study examined how families, schools, and neighborhoods affect child and adolescent development (Sampson, 2013; Sampson, 2012). The longitudinal cohort consisted of 6,200 children and families that followed them wherever they moved for a period of seven years (Sampson, 2013). Approximately 8,000 Chicago residents in 1995 and more than
3,000 residents in 2002 were part of a representative community survey (Sampson, 2013; Sampson, 2012). More than 20,000 street segments in a sample of neighborhoods were part of a systematic social observational study through videotaping. The neighborhoods were chosen so that they varied by race/ethnicity as well as socioeconomic status. A follow-up observational study was implemented seven years later across the city (Sampson, 2013; Sampson, 2012). A network panel study of more than 2,800 key community leaders was instituted in 47 communities across Chicago. The community leaders were interviewed again in 1995 and 2002, with a follow-up of more than 1,000 community leaders (Sampson, 2013; Sampson, 2012). PHDCN also studied more than 4,000 collective action events in the Chicago area from 1970-2000. Additionally, a field experiment was conducted in 2002 and 2010 to measure community-level differences of people in public settings who were likely to mail back lost letters (Sampson, 2013; Sampson, 2012). The above data sources contained combined archived records on crime, health, housing, and community organizations as well as U.S. Census data (Sampson, 2013).

PHDCN has examined juvenile crime, adult crime, teenage sexuality, substance abuse, and mental health. Additionally, the study has provided insight into how social environments and human development take place through the collection of data about Chicago, its residents, neighborhood institutions, and social resources (Sampson, 2013; Sampson, 2012). Sampson (2013) argues that ecometrics can be applied to our understanding of neighborhood research through five hypotheses:

1) legacies of inequality and developmental neighborhood effects; 2) race, crime, and the new diversity; 3) cognition and context, above all the social meaning of disorder; 4) the measurement and sources of collective efficacy in a cosmopolitan world; and 5) higher order structures beyond the neighborhood that arise in complex urban systems. (p. 1)
The study of ecometrics extends to neighborhood level variations while adopting a systematic method of data collection relying on multiple methods of measurement (Sampson, 2013).

The Mobile Youth Study (MYS) is a multiple cohort longitudinal study that is community-based with annual data collection since 1998 in the Mobile, Alabama Metropolitan Statistical Area (MSA). The MYS is intended to study at-risk behaviors in adolescents (Bolland et al., 2007b; Bolland, 2007a; Bolland, Lian, & Formichella, 2005). Bolland (2007a), MYS Principal Investigator, states that in 1998 “adolescents from 13 neighborhoods represented 23 block groups in 14 census tracts; the 2000 population in this area was approximately 23,500” (p. 1). The neighborhoods in the study were selected as they had the lowest median household income, based on the 1990 Census, in the MSA. Initially, seven of the neighborhoods were public housing and the other 6 were non-public housing, with five of the neighborhoods located in Prichard (Bolland, 2007b; Bolland et al., 2005). There have been 36,164 participants from 1998-2011 (Bolland et al., 2013). The target neighborhoods are overwhelmingly African American with gender split evenly across all data points (Bolland et al., 2013). Approximately 90% of participants receive free or reduced cost lunch (Bolland et al., 2013).

The MYS data have shown a positive relationship between hopelessness and risk behaviors such as violence and substance use and abuse, as well as sexual behavior (Bolland et al., 2007b; Bolland et al., 2005; Bolland, 2003). Bolland and colleagues (2007b) found in their study no differences among racial groups for sexual behavior, but they did find that mixed-race respondents reported a higher level of hopelessness than their Caucasian and African American counterparts. Hopelessness was also found to be a determinant of change for Caucasian adolescents regarding substance use, getting drunk or high, carrying or using a weapon, and engaging in sexual activity. Similarly, mixed-race respondents reported that hopelessness was an
important determinant of change regarding carrying a weapon, using a weapon, and engaging in sexual activity (Bolland et al., 2007b). Additionally, Bolland and colleagues (2007b) found that a respondent’s warmth toward mother was not a significant predictor of change in any type of risk behavior. As a respondent’s attachment to their neighborhood increases, so does a change in risk behavior.

Church and colleagues (2012) found in their study of predictors of delinquency using data from the MYS that delinquency does increase with age, delinquent peers have a positive relation to delinquency, males exhibit more delinquency than females, and family cohesion and self-worth were negatively related to delinquency. They also found that peer influences on delinquency remained the same for males; but for females, these influences increased with age. Additionally, self-worth increased with age among both genders (Church et al., 2012). Bolland and colleagues (2013) study of alcohol use and early initiation among gender using data from the MYS, found that the frequency and recency of consuming alcohol accelerates between the ages of 12 and 14. This continues to increase with the negative consequences associated with alcohol consumption (Bolland et al., 2013).

Conclusion

Research methods are varied in investigating delinquency prevalence from official report measures, self-report measures, and victimization data. All measures aid in the explanation of delinquency prevalence and delinquency pathways from an ecological perspective. Findings from longitudinal studies of delinquency, official report measures, victimization data, and self-report data have all informed our understanding about the prevalence of juvenile delinquency. In a report on prevalence of child delinquency, Snyder and colleagues (2003) highlighted the types
of delinquent acts committed. The report pointed to the notion that most self-reported studies of delinquency prevalence have focused on high-risk urban areas, such as Denver and Pittsburgh, and do not provide a rate of prevalence for rural communities. The report also found that minor delinquent acts were often much higher for the juvenile population as opposed to serious delinquent acts (Snyder et al., 2003). Additionally, younger delinquents are often ignored because they only represent a small number of juveniles involved with the system and their threat is not as immediate. Intervening in minor offenses among younger juveniles is crucial because the juveniles may be at risk for becoming chronic offenders (Snyder et al., 2003).

Juvenile arrest rates have not remained static across time, but have represented a declining trend in delinquency (Maschi, Violette, Rosato, & Ristow, 2009). This decline has largely been attributed to the influence of environmental factors such as increased economic prosperity, as well as community prevention and intervention efforts aimed at increasing positive outcomes for juveniles, their families, and their communities (Maschi et al., 2009; Snyder et al., 2003).

Rose and Clear (1998) suggest that social disorganization theory can be utilized to understand risk factors contributing to delinquency and protective factors deterring delinquency from a community trajectory. The authors further suggest that social disorganization theory is based upon the notion of social capital and that the disruption of formal and informal social control can impede a neighborhood’s ability to self-regulate. Social capital is defined as the “social skills and resources needed to affect positive change in neighborhood life” (Rose & Clear, 1998, p. 454). Social capital enforces a type of social control for neighborhoods because it elicits social order within the community (Rose & Clear, 1998). As a result, disorganized communities suffer from crime and other neighborhood conditions because of an “insufficient supply of social capital” (Rose & Clear, 1998, p. 454). A healthy society, arguably, is one in
which all persons have access to social capital. Ecologically healthy communities within society are ones in which interdependence, as well as organization within a community, is gained in the achievement of social capital.

Ohmer (2008) suggests that the assessment and development of evidence-based macro social work practice with a community and neighborhood focus proves difficult due to the lack of rigorous studies, the lack of evaluation related to multiple levels of practice, and difficulties in conducting research at the community level. Research has largely focused on the individual dispositional characteristics of youth, and the social context of juvenile crime often falls behind (Kubrin, 2012). Research investigating the impact of neighborhoods, as well as neighborhood development as it relates to behavior and health, is limited in the literature surrounding crime and delinquency. Therefore, this dissertation explores the following questions: Does social capital serve as a protective factor in deterring gun carrying among juveniles? Does social capital serve as a protective factor in deterring knife carrying among juveniles? Does social capital serve as a protective factor in deterring weapon brandishment among juveniles? Does social capital serve as a protective factor in deterring weapon use among juveniles?
Chapter 2

Literature Review

Introduction

Life course perspectives are utilized to theorize offending behavior as a relation to varied developmental stages, whereby life events and transitions are central to adolescent development (Gaarder & Belknap, 2002). Juveniles are vulnerable to negative consequences of risk factors such as school failure, substance abuse, and early sexuality (Siegel & Welsh, 2012). Risk factors for delinquency include, but are not limited to, the following: poverty, chronic health problems, inadequate health care, family problems, substandard living conditions, and inadequate educational opportunities (Siegel & Welsh, 2012). In contrast to risk factors, protective factors are positive aspects in a juvenile’s life that decrease the risk of engaging in future delinquent acts (Siegel & Welsh, 2012). Protective factors, factors that mediate or buffer risks, aid in the resilience of the juvenile (Hawkins et al., 1992; Hoge, 2001; Rutter & Rutter, 1993). This chapter will discuss middle childhood and adolescent development, family domains, peer and school domains, social capital, social disorganization, and neighborhood conceptualization and measurement in an effort to understand their impact upon delinquency.

Middle Childhood Development

Middle childhood encompasses children 6-11 years of age. During this stage of a child’s life, the family has the most significance on a child’s development (Blair et al., 2014;
Charlesworth, Viggiani, & Wood, 2003). A child’s reasoning becomes more logical and morality is developed. Children gain self-competence and begin to recognize and value their personal accomplishments and achievements (Blair et al., 2014; Charlesworth et al., 2003). They begin to model pro-social behavior, injecting moral reasoning and social sensitivity into their reasoning skills and behavior. A number of theorists discuss phases and tasks related to middle childhood. Freud believes that sexual instincts become less dominant and the superego develops further (Freud, 1953; Freud, 1964). Erikson believes children develop the capacity to cooperate and gain a sense of either mastery or incompetence (Erikson, 1959; Erikson, 1963). Piaget focuses on changes in morality regarding moral realism and autonomous morality (Piaget, 1972). Kholberg suggests that a child’s reasoning is based on formal law and external opinion rather than the concepts of punishment or reward (Kholberg, 1981; Kholberg, 1984). Selman suggests that children develop the ability to view their own actions, thoughts, and emotions from another person’s perspective (Selman, 1994). Children that develop early, in terms of biological and cognitive development, are often treated differently and the ability to develop social competence (i.e. positive and mutually satisfactory peer relationships) is hindered (Newman & Newman, 2006). Poverty is also a threat to child development as oftentimes a family disruption occurs; in addition, the child may witness family or community violence, possibly struggles with language mastery, and may develop feelings of inability and inadequacy (Charlesworth et al., 2003).

Early risk factors that impact overall child development during middle childhood are varied. Living in chronic poverty, having parents who are substance abusers and who have psychological issues, experiencing numerous family disruptions, having a disabled sibling, struggling with school problems, having weak peer relations, and having a physical disability are all risk factors placing a juvenile at greater risk to engage in law breaking behavior.
(Charlesworth et al., 2003). Sullivan (2008) suggests that efforts should be made to assess and intervene with youth during middle childhood deemed at risk. Loeber and Farrington (1998) also allude to early intervention as being essential. Juveniles with an easy temperament, who have nurturing non-parental figures, positive peer relations, and positive social orientation at a younger age, as well as gender neutral interests and hobbies are less likely to engage in delinquency because of these protective factors. Additionally, emotion regulation and reactivity have been shown to be critical in the development of social competence, as well as successful peer interaction (Blair et al., 2014; Meldrum et al., 2012; Rodkin et al., 2013). Blair and colleagues (2014) also found that “maternal emotion socialization is associated with children’s later friendship quality through children’s emotion regulation” (p. 572).

**Adolescent Development**

Adolescence is marked by the age period of 10-24 years according to many researchers and developmental specialists (Cavendish et al., 2014; Crocetti et al., 2013). The term adolescence can be equated to “teenage years” and “puberty” and is not exclusive to just one term. Children during this age period experience biological changes, psychological changes, and social changes (Cavendish et al., 2014; Crocetti et al., 2013; Ehrlich et al., 2013; McCarter, 2003). Significant physical changes, increased hormone production, increased cognitive functioning, identity development, increased independence, and potential experimentation with sex and substances occurs during adolescence (Cavendish, et al., 2014; Crocetti et al., 2013; McCarter, 2003). Adolescents begin to contemplate their future, gain insight into the nature of relationships, develop the ability to envision consequences, and engage in abstract thought and internal control, as well as empathy. Identity formation becomes crucial as adolescents think about their future as well as their own role in society and within their own families. Many
challenges such as sexuality, coming out, pregnancy and childbearing, STD’s, substance use and abuse, rape, juvenile delinquency, threats to physical and mental health, violence, nutrition, depression, and suicide are all indicative during this stage of development (Cavendish, 2014; Crocetti et al., 2013; Ehrlich, et al., 2013; McCarter, 2003).

Development during adolescence encompasses the neurological, intellectual, emotional, and psychosocial capabilities of juveniles to understand information as well as to make informed decisions (Bonnie et al., 2012; Cavendish et al., 2014; Crocetti et al., 2013; Ehrlich, et al., 2013; McCarter, 2003; Scott & Grisso, 2005). From a neurological perspective, the prefrontal cortex of the brain is one of the last areas to develop. The prefrontal cortex affects a person’s ability to regulate impulsive reactions, as well as thinking about consequences of a person’s actions (Bonnie et al., 2012; Crocetti, et al., 2013; Scott & Grisso, 2005). The cognitive capabilities of a juvenile and competency in abstract problem-solving develop in the prefrontal cortex throughout adolescence (Cauffman & Steinberg, 2012). Dopamine production in the brain is critical to sensation. Dopamine has been found to increase risk-taking in adolescence, which has led to sensation seeking behavior (Cauffman & Steinberg, 2012). The brain undergoes synaptic pruning. This pruning pairs away unused synapses, which leads to more efficient neural connections and decision making. Essentially, the brain systems governing the aspects of social and emotional maturity in adolescence (i.e. impulse control, risk avoidance, planning ahead, coordination of cognition and emotion) mature throughout adolescence (Cauffman & Steinberg, 2012). The neurological development of adolescents has important implications for adolescent culpability, such as an increase in sensation seeking behavior and developing mature self-regulatory competence (Cauffman & Steinberg, 2012).
Intellectual development during adolescence can mirror adult development, but more research needs to examine decision making in stressful environments that are unstructured as “these factors may impede the effective use of youthful cognitive capabilities” (Scott & Grisso, 2005, p. 814). Adolescent emotional development also varies approximately between 12-15 years of age because self-direction and self-management become key indicators to control impulse control (Crocetti et al., 2013; Scott & Grisso, 2005). Additionally, the psychosocial development encompasses future orientation and perception of risk, as well as peer influences contributing to immature adolescent decision making (Ehrlich et al., 2013; Scott & Grisso, 2005).

Developmental research has aided practitioners and policymakers to better understand the developmental processes, such as adolescent development of adult capabilities without the maturity of an adult (Bonnie et al., 2012; Scott & Grisso, 2005). Therefore, a myriad of delinquent behaviors can be present among adolescents with varying stages of maturity. Adolescents displaying antisocial behavior may be more physically aggressive and engage in fighting or robbing. Nonaggressive behavior such as lying, stealing, or breaking rules may also be present (Park et al., 2008). Adolescents are less capable of making real world choices due to lack of experience and are less efficient at processing information (Scott & Steinberg, 2008). They are also subject to a variety of psychosocial and emotional influences, which may contribute to immature decision making (Bonnie et al., 2012; Crocetti et al., 2013; Ehrlich, et al., 2013). Adolescents assign different values to risk taking and its rewards, but this does not necessarily mean that they have no knowledge about risks. Additionally, lacking a “future orientation” and focusing on choices in the moment impedes adolescents from the capacity to think about long-term consequences, as well as the choices of their actions (Bonnie et al., 2012;
The developmental approach integrates traditional theories of delinquency. Traditional theories of social control, differential association, and social learning theory are frequently integrated in order to ascertain risk and protective factors. Risk and protective factors examine influences of the individual, family, and community on youth developmental outcomes from a biopsychosocial framework (Maschi et al., 2009). Resiliency is a key protective factor as adolescents exemplifying resilience are often in the presence of many risk factors with a combination of positive forces contributing to adaptive outcomes in the face of risk (Maschi et al., 2009).

**Family Domains**

The size and composition of the family influences family structure (Carlson & Corcoran, 2001; Cavendish et al., 2014). Research has shown that children reared in single parent households, particularly female-headed households, do not fare as well as those raised in a two-parent household. Children born to a single parent can have more behavioral problems, particularly those born in low socioeconomic neighborhoods (Carlson & Corcoran, 2001; Cavendish et al., 2014; Crocetti et al., 2013). Criminologists have also argued that broken homes are a major cause of delinquency. In addition, adolescents from broken homes can have less exposure to role models, thus joining delinquent peer groups and are often more likely to be labeled delinquent and live in poverty (Agnew, 2009). Homes broken by divorce or separation have a stronger association with delinquency. There is research to support the connection between deviant child behavior and family and neighborhood factors, such as family stability, poverty, and availability of resources (Church, Jaggers, & Taylor, 2012; Church, Wharton, & Taylor, 2009). The family influences how a juvenile learns to conform or deviate, level of strain
and reaction to strain, the influence of control to which a juvenile is subject, and the extent of labeling upon the juvenile (Church et al., 2012; Church et al., 2009; Agnew, 2009).

Delinquency rates are lower when children feel loved by their parents through their actions. Parents who talk with their children, spend time with their children, and provide comfort and support to their children are less likely to have delinquent children (Carlson & Cavendish et al., 2014; Carlson & Corcoran, 2001). As such, “parental rejection is one of the strongest family correlates of delinquency” (Agnew, 2009, p. 230). An adolescent that has a strong emotional bond or attachment to their parents is less likely to engage in delinquency (Burchinal, Vandell, & Belsky, 2014; Carlson & Corcoran, 2001; Cavendish et al., 2014; Crocetti et al., 2013). Therefore, adolescents have a greater desire to conform rather than do anything that might upset a parent. Additionally, family environments that are stable and supportive provide a venue for children to develop emotional security and relationships that are healthy (Bolland et al., 2005). Families that demonstrate pro-social parenting and discipline tactics have a greater sense of familial cohesion and overall family functioning within the family and neighborhood environment (Church et al., 2009). Parents who model and teach appropriate behavior aid their children in avoiding delinquency. Providing clear rules and establishing boundaries with children in addition to directly or indirectly monitoring behavior aids in the reduction of delinquency (Farrington et al., 2010; Nash & Bowen, 1999). Additionally, punishment that is consistent and not harsh helps parents better socialize their children.

Church and colleagues (2012) study of negative behavior, neighborhood, and poverty focused on preschool age children from the Fragile Families longitudinal data set. The study highlights the effect of poverty and neighborhood SES upon parental stress, mastery, discipline, and aggravation in parenting on negative behavior. Parental discipline has been shown to have a
direct relationship with hostility in children that later contributed to conduct problems at home and school (Church et al., 2012; Snyder et al., 2005). As such, the economic and social role that parents model influences the attitudes and future expectations of children (Wilson, 1987). Other ways parents can better socialize their children is achieved through teaching social skills, academic skills, and problem-solving skills. These skills become necessary as a child becomes involved in peer groups and begins to achieve academically in school, as well as engages in problem solving in a non-delinquent manner (Agnew, 2009).

**Peer and School Domains**

Childhood peer risk factors for later violent juvenile offending often include association with deviant peers and peer rejection (Wasserman et al., 2003). School and community risk factors include failure to bond at school, poor academic performance, low academic aspirations, living in a poor family, neighborhood disadvantage, disorganized neighborhoods, concentration of delinquent peer groups, and access to weapons (Wasserman et al., 2003). Substance use and abuse, school under-achievement and school dropout, as well as teen pregnancy and teen parenting, are all risk factors suggesting that an adolescent may be more likely to engage in delinquent acts (Agnew, 2009; Siegel & Welsh, 2012). Adolescents who are chronically truant are at greater risk of dropping out of school. Not getting along with their peers or teachers, doing poorly in school, and having low self-esteem are indicators of an adolescent’s risk of dropping out of school and potential to become involved in delinquent behavior (Agnew, 2009; Siegel & Welsh, 2012; Wasserman et al., 2003). Adolescents who feel isolated and alone with little parental supervision often alienate themselves, and this alienation could potentially lead to problematic behavior (Agnew, 2009; Siegel & Welsh, 2012; Wasserman et al., 2003).
A high level of commitment to school has been identified as a protective factor in reducing involvement in delinquency (Arthur, Hawkins, & Catalano, 2000; Fraser, Kirby, & Smokowski, 2004; Anthony, 2008). The ability to develop coping mechanisms is the epitome of resiliency (Earls, 1994; Flannery et al., 1998; Fraser, 1996); a lack of resilience epitomizes hopelessness. Developing coping strategies is a high form of control against delinquency (Sampson, 2008). Greater resiliency has been associated with positive coping mechanisms surrounding trauma. School and peer domains can serve as risk factors of delinquency or as protective factors to deter delinquency.

**Social Capital**

The concept of social capital can be useful in examining characteristics of juvenile delinquency. Social capital refers to the social relationships people have with one another. These relationships are based upon trust that has value or trust that can be used productively. Halpern (2006) suggests that the concept extends beyond the meso-level of traditional communities and personally known social networks, generalizing communities’ habits of life or culture. This generalization makes it possible for people to get along and highlights the important role that community plays in individual well-being aiding in the reduction of crime and delinquency (Halpern, 2006). Therefore, social capital can be further described as the “social networks and the norms and sanctions that govern their character” (Halpern, 2006, p.4). This form of capital can be seen as a valuable resource in facilitating individual, as well as community action to eradicate social problems. Nakhaie and Sacco (2009) suggest that delinquency can be understood in terms of social capital through the embodiment of relationships that adolescents have with their peers, parents, and authority figures. Additionally, social capital is more of an
indirect concept that involves benefits adolescents seek through friendship with their parents and through institutional relationships (Nakhaie & Sacco, 2009).

Knowledge of capital indicates that a person is a member of a group and is given access to relationships of reciprocal trust within those group networks (Sampson & Morenoff, 1997; Schneider, 2006). Closed social capital networks, or bonding networks, include people or institutions that are similar to one another and may include neighborhood or ethnic groups. Bridging social capital networks encompasses long-term trusting relationships across boundaries of race, class, ethnicity, religion, or any type of institution (Schneider, 2006). Sampson and colleagues (2002) suggest that research at the neighborhood level concerning child and adolescent well-being to bridge social capital networks should include redefining of neighborhood boundaries that are more applicable to social interactions and social experiences.

Halpern (2006) suggests that micro, meso, and macro level influences should be considered when examining social capital. The micro-level constructs include biology and personality, age, familial bonding and attachment, class influences, education, work, religion, and media consumption (Halpern, 2006). Meso-level constructs include civic and association involvement, school and community involvement, ethnic and social heterogeneity, mobility, transportation, and the physical environment. Macro-level constructs include culture in terms of social structures and hierarchy, economy in terms of inequality and labor market trends, and institutions in terms of size, values, and lifestyle choices (Connell & Kubisch, 2008; Halpern, 2005). Ecological characteristics such as poverty, racial heterogeneity, and residential mobility foster a diverse sense of community where individuals with all types of beliefs, values, and behaviors are clustered together (Kubrin, 2012). Therefore, a diverse community that is socially
organized provides space for both conventional and unconventional groups and potentially provides pro-social opportunities and activities for adolescents (Kubrin, 2012).

**Social Disorganization**

Neighborhood socioeconomic status is a robust predictor of delinquency rates (Kubrin, 2012). Exogenous sources of social disorganization suggest structural factors promoting disorganization with regard to poverty and residential mobility as well as racial/ethnic heterogeneity (Kubrin et al., 2009). Neighborhood racial composition is of importance as researchers frequently focus on the racial heterogeneity or diversity within neighborhoods. Racial heterogeneity is hypothesized to affect the strength and salience of neighborhood informal social control in the reduction of juvenile delinquency (Kubrin, 2012). Intervening measures of social disorganization include the extent of social ties, informal social control, and collective efficacy (Kubrin et al., 2009; Sampson & Groves, 1989).

The socioeconomic status, racial composition, and religious ecology of communities indirectly influence juvenile delinquency (Kubrin, 2012). All have an influence upon the attitudes, relationships, and behavior of community residents (Kubrin, 2012). The theory of social disorganization proposes that neighborhoods, rather than individual residents, are disorganized. This suggests a “kind of place” approach rather than a “kind of people” approach (Kubrin et al., 2009, p. 89). Some neighborhoods are organized with high levels of informal control, suggesting little crime. Some neighborhoods are disorganized with low levels of informal control, suggesting much crime. Organized communities versus disorganized communities may suggest reasons for crime rates across neighborhoods (Kubrin et al., 2009). Residential mobility, however, is only indirectly related to crime through modes of informal
social control and social ties. Community characteristics are important because of the mediating process of organization and disorganization a community exhibits. As in ecological communities, competition for space and existence is natural (Kubrin et al., 2009; Sampson & Morenoff, 1997; Suttles, 1968).

Akers and Sellers (2009) suggest that the theory of social disorganization encompasses a challenge to social order, stability, and integration because each is conducive to conformity. Disorder is more conducive to crime and deviance. Essentially, when a community lacks cohesion, solidarity, or even integration, the rate of crime and deviance is higher (Akers & Sellers, 2009; Kubrin et al., 2009; Sampson & Morenoff, 1997). Informal social control is fostered through community solidarity, cohesion, and integration in an effort to deter crime (Kubrin et al., 2009; Akers & Sellers, 2009; Sampson & Morenoff, 1997).

Characteristics of ecological communities either enhance or disrupt the social organizational process, which has an implication for juvenile delinquency rates (Kubrin, 2012). Sampson, Raudenbush, and Earls (1997) looked at social ties and networks as a mediating factor of social disorganization and determined that social ties and networks were not sufficient for social control. They discovered that purposive action, the activation of social ties and resources to enhance social control was missing from the theory. Therefore, neighborhoods and communities may represent low levels of social control and high risk environments for youth and (Kubrin, 2012). Similarly, other neighborhoods or communities may demonstrate low levels of temptation and have high levels of social control (Kubrin, 2012). The theory of social disorganization proposes that neighborhoods are disorganized rather than the residents of an individual neighborhood.
A sense of collective efficacy among communities and their residents combines the concept of social ties, social integration, and social control, mediating as a protective factor in the reduction of overall juvenile crime (Kubrin, 2012). Where social control is lacking, neighborhood residents must possess a willingness to take action. This action must occur through mutual trust and solidarity among neighbors, which is called collective efficacy (Connell & Kubisch, 2008; Kubrin et al., 2009; Nebbitt, 2009; Sampson et al., 1997; Sampson, 2008). Sampson and colleagues (1997) also argued that neighborhoods with high levels of collective efficacy will have low levels of crime, less poverty, and diminished residential instability. This will lead to a reduction in community and juvenile level crime. Therefore, social capital can serve as a protective factor to unite individuals in communities enhancing collective efficacy (Rose & Clear, 1998).

**Neighborhood Conceptualization and Measurement**

Researchers have measured delinquency and crime through official statistics, self-report measures, and victimization data. Each has their strengths and weaknesses. The self-report method of data collection, particularly with regard to data on delinquent behavior, is an important innovation and has been largely utilized in the 20th century (Thornberry & Krohn, 2000). Thornberry and Krohn (2000) assert that the self-report method asks individuals if they have engaged in delinquent behavior and the frequency of involvement in such behavior. Relying on official report measures creates a potential bias among the actual delinquent behavior and the official report data (Thornberry & Krohn, 2000). The self-report method has allowed for inclusion of a variety of delinquency items, including follow-up questions. Additionally, criminological research “has increasingly come to rely on longitudinal panel designs using self-
report measures of antisocial behavior to understand the dynamics of offending careers”
(Thornberry & Krohn, 2000, p. 64).

Bolland and colleagues (2007b) suggest that prior research has shown that a sense of
connectedness among school and family is associated with lower levels of risk behaviors and, in
turn, greater health outcomes. Thus, greater involvement in community activities is associated
with lower levels of delinquency, suggesting that the positive effects are associated with a
greater sense of connectedness to neighborhood (Bolland et al., 2005; Bolland et al., 2007b;
Bolland & McCallum, 2002). In their 2007b study of adolescents living in high poverty urban
areas, Bolland and colleagues found that neighborhood differences related to risky behavior and
sense of community was an area warranting future investigation concerning the effects of
neighboring, sense of community, and neighborhood attachment. Research has shown that
communities that exhibiting social capital will have low levels of disorganization and crime
(Rose & Clear, 1998).

Social Work’s Role

Social workers can take the lead on efforts supporting the creation of collective efficacy
in communities in order to address community violence and neighborhood disparity, as well as
evaluating collective efficacy (Beck, Ohmer, & Warner, 2012). A challenge for researchers is to
demonstrate that neighborhood structure does affect adolescent behavior and to demonstrate that
such effects operate through a measurable mediating process (Kubrin, 2012). Connell and
Halpern-Felsher (1997) also point to the importance of studying gaps regarding processes
mediating neighborhood effects on adolescent outcomes.
The concept of social capital takes into consideration the broad social environment, as well as emphasizes how important social processes are in the development and elimination of social problems, rather than merely focusing on an individual’s behavior (Osterling, 2007). Therefore, social capital theory is “aligned with the ecological tenets of the social work profession” in “linking micro and macro processes” within “social work’s person-in-environment perspective” (Osterling, 2007, p. 125). Social capital examines the relationship between an individual and neighborhood, but oftentimes the ecological context of a neighborhood is not incorporated in discussions of how social capital can mediate resources of a community (Osterling, 2007). Osterling (2007) describes neighborhood effects as the interaction between socioeconomic disadvantage and the social problems within a neighborhood. Prior research has shown that an “empirical association exists between neighborhood-level socioeconomic disadvantage and many other social problems including unemployment, crime, health problems, child maltreatment, low educational achievement, and mental, physical, behavioral, and educational problems—especially among children and youth” (Osterling, 2007, p. 124).

Social workers are well equipped to practice in a community setting to address many issues facing low-income communities (Beck et al., 2012). Research suggests that low-income areas struggle with social inequality and economic inequality (Beck et al., 2012; Staples, 2007). Social workers engaging in community practice can work to prevent neighborhood violence through locating resources and opportunities to support neighborhood initiatives to combat violence. Community social work practice can also support residents in low-income areas through social action and community development (Beck et al., 2012; Staples, 2007). Community organizing is associated with social action, which addresses aspects of social
inequality and economic inequality through the collective redistribution of power. Community development builds the capacity of communities by bringing opportunities, services, and goods to low-income areas as opposed to redistributing power (Beck et al., 2012; Staples, 2007). Community participation is critical in community development initiatives in order to build upon the individual and collective capacities of residents (Staples, 2007). Community-based social workers can educate community-based organizations on the importance of collective efficacy and how to translate collective efficacy to leaders of community-based organizations and community residents. Bringing communities together and encouraging community residents to work together to solve problems with in their community is instrumental to community-based social work practice.

Conclusion

A focus on context, particularly place, as well as the notion of social systems encompassing properties of communities and cities, aids in our understanding of the impact of community systems upon juvenile delinquency (Sampson, 2008). We must also consider the impact of structural forces if we are to change social and economic outcomes in the prevention and reduction of juvenile delinquency (Sampson & Morenoff, 1997; Wilson, 2009; Wilson, 1987). Kingston and colleagues (2009) found that the strongest rates of property offending occurred when juveniles lacked a future orientation because of limited opportunities perceived in the future in the neighborhoods they resided. Connectedness to neighborhood has been shown to create lower levels of risky behaviors and healthier outcomes among juveniles (Bolland et al., 2007b). Connectedness also exhibits lower levels of hopelessness and increases resiliency among juveniles and communities (Bolland et al., 2007b; Kingston, Huizinga, & Elliott, 2009).
Shaw and McKay (1969) were pioneers in demonstrating rates of delinquency regarding neighborhood characteristics, as well as in demonstrating that socioeconomic factors did not solely account for differences. They demonstrated that economically disadvantaged neighborhoods adjacent to city centers, including high numbers of low income families, as well as high levels of residential turnover and ethnic heterogeneity, presented higher levels of delinquency in opposition to neighborhoods outlying from city centers encompassing more affluence, stability, and homogeneity, mirroring the tenants of ecological concentric zone theory (Kubrin et al., 2009; Nash & Bowen, 1999). The relationship between the degree of urbanization and crime has been explored, but the results are often contradictory in distinguishing levels of crime within communities. There is limited information on the influence social capital can have as a protective factor in deterring delinquency. Communities that have high levels of collective efficacy are less likely to have crime and delinquency, but the particular protective factors warrant further investigation. Additionally, the concept of changing communities is often disregarded in terms of community context with regard to ignoring key influences and pressures that are directly or indirectly influencing youth behavior (Kubrin, 2012).

Research should be implemented in an effort to aid in the understanding of neighborhood context of social capital in deterring delinquent behavior in juveniles. Sampson (2008) suggests that the rise of communitarianism is largely focused on “community responsibility and civic engagement as the glue undergirding social justice and the good society” (p. 248). The idea of community has escaped empirical scrutiny as debates surrounding social capital and community tend to be romanticized. Sampson alludes that surveys have focused on poor individuals and ethnographies of poor communities, but that the variation across community contexts needs further inquiry, as well as does the focus on informal social control,
network ties, and organizational capacities because almost no research has examined these community-level processes (2008). Osterling (2007) suggests that an ecologically-grounded model of social capital takes into account the availability of resources within a particular neighborhood while increasing social networks and community participation. Taking into account neighborhood resources is critical and has implications for social work practice, policy, and education (Osterling, 2007). The research queries that guided the present study reflect the conviction that knowledge of social capital can provide direction for intervention strategies that will benefit at risk youth and their families. From these observations, the following research questions were derived.

**Research Questions**

The present study was designed to provide research-based information with regard to social capital serving as a protective factor in deterring delinquency among juveniles. Specifically, the purpose of this research was to answer the following research questions:

1) Does social capital serve as protective factor in deterring gun carrying among juveniles?

2) Does social capital serve as a protective factor in deterring knife carrying among juveniles?

3) Does social capital serve as a protective factor in deterring weapon brandishment among juveniles?

4) Does social capital serve as a protective factor in deterring weapon use among juveniles?
Chapter 3

Research Methods

Introduction

The research study examined the extent to which social capital serves as a protective factor in deterring delinquency among juveniles. Social capital encompasses the following factors: (1) neighborhood connectedness; (2) routine activities; (3) attachment to school; (4) hope; (5) caring; (6) attachment to friends; and (7) warmth toward mother. The term “delinquency” encompasses the following behaviors: (1) gun carrying; (2) knife carrying; (3) weapon brandishment; and (4) weapon use. The factors and behaviors represented by “social capital” and “delinquency” are discussed in greater detail below. Therefore, the overall research questions that guide this study are as follows:

1) Does social capital serve as protective factor in deterring gun carrying among juveniles?
2) Does social capital serve as a protective factor in deterring knife carrying among juveniles?
3) Does social capital serve as a protective factor in deterring weapon brandishment among juveniles?
4) Does social capital serve as a protective factor in deterring weapon use among juveniles?

To determine the feasibility of using social capital as a predictor of delinquency, this study utilized data from Wave 9 (2006) and Wave 10 (2007) of the Mobile Youth Survey (MYS), a 14-year longitudinal study of adolescents living in communities with a high rate of
poverty in Mobile and Prichard, Alabama (Bolland, 2007a; Bolland et al., 2007b; Bolland et al., 2005; Bolland et al., 2003; Bolland et al., 2002). The MYS seeks “to study the etiology of risk behaviors among adolescents living in extreme poverty” and how a contextual factor such as family, school, or neighborhood “affects both the etiology or risk behaviors as well as the behaviors themselves” (Bolland, 2007a, p. 1). Additionally, the MYS seeks to “establish a community laboratory where residents will be receptive to both interventions and complementary studies” (Bolland, 2007a, p. 1).

Survey Recruitment and Administration

Recruitment of MYS participants consisted of active and passive recruitment. Half of the public housing units and non-public housing units were selected at random from housing authority data to obtain addresses (Bolland, 2007a). Recruiters then knocked on the doors of “active households” and invited adolescents 10 to 18 years of age to participate in the study, obtained parental consent, and scheduled a time for the survey to be completed at a designated location. The survey completion typically took place in a group setting at a community center, school, church, or a Boys and Girls Club (Bolland, 2007a).

Passive recruitment of participants consisted of recruiters posting flyers about the survey around the neighborhood with a phone number to call for more information. Should a prospective participant contact a recruiter through the passive recruitment system, a recruiter went to their home and followed the same procedures as active recruitment (Bolland, 2007a). After 1998, active and passive recruitment occurred for a new MYS cohort in each of the target neighborhoods, even if the participants had moved to a new address in Mobile County (Bolland, 2007a).
Participants were checked-in by survey administrators for the following reasons: (1) to ensure previous contact; (2) to verify addresses and birthdates previously obtained during the recruitment process; (3) to ensure that they had not already been surveyed during the current year; and (4) to ensure appropriate parental consent (Bolland, 2007a). The participants were then placed in a room with 10 to 20 other MYS participants where survey administrators “read the assent statement on the cover page out loud” (Bolland, 2007a, p. 3). Participants were then asked to include their name, address, and birth date at the bottom of the cover page that was in turn collected by survey administrators, who then “read the questions aloud” and asked “each respondent to mark the appropriate answer in his or her survey booklet” (Bolland, 2007a, p. 3). Should a participant need individual attention, a survey administrator would work one-on-one with the participant. When participants completed the survey, they were given $10 each year up through 2004, when the amount increased to $15 in 2005 and subsequent years (Bolland, 2007a). In the event that participants did not come for a scheduled group administration, survey administrators attempted to contact participants and reschedule the survey completion. In the event a group administration was not possible, survey administrators would accommodate participants in their homes (Bolland, 2007a).

Survey Characteristics

The study focuses on 9- to 19-year-old adolescents living in impoverished neighborhoods of Mobile and Prichard, Alabama, with a population of approximately 200,000 people and located on the Gulf Coast (Bolland et al., 2013; Bolland, 2007a). The study began in 1998 and completed its 14th year in 2011, with a total sample size of 36,164 participants (Bolland et al., 2013). Bolland and colleagues (2007) began by sampling juveniles from 13 neighborhoods that represented 23 block groups in 14 census tracts. The particular neighborhoods were selected
primarily “because they had the lowest median household income” in the Mobile Statistical Area (MSA), as reported in 1990 census data (Bolland, 2007a, p. 1). Seven neighborhoods were comprised of public housing developments and six neighborhoods were non-public housing residences. Five of the neighborhoods were located in Prichard, while eight are located in Mobile (Bolland, 2007a).

Over the course of the MYS, 47% of participants were male and 53% were female (Bolland et al., 2013). Additionally, Bolland and colleagues (2013) reported the following ranges of the 14 waves (years) of participants: 1) the mean age ranged from 12.3-13.6 years old; 2) 90.5%-95% identified as African American, 3.6%-9.2% identified as mixed-race, and the remainder of participants identified as White; and 3) 87.3%-93.0% of participants reported that they received free or reduced-cost school lunches.

MYS Data Applied to This Research

Although the MYS contains 14 waves of data from 1998 thru 2011, this study used data from 2,349 adolescents who participated in wave 9 (2006) and 3,084 adolescents who participated in wave 10 (2007), (Bolland et al., 2013). The 2006 social capital variables, discussed in the study measurement section below, were used to predict the 2007 responses pertaining to delinquent behavior. Some research, such as the MYS, can exhibit selection bias due to the inherent difficulties of surveying such a population. This can suggest that the results might not be representative of the population being studied (Bolland, 2012). Bolland (2012) studied cohorts 1-10 and found that the MYS is representative of the overall population. The rationale for selecting the data for this study is cohorts 1-10 have been demonstrated to be representative while the 2006 and 2007 cohorts are the most recent of these cohorts.
Measures in Study

Delinquency

Delinquency is the outcome of interest. For the purposes of this study, “delinquency” includes: (1) gun carrying; (2) knife carrying; (3) weapon brandishment; and (4) weapon use. The MYS survey questions about these aspects of delinquency pertain to frequency and recency of carrying a gun or knife, brandishing a weapon, and weapon use. Questions about recency for weapon carrying asked about the last 7 days, 30 days, 90 days, and ever. Recency questions for weapon brandishment asked about the last 90 days and ever. I will use Bolland and colleagues’ (2007) recency-frequency scale for each behavior. The variables are treated as continuous variables as they are measured on a ratio level scale. The recency-frequency scale for each behavior is listed below in Table 1.
Table 1: Recency-Frequency Scale

<table>
<thead>
<tr>
<th>Behavior</th>
<th>M</th>
<th>SD</th>
<th>Time periods</th>
<th>Scale Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut or shot someone else</td>
<td>.22</td>
<td>.64</td>
<td>Ever</td>
<td>0: Never</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past year</td>
<td>1: Not during the past year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2: 1 time during the past year</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3: &gt; 1 time during the past year</td>
</tr>
<tr>
<td>Brandished a knife or gun</td>
<td>.44</td>
<td>1.13</td>
<td>Ever</td>
<td>0: Never</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past 90 days</td>
<td>1: Not during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past 30 days</td>
<td>2: 1 time during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3: &gt;1 time during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4: 1 time during the past 30 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5: &gt; 1 time during the past 30 days</td>
</tr>
<tr>
<td>Carried a knife or gun</td>
<td>1.41</td>
<td>2.34</td>
<td>Ever</td>
<td>0: Never</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past 90 days</td>
<td>1: Not during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past 30 days</td>
<td>2: 1 time during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Past 7 days</td>
<td>3: &gt;1 time during the past 90 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4: 1 time during the past 30 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5: &gt; 1 time during the past 30 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6: 1 time during the past 7 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7: &gt;1 time during the past 7 days</td>
</tr>
</tbody>
</table>

The dependent variables along with corresponding MYS questions, source of questions, alpha, and test-retest reliability are listed below in Table 2. The questions pertaining to carrying, brandishment, and use appear in Appendix A.
Table 2: Delinquency Outcomes

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>MYS Questions</th>
<th>Source</th>
<th>Alpha</th>
<th>Test-Retest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gun Carrying</td>
<td>288-291</td>
<td>Browne et al., 2001</td>
<td>--</td>
<td>c=.94</td>
</tr>
<tr>
<td>Knife Carrying</td>
<td>284-287</td>
<td>Browne et al., 2001</td>
<td>--</td>
<td>c=.90</td>
</tr>
<tr>
<td>Weapon Brandishment</td>
<td>303-305</td>
<td>Browne et al., 2001</td>
<td>--</td>
<td>c=.84</td>
</tr>
<tr>
<td>Weapon Use</td>
<td>306-309</td>
<td>Browne et al., 2001</td>
<td>--</td>
<td>c=.92</td>
</tr>
</tbody>
</table>

Note: The reliabilities and consistencies were calculated based on a similar sample of adolescents living in public housing in Huntsville in 1999. The test-retest interval was 6 weeks. The consistencies for test-retest reliability were reported as the correlation coefficient for behavior may change between test and retest. However, this would not indicate a reliability problem with the measure. Instead, a pair of responses was examined to see if responses were logically consistent (e.g. Test: I carried a gun in the past month. Retest: During the past year I carried a gun) or logically inconsistent (e.g. Test: I carried a gun in the past month. Retest: I have never carried a gun).

Social Capital

The independent (predictor) variable in the study is social capital. Social capital includes the following factors: (1) neighborhood connectedness; (2) routine activities; (3) attachment to school; (4) hope; (5) caring; (6) attachment to friends; and (7) warmth toward mother. The independent variables (social capital) along with corresponding MYS questions, source of the questions, alpha, and test-retest reliability are listed below in Table 3. The social capital questions are listed in Appendix B.
Table 3: Social Capital Factors

<table>
<thead>
<tr>
<th>Independent Variable: Social Capital</th>
<th>MYS Questions</th>
<th>Source</th>
<th>Alpha</th>
<th>Test-Retest Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Connectedness</td>
<td>385-395</td>
<td>Glynn, 1981; Perkins et al., 1990</td>
<td>.55-.63</td>
<td>r=.47</td>
</tr>
<tr>
<td>Routine Activities</td>
<td>88-93</td>
<td>Osgood, et al., 1996</td>
<td>--</td>
<td>.18≤r≤.51</td>
</tr>
<tr>
<td>Attachment to School</td>
<td>126-133</td>
<td>Goodenow, 1993</td>
<td>.69</td>
<td>Not available</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>188-193</td>
<td>Kazdin et al., 1983</td>
<td>.69-.75</td>
<td>r=.62</td>
</tr>
<tr>
<td>Caring</td>
<td>230,232,234</td>
<td>Frick, 1998</td>
<td>.52-.64</td>
<td>r=.44</td>
</tr>
<tr>
<td>Attachment to Friends</td>
<td>94-106</td>
<td>Armsden &amp; Greenberg, 1987</td>
<td>.74</td>
<td>Not available</td>
</tr>
<tr>
<td>Warmth toward Mother</td>
<td>30-35</td>
<td>Lamborn et al., 1991</td>
<td>.61-.71</td>
<td>r=.30</td>
</tr>
</tbody>
</table>

Note: The reliabilities were calculated based on a similar sample of adolescents living in public housing in Huntsville in 1999. The test-retest interval was 6 weeks. For the routine activities variable, the range of r’s is for the 6 questions included in the routine activities scale. For the attachment to school variable and the attachment to friends variable, the scale questions for each variable were not included in the 1999 test-retest study.

Neighborhood connectedness is a scale adapted from eleven questions regarding neighborhood attachment (Bolland et al., 2005; Bolland, 2007a). The routine activities scale was adapted from a study of routine activities and individual delinquent behavior by Osgood and colleagues (1996). The attachment to school scale was adapted from Goodenow’s 1993 study (Bolland, 2007a). Bolland and colleagues (2003) included five questions (agree or disagree) that were adapted from the Hopelessness Scale for Children. These five questions were chosen from the original scale developed by Kazdin and colleagues (1983) for their high item-total correlations. Bolland and colleagues (2003) added a sixth statement to the scale, “I do not expect to live a very long life,” due to the relevance of the MYS population studied. These six questions created the Brief Hopelessness Scale, with an internal reliability (Chronbach alpha=.71) comparable to the internal reliability for Kazden and colleagues (1983) full 17-item scale (0.62-0.75) (Bolland et al., 2003; Bolland, 2007). The caring variables were made up from
three questions taken from Frick’s 1998 study of psychopathology in children (Bolland, 2007a). The attachment to friends is a scale that included twelve questions adapted from Armden and Greenberg’s 1987 study (Bolland, 2007a). Warmth toward mother includes six questions regarding the nature of the mother/child relationship and was adapted from Lamborn and colleagues’ 1991 study (Bolland, 2007a; Bolland et al., 2005).

Demographic Variables

Demographic variables include age, gender, and family structure. Gender is operationalized as male (boy) and female (girl). Participants were asked their current age, ranging from 9-18. Family structure is operationalized as whether or not the birth mother was most like a mother to the respondent. The responses were dichotomized to (0) no, and (1) yes. The demographic questions appear in Appendix C.

Data Analysis Plan

The analysis of data will occur in five phases. SPSS Version 22.0 was used to conduct descriptive analyses to summarize the data and multivariate analysis. The overall research questions address:

1) Does social capital serve as a protective factor in deterring gun carrying among juveniles?
2) Does social capital serve as a protective factor in deterring knife carrying among juveniles?
3) Does social capital serve as a protective factor in deterring weapon brandishment among juveniles?
4) Does social capital serve as a protective factor in deterring weapon use?
Phase 1-2

For phases 1-2, univariate analysis and Pearson Product Moment Correlation was used to describe the sample. For phases 3-5, multiple linear regression was used to answer the overall research questions and subsequent hypotheses in each phase of data analysis. This multivariate analysis technique is appropriate because each of the dependent variables is a continuous, ratio-level variable. The purpose of multiple linear regression is to identify only the most significant set of factors (social capital) to predict each outcome (gun carrying, knife carrying, weapon brandishment, and/or weapon use). With this technique, the researcher determined whether social capital characteristics are associated with each of the delinquency variables, even after controlling for social and demographic characteristics which also predict delinquency. The enter method of multiple linear regression, was used to analyze the research hypotheses in each phase.

The analysis utilized the Granger Causality Framework to assess the relationship between social capital variables and carrying a knife or gun (Bolland et al., 2007b; Granger, 1969). The Granger Causality Framework is a framework used to determine whether one time series is useful in forecasting another and can be said to encompass predictive causality (Granger, 1969). Additionally, the use of this cross-lagged panel analysis can be used for making causal inferences (Shingles, 1976). The cross-lagged panel analysis is a regression model used with panel data. Granger causal models and cross-lagged panel analyses are similar as both improve causal inference beyond what would be provided by simple cross-sectional regression or regression that did not statistically control for the previous values of Y. These approaches both predict residualized change in Y. The model determines whether independent variables in one wave are related to the dependent variables in the next wave (Shingles, 1976; Vogt, 2005).
Using this framework within the regression model, I examined time series X. Time series X is said to Granger-cause Y. Those X values are said to provide significant information about the future values of Y. (Bolland et al., 2007b; Freeman, 1983). Bolland and colleagues (2007) note that when using the Granger Causality Framework, the previous values of X and Y typically reflect a time series and “econometric statistical tests consider the autoregressive nature of the prior data” (p. 240). Utilizing the Granger Causality Framework, the variables were entered into the model at one time regardless of significance levels.

**Phase 3**

This phase addresses the first and second research questions: (1) Does social capital serve as a protective factor in deterring gun carrying among juveniles? (2) Does social capital serve as a protective factor in deterring knife carrying among juveniles? The hypothesis for this phase of research is focused on factors of social capital and how they predict gun carrying and knife carrying. The research hypothesis for this phase is as follows: Higher social capital levels will reduce the risk of gun carrying and knife carrying among juveniles.

**Phase 4**

This phase addresses the third research question: Does social capital serve as a protective factor in deterring weapon brandishment among juveniles? The hypothesis for this phase of research is focused on factors of social capital and how they predict weapon brandishment. The research hypothesis for this phase is as follows: Higher levels of social capital will reduce the risk of weapon brandishment among juveniles.
Phase 5

This phase addresses the fourth research question: Does social capital serve as a protective factor in deterring weapon use among juveniles? The hypothesis for this phase of research is focused on factors of social capital and how they predict weapon use. The research hypothesis for this phase is as follows: Higher levels of social capital will reduce the risk of weapon use among juveniles.
Chapter 4

Results

The researched examined the extent that social capital serves as a protective factor in deterring juvenile delinquency. Social capital included neighborhood connectedness, routine activities, attachment to school, hope, caring, attachment to friends, and warmth toward mother. Juvenile delinquency included gun carrying, knife carrying, weapon brandishment, and weapon use. The research explored the extent that social capital served as a protective factor in deterring gun carrying, knife carrying, weapon brandishment, and weapon use. This chapter will include characteristics of the sample, correlation analysis, and multiple linear regression analyses to explore social capital as a protective factor in deterring juvenile delinquency.

Phase 1: Sample Characteristics

The mean age for 2006 was fourteen. Gender was split relatively evenly in the sample with 49.7% of males participating and 48.6% of females participating. Participants overwhelmingly indicated that, 76.5%, their birth mother was most like a mother to them. African American participants encompassed 93.9%, Caucasian .6%, Mixed/Creole 5.3%, and Other .3% of the sample characteristics. The mean of neighborhood connectedness is 6.95 and hopelessness is 1.49. The caring scale mean is 2.23. Participants indicated support from school with a mean of 6.21 and support from friends with a mean of 9.69. Warmth toward mother is indicated by a mean of 8.62. Time spent involved in after-school activities had a mean of four
hours per week. Time spent working at a paid job had a mean of 3.78 hours per week. Time spent at home doing chores had a mean of four hours per week. Time spent each week doing homework had a mean of 3.34 hours per week. Time spent hanging out with friends each week had a mean of 9.89 hours per week. Time spent hanging out at home each week had a mean of 6.57. Participants reported carrying a knife or gun one time in 2007. Participants reported that they did not pull a knife or gun on someone in 2007. Participants reported that they did not cut or shoot someone in 2007. The sample characteristics are presented in Table 4.
Table 4: Sample Characteristics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (2006)</td>
<td>14.22</td>
<td>2.457</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Hopelessness (2006)</td>
<td>1.49</td>
<td>1.843</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Neighborhood Connectedness (2006)</td>
<td>6.95</td>
<td>2.425</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Caring (2006)</td>
<td>2.23</td>
<td>.927</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Attachment to Friends (2006)</td>
<td>9.69</td>
<td>2.711</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Attachment to School (2006)</td>
<td>6.21</td>
<td>1.760</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Warmth Toward Mother (2006)</td>
<td>8.62</td>
<td>2.079</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Hours involved in after-school activities (2006)</td>
<td>4.03</td>
<td>5.015</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Hours working in a paid job (2006)</td>
<td>3.78</td>
<td>7.484</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Hours doing chores (2006)</td>
<td>4.16</td>
<td>4.757</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Hours doing homework (2006)</td>
<td>3.34</td>
<td>3.863</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Hours hanging out with friends (2006)</td>
<td>9.89</td>
<td>8.897</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Hours home alone (2006)</td>
<td>6.57</td>
<td>7.865</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>Carried a knife or gun (2006)</td>
<td>1.96</td>
<td>2.681</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Pulled a knife or gun on someone (2006)</td>
<td>.68</td>
<td>1.410</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Cut or shot at someone else (2006)</td>
<td>.39</td>
<td>.839</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Carried a knife or gun (2007)</td>
<td>1.88</td>
<td>2.625</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Pulled a knife or gun on someone (2007)</td>
<td>.64</td>
<td>1.375</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Cut or shot at someone else (2007)</td>
<td>.37</td>
<td>.809</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 4: Sample Characteristics Continued

<table>
<thead>
<tr>
<th>Variables</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (2006)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49.7</td>
</tr>
<tr>
<td>Female</td>
<td>48.6</td>
</tr>
<tr>
<td>Birth Mother (2006)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>23.5</td>
</tr>
<tr>
<td>Yes</td>
<td>76.5</td>
</tr>
<tr>
<td>Race (2006)</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>93.9</td>
</tr>
<tr>
<td>Caucasian</td>
<td>.6</td>
</tr>
<tr>
<td>Mixed/Creole</td>
<td>5.3</td>
</tr>
<tr>
<td>Other</td>
<td>.3</td>
</tr>
</tbody>
</table>

The alpha levels for each scale used in the analysis are presented in Table 5 below.

Neighborhood connectedness had an alpha of .640, which indicates an acceptable internal consistency. Attachment to school had an alpha of .615, which indicates an acceptable internal consistency. Hopelessness had an alpha of .811, which indicates a good internal consistency. Caring had an alpha of .500, which indicates a poor internal consistency. Attachment to friends had an alpha of .713, which indicates a good internal consistency. Warmth toward mother had an alpha of .803, which indicates a good internal consistency. An alpha is not reported for the routine activities scale, as the scale is not a uni-dimensional scale and the items on the scale are not correlated with one another.
Table 5: Study Social Capital Factors

<table>
<thead>
<tr>
<th>Independent Variables (2006)</th>
<th>MYS Questions</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Connectedness</td>
<td>385-395</td>
<td>.640</td>
</tr>
<tr>
<td>Attachment to School</td>
<td>126-133</td>
<td>.615</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>188-193</td>
<td>.811</td>
</tr>
<tr>
<td>Caring</td>
<td>230, 232, 234</td>
<td>.500</td>
</tr>
<tr>
<td>Attachment to Friends</td>
<td>94-106</td>
<td>.713</td>
</tr>
<tr>
<td>Warmth Toward Mother</td>
<td>30-35</td>
<td>.803</td>
</tr>
</tbody>
</table>

Phase 2: Correlation Analysis

Table 6 displays the correlation matrix for all predictor variables. The most theoretically relevant correlations are discussed in Chapter 5.
Table 6: Correlation Matrix for Social Capital Factors (N=2,343)

<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>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. age</td>
<td>1</td>
<td>-0.025</td>
<td>-0.055**</td>
<td>-0.077**</td>
<td>-0.046*</td>
<td>-0.030</td>
<td>-0.030</td>
<td>0.023</td>
<td>0.281**</td>
<td>0.070**</td>
<td>0.006</td>
<td>0.175**</td>
<td>0.138**</td>
<td>-0.042*</td>
<td>-0.069**</td>
</tr>
<tr>
<td>2. gender</td>
<td>1</td>
<td>0.010</td>
<td>0.030</td>
<td>0.011</td>
<td>0.078**</td>
<td>0.138**</td>
<td>-0.120**</td>
<td>-0.096**</td>
<td>-0.013</td>
<td>-0.039</td>
<td>-0.018</td>
<td>-0.002</td>
<td>-0.098**</td>
<td>0.076**</td>
<td></td>
</tr>
<tr>
<td>3. birth mother</td>
<td>1</td>
<td>-0.004</td>
<td>0.063**</td>
<td>0.032</td>
<td>0.024</td>
<td>-0.039</td>
<td>-0.012</td>
<td>-0.032</td>
<td>-0.060*</td>
<td>-0.083**</td>
<td>-0.020</td>
<td>-0.042*</td>
<td>0.049*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. neighborhood connectedness</td>
<td>1</td>
<td>0.150**</td>
<td>0.236**</td>
<td>0.269**</td>
<td>0.069**</td>
<td>-0.059**</td>
<td>-0.049*</td>
<td>0.004</td>
<td>0.145**</td>
<td>-0.059**</td>
<td>-0.194**</td>
<td>0.126*</td>
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</tr>
<tr>
<td>5. warmth toward mother</td>
<td>1</td>
<td>0.187**</td>
<td>0.200**</td>
<td>0.035</td>
<td>-0.039</td>
<td>0.022</td>
<td>0.091**</td>
<td>-0.076**</td>
<td>-0.026</td>
<td>-0.064**</td>
<td>0.137**</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>6. school attachment</td>
<td>1</td>
<td>0.413**</td>
<td>0.013</td>
<td>-0.113**</td>
<td>-0.012</td>
<td>-0.037</td>
<td>-0.001</td>
<td>-0.058**</td>
<td>-0.308**</td>
<td>0.221**</td>
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</tr>
<tr>
<td>7. friend attachment</td>
<td>1</td>
<td>0.050*</td>
<td>-0.046*</td>
<td>-0.005</td>
<td>0.015</td>
<td>0.050*</td>
<td>-0.048*</td>
<td>-0.270**</td>
<td>-0.191**</td>
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<td></td>
</tr>
<tr>
<td>8. hours weekly involved in after-school activities</td>
<td>1</td>
<td>0.138**</td>
<td>0.142**</td>
<td>0.212**</td>
<td>0.186**</td>
<td>0.106**</td>
<td>0.055**</td>
<td>-0.015</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9. hours weekly working at paid job</td>
<td>1</td>
<td>0.126**</td>
<td>0.176**</td>
<td>0.115**</td>
<td>0.146**</td>
<td>0.087**</td>
<td>-0.090**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. hours weekly doing chores</td>
<td>1</td>
<td>0.305**</td>
<td>0.091**</td>
<td>0.204**</td>
<td>0.031</td>
<td>0.036</td>
<td>0.042</td>
<td>0.167**</td>
<td>0.068**</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. hours weekly doing homework</td>
<td>1</td>
<td>0.129**</td>
<td>0.026</td>
<td>-0.059**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. hours weekly hanging out with friends</td>
<td>1</td>
<td>0.039</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. hours weekly spent at home alone</td>
<td>1</td>
<td>0.039</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>14. hope</td>
<td>1</td>
<td>-0.119**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 15. caring | 1  | **p < 0.01 level**
|       |     | * p < 0.05 level **
Phase 3: Regression Analysis

Phase 3 addressed the first and second research questions: Does social capital serve as a protective factor in deterring gun carrying among juveniles? Does social capital serve as a protective factor in deterring knife carrying among juveniles? The hypothesis for this phase focused on factors of social capital and how they predicted the recency/frequency of gun carrying and knife carrying. The research hypothesis for this phase is: Higher social capital levels will reduce the risk of gun carrying and knife carrying among juveniles. The enter method of multiple linear regression was used to analyze the research hypothesis. The independent variables, social capital factors, were measured in 2006; the dependent variables, gun carrying and knife carrying, were measured in 2007. Table 7 displays social capital factors reducing gun carrying and knife carrying.
Table 7: Social Capital Factors Associated with Delinquency (carried a knife or gun) 2007

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>Standard Error of b</th>
<th>Standardized b</th>
<th>t</th>
<th>Sig. (p)</th>
<th>Partial η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.089</td>
<td>.036</td>
<td>.075</td>
<td>2.485</td>
<td>.013*</td>
<td>.006</td>
</tr>
<tr>
<td>Gender</td>
<td>-.036</td>
<td>.059</td>
<td>-.017</td>
<td>-.616</td>
<td>.538</td>
<td>.000</td>
</tr>
<tr>
<td>Hope</td>
<td>.030</td>
<td>.043</td>
<td>.021</td>
<td>.694</td>
<td>.488</td>
<td>.000</td>
</tr>
<tr>
<td>Neighborhood Connectedness</td>
<td>.012</td>
<td>.031</td>
<td>.012</td>
<td>.397</td>
<td>.691</td>
<td>.000</td>
</tr>
<tr>
<td>Caring</td>
<td>-.126</td>
<td>.083</td>
<td>-.043</td>
<td>-1.515</td>
<td>.130</td>
<td>.002</td>
</tr>
<tr>
<td>Birth Mother</td>
<td>.339</td>
<td>.169</td>
<td>.056</td>
<td>2.005</td>
<td>.045*</td>
<td>.004</td>
</tr>
<tr>
<td>Hours involved in after-school activities</td>
<td>-.007</td>
<td>.016</td>
<td>-.013</td>
<td>-.417</td>
<td>.676</td>
<td>.000</td>
</tr>
<tr>
<td>Hours doing chores</td>
<td>.014</td>
<td>.016</td>
<td>.025</td>
<td>.827</td>
<td>.409</td>
<td>.001</td>
</tr>
<tr>
<td>Hours working in a paid job</td>
<td>.015</td>
<td>.012</td>
<td>.038</td>
<td>1.250</td>
<td>.212</td>
<td>.001</td>
</tr>
<tr>
<td>Hours hanging out with friends</td>
<td>.017</td>
<td>.009</td>
<td>.055</td>
<td>1.856</td>
<td>.064</td>
<td>.003</td>
</tr>
<tr>
<td>Hours home alone</td>
<td>.000</td>
<td>.010</td>
<td>.000</td>
<td>.010</td>
<td>.992</td>
<td>.000</td>
</tr>
<tr>
<td>Hours doing homework</td>
<td>-.020</td>
<td>.020</td>
<td>-.030</td>
<td>-.976</td>
<td>.330</td>
<td>.001</td>
</tr>
<tr>
<td>Peer attachment</td>
<td>-.035</td>
<td>.032</td>
<td>-.034</td>
<td>-1.104</td>
<td>.270</td>
<td>.001</td>
</tr>
<tr>
<td>School attachment</td>
<td>-.071</td>
<td>.048</td>
<td>-.046</td>
<td>-1.471</td>
<td>.142</td>
<td>.002</td>
</tr>
<tr>
<td>Warmth toward mother</td>
<td>-.010</td>
<td>.041</td>
<td>-.007</td>
<td>-.233</td>
<td>.816</td>
<td>.000</td>
</tr>
<tr>
<td>Carried knife or gun 2006</td>
<td>.352</td>
<td>.030</td>
<td>.335</td>
<td>11.608</td>
<td>.000*</td>
<td>.109</td>
</tr>
</tbody>
</table>

*p<.05  Adjusted R²=.158

Table 7, the Adjusted R² conveys the proportion of variance in the criterion (carrying a knife or gun) that is accounted for by all the factors (social capital variables) entered into the regression equation. The model explains approximately 16% of the variance. The standardized regression coefficient (b) in Table 7, represents a linear correlation coefficient between the criterion and each factor while controlling for the effects of all other factors in the analysis. The factors contributing significantly in explaining the recency/frequency of carrying a knife or gun are a respondent’s age and identifying birth mother as mother figure. A respondent’s age was the most significant predictor of the recency/frequency a respondent would carry a knife or a gun (p=.013). The slope coefficient is positive, indicating that carrying a knife or gun will increase
with age. The second factor predicting the recency/frequency a respondent would carry a knife or gun was an indication of the birth mother as most like a mother figure to the respondent (p=.045). The positive slope coefficient indicates that having a birth mother as a mother figure is associated with an increase in the recency/frequency of carrying a weapon. As one would expect, carrying a knife or gun in 2006 does predict the recency/frequency a respondent carried a knife or gun in 2007 (p<.001). This was meant to act as a control variable in the Granger Causality Framework of the multiple linear regression. In this phase, a respondent’s gender, having a sense of hope, neighborhood connectedness, caring about others, hours involved in after-school activities, hours spent doing chores, hours spent working in a paid job, hours spent hanging out with friends, hours spent home alone, attachment to peers, attachment to school, and a respondent’s warmth towards their mother did not predict the recency/frequency a respondent carried a knife or gun in 2007.

**Phase 4: Regression Analysis**

Phase 4 addressed the third research question: Does social capital serve as a protective factor in deterring weapon brandishment among juveniles? The hypothesis for this phase focused on factors of social capital and how they predicted weapon brandishment. Weapon brandishment included pulling a knife or gun on someone. The research hypothesis for this phase is as follows: Higher social capital levels will reduce the risk of weapon brandishment among juveniles. The independent variables, social capital factors, were measured in 2006; the dependent variable, weapon brandishment, was measured in 2007. Table 8 displays social capital factors reducing weapon brandishment.
### Table 8: Social Capital Factors Associated with Delinquency (pull a knife or gun on someone else) 2007

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>Standard Error of b</th>
<th>Standardized b</th>
<th>t</th>
<th>Sig. (p)</th>
<th>Partial (\eta^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.014</td>
<td>.019</td>
<td>.022</td>
<td>.734</td>
<td>.463</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>-.019</td>
<td>.032</td>
<td>-.017</td>
<td>-.589</td>
<td>.556</td>
<td>.000</td>
</tr>
<tr>
<td>Hope</td>
<td>.031</td>
<td>.024</td>
<td>.040</td>
<td>1.336</td>
<td>.182</td>
<td>.002</td>
</tr>
<tr>
<td>Neighborhood Connectedness</td>
<td>-.020</td>
<td>.017</td>
<td>-.034</td>
<td>-1.146</td>
<td>.252</td>
<td>.001</td>
</tr>
<tr>
<td>Caring</td>
<td>-.061</td>
<td>.046</td>
<td>-.038</td>
<td>-1.326</td>
<td>.185</td>
<td>.002</td>
</tr>
<tr>
<td>Birth Mother</td>
<td>-.042</td>
<td>.093</td>
<td>-.013</td>
<td>-.453</td>
<td>.650</td>
<td>.000</td>
</tr>
<tr>
<td>Hours involved in after-school activities</td>
<td>-.001</td>
<td>.009</td>
<td>-.003</td>
<td>-.91</td>
<td>.928</td>
<td>.000</td>
</tr>
<tr>
<td>Hours doing chores</td>
<td>-.012</td>
<td>.009</td>
<td>-.041</td>
<td>-1.364</td>
<td>.173</td>
<td>.002</td>
</tr>
<tr>
<td>Hours working in a paid job</td>
<td>.003</td>
<td>.007</td>
<td>.016</td>
<td>.516</td>
<td>.606</td>
<td>.000</td>
</tr>
<tr>
<td>Hours hanging out with friends</td>
<td>.011</td>
<td>.005</td>
<td>.069</td>
<td>2.310</td>
<td>.021*</td>
<td>.005</td>
</tr>
<tr>
<td>Hours home alone</td>
<td>.002</td>
<td>.005</td>
<td>.010</td>
<td>.349</td>
<td>.727</td>
<td>.000</td>
</tr>
<tr>
<td>Hours doing homework</td>
<td>.001</td>
<td>.011</td>
<td>.003</td>
<td>.095</td>
<td>.924</td>
<td>.000</td>
</tr>
<tr>
<td>Peer attachment</td>
<td>.017</td>
<td>.017</td>
<td>.031</td>
<td>.990</td>
<td>.323</td>
<td>.001</td>
</tr>
<tr>
<td>School attachment</td>
<td>-.079</td>
<td>.027</td>
<td>-.095</td>
<td>-2.994</td>
<td>.003*</td>
<td>.008</td>
</tr>
<tr>
<td>Warmth toward mother</td>
<td>.009</td>
<td>.023</td>
<td>.012</td>
<td>.407</td>
<td>.684</td>
<td>.000</td>
</tr>
<tr>
<td>Pulling knife or gun on someone 2006</td>
<td>.372</td>
<td>.035</td>
<td>.305</td>
<td>10.579</td>
<td>.000*</td>
<td>.091</td>
</tr>
</tbody>
</table>

*p<.05     Adjusted \(R^2\)=.125

In Table 8, the Adjusted \(R^2\) conveys the proportion of variance in the criterion (pulling a knife or gun on someone) that is accounted for by all the factors (social capital variables) entered into the regression equation. The model explains approximately 13% of the variance. The standardized regression coefficient (b) in Table 8 represents a linear correlation coefficient between the criterion and each factor while controlling for the effects of all other factors in the analysis. The factors contributing significantly in predicting the recency/frequency of pulling a knife or gun on someone else are attachment to school and hours spent each week hanging out with friends. Juveniles indicating a greater attachment to school were more likely to pull a knife or gun on someone else (p=.003). The slope coefficient is positive, indicating that greater
attachment to school is associated with an increase of pulling a knife or gun on someone. The second factor predicting the recency/frequency of pulling a knife or gun on someone else was hours spent each week hanging out with friends (p=.021). The slope coefficient is positive, indicating that an increase in hours spent hanging out with friends is associated with an increase in pulling a knife or gun on someone. As one would expect, pulling a knife or gun on someone in 2006 does predict the recency/frequency of pulling a knife or gun on someone in 2007 (p<.05). This was meant to act as a control variable in the Granger Causality Framework of the multiple linear regression. In this phase, age, gender, having a sense of hope, neighborhood connectedness, caring about others, identification of birth mother as mother figure, hours involved in after-school activities, hours spent doing chores, hours spent working in a paid job, hours spent home alone, hours spent doing homework, attachment to peers, and warmth towards mother did not predict the recency/frequency a respondent would pull a knife or gun on someone in 2007.

**Phase 5: Regression Analysis**

Phase 5 addresses the fourth research question: Does social capital serve as a protective factor in deterring weapon use among juveniles? The hypothesis for this phase focused on factors of social capital and how they predicted weapon use. The research hypothesis for this phase is as follows: Higher social capital levels will reduce the risk of weapon use among juveniles. The independent variables, social capital factors, were measured in 2006; the dependent variable, weapon use, was measured in 2007. Table 9 displays social capital factors reducing weapon use.
Table 9: Social Capital Factors Associated with Delinquency (cut or shot at someone else) 2007

<table>
<thead>
<tr>
<th>Factor</th>
<th>b</th>
<th>Standard Error of b</th>
<th>Standardized b</th>
<th>t</th>
<th>Sig. (p)</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.009</td>
<td>.011</td>
<td>.024</td>
<td>.801</td>
<td>.423</td>
<td>.001</td>
</tr>
<tr>
<td>Gender</td>
<td>-.033</td>
<td>.018</td>
<td>-.051</td>
<td>-1.774</td>
<td>.076</td>
<td>.003</td>
</tr>
<tr>
<td>Hope</td>
<td>.010</td>
<td>.013</td>
<td>.023</td>
<td>.766</td>
<td>.444</td>
<td>.001</td>
</tr>
<tr>
<td>Neighborhood Connectedness</td>
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<td>.010</td>
<td>-.022</td>
<td>-.742</td>
<td>.458</td>
<td>.000</td>
</tr>
<tr>
<td>Caring</td>
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<td>.025</td>
<td>-.067</td>
<td>-2.294</td>
<td>.022*</td>
<td>.005</td>
</tr>
<tr>
<td>Birth Mother</td>
<td>.023</td>
<td>.052</td>
<td>.013</td>
<td>.450</td>
<td>.653</td>
<td>.000</td>
</tr>
<tr>
<td>Hours involved in after-school activities</td>
<td>.005</td>
<td>.005</td>
<td>.030</td>
<td>.976</td>
<td>.329</td>
<td>.000</td>
</tr>
<tr>
<td>Hours doing chores</td>
<td>-.006</td>
<td>.005</td>
<td>-.305</td>
<td>-1.135</td>
<td>.256</td>
<td>.001</td>
</tr>
<tr>
<td>Hours working in a paid job</td>
<td>.008</td>
<td>.004</td>
<td>.065</td>
<td>2.084</td>
<td>.037*</td>
<td>.004</td>
</tr>
<tr>
<td>Hours hanging out with friends</td>
<td>.000</td>
<td>.003</td>
<td>.005</td>
<td>.157</td>
<td>.875</td>
<td>.000</td>
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<tr>
<td>Hours home alone</td>
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<td>.003</td>
<td>.007</td>
<td>.242</td>
<td>.808</td>
<td>.000</td>
</tr>
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<td>Hours doing homework</td>
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<td>.006</td>
<td>-.009</td>
<td>-.282</td>
<td>.778</td>
<td>.000</td>
</tr>
<tr>
<td>Peer attachment</td>
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<td>.010</td>
<td>.014</td>
<td>.457</td>
<td>.648</td>
<td>.000</td>
</tr>
<tr>
<td>School attachment</td>
<td>-.038</td>
<td>.015</td>
<td>-.083</td>
<td>-2.571</td>
<td>.010*</td>
<td>.006</td>
</tr>
<tr>
<td>Warmth toward mother</td>
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<td>.013</td>
<td>.004</td>
<td>.149</td>
<td>.882</td>
<td>.000</td>
</tr>
<tr>
<td>Cut or shot at someone else 2006</td>
<td>.288</td>
<td>.031</td>
<td>.270</td>
<td>9.214</td>
<td>.000*</td>
<td>.071</td>
</tr>
</tbody>
</table>

*p<.05  Adjusted $R^2=.114$

In Table 9, the Adjusted $R^2$ conveys the proportion of variance in the criterion (cut or shot at someone else) that is accounted for by all the factors (social capital variables) entered into the regression equation. The model explains approximately 11% of the variance. The standardized regression coefficient (b) in Table 9 represents a linear correlation coefficient between the criterion and each factor while controlling for the effects of all other factors in the analysis. The factors contributing significantly in predicting the recency/frequency a respondent would cut or shoot at someone else are caring about others, hours each week a respondent spends working in a paid job, and attachment to school. Attachment to school was the most significant predictor of the recency/frequency a respondent would cut or shoot at someone else (p=.010). The positive
slope coefficient indicates that a greater attachment to school is associated with an increase in the recency/frequency a respondent would cut or shoot at someone. The second factor predicting the recency/frequency a respondent would cut or shoot at someone was caring about others (p=.022). The positive slope coefficient indicates that a greater sense of caring about others is associated with an increase in the recency/frequency a respondent would cut or shoot at someone. The third factor predicting the recency/frequency a respondent would cut or shoot at someone else was the number of hours each week a respondent spent working at a paid job (p=.037). The positive slope coefficient indicates that the more hours a respondent spends working at a paid job, the recency/frequency of using a weapon will increase. As one would expect, cutting or shooting at someone in 2006 does predict whether or not a respondent cut or shot at someone in 2007 (p<.05). This was meant to act as a control variable in the Granger Causality Framework of the multiple linear regression. In this phase, age, gender, having a sense of hope, neighborhood connectedness, identification of birth mother as mother figure, hours involved in after-school activities, hours spent doing chores, hours spent hanging out with friends, hours spent home alone, hours spent doing homework, and warmth toward mother did not predict a decrease in whether or not a respondent would cut or shoot at someone else in 2007.
Chapter 5
Discussion

This research examined social capital factors and whether or not those factors serve as a protective factor for youth at risk for delinquency. Additionally, demographic variables such as age, identification of birth mother as a mother figure, and gender were used in the social capital analysis. The independent variables (social capital factors) were measured in 2006 and the dependent variable (delinquency) was measured in 2007.

Phase 1

Phase 1 of the analysis addressed characteristics of the sample. The mean age of participants in the MYS sample was 14 years of age. The gender of the sample included 49.7% male participants and 48.6% female participants. Participants indicated that their birth mother was most like a mother to them at 76.5% and the remaining 23.5% indicated that their birth mother was not most like a mother to them. The mean of neighborhood connectedness indicated the respondents felt a greater sense of connection to their community. Feeling a greater connection to community could serve as a protective factor in reducing delinquency. Respondents indicated having a sense of hope, which could serve as a protective factor in reducing delinquency. A greater sense of caring about others was reported, which could serve as a protective factor in reducing delinquency. Participants indicated a strong attachment to school and to their friends, which could serve a protective factor in reducing delinquency. Participants
indicated having feelings of warmth toward their mother, which could serve as a protective factor in the reduction of delinquency. Time spent involved in after-school activities had a mean of four hours per week. This suggests that juveniles who spend approximately 4 hours after school involved in activities are less likely to become involved in delinquency. Time spent working at a paid job had a mean of 3.78 hours per week. The factor of juveniles working in a paid job seems to suggest that the time spent working can serve as a protective factor in deterring delinquency. Juveniles spent approximately four hours per week doing chores, which suggests that working around the home can serve as a delinquency protective factor. The factor of juveniles spending approximately three hours per week doing homework suggests that students doing their homework are committed to their studies and have a greater attachment to their school. Juveniles in the study spent approximately nine hours per week hanging out with friends, which suggests a strong attachment to their peers. Juveniles reported spending approximately six hours per week hanging out at home alone, suggesting that during this period they were left unsupervised by an adult. Juveniles reported that they spent approximately six hours at home hanging out each week, suggesting that the juveniles were either at home alone or hanging out with family or friends. Participants reported carrying a knife or gun one time in 2007. Participants reported that they did not pull a knife or gun on someone in 2007. Carrying a knife or gun could be for protection, and the juvenile decided not to use the knife or gun. Participants reported that they did not cut or shoot someone in 2007.

**Phase 2**

Phase 2 of the analysis examined the relationship among the independent variables. Only those correlations that are the strongest and most theoretically meaningful are discussed. As seen in Table 6, age is moderately and negatively correlated with warmth toward mother. Age is
also moderately and negatively correlated with having a sense of hope. This suggests that as a child ages, warmth toward a mother figure decreases. Additionally, as a child ages, having a sense of hope decreases. Gender is strongly and positively correlated with school attachment. This suggests that females are more likely to feel a sense of attachment to school. Gender has a strong and negative correlation with hours per week involved in after school activities. Females are more likely to be involved in after school activities, suggesting that males are possibly involved in non-school related activities following dismissal from school. Birth mother is strongly and negatively correlated with hours spent weekly doing homework. This suggests the more a respondent identified their birth mother as a mother figure, the less likely they were to spend time doing homework. Birth mother is moderately and positively correlated with caring about others. This suggests that respondents indicating their birth mother as a mother figure were more likely to care about others. Birth mother is strongly and positively correlated with warmth toward mother. This suggests that the more a respondent identified their birth mother as a mother figures, the more they were to feel a sense of warmth toward their mother.

Neighborhood connectedness is moderately and negatively correlated with hours spent weekly doing chores. The more connected a respondent feels to their neighborhood, the less likely they were to spend time doing chores. Neighborhood connectedness has a strong and positive correlation with caring. The stronger connection a respondent has with their neighborhood, the more likely they are to care about others and their neighborhood. Attachment to friends is moderately and positively correlated with hours spent involved weekly in after-school activities. The more a respondent feels attached to their friends, the more likely they were to become involved in after-school activities. Attachment to friends is moderately and negatively correlated with hours spent home alone weekly. Respondents with an attachment to
friends were less likely to spend time at home alone each week. Attachment to friends has a moderate and positive correlation with hours per week hanging out with friends. This suggests that the more a respondent forms an attachment to friends, the more likely they are to spend time hanging out with friends.

These findings are consistent with prior research. Neighborhood connectedness among juveniles suggests increased social development outcomes, engaging in pro-social behaviors, and empowering juveniles to make change within themselves and the communities in which they reside (Nicotera, 2008; Richards-Schuster & Dobbie, 2011; Sampson, 2013). Social capital factors can be seen to have a positive effect in deterring social disorganization within a community. The data do not depict a relationship among social capital and neighborhood connectedness, encourage formal and informal control of negative behaviors, which impede the MYS communities to self-regulate crime (Kubrin, 2012; Omer, 2008; Rose & Clear, 1998; Sampson, 2013). A neighborhood that is organized and where residents feel a sense of connection to each other engages in informal control of residents. This informal control, or internal consensus, shows importance of residents sharing norms and values such as wanting a community that is crime-free. Socially organized communities also display cohesion, or strong bonding, among residents (Kubrin et al., 2009). Informal control allows residents to take non-official action to combat crime. This non-official action could be encouraged through social capital mechanisms. Social capital can aid communities to invest in one another to regulate crime. While neighborhood connectedness did show a strong to moderate correlations with age, gender, identification of birth mother as mother figure, or hours spent doing homework, studying more data points in time may yield stronger results regarding these factors. Therefore, the connection to neighborhood is a key aspect to focus positive youth development initiatives.
Phase 3

Phase 3 of the analysis addressed the following research question: Does social capital serve as a protective factor in deterring gun carrying and knife carrying among juveniles? The subsequent research hypothesis addressed how higher levels of social capital will reduce the risk of gun carrying among juveniles. While all levels of social capital did not predict the recency/frequency of gun carrying, caring, age and identification of birth mother as a mother figure were statistically significant in predicting the recency/frequency of gun carrying among juveniles. A juvenile’s age was the greatest predictor of the recency/frequency a respondent would carry a knife or gun. The results indicated that as age increases, so will a respondent’s likelihood of carrying a knife or gun. Additionally, as expected, carrying a knife or gun in 2006 did predict whether or not a respondent carried a knife or gun in 2007. The mean age in 2006, was 14 years of age. This is promising; as the older a child is without engaging in delinquency, the less likely he/she is to engage in delinquency. Consistent with prior research, the earlier a child engages in delinquency, the more likely he/she is to engage in subsequent delinquency (Bolland et al., 2005; Church et al., 2012; Crocetti et al., 2013; Herrenkohl et al, 2006; Loeber et al., 2012). Therefore, age can be seen as a protective factor in deterring carrying a knife or gun among juveniles.

Identification of having a birth mother as the mother figure is associated with an increase in the recency/frequency of carrying a weapon. The results are not consistent with prior research. Identification of birth mother as a mother figure in deterring carrying a knife or gun among juveniles resonates with a juvenile’s ability to bond with a mother figure. Juveniles who have a positive bond with a parental figure, particularly a mother figure, generally have a lower rate of participation in delinquency. Perhaps the MYS community is different from other high
poverty communities as juveniles may associate with having a birth mother as a mother figure, but this does not necessarily deter the recency/frequency of carrying a weapon. The family unit may or may not be a cohesive unit. As such, family cohesion is an important aspect in adolescent development (Agnew, 2009; Burchinal et al., 2014; Carlson & Corcoran, 2001; Cavendish et al., 2014; Church et al., 2012; Church et al., 2009; Lam et al., 2012). The family plays a central role in overall adolescent development. The family influences how a juvenile reacts to strain and conforms to or deviates from social norms, as well as the amount of formal and informal control a juvenile is subject and the(221,830),(388,876)

**Null Findings**

Gender was not a significant predictor of the recency/frequency of knife or gun carrying among respondents. This further supports that gender was relatively equal in the sample size. Having a sense of hope was not a significant predictor of the recency/frequency of knife or gun carrying among respondents.
carrying. This finding is supported by previous research on hopelessness of adolescents living in inner-city poverty, suggesting that hopelessness is not a universal characteristic of low-income communities (Bolland et al., 2005; Bolland et al., 2001). Therefore, hopelessness is not structural; but hopelessness can serve as a predictor of risky behavior (Bolland et al., 2005; Bolland, 2003).

Caring about others was not a significant predictor of the recency/frequency of knife or gun carrying. The more an adolescent cares about others, the more likely they are to refrain from knife or gun carrying. In many communities, carrying a knife or gun is seen as a sense of protection of others and self. Neighborhood connectedness was not a significant predictor of the recency/frequency of knife or gun carrying. This is a surprising finding as one would expect that the more connected youth are to their neighborhood, the less likely they may be in carrying a knife or gun. Research has shown that African American communities exhibit strength and connection to its members (Kelly, Maynigo, Wesley, & Durham, 2013). Research has also shown that African American communities that are not close-knit may be experiencing structural racism and its underlying system (Kelly et al., 2013). The social climate is an important aspect of neighborhood connectedness, as well as a homogeneous neighborhood (Bolland, 2003). Smith (2012) suggests that neighborhoods lacking racial diversity may experience poor social cohesion, as well as limited exposure to outsiders. This can create social isolation and complacency within the community. Research studying more data points in time could shed light on why neighborhood connectedness is not a predictor for reducing knife or gun carrying. Additional research could also shed light on how neighborhood connectedness does serve as a predictor in reducing knife or gun carrying. One can only infer from this research that this particular African American community could potentially experience structural racism and,
therefore, be less connected to one another. Additionally, the neighborhoods within the MYS are relatively rural within a larger metropolitan environment. Therefore, one could posit that the communities that encompass the MYS are not strictly urban communities. In contrast, previously discussed longitudinal surveys of youth risk behavior are located within urban environments.

Hours involved in after-school activities was not a significant predictor of the recency/frequency of knife or gun carrying. The average hours adolescents were involved in after-school activities was four hours per week, which is roughly an hour after school each week. This did not deter adolescents from carrying a knife or gun. Again, carrying a knife or a gun can be seen as a sense of protection of others or self. Hours spent doing chores weekly was not a significant predictor of the recency/frequency of knife or gun carrying. Adolescents spent roughly four hours per week doing chores and this commitment to home did not deter knife or gun carrying. Hours spent working in a paid job did not predict the recency/frequency of knife or gun carrying. Adolescents spent roughly four hours per week working in a paid job. Carrying a knife or a gun can be seen as a sense of protection or others or self. Hours spent hanging out with friends did not predict the recency/frequency of knife carrying or gun carrying. Involvement with delinquent peers significantly increases the risk that adolescents will become involved in delinquent activity. Although the results do not specifically point to an increase in knife or gun carrying regarding time spent hanging out with friends, it is a significant risk factor. Hours spent home alone did not predict the recency/frequency of knife carrying or gun carrying. Adolescents roughly spent eight hours per week home alone unsupervised. We do not know the activities adolescents became involved in while home alone. Future research should be explored regarding the types of activities adolescents become involved in while home alone. Hours spent
doing homework was not a significant predictor of the recency/frequency of knife or gun carrying. Adolescents spent approximately three hours per week doing homework. This suggests that future research should explore what adolescents are doing outside of those three hours of homework.

Attachment to peers was not a significant predictor of the recency/frequency of knife or gun carrying. Learning pro-social behavior with peers does decrease delinquent activity. Alternately, learning delinquent behavior puts an adolescent at increased risk for delinquent activity. Attachment to school was not a significant predictor of the recency/frequency of knife or gun carrying. Adolescents spend the majority of their time at school. Although the results do not suggest that adolescents are learning pro-social behavior, school can serve as a venue for potentially feeling safe and secure at school without the need to carry a weapon. Warmth toward mother was not a significant predictor of the recency/frequency a respondent would carry a gun or knife. Future research needs to be explored in this area to ascertain whether or not connection to a mother figure can be seen as a protective factor in predicting the recency/frequency of carrying a knife or gun. Alternatively, carrying a knife or gun can be seen as a form of protection even when the juvenile feels warmth toward their mother.

Phase 4

Phase 4 of the analysis addressed the following research question: Does social capital serve as a protective factor in deterring weapon brandishment among juveniles? The subsequent research hypothesis addressed that higher levels of social capital levels will reduce the risk weapon brandishment among juveniles. While all levels of social capital did not predict the recency/frequency of weapon brandishment, hours spent hanging out with friends and school
attachment were statistically significant. Additionally, as expected, brandishing a weapon in 2006 did predict the recency/frequency a respondent would brandish a weapon in 2007.

Attachment to school was the most significant predictor of the recency/frequency of brandishing a weapon. The results indicated that greater attachment to school is associated with a decrease in the recency/frequency of brandishing a weapon. Considering that juveniles spend most of their time in school, it is not surprising that a juvenile’s attachment to school during adolescence can promote positive youth development. The results from this study promote positive youth development that indicates a decrease in weapon brandishment is associated with greater attachment to school. Prior research has indicated a greater attachment to school is associated with positive youth development in prior research. Attachment to school is associated with behavioral, emotional, and academic outcomes (Monahan, Oesterle, & Hawkins, 2010).

Positive youth development can lead to fewer behavioral problems, a sense of emotional well-being, and better academic outcomes (Arthur et al., 2000; Catalano et al., 2004; Fraser et al., 2004; Monahan et al., 2010). School connectedness has been shown to decline in middle school (Monahan et al., 2010). The finding of attachment to school shows promise as the mean age of respondents was 14 years of age. Juveniles who indicate attachment to school in middle school could continue this attachment into high school as the connection to school has already been established. As a child ages, attachment to school may increase as does the need to brandish a weapon. However, prior research has shown that juveniles who feel a sense of connectedness to school are less likely to engage in delinquent behavior (Arthur et al., 2000; Catalano et al, 2004; Fraser et al., 2004; Monahan et al., 2010; Wassermann et al., 2003). Teacher support coupled with high academic standards, creating a positive and respectful environment among teachers and students, and encouraging a physically and emotionally safe school environment creates a
positive school connectedness among juveniles (Catalano et al., 2004; Monahan et al., 2010; Wassermann et al., 2003). Therefore, juveniles will feel physically and emotionally safe, which will decrease the desire to brandish a weapon for protection or other means.

Prior research indicates that juveniles who spend more time hanging out with friends who are a positive influence will be less likely to engage in brandishing a weapon. The results indicate that the more hours a juvenile hangs out with friends, the more likely he/she will brandish a weapon. Feeling isolated and alone often leads juveniles to alienate themselves from hanging out with friends who are a positive influence, which has been shown to lead to at risk behavior (Agnew, 2009; Ehrlich et al., 2013; Siegel & Welsh, 2012; Wassermann et al., 2003).

Null Findings

Age and gender were not significant predictors of the recency/frequency of weapon brandishment. This further supports that gender was relatively equal in the sample size and that a juvenile’s age was not a predictor of the recency/frequency of weapon brandishment. Having a sense of hope was not a significant predictor of the recency/frequency of weapon brandishment. This finding is supported by previous research on hopelessness of adolescents living in inner-city poverty, suggesting that hopelessness is not a universal characteristic of low-income communities (Bolland et al., 2005; Bolland et al., 2001). Therefore, hopelessness is not structural, but hopelessness can serve as a predictor of risky behavior (Bolland et al., 2005; Bolland, 2003).

Neighborhood connectedness was not a significant predictor of the recency/frequency of weapon brandishment. This is a surprising finding; as one would expect that the more connected youth are to their neighborhood, the less likely they may be to pull a knife or gun on
someone. Research has shown that African American communities exhibit strength and connection to its members (Kelly et al., 2013). Prior research has also shown that African American communities that are not close-knit may be experiencing structural racism and its underlying systems (Kelly et al., 2013). The social climate is an important aspect of neighborhood connectedness, as well as a homogeneous neighborhood (Bolland, 2003). Smith (2012) suggests that neighborhoods lacking racial diversity may experience poor social cohesion, as well as limited exposure to outsiders. This can create social isolation and complacency within the community. More research looking at more data points in time could shed light on why neighborhood connectedness is not a predictor for reducing pulling a knife or gun on someone. Additional research could also shed light on how neighborhood connectedness does serve as a predictor in reducing pulling a knife or gun on someone. One can only infer from this research that this particular African American community could potentially experience structural racism and, therefore, be less connected to one another. Additionally, the neighborhoods within the MYS are relatively rural within a larger metropolitan environment. Therefore, one could posit that the communities that encompass the MYS are not strictly urban communities. In contrast, previously discussed longitudinal surveys of youth risk behavior are located within urban environments.

Caring about others was not a significant predictor in the recency/frequency of weapon brandishment. Perhaps adolescents can care about others, but it does not necessarily preclude pulling a knife or gun on someone. In many communities, pulling a knife or gun on someone can be seen as a sense of protection of others and self. Identification of birth mother as a mother figure was not a significant predictor in the recency/frequency of weapon brandishment. Additional research that looks at more data points in time could potentially shed light on the
importance of identifying a birth mother as a mother figure in recency/frequency of weapon brandishment. Hours involved in after-school activities was not a significant predictor in the recency/frequency of weapon brandishment. The average hours adolescents were involved in after-school activities was four hours per week, which is roughly an hour after school each week. This did not deter adolescents from pulling a knife or gun on someone. Again, pulling a knife or gun on someone can be seen as a sense of protection of others or self. Hours spent doing chores weekly was not a significant predictor in the recency/frequency of weapon brandishment. Adolescents spent roughly four hours per week doing chores, and this commitment to home did not predict the recency/frequency of brandishing a weapon. Hours spent working in a paid job did not predict the recency/frequency of weapon brandishment. Adolescents spent roughly four hours per week working in a paid job. Pulling a knife or gun can be seen as a sense of protection or others or self. Hours spent home alone did not predict the recency/frequency of weapon brandishment. Adolescents spent roughly 8 hours per week home alone unsupervised. We do not know the activities adolescents became involved in while home alone. Future research should be explored regarding the types of activities adolescents become involved in while home alone. Hours spent doing homework was not a significant predictor of the recency/frequency of weapon brandishment. Adolescents spent approximately three hours per week doing homework. This suggests that future research should explore what adolescents are doing outside of those three hours of homework.

Attachment to peers was not a significant predictor of the recency/frequency of weapon brandishment. This is a surprising finding as hours spent hanging out with friends was a significant predictor in the recency/frequency of weapon brandishment. One would expect attachment to peers to predict the same. Learning pro-social behavior with peers does decrease
delinquent activity. Alternately, learning delinquent behavior puts an adolescent at increased risk for delinquent activity. Warmth toward mother was not a significant predictor in the recency/frequency of weapon brandishment. Future research needs to be explored in this area to ascertain whether or not connection to a mother figure can be seen as a protective factor reducing pulling a knife or gun on someone. Alternatively, pulling a knife or gun on someone can be seen as a form of protection even when the juvenile feels warmth toward their mother.

Phase 5

Phase 5 of the analysis addressed the following research question: Does social capital serve as a protective factor in deterring weapon use among juveniles? The subsequent research hypothesis addressed if higher levels of social capital levels will reduce the risk weapon use among juveniles. While all levels of social capital did not predict the recency/frequency of weapon use, caring about others, hours spent working weekly in a paid job, and school attachment were statistically significant. Additionally, as expected, using a weapon on someone in 2006 did predict the recency/frequency a respondent would use a weapon on someone in 2007.

As previously discussed in Phase 4 above, juveniles reporting a greater attachment to school were less likely to use a weapon. As discussed previously, a strong attachment to school is more likely to reduce a juvenile’s inclination to use a weapon on others. Attachment to school encourages positive youth development, which can include an ability to care about others. This enhances a juvenile’s overall emotional well-being. Appropriate behavior is often modeled at school and, therefore, entices juveniles to model these positive behaviors. Juveniles who care others are more likely to refrain from delinquency. Juveniles who work weekly in a paid job are
more likely to use a weapon. This is not consistent with previous research that suggests involvement in paid work during the academic year decreases delinquency (Monahan et al., 2013; Staff et al., 2010). Juveniles who work at a paid job learn how to conform to society’s norms of creating safe, crime-free communities. Employment provides the opportunity to learn life skills, how to respond to anger and frustration, and learn a trade that could potentially aid the juvenile beyond secondary education. Staff and colleagues (2010) found that the variation in types of employment, however, caused variation in the intensity of juveniles to engage in delinquency. This suggests that it is important to ascertain what types of employment juveniles are engaged in weekly in addition to the number of hours juveniles spend working in a paid job. Additionally, juveniles may use a weapon while working for protection.

Null Findings

Age and gender were not significant predictors of the recency/frequency of using a weapon. This further supports that gender was relatively equal in the sample size and that a juvenile’s age was not a predictor of using a weapon. Having a sense of hope was not a significant predictor in the recency/frequency of weapon use. This finding is supported by previous research on hopelessness of adolescents living in inner-city poverty, suggesting that hopelessness is not a universal characteristic of low-income communities (Bolland et al., 2005; Bolland et al., 2001). Therefore, hopelessness is not structural; but hopelessness can serve as a predictor of risky behavior (Bolland et al., 2005; Bolland, 2003).

Neighborhood connectedness was not a significant predictor in the recency/frequency of weapon use. This is a surprising finding as one would expect that the more connected youth are to their neighborhood, the less likely they may be to use a weapon. Research has shown that
African American communities exhibit strength and connection to its members (Kelly et al., 2013). Research has also shown that African American communities that are not close-knit may be experiencing structural racism and its underlying systems (Kelly et al., 2013). The social climate is an important aspect of neighborhood connectedness, as well as a homogeneous neighborhood (Bolland, 2003). Smith (2012) suggests that neighborhoods lacking racial diversity may experience poor social cohesion, as well as limited exposure to outsiders. This can create social isolation and complacency within the community. More research looking at more data points in time could shed light on why neighborhood connectedness is not a predictor for reducing knife or gun use. Additional research could also shed light on how neighborhood connectedness does serve as a predictor in reducing cutting or shooting at someone. One can only infer from this research that this particular African American community could potentially experience structural racism and, therefore, be less connected to one another. Additionally, the neighborhoods within the MYS are relatively rural within a larger metropolitan environment. Therefore, one could posit that the communities that encompass the MYS are not strictly urban communities. In contrast, previously discussed longitudinal surveys of youth risk behavior are located within urban environments.

Identification of birth mother as a mother figure was not a significant predictor in the recency/frequency of weapon use. Looking at more data points in time could potentially shed light on the importance of identifying a birth mother as a mother figure in the recency/frequency of weapon use. Hours involved in after-school activities was not a significant predictor in the recency/frequency of weapon use. The average hours adolescents were involved in after-school activities was four hours per week, which is roughly an hour after school each week. This did not deter adolescents necessarily deter a juvenile from using a weapon. Again, cutting or
shooting at someone can be seen as a sense of protection of others or self. Hours spent doing chores weekly was not a significant predictor in the recency/frequency of weapon use. Adolescents spent roughly four hours per week doing chores and this commitment to home did not necessarily deter a juvenile from using a weapon. Hours spent hanging out with friends did not predict the recency/frequency of using a weapon. Involvement with delinquent peers significantly increases the risk that adolescents will become involved in delinquent activity. Although the results do not specifically point to an increase weapon use regarding time spent hanging out with friends, it is a significant risk factor.

Hours spent home alone did not predict the recency/frequency of weapon use. Adolescents spent roughly eight hours per week home alone unsupervised. We do not know the activities adolescents became involved in while home alone. Future research should be explored regarding the types of activities adolescents become involved in while home alone. Hours spent doing homework was not a significant predictor of the recency/frequency of weapon use. Adolescents spent approximately three hours per week doing homework. This suggests that future research should explore what adolescents are doing outside of those three hours of homework. Attachment to peers was not a significant predictor of the recency/frequency of weapon use. Learning pro-social behavior with peers does decrease delinquent activity. Alternately, learning delinquent behavior puts an adolescent at increased risk for delinquent activity. Warmth toward mother was not a significant predictor of the recency/frequency of weapon use. Future research needs to be explored in this area to ascertain whether or not connection to a mother figure can be seen as a protective factor reducing weapon use. Alternatively, weapon use can be seen as a form of protection even when the juvenile feels warmth toward their mother.
Limitations

This section discusses the limitations of this exploratory study. Four limitations are discussed that hinder the generalizability of the study findings.

First, the nature of self-report data lends itself to social desirability bias (Bender, 2012). Self-report data may also indicate that self-reported delinquency is more extensive than reported and self-report data can only provide a moderately accurate estimate of delinquency (Piquero & Brame, 2008). Most self-reported studies of delinquency prevalence have focused on high-risk urban areas and do not provide a rate of prevalence for rural communities. The study did not make any official record comparisons between the self-report data and official reports of delinquency. Official reports of delinquency could aid the researcher in ascertaining the number of juveniles coming into contact with the juvenile justice system and the types of offenses within a given year (Agnew, 2009; Kirk, 2006). Perhaps, with both self-reported delinquency and official records, the researcher may have a more accurate picture of delinquency within a given time frame.

Second, there was a lack of a clear pattern of social capital characteristics deterring delinquency. While there are a few social capital characteristics associated with different forms of delinquency in this large sample, most of the characteristics are not associated with delinquency. No particular social capital characteristic emerges as particularly influential in its relationship to delinquency. The nature of the study design only provides a snapshot of social capital factors and delinquency. The research study was a longitudinal cross-lagged design. Looking at two data points in time is insufficient to obtain substantial information regarding how social capital characteristics unfold as protective factors in deterring delinquency over time.
Researchers have documented longitudinal effects of school connectedness in both middle and high school. This reinforces that studies examining development over longer periods of time will have robust outcomes indicating that school connectedness has lasting effects into young adulthood (Monahan et al., 2010).

Third, cases were eliminated due to missing data. This potentially biases the data and does not provide an accurate snapshot of results. Fourth, additional research focusing on delinquency should be implemented in rural localities. The MYS takes a positive step in this direction as the longitudinal data comes from the South, the first study of its kind. The sample is from a rural environment located within a larger metropolitan environment.

**Practice Implications and Future Research**

*School Social Work*

The results from this study have implications for social work practice. Children spend the majority of their time in school. Therefore, school connectedness can serve as a key protective factor in deterring involvement in delinquency (Hart & Mueller, 2013; Wright & Fitzpatrick, 2006). School social workers can pinpoint academic assets, community assets, and family assets through therapy, behavior management, and improving parenting skills, as well as helping faculty and administrators develop cultural competency (Goldkind, 2011). School social workers can also identify the unique needs of juveniles and the unique needs of the communities in which they live (Goldkind, 2011; Tiet et al., 2010).

The school not only serves as an educational setting, it also serves as a community resource center for children and families (Bradley, Richards, & Doyle, 2009). Schools interface with health care entities, law enforcement, courts, probation, corrections, child protective
services, and agencies providing very basic resources to individuals (Bradley et al., 2009). Social workers working in school settings are equipped to provide short-term and problem-focused intervention, as well as crisis counseling, bullying and violence prevention, attendance and truancy intervention, and interaction with child welfare and mental health services (Allen-Meares et al., 2013; Bradley et al., 2009; Goldkind, 2011; Hart & Mueller, 2013).

Children who do not perform well in school and who have a poor attachment to school are at a greater risk for delinquent behavior (Bender, 2012; Hart & Mueller, 2013). Additionally, research on youth resiliency has shown that school connectedness serves as a robust protective factor against juvenile delinquency (Bender, 2012; Blum & Ellen, 2002; Hart & Mueller, 2013). Bender’s (2012) research exemplified that administrators, teachers, and school social work practitioners should implement strategies promoting an adolescent’s interest and commitment to school as adolescents who are not engaged often lack social ties with school and peers, have poor relationships with teachers, feel insecure, and don’t feel like they belong at school. This directly relates to the findings presented in this study where juveniles who lack school social capital are at greater risk for involvement in delinquency. Therefore, schools can provide a venue for youth “to bond with socially conforming peers and adults, learn new behaviors and skills, and avoid a more delinquent lifestyle” (Bender, 2012, p. 38).

Prevention efforts should be a universal focus conducive to school engagement and achievement (Allen-Meares et al., 2013; Greenwood, 2008; Hart & Mueller, 2013). Prevention offered in a classroom setting often prevents the development of problem behaviors, as specific social behaviors in the classroom are reinforced in a positive fashion school-wide (Allen-Meares et al., 2013). The prevention efforts could include social and emotional learning programs that promote behavioral and cognitive skill development while encouraging relationship building.
among youth, teachers, parents and peers setting a positive example (Allen-Meares et al., 2013; Bender, 2012; Lipsey et al., 2010). The prevention efforts could occur during the school day, as well as during after-school activities while social service agencies, mental health agencies, and public health agencies also develop and implement prevention programs as well (Lipsey et al., 2010).

The research results also point to the potential of mentoring programs as a social capital protective factor against delinquency. Most mentoring programs occur during the school day at school. Formal mentoring programs connect at-risk children with adult mentors. Adolescents who form bonds with their mentors are less likely to become involved in delinquency, increase overall school connectedness, and increase their self-esteem (Bender, 2012; King et al., 2009; Rhodes et al., 2010; Zand et al., 2008). The ongoing training and monitoring of mentors has positive effects for engaging youth in structured activities, as well as involving parents in the mentoring process (Bender, 2012; DuBois et al., 2002). Research has suggested that practitioners who engage both youth and adults in the mentoring process in a combination with school and community-based programming show the greatest benefit for youths (Bender, 2012; Dubois et al., 2002).

*Family and Community Practice*

The family has also been shown to be an effective social capital protective factor. The family environment is an important influence on adolescent development and behavior (Church et al., 2012; Church et al., 2009; Wright & Fitzpatrick, 2006). Social workers have been uniquely trained in family-based interventions that address the many needs arising from youth who are at-risk of becoming involved in the juvenile justice system (Peters, 2011; Tiet et al.,
The research results overwhelmingly pointed to the notion that adolescents in the study identified their birth mother as most like a mother figure to them. The importance of neighborhood social capital is important as the involvement with residents and local institutions also may serve as a protective role in the reduction of delinquency (Wright & Fitzpatrick, 2006). Therefore, community social work practice is of importance.

When adolescents feel safe and supported in their own communities, social capital increases for both the adolescent, parents, and overall community. A sense of connectedness among school and family is associated with lower levels of risk behaviors and, in turn, greater health outcomes (Bolland, 2007a). Community-based programs that are successful emphasize familial involvement with a focus on providing skills to adults who are raising and supervising the juvenile (Greenwood, 2008). Thus, greater involvement in community activities is associated with lower levels of delinquency, suggesting that the positive effects are associated with a greater sense of connectedness to neighborhood (Bolland et al., 2005; Bolland et al., 2007b; Bolland & McCallum, 2002). Therefore, neighborhood differences related to risky behavior and sense of community is an area warranting further investigation concerning the effects of neighboring, sense of community, and neighborhood attachment. Research has shown that communities that exhibiting social capital will have low levels of disorganization and crime (Rose & Clear, 1998). Prevention programming can occur within a community-based setting, aimed at helping youth to avoid delinquent behavior and coming into contact with the juvenile justice system (Lipsey et al., 2010).

Social workers involved in community practice are in a position to develop spaces for implementing activities that foster civic and community identity in young people, as well as empowering juveniles to make changes within themselves and the communities in which they
reside (Nicotera, 2008; Richards-Schuster & Dobbie, 2011). Civic engagement programming aids juveniles in changing aspects of their communities, which in turn, promotes prosocial bonding and lower levels of hopelessness (Nicotera, 2008; Richards-Schuster & Dobbie, 2011). Micro, mezzo, and macro levels of social work practice promoting activities that build collective efficacy among low income neighborhoods can aid in the reduction of neighborhood crime (Beck et al., 2012). Social workers engaging in micro-level practice can elaborate with community resources, as well as parents and adolescents in the reduction of exposure to crime-related activities, especially during the hours immediately following school dismissal (Nash & Bowen, 1999).

At the mezzo and macro levels, social workers can engage in community practice activities related to community building with poor residents (Beck et al., 2012; Fellin, 1998). Community building strengthens community norms while supporting on-going problem solving efforts (Beck et al., 2012; Fellin, 1998; Nicotera, 2008; Richards-Schuster & Dobbie, 2011). Macro levels of practice also include community organization, as well as political action in the reduction of crime and its correlates (Bowen & Chapman, 1996; Garbarino, 1995; Nash & Bowen, 1999; Richards-Schuster & Dobbie, 2011). Social workers can also engage in social capital assessment with community residents in an effort to identify strengths and limitations of a community to improve local neighborhood initiatives (Cox, 2008; Fellin, 1998). This assessment and development of social capital within communities mirrors social work’s commitment to social and economic justice of all persons (Cox, 2008; Fellin, 1998).
Conclusion

While the results presented from this study do not delineate a clear pattern of social capital characteristics as particularly influential in deterring delinquency, the results are still meaningful in creating social work interventions with juveniles at risk for engaging in delinquency. Having a mother figure, such as a biological mother, is a social capital characteristic that warrants future investigation. Additionally, attachment to school has been shown in the literature to serve as a protective factor in deterring adolescent involvement in delinquency.

Bonnie and colleagues (2012) suggest that research has exemplified three conditions that are vitally important in overall psychological development in adolescence: (1) having a parent or parental figure in the adolescent’s life who is concerned about their successful development; (2) involvement in a peer group that promotes and models academic success, as well as pro-social behavior; (3) involvement in activities that contribute to critical thinking, as well as autonomous decision making. School, extracurricular activities, and obtaining job skills all promote positive opportunities for adolescents to develop autonomous decision making, improve reasoning skills, and develop self-efficacy (Bonnie et al., 2012; Scott & Grisso, 2005; Tiet et al., 2010). Therefore, early prevention and intervention is crucial in enhancing resilience among youth who are at high risk of juvenile justice system involvement (Tiet et al., 2010). Strengthening bonding between juveniles, parents, teachers, and community entities aimed at reducing involvement with the juvenile justice system potentially reduces the effects of “adverse life events and parental discord to promote better functioning of high-risk youths” (Tiet et al., 2010, p. 376).
Research has suggested that minority youth and those from economically disadvantaged backgrounds are disproportionately represented in the juvenile justice system (Bonnie et al., 2012; Scott & Grisso, 2005). Additionally, prior research has established a link between collective efficacy and violence (Beck et al., 2012; Sampson, 2004). However, more research is needed in this area, as well as how services are delivered in the community to reduce delinquent behavior and increase successful adjustment within the community (Bonnie et al., 2012). Examining the MYS longitudinally can aid in our understanding of how social capital may serve as a protective factor among those juveniles at risk for involvement in the juvenile justice system. Social workers can take the lead on efforts supporting the creation of collective efficacy in communities to address community violence, neighborhood disparity, and strategies aimed to develop collective efficacy as well as implement and evaluate collective efficacy (Beck et al., 2012).
References


APPENDIX A

Dependent Variables

Juvenile Delinquency

*Gun Carrying*

Q288. Have you *ever* carried a gun? *(Yes or No)*

Q289: In the past 3 months (90 days), did you carry a gun? *(No; Yes, just once; Yes, more than once)*

Q290: In the past month (30 days), did you carry a gun? *(No; Yes, just once; Yes, more than once)*

Q291: In the past week (7 days), did you carry a gun? *(No; Yes, just once; Yes, more than once)*

*Knife Carrying*

Q284. Have you *ever* carried a knife or razor? *(Yes or No)*

Q285: In the past 3 months (90 days), did you carry a knife or razor? *(No; Yes, just once; Yes, more than once)*

Q286: In the past month (30 days), did you carry a knife or razor? *(No; Yes, just once; Yes, more than once)*

Q287: In the past week (7 days), did you carry a knife or razor? *(No; Yes, just once; Yes, more than once)*

*Weapon Brandishment*

Q303. Have you *ever* pulled a knife or a gun on someone else? *(Yes or No)*

Q304: In the past 3 months (90 days), did you pull a knife or a gun on someone else? *(No; Yes, just once; Yes, more than once)*
Q305: In the past month (30 days), did you pull a knife or a gun on someone else? (No; Yes, just once; Yes, more than once)

Weapon Use

Q306. Have you ever cut or stabbed someone else? (Yes or No)

Q307: In the past year (12 months), did you cut or stab someone else? (No; Yes, just once; Yes, more than once)

Q308: Have you ever shot a gun at someone else? (Yes or No)

Q309: In the past year (12 months), did you shoot a gun at someone else? (No; Yes, just once; Yes, more than once)
APPENDIX B

Independent Variables

Social Capital

*Neighborhood Connectedness (Agree or Disagree)*

Q385. I feel I am an important part of my neighborhood.

Q386. If I moved away, I would be sorry to leave.

Q387. Very few of my neighbors know me.

Q388. I have friends in my neighborhood who know they can depend on me.

Q389. I do not like living in my neighborhood.

Q390. There are people in my neighborhood, other than my family, who really care about me.

Q391. I have friends in my neighborhood I can depend on.

Q392. If you don’t look out for yourself in my neighborhood, no one else will.

Q393. No one in my neighborhood takes any interest in what their neighbors are doing.

Q394. It is hard to make good friends in my neighborhood.

Q395. If I am upset about a personal problem, there are people in my neighborhood I can turn to.

*Routine Activities*

Q65. How many hours each week are you involved in organized sports, clubs, or other after-school activities? (Do not count “pick-up” games or hanging out with friends.)

   a) None; I don’t have a job; b) 1-5 hours each week; c) 6-10 hours each week; d) More than 10 hours each week
Q66. How many hours each week do you work at a paid job?

a) None; I don’t have a job; b) 1-5 hours each week; c) 6-10 hours each week; d) 11-20 hours each week; e) More than 20 hours each week

Q67. How many hours each week do you work at home doing chores (like cooking and cleaning) or babysitting family members?

a) None; I don’t have a job; b) 1-5 hours each week; c) 6-10 hours each week; d) More than 10 hours each week

Q68. How many hours each week do you spend doing homework (school assignments to be done outside school hours)?

a) None; I don’t have a job; b) 1-5 hours each week; c) 6-10 hours each week; d) More than 10 hours each week

Q69. How many hours each week do you spend hanging out with your friends?

a) None; I don’t hang out with friends; b) 1-5 hours each week; c) 6-10 hours each week; d) 11-20 hours each week; e) More than 20 hours each week

Q70. How many hours each week do you hang out alone at home? (Don’t count time when you are asleep at night.)

a) None; I don’t have a job; b) 1-5 hours each week; c) 6-10 hours each week; d) 11-20 hours each week; e) More than 20 hours each week

Attachment to School (Agree or Disagree)

Q126: I feel as if I don’t belong at my school.

Q127: Most students at my school like me the way I am.

Q128: It is hard for people like me to be accepted at my school.

Q129: There’s at least one teacher in my school I can talk to if I have a problem.
Q130: Most teachers at my school are interested in me.
Q131: People at my school notice when I’m good at something.
Q132: Teachers at my school are not interested in people like me.
Q133: The teachers at my school respect me.

Hopelessness (Agree or Disagree)
Q188. All I see ahead of me are bad things, not good things.
Q189. There’s no use in really trying to get something I want because I probably won’t get it.
Q190. I might as well give up because I can’t make things better for myself.
Q191. I don’t have good luck now and there’s no reason to think I will when I get older.
Q192. I never get what I want, so it’s dumb to want anything.
Q193. I don’t expect to live a very long life.

Caring (Agree or Disagree)
Q230. I care about how well I do at school or work.
Q232. I feel bad or guilty when I do something wrong.
Q234. I care about the feelings of others.

Attachment to Friends (Agree or Disagree)
Q94: They get irritated with me for no reason.
Q95: They listen to what I have to say.
Q96: I often feel angry with them.
Q97: I feel alone even when I am with them.
Q98: They understand me.
Q99: They accept me as I am.
Q100: I trust them.
Q101: They protect me from people who might hurt me.
Q102: They know what I am feeling even if I don’t tell them.
Q103: They are more likely to watch out for themselves than to watch out for me.
Q104: They stick with me, through good times and bad.
Q105: They try pretty hard to figure out what’s wrong when I am upset.
Q106: They are not very good about listening to me when I am feeling down.

*Warmth toward Mother (Agree or Disagree)*

Q30: I can usually count on her to help me out if I have some kind of problem.
Q31: She usually keeps pushing me to do my best in whatever I do.
Q32: We do fun things together.
Q33: She usually helps me if there is something I don’t understand.
Q34: When she wants me to do something, she usually explains the reasons why.
Q35: She spends time just talking with me.
APPENDIX C

Demographic Variables

Age
Q1: How old are you now?

Gender
Q2: Are you male or female (boy or a girl)?

Family Structure
Q28: What person is most like a mother to you?

(0) No
(1) Birth mother
APPENDIX D

IRB Protocol Approval

John M. Bolland
Professor Emeritus
University of Alabama

February 11, 2014

To: Julie Taylor Hopkins
From: John Bolland
Re: Mobile Youth Survey Data

I approve your use of the de-identified Mobile Youth Survey data (1998-2011) for your study entitled “An examination of social capital as a delinquency protective factor for youth living in impoverished neighborhoods.” I understand that you will use only selected years of the data.
March 14, 2014

Julie Taylor Hopkins
School of Social Work
The University of Alabama
Box 870314

Re: IRB # 14-OR-080, “An examination of social capital as a delinquency protective factor for youth living in impoverished neighborhoods”

Dear Ms. Hopkins:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on March 13, 2015. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

Carpathiato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office for Research Compliance
The University of Alabama