AN EXAMINATION OF SELF-CONTROL AND THE FAMILY STRUCTURE

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by

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ABSTRACT

Michael Gottfredson and Travis Hirschi are the leading authorities concerning a major criminological theory called the general theory of crime (1990). The main theoretical assumption is that self-control is related to criminal behavior (Gottfredson and Hirschi 1990). According to Gottfredson and Hirschi (1990), parental attachment is the greatest influence on the development of self-control. Due to the concern that other factors could also be important for self-control than parental attachment, some researchers have examined other influences (e.g., Hope, Grasmick, and Pointon, 2003). My research investigates the association of self-control with family structure, frequency of religious practice, participation in hobbies, and sports participation. I hypothesize that these factors have a significant influence on self-control development, in addition to parental attachment. I used The National Longitudinal Study of Adolescent to Adult Health (Add Health) to analyze bivariate correlations, independent-samples t-tests, and regressions. My results support Gottfredson and Hirschi’s (1990) theory in that parental attachment is the greatest influence on self-control. However, I discovered that religious practices and participation in hobbies and sports are also positively related to self-control. Additionally, I discovered that family structure is related to self-control, albeit a smaller influence than parental attachment. While my research supported Gottfredson and
Hirschi’s theory, future researcher should examine other variables to see what additional factors are related to self-control.

This thesis is organized as follows: Chapter one is the introduction to my thesis, that gives a brief background on self-control and delinquency, parental socialization, self-control, family arrangements, and structured activities. Chapter two is the literature review which discusses what self-control is, previous research variables, findings, and limitations. Additionally, chapter two states my six hypotheses. For chapter three, I discuss the methodology used in my thesis including the data set, the sample, and the variables tested. Chapter four includes my results from the three analyses used to test my six hypotheses and they were bivariate correlations, independent samples t-test, and regression. The final chapter, chapter five, is the conclusion and discussion of my findings and limitations.
CHAPTER 1
INTRODUCTION

Research has been conclusive concerning a link between self-control and delinquency, as well as parenting styles and delinquency. Parental socialization has a strong influence on juvenile self-control, and if inadequate, it can cause low self-control in children, leading to delinquency in children (Gottfredson and Hirschi, 1990; Pratt and Cullen, 2000; Longshore, Chang, and Messina, 2005; Teasdale and Silver, 2009). The purpose of this research is to examine if self-control is related to different family structures (i.e., two-biological-parents versus other types of family arrangements). Additionally, this research is to also investigate other associations with self-control. Specifically, to investigate the extent to which variables measuring family attachment, family structure, participation in hobbies, playing an active sport, and participation in religious services relate to self-control?

This thesis is organized as follows: In chapters one and two, I discuss the background of Gottfredson and Hirschi’s (1990) general theory of crime, by summarizing the concept of self-control, previous research, and findings and limitations. I conclude chapter two by stating my six hypotheses. For chapter three, I discuss the methodology used by describing the data set, the sample, and variables used for this study. Chapter
four summarizes my results from bivariate, independent t-tests, and regression analyses. Chapter five, the conclusion and discussion, expands on my findings and summarizes limitations and future directions.
CHAPTER 2
LITERATURE REVIEW

When conducting research on self-control, one must begin by looking at Gottfredson and Hirschi’s (1990) general theory of crime, which predicts that self-control is related to deviance. These authors state that self-control includes traits such as impulsivity, sensitivity, delayed or immediate gratification, and risk-taking behavior (Gottfredson and Hirschi 1990). The theory that Gottfredson and Hirschi (1990) developed has been the leading authority for the understanding of self-control and deviance. Many researchers have tested the general theory of crime and find support for the assumption that self-control is a significant predictor of crime (Pratt and Cullen, 2000; Hope, Grasmick, and Pointon, 2003; Mennemeyer and Sen, 2006; Simons, Simons, Chen, Brody, and Lin, 2007; Phythian, Keane, and Krull, 2008; McKee, 2012).

The link between self-control and deviance is known, and the link between parental attachment and self-control is also known. However, we are less familiar about the influence of different types of family arrangements and one’s level of self-control, and how that influences children’s behavior. According to Brannigan, Gemmell, Pevalin, and Wade’s (2002) Canadian study, two-parent families cause a buffering when
examining “aggression and conduct disorders.” Mennemeyer and Sen (2006) and McKee (2012)
looked deeper at parental context. The probability of a juvenile having undesirable behavior is the same in a two biological-parent home where the parents are unhappy, as in a very or moderately happy one-biological-parent and one step-parent home, or in a single-parent home. Also, McKee’s (2012) research found no difference from intact or broken homes, concerning parenting, self-control, and delinquency. Brannigan et al. (2002) discovered that “family processes and individual traits” have a buffer effect when it comes to conduct disorders and aggression. However, this buffer effect comes from homes with two parents (Brannigan et al., 2002). Regarding parental relationships and juvenile behavior, Mennemeyer and Sen (2006) found that juveniles who are living in two-biological-parent households with a “particular level of happiness” have better outcomes than juveniles that live in a home with one-biological-parent and a step-parent. Because the relationships are significant between self-control and deviance and family structure and deviance, it is important that we look at how family characteristics and other personal characteristics are related to self-control.

As I previously stated, the correlation between self-control and deviance has been supported (Pratt and Cullen, 2000; Longshore et al., 2005; Teasdale and Silver, 2009; Hay, 2001; Higgins, 2009; Phythian et al., 2008; McKee, 2012). However, some critiques researchers have are as follows: 1) research does not address other predictors of self-control (Teasdale and Silver, 2009); 2) self-control might not be stable over the life-course (Petts, 2009); 3) theory has not been tested using longitudinal data (Longshore et al., 2005; Simons et al., 2007; Pratt and Cullen, 2000; Teasdale and Silver, 2009); and 4) research fails to look in detail at the role different family structures play in self-control.
development (McKee, 2012; Mennemeyer and Sen, 2006; Phythian et al., 2008). Future research should consider these critiques when testing and building on the theory. The current research is concerned with the critiques about the need to examine other factors related to self-control and the role of different family structures in their influence on self-control.

According to Gottfredson and Hirschi’s (1990) theory, parental attachment is related to one’s level of self-control, and that self-control is stable over the life course. However, some researchers want to know if other variables influence self-control (Teasdale and Silver, 2009; Simons et al., 2007). Some research found other factors that contribute to self-control development such as social bonds, peers, neighborhoods, gender, ethnic background, socioeconomic status, and family structure (Longshore et al., 2005; Teasdale and Silver, 2009; Pauwels and Svensson, 2009; Lieber, Mack, and Featherstone, 2009). The research above provide opportunities to examine self-control, beyond the self-control and deviance association.

Because factors other than parental attachment could influence self-control, I explore how family structure (e.g., two-biological-parent homes versus single-parent homes) is related to self-control. Additionally, I investigate if participation in structured activities (e.g., participation in activities such as church, sports, and hobbies) could also be associated with levels of self-control. There is some evidence thus far, but more empirical tests would help validate the theory of self-control.

One such factor is the influence of family structure on self-control, which has received less attention than parental warmth and attachment. The general theory of crime
would benefit if we knew more about if and how variables such as family structure and parenting styles are related to self-control (Gottfredson and Hirschi 1990). Specifically, more research on self-control development with a focus on family structure, family processes, and mediating variables is needed to gain a full understanding of self-control (Brannigan et al., 2002; Hope et al., 2003; Mennemeyer and Sen, 2006; Phythian et al., 2008; McKee, 2012). According to McKee (2012), we should start “exploring the potential moderating effects of family structure regarding parenting, [low self-control], and delinquency.” More research is needed on the origins of parental efficacy and self-control traits” (McKee, 2012). Future research could offer clues on other influences on self-control, such as the role family structure plays in the level of self-control in children.

Gottfredson and Hirschi’s (1990) general theory of crime predicts that parenting plays a strong role in children’s self-control, which becomes a stable trait around adolescence. Although there was strong support for their assumptions, research conducted by other sociologists and criminologists has shown other variables need consideration, such as family socialization, parental education (Hope et al., 2003), effective parenting (Phythian et al., 2008), or effective parental monitoring (McKee, 2012). Thus, while parental attachment is important, other variables ranging from parental behavior, neighborhoods, socioeconomic status, parental composition, family integration, hostile parenting, religion, school involvement and performance, hobbies, sports, and level of happiness have also been found to be related to self-control (Brannigan et al., 2002; Knoester and Haynie, 2005; Welch, Tittle, and Grasmick, 2006;
Phythian et al., 2008; Teasdale and Silver, 2009; Lieber et al., 2009; Pauwels and Svensson, 2009; Petts, 2009).

Teasdale and Silver (2009) investigated socialization and adolescent self-control, utilizing the National Longitudinal Study of Adolescent to Adult’s (Add Health) study. They found that neighborhoods are a “significant predictor” of self-control, while controlling for “demographics, family characteristics, and social integration.” Teasdale and Silver (2009) discovered neighborhoods are also significant predictors of self-control, as well as parental attachment. Teasdale and Silver’s (2009) results show us that kids from positive neighborhoods and families with higher levels of parental attachment are less inclined to have problem behaviors.

Welch et al. (2006) discovered that people with increased religiosity did not have higher levels of self-control. Yet, those with higher religious involvement and higher levels of self-control were shown to have lower levels of undesirable behavior (Welch et al., 2006). Even though Welch et al. (2006) did not find an association between religion and self-control, they did find an interaction between the two factors.

Petts (2009) also examined religion, as well as the family arrangement of both parents in the home versus single-parent homes as correlates of self-control. He found that living with both parents deters undesirable behavior, as previous research has found (Petts, 2009). Additionally, Petts (2009) found that religious participation will continue as a positive influence through adolescence and into adulthood.

Only a few studies have focused on aspects of families and the development of self-control (Hope et al., 2003; Mennemeyer and Sen, 2006; Phythian et al., 2008;
McKee, 2012). Some studies have examined the effect of parenting on children’s self-control by looking at parental composition, household size, home life, family processes, and family background (Brannigan et al., 2002; Mennemeyer and Sen, 2006; Phythian et al., 2008; Lieber et al., 2009; McKee, 2012; Hay and Meldrum, 2016). Phythian et al., (2008) and Wikström and Sampson (2003) found regardless of the family structure, a family that is accepting and nurturing has a positive association with self-control. Hope et al. (2003) found structural family background variables have an influence on self-control, and it is through the family process variables of attachment and supervision that affects self-control. Also, Hay and Meldrum (2016) discussed that a lack of rule setting by parents can lead to lower levels of self-control in children, and for those in wealthier families an “affluenza” effect can influence self-control, which may lead to a juvenile believing they are above reproach, or feeling entitled. Other factors that Hay and Meldrum (2016) believe should be considered are parental socialization, genetics, as well as neurobiology. Additionally, Hope et al. (2003) found that parental education levels exerted an important effect on the self-control of juveniles, perhaps because those with more education have less emotional and physical stress, which in turn, may lead to a more effective approach to disciplining their child or children.

Authors such as Hope et al. (2003) and McKee (2012) looked at intact and broken homes, and their influence on self-control, while controlling for factors like age, sex, and race. Mennemeyer and Sen (2006) included family income, and family size was examined by Hope et al. (2003). In contrast to Mennemeyer and Sen (2006), Phythian et al., (2008) found that self-control is higher in families that comprised of two-biological-
parents in the home, as opposed to homes with one-biological-parent and one step-parent, or single-parent homes. Lieber et al. (2009) found that family structure and family economics was related to self-control. These studies give further support to Gottfredson and Hirschi’s (1990) theory and suggest that other aspects of families and social context that are important for the development of self-control.

Examining the previously mentioned variables is a good starting point for research such as that conducted by Hope et al. (2003). Hope et al’s. (2003) research suggests the need for more research concerning family structure and its impact on self-control, including family disruptions. Mennemeyer and Sen (2006) state that more research would be beneficial as to causality regarding “quality of parental relationships to youth undesirable behavior.” Some limitations include not having a broader range of indicators of self-control or a universal measurement of self-control (Phythian et al., 2008). Additionally, Lieber et al. (2009) suggest we should continue examining the family and familial economy, while looking for other factors that may influence self-control. Another limitation in self-control research regarding family could be reciprocal causation, where the behavior of the parent-child has an influence overall. However, McKee (2012) suggested that “broader conceptualizations of parental efficacy may be needed.” Also, McKee’s (2012) research measured self-control with only attitudinal measures. Other research might benefit by looking at both attitudinal and behavioral measures. Pratt and Cullen (2000) found the effect of self-control on crime varies by the type of measure, attitudinal (e.g., person finds that self-control is easy to learn) or behavioral (e.g., monitoring child’s behavior), and effects are dependent upon the type of
scale used for measuring self-control (e.g., Grasmick et al’s, 1993 scale). All of the above suggests further empirical testing to discover which factors may have a greater influence aside from parental attachment.

My argument is that family structure is a strong determinant of self-control. Within the family structure some problems regarding discipline can arise: 1) a biological parent may prohibit step-parent involvement in discipline, 2) a step-parent may be uncomfortable with the disciplinary role, 3) the other biological parent may prohibit discipline by the step-parent, and 4) children may disregard all attempts of discipline by a step-parent, believing that they do not have to listen to, or may have resentment for the step-parent. These problems can be found to some degree in a two-biological parent home if there are marital, financial, or abuse issues within the home. We may also see disciplinary issues in a single-parent home due to lack of resources or a strong support system (Mennemeyer and Sen, 2006; Jeong and Keegan Eamon, 2009; Hope et al., 2003; Phythian et al., 2008; McKee, 2012). My research builds on previous research by looking at a different dataset (i.e., Add Health) than those used by other researchers (e.g., Mennemeyer and Sen, 2006). My research aims to provide more evidence about the associations between biological and step-parent family structures with self-control. Additionally, I examine if there are other associations with self-control beyond parental warmth and attachment. Specifically, I investigate if parent attachment, family structure, religious participation, participation in hobbies, and playing an active sport are associated with levels self-control. Figure 1 illustrates my primary focus.
The following hypotheses specify my research question.

**Hypotheses**

**Hypothesis 1:** Parental attachment is significantly related to self-control. Higher levels of parental attachment are significantly related to higher levels of self-control.

Ho: $\beta = 0$ and Ha: $\beta \neq 0$

**Hypotheses 2:** Participation in hobbies is positively associated with one’s level of self-control.

Ho: $\beta = 0$ and Ha: $\beta \neq 0$
**Hypotheses 3:** Participation in sports is positively associated with one’s level of self-control.

Ho: $\beta = 0$ and Ha: $\beta \neq 0$

**Hypothesis 4:** Religious attendance is positively associated with one’s level of self-control.

Ho: $\beta = 0$ and Ha: $\beta \neq 0$

**Hypothesis 5:** Respondents who are living with both biological parents will have significantly higher levels of self-control than respondents living in other types of families.

Ho: $\mu_1 = \mu_2$ and Ha: $\mu_1 \neq \mu_2$

**Hypothesis 6:** As parental warmth and attachment increase, levels of self-control increase, controlling for family structure, age, sex, and race.
CHAPTER 3
METHODOLOGY

Source and Sample

For this research I used secondary data from the National Longitudinal Study of Adolescent to Adult Health (ADD Health), which is a publicly available data set. ADD Health is funded by many government entities including the United States Department of Health and Human Services. The data are a national sample from the cohort school year of 1994-1995 in grades 7-12. Data collection lasted until the respondents were 24-32 years of age. The Add Health study collected information about many variables such as school, religion, and family characteristics. The original sample included 27,000 adolescents, and data were collected over four time frames (i.e., waves). However, I focused on wave one which had a sample size of 6,051 respondents. I used the Statistical Package for Social Science (SPSS) to manage data, create variables, and run bivariate correlations, t-tests, and regressions to test my six hypotheses.

Control Variables

I controlled for age, sex, and race. The breakdown is as follows; over 6,000 respondents in my sample were in cohorts ranging in age from 12-18, with a mean age of 15.80 (See Figure 2). Over 57% of the sample was 16-18 years of age. The respondent’s
biological sex was comprised as follows; 48.0% were male and were coded as 1, and 52.0% were female and coded as 2. Whites accounted for 66.1% of the respondents, and were coded as 1, while 24.5% of the respondents were black, and 9.6% of the respondents identified as other races. For the purpose of analysis, the race of respondents black and other were combined and coded as 0 (See Table 1 and Figure 2 for Age).

**Dependent Variable**

*Self-control.* This variable was created by combining the following questions: 1) trouble paying attention, 2) trouble getting homework done, 3) trouble getting along with teachers, and 4) trouble keeping mind focused. This yielded the variable of self-control, and was measured from low-high, with a range of low self-control at 0.00 to high at 3.00. This variable had a mean of 1.96 which tells us that average self-control was on the higher end of the continuum, with approximately 57% of the sample having medium to high levels of self-control (See Table 1 and Figure 4).

**Independent Variables**

*Parental Attachment.* To create the parental attachment variable, three variables were combined. These variables asked the respondent if their mother [was] warm and loving, if dad [was] warm and loving, and how much does she (mother) or he (father) care. This variable ranged from low attachment at 1.00 (strongly disagree) to high attachment at a 5.00 (strongly agree) with a mean of 4.19, which is on the higher end of the continuum. Overall, 71.8% of the sample believes they have a strong attachment to their families (See Table 1 and Figure 3).
Family Structure. For the family structure variable, different household family structures were coded as follows: two-biological-parents 1, one-biological-parent and step-parent 2, adoptive parents 3, step/adoptive parent 4, foster parents 5, and other 6. I created a dummy variable by coding this variable as 0 for family structures other than two-biological-parents and 1 for family structures that included only two-biological-parents (See Table 1). I found that 43.7% of the respondents were from a two-biological-parent home, compared to 56.3% that lived in other types of family structures.

Religion. For religious attendance, I looked at how often respondents attended religious services in a month, over the past year. The respondent choices were once a week or more, once a month or more/less than once a week, less than once a month, and never. Their responses were coded 1 (never) through 4 (once a week). According to the responses, 68.9% of the respondents attended religious services at least once a month in the past year, while 11.7% did not attend in the past year (See Table 1).

Hobbies. To measure hobby participation, I used a variable derived from a question that asked: How many times respondent participated in hobbies in a month. The options for this variable were not at all, 1 or 2 times a month, 3 or 4 times a month, and 5 or more times a month. The responses were coded 0 (not at all) through 3 (5 or more times). Seventy-nine percent of the respondents took part in a hobby at least once a month, compared to 21.0% who had not participated in a hobby in the last month (See Table 1).

Playing an Active Sport. To measure participation in sports, researchers asked the question: How many times respondent has participated in a sport in a month.
Respondents were given the choices of not at all, 1 or 2 times per month, 3 or 4 times per month, and 5 or more times per month. The responses were coded as follows: 0 (not at all) through 3 (5 or more times). Analysis revealed that 71.9% said they played at least once in the last month. Whereas 28.1% did not play an active sport at all in the last month (See Table 1).

Table 1: Sample Characteristics

<table>
<thead>
<tr>
<th>Variable in the Model</th>
<th>N=6051</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biological Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>48.0   (2905)</td>
</tr>
<tr>
<td>Female</td>
<td>52.0   (3146)</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>66.1   (3996)</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>24.5   (1484)</td>
</tr>
<tr>
<td>Other</td>
<td>9.3    (568)</td>
</tr>
<tr>
<td><strong>Past Year-Attend Religious Services</strong></td>
<td></td>
</tr>
<tr>
<td>Once a week or more</td>
<td>46.2   (2427)</td>
</tr>
<tr>
<td>At least once a month</td>
<td>22.7   (1190)</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>19.4   (1016)</td>
</tr>
<tr>
<td>Never</td>
<td>11.7   (615)</td>
</tr>
<tr>
<td><strong>Hobbies</strong></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>21.0   (1269)</td>
</tr>
<tr>
<td>1 or 2 times a month</td>
<td>33.4   (2020)</td>
</tr>
<tr>
<td>3 or 4 times a month</td>
<td>22.4   (1403)</td>
</tr>
<tr>
<td>5 or more times a month</td>
<td>23.2   (1403)</td>
</tr>
<tr>
<td><strong>Play an active sport</strong></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>28.1   (1702)</td>
</tr>
<tr>
<td>1 or 2 times a month</td>
<td>27.5   (1663)</td>
</tr>
<tr>
<td>3 or 4 times a month</td>
<td>19.2   (1163)</td>
</tr>
<tr>
<td>5 or more times a month</td>
<td>25.2   (1522)</td>
</tr>
<tr>
<td><strong>Family Structure</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>43.7   (2646)</td>
</tr>
<tr>
<td>No</td>
<td>56.3   (3405)</td>
</tr>
<tr>
<td><strong>Self-Control</strong></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>8.4    (507)</td>
</tr>
<tr>
<td>Med low</td>
<td>28.0   (1707)</td>
</tr>
<tr>
<td>Med high</td>
<td>53.0   (3204)</td>
</tr>
<tr>
<td>High</td>
<td>10.4   (329)</td>
</tr>
</tbody>
</table>
CHAPTER 4
RESULTS

I utilized bivariate correlations to test my first four hypotheses. Correlations indicate whether the variables’ association is statistically significant, the strength of the association, and the direction of association (Schutt, 2012). Pearson correlation values range from +1 to -1, indicating a positive or negative correlation and the strength of association between the two variables (George and Mallery, 2000). SPSS output also provides a significance value; if this value is <.05 then the association is significant and the relationship is not random (George and Mallery, 2000).

My first hypothesis tested if parental attachment is associated with self-control. I found a Pearson’s correlation of .209, which was statistically significant at a .000 level. This shows a positive association with self-control, and parental attachment is moderately related to self-control. As parental attachment increases, levels of self-control increase.

My second hypothesis looked at how often the respondents participated in hobbies. The Pearson’s correlation was .060, and was statistically significant at the .000 level. Even though hobby participation had a significant positive association with self-control, it was weakly correlated and is not as strong as parental attachment; yet, hypothesis 2 is supported. My third hypothesis, regarding how often the respondent played an active
sport and its relationship with self-control, had a Pearson correlation of .041, and was statistically significant at the .001 level. This tells us it has a positive association with self-control, and although it is significant, the correlation was weak. Thus, my third hypothesis is supported. As for hypothesis 4 which is about the association between religion and self-control, I found a Pearson correlation of .135, and it was statistically significant at the .000 level. Thus, I found that religious attendance has a moderate correlation with self-control, and as religious attendance increases so does self-control. The result tells us that hypotheses 4 is supported. Results for the correlations are shown below (See Table 2).

**Table 2: Bivariate Correlations**

<table>
<thead>
<tr>
<th>Variable</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>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-control</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Attachment</td>
<td>.209**</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Hobbies</td>
<td>.060**</td>
<td>.096*</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Play an Active Sport</td>
<td>.041**</td>
<td>.116**</td>
<td>.173**</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Religion</td>
<td>.135**</td>
<td>.117**</td>
<td>.082**</td>
<td>.055**</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Biological Parents</td>
<td>.069**</td>
<td>.493**</td>
<td>.047**</td>
<td>.044**</td>
<td>.089**</td>
<td>_</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Age of Respondent</td>
<td>-.101**</td>
<td>-.138**</td>
<td>-.086**</td>
<td>-.162**</td>
<td>-.083**</td>
<td>-.011</td>
<td>_</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Biological Sex</td>
<td>.098**</td>
<td>-.043**</td>
<td>-.059**</td>
<td>-.274**</td>
<td>.053**</td>
<td>.019</td>
<td>-.029*</td>
<td>_</td>
<td></td>
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<tr>
<td>9. White</td>
<td>-.060*</td>
<td>-.121*</td>
<td>.047**</td>
<td>.017</td>
<td>-.155**</td>
<td>.173**</td>
<td>.000</td>
<td>-.014</td>
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p ≤ .05*  p ≤ .01**

To investigate my fifth hypothesis, I used an independent-samples t-test. The t-test operates by comparing means from two different groups with a common interest variable (Schutt, 2012). When a t-test’s significance value is less than <.05 there is a
statistically significant difference between groups, and this difference is not random (George and Mallery, 2000).

As I stated earlier, 49.7% respondents came from two biological parent families, and 50.3% respondents came from homes with other types of family structures. I found that children coming from families with biological-parents had a higher level of self-control compared to children coming from other types of families. The self-control mean for children coming from two-biological-parents was 2.02, but was only 1.92 for children from other types of family structures (See Table 3A). The mean difference shows only a slight difference in self-control. Thus, respondents coming from two-biological-parent homes have slightly higher levels of self-control than respondents coming from other types of families (See Table 3B). Yet, results indicate that there is a significant difference between groups, with a statistical significance of .000 (See Table 3B). Thus my fifth hypothesis was supported; I fail to accept the null hypothesis, which states there is no difference between groups, and I accept the research hypothesis. Additional analysis was conducted to examine the association between single-parent homes, and homes with one-biological and one-step-parent in regard to self-control. The finding from this analysis revealed that there is no difference in self-control between these two types of family arrangements. The main difference is between two-biological-parent homes and other types of family arrangements, which was my stated hypothesis.
For my sixth hypothesis, I utilized regression analysis, which examines the influence of parental attachment on self-control. This is similar to my first hypothesis about parent attachment and self-control, but I simultaneously control for family structure, age, sex, and race. For my analysis, all variables were entered at once. Regressions are like bivariate correlations, but control for more than two variables at the same time (George and Mallery, 2000). Specifically, I asked if parental attachment would be significant after controlling for family structure, age, sex, and race. My sixth hypothesis is supported. The model indicated a statistical significant relationship with a standardized coefficient of .273 for parental attachment. Thus, parental attachment was significantly related to self-control after controlling for family structure, age, sex, and race. Also, the variables of parental attachment, family structure, age, sex, and race all

<table>
<thead>
<tr>
<th>Table 3A: Family Type and Self-Control</th>
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<td>Bio parents</td>
</tr>
<tr>
<td>--------------</td>
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<td>No</td>
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<td>Yes</td>
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<table>
<thead>
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<th>Table 3B: Independent Samples T-Test</th>
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</thead>
<tbody>
<tr>
<td>t-value</td>
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<tr>
<td>Self-Control</td>
</tr>
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<td>Equal Variances Not Assumed</td>
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</table>
moved in the expected direction. Additionally, analysis showed differences in levels of self-control regarding sex, age, and race. Self-control in females was higher than in males, as one ages their self-control decreases, and self-control is lower in whites than other races (See Table 4).

**Table 4: Regression**

<table>
<thead>
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<th>Variables</th>
<th>B</th>
<th>Se</th>
<th>t Value</th>
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<td>Parental Attachment</td>
<td>.273*</td>
<td>.014</td>
<td>21.875</td>
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<tr>
<td>Family Structure</td>
<td>.064*</td>
<td>.018</td>
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<td>Age</td>
<td>-.055*</td>
<td>.006</td>
<td>-4.437</td>
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<tr>
<td>Sex</td>
<td>.110*</td>
<td>.018</td>
<td>8.955</td>
</tr>
<tr>
<td>Race</td>
<td>-.062*</td>
<td>.019</td>
<td>-4.946</td>
</tr>
</tbody>
</table>

N: 6,051  
Adjusted R²: 10.0  
p. ≤ .05*

p. ≤ .01**
CHAPTER 5
DISCUSSION AND CONCLUSION

As stated previously, I developed hypotheses that looked at factors that are related to self-control. As we know, parental attachment is significantly related to self-control; as parental attachment increases so does self-control. However, the other factors (e.g., family structure) warranted testing to see if they are significantly related as well. My results show that parental attachment’s association with self-control is significant; thus hypothesis one is supported.

I also investigated whether participation in hobbies and playing an active sport were positively associated with one’s level of self-control. The results tell us that participation in hobbies and playing an active sport are not as strongly associated with one’s level of self-control as parental attachment, but they are associated with self-control. Hypotheses two and three are supported. Thus, children playing sports or participating in hobbies had higher levels of self-control.

I also hypothesized that participation in religious practice is positively associated with one’s level of self-control. According to the results, one’s participation in religious practice has a moderate correlation with self-control, and that it has a stronger influence
on self-control than participation in hobbies or playing an active sport. The result tells us that as religious participation increases so does self-control, supporting hypothesis four. This finding is similar to Petts’ (2009) research, which discovered that while religion is important, it has a greater influence on problem behavior when the home includes two-biological-parents. This seems to be due to more religious practice in these homes than in other types of family arrangements.

Another factor I analyzed concerned family structure, in which I looked at those living in a two-biological-parent home and those living in other family types. For example, other family types could include a biological parent and step-parent, a single parent home, or other types of families. I found that those living in two-biological-parent home have a different level of self-control. As stated previously, further analysis was conducted to test differences in single-parent homes versus homes with one-biological-parent and one-step-parent. The finding of this analysis yielded no difference in self-control between single-parent homes and homes with one-biological-parent and one-step-parent. The only difference in self-control is between two-biological-parent homes, and those other types of family arrangements.

My final hypothesis built upon hypothesis one, that looked at the connection between parental attachment and self-control. I examined the relationship between parental attachment and self-control, while controlling family structure, age, sex, and race. The result tells us parental attachment remains significantly related to self-control even when controlling for family structure, age, sex, and race. The results tell us that
parental attachment is significant even after controlling for family structure. Thus, hypothesis six is supported.

My analyses support Gottfredson and Hirschi’s (1990) assumption that parental attachment is the greatest influence on one’s self-control. That the stronger one’s level of parental attachment is the greater their self-control will be. However, as I and others have hypothesized it is not only parental attachment that influences one’s level of self-control but additional factors also contribute.

My research has similarities and differences to previous research. First, I used Add Health, which has been used by others research (e.g., Teasdale and Silver, 2009) but, my models had different variables. Both studies looked at self-control as a dependent variable and controlled for family structure, age, sex, and race, but I investigated structured activities such as participation in hobbies, playing an active sport, and religious participation; whereas, Teasdale and Silver (2009) tested neighborhoods, social regulations, and parental controls, and additionally controlled for socioeconomic status. Also, while Phythian and colleagues’ (2008) research and my research utilized different datasets both had similar findings regarding family structure’s influence on self-control. We both found that those coming from two-biological-parent homes have higher levels of self-control than those coming from other types of family arrangements. Additionally, both studies tested self-control and family structure, however, Phythian and colleagues’ (2008) study also looked at the effectiveness of parenting in regard to one’s level of self-control.
As previously stated, my research does have limitations, as I used cross-sectional analysis from 1994-1995, and only examined wave 1 from Add Health. Future research may benefit from utilizing a newer sample, longitudinal and qualitative data, and test how these results vary by race, class, and gender. Longitudinal analysis can look at causation, but my research was cross-sectional, and longitudinal goes beyond the scope of this research (Hope et al., 2003). I concur with Mennemeyer and Sen (2006) and McKee (2012) when they caution against using the research results to make policy recommendations. For example, parents staying together for the sake of the children may be detrimental for the children’s outcome. That is, parental happiness has an influence on the children’s development, so if the parents in a two-biological-parent home have a marriage in turmoil then remaining together may be problematic for their children. However, an area where policy recommendations could be made involves encouraging children to become involved in structured activities. My findings about those involved in structured activities suggest that we might benefit by encouraging children to be involved in various activities. Thus, children with low self-control might benefit from playing an active sport, participation in hobbies, and participation in religion. By identifying children with low self-control, and encouraging their participation in any or all of these structure activities their level of self-control may increase. In the long run, theory would predict that with increased levels of self-control one should see less deviance and problem behaviors.

Gottfredson and Hirschi’s (1990) assumption that parental attachment is the greatest influence on self-control development has been supported time and again.
However, the lack of consideration of additional factors (e.g., family structure, religious practice, playing an active sport, and participation in hobbies) has hindered the theory. My research and research of others has shown that while parental attachment is important it is not the only factor that influences self-control, other variables include the type of family arrangement one comes from. Research has shown that those from homes with both biological parents have higher levels of self-control than those coming from homes with step-parents, single-parent, adoptive parents, foster parents, and other family arrangements. The more positive associations one has in life the higher one’s level of self-control may be. For example, structured activities require dedication to attend and participate, which requires self-control. Additionally, one can assume that others participating in structure activities will have higher levels of self-control, so these interactions will influence others within the group. My research contributes to the literature by testing the assumptions of Gottfredson and Hirschi’s (1990) the general theory of crime with a large sample of adolescence. I also included other factors such as family structure, participation in hobbies, playing an active sport, and religious participation. Overall, I find support for the general theory of crime. But in addition to parental attachment, I found family characteristics and structured activities also played a role in self-control.
REFERENCES


Knoester, Chris and Dana L. Haynie. 2005. "Community Context, Social Integration into...


### APPENDIX A

### VARIABLE INFORMATION

<table>
<thead>
<tr>
<th>Variable</th>
<th>Label</th>
<th>Coding</th>
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<tr>
<td>Self-Control</td>
<td>Behavioral Measures of Self-Control</td>
<td>.00 (low) - 3.00 (high)</td>
</tr>
<tr>
<td>Attachment2</td>
<td>Parental Warmth and Attachment</td>
<td>1.00 (strongly disagree) – 5.00 (strongly agree)</td>
</tr>
<tr>
<td>Hobbies</td>
<td>Previous Month Participation</td>
<td>0 (not at all) – 3.00 (5 or more times)</td>
</tr>
<tr>
<td>Sports</td>
<td>Previous Month Participation</td>
<td>0 (not at all) – 3.00 (5 or more times)</td>
</tr>
<tr>
<td>Relpract2</td>
<td>Religious Attendance</td>
<td>1.00 (never) – 4.00 (once a week)</td>
</tr>
<tr>
<td>Bioparents</td>
<td>Living with Both Biological Parents</td>
<td>.00 (no) – 1.00 (yes)</td>
</tr>
<tr>
<td>Age</td>
<td>Age in Years</td>
<td>Age in Years</td>
</tr>
<tr>
<td>Biosex</td>
<td>Male Female</td>
<td>1.00 (male) – 2.00 (female)</td>
</tr>
<tr>
<td>White</td>
<td>Race of Respondent</td>
<td>1.00 (white) – 0 (other)</td>
</tr>
</tbody>
</table>
APPENDIX B

QUESTIONS FOR THEORETICAL VARIABLES

Family Attachment:
1) How much do you think she (mother) or he (father) cares about you?

2) Most of the time your mother is warm and loving toward you.

Self-Control:
1) During the 1994-1995 school year, how often did you have trouble getting along with your teachers?

2) During the 1994-1995 school year, how often did you have trouble paying attention in school?

3) During the 1994-1995 school year, how often did you have trouble getting your homework done?

4) How often did you have trouble keeping your mind focused?
APPENDIX C

ADDITIONAL FIGURES

Figure 2: Age

Range
12-18

Mean
15.8
Figure 3: Family Attachment

Range
1.00 (Low) - 5.00 (High)

Mean
4.19
Figure 4: Self-Control

Range
.00 (Low) – 3.00 (High)

Mean
1.96