Fall 12-2016

# Do Gender Stereotypes Keep Girls Away From Crime? A Structural Equation Modeling Approach to Power-Control Theory

EmmaLeigh E. Kirchner

# DO GENDER STEREOTYPES KEEP GIRLS AWAY FROM CRIME? A STRUCTURAL EQUATION MODELING APPROACH TO POWER-CONTROL THEORY

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

EmmaLeigh Elizabeth Kirchner

Indiana University of Pennsylvania

December 2016

Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Criminology and Criminal Justice

We hereby approve the dissertation of

EmmaLeigh Elizabeth Kirchner

Candidate for the degree of Doctor of Philosophy

10/31/16 Signature on File
David L. Myers, Ph.D
Professor of Criminology and Criminal Justice, Advisor

8/8/16 Signature on File
Dennis M. Geiver, Ph.D.
Professor of Criminology and Criminal Justice

8/8/16 Signature on File
Daniel R. Lee, Ph.D.
Professor of Criminology and Criminal Justice

8/8/16 Signature on File
Shannon Phaneuf, Ph.D.
Associate Professor of Criminology and Criminal Justice

ACCEPTED

Signature on File
Randy L. Martin, Ph.D.
Dean
School of Graduate Studies and Research

Title: Do Gender Stereotypes Keep Girls Away From Crime? A Structural Equation Modeling Approach to Power-Control Theory

Author: EmmaLeigh Elizabeth Kirchner

Dissertation Chair: Dr. David L. Myers

Dissertation Committee Members: Dr. Dennis M. Giever
Dr. Daniel R. Lee
Dr. Shannon Phaneuf

This study utilizes multiple waves of the National Longitudinal Survey of Youth (1979) to examine Hagan's original Power-Control Theory (1985) employing structural equation modeling. The research sought to examine gender differences in offending, as well as other concepts contained within Power-Control Theory, such as parenting. Results of the study showed mixed support for the theory. Power-Control Theory does produce convincing evidence of the importance of maternal control, particularly for daughters. Key findings also included gender differences in patriarchal attitudes as well as risk preferences. These findings suggest the role of females in changing, although it may not be becoming similar to the role of males. Policy implications include the importance of parenting programs to decrease delinquency and later criminal activity. More programs such incorporate gender differences in the impact of parenting, particularly by mothers. The study concludes with further discussion of the implications of this research and the policy implications.

ACKNOWLEDGEMENTS

I have waited until the very last moment to write this section of my dissertation. I have felt that it was bad luck to do so before every other period was placed, table formatted, and citation triple checked, not to mention I'm a professional procrastinator (and proud of it!). This book that I have completed is a true testament to the nature of graduate work for me. It was completed over the most trying times I could have ever imagined, but I hope to tell myself in a few years, it was all worth it. Now on to the acknowledgements...

I must first thank my chair, Dr. Dave Myers for his continued support throughout this process. I can be a handful and yet, he has been patient with me and helped me to create a dissertation I am truly proud of. Without him this dissertation would not have become half of what it is (both literally and figuratively) and may not have ever reached its conclusion. From the first dissertation checklist, to the bleeding drafts that were "well written, but..," thank you! I cannot say that enough. Thank you for being the laid back, Jimmy Buffet listening chair I never thought would work well with my "style," your dedication to my finished product and me has been insurmountable. To the rest of my committee, Dan, Dennis, and Shannon thank you for your expertise, your motivation, and your *mostly* kind words over the past three years. I will always have fond memories of my defenses as the four of you together were simply the greatest committee I could have ever imagined. Dan, in particular, thank you for always treating me as an equal, pushing me when I did not want to be pushed and making me teach when I thought I knew better. Also—you still owe me a beer.

To all of the faculty and friends I have met along the way at IUP you are each a part of me. Thanks for teaching me to teach, to let things roll off my back, and sometimes to keep my mouth shut. Dr. Randy Martin, thanks for being you, my incompatible, make me want to hurl something at your face daily professor, who pushed me further than I knew I could be pushed—in a good way! I still hate integral theory, but I'm much more open minded and I finally realize there's never one correct answer.

To my cohort: Darla, Kyle, Brooke, and Stacie I never thought we would make it at times, but WE DID (#cantstopwontstop)! Thank you for being the sanity we all so desperately need in the world of academia. I look forward to the five of us remaining that for one another throughout this roller coaster of a career we have each chosen. Kyle: thank you for the beer fueled review sessions at Giant Eagle, Culpeppers, and wherever else it was necessary. Darla: you are my person. Thank you for crying it out, dancing it out, screaming it out, whatever was necessary for the moment. There is no doubt this will continue no matter how far we may become from one another.

My family and friends who stay separate from my academic world: THANK YOU. You have no idea how important it is to escape sometimes. Mom, thanks for allowing me to become everything I have (even though you didn't want me to leave). Dad, thank you for the random trips to Indiana, PA and for teaching me the things that are truly important in life. Jon, thank you for being the reason karma sent me to IUP. Louisville sports with you made many nights enjoyable and I will always be indebted to you for the support and friendship (and godsons) you have given me. Richy, you sir, are my other half. You are both the reason why this thing got finished and the reason why it took so long. I love you more than words can say (and they still haven't).

Dr. George Higgins, I owe everything to you and when I say everything, I mean it. Without you academia would have never existed in my world and I certainly would have never made it to PA. So, thank you for always knowing what I needed when I had no idea. Thank you for being my friend, my cheerleader, my colleague, my mentor. Thank you for all of the days you choose to teach me “life” instead of statistics.

Finally, to Kelly. Losing you, best friend, hurts every single day but, knowing that I always have more than luck on my side, I have you, keeps me going and accomplishing big things. I’m here to accomplish these things for both of us now. I love you. “The world is blowing up, the world is caving in, the world has lost her way again, but you are here with me.” This one’s for you.

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# CHAPTER ONE

# INTRODUCTION

Over the past two decades, crime rates have been decreasing steadily in the United States (FBI, 2013). However, more than half of American citizens believe that the country's crime problem is extremely or very serious (Gallup Poll, 2014). A constant focus on crime and the criminal justice system is something that affects criminal justice agents and researchers alike. One recent trend in crime policy and research has been to provide a greater focus on the criminality of females in this country (Chesney-Lind & Pasko, 2012). Although overall crime has declined, female crime either has increased or has decreased at a much slower rate, and previous gender disparities in offending have been dissipating (FBI, 2013; Schwartz & Steffensmeier, 2007). Furthermore, while modern trends and patterns in female offending have received attention and concern, there is little consensus on why this phenomenon has emerged, along with limited research that has examined differences in male and female offending from a theoretical perspective.

## Female Offending

### A Brief History of Female Criminality

A focus on female criminality is a relatively new occurrence (Chesney-Lind & Pasko, 2012; Chesney-Lind & Shelden, 2013; Zahn, Hawkins, Chiancone, & Whitworth, 2008). Few researchers, theorists, or criminal justice agents focused on female criminals prior to the women's movement of the 1970s (Adler & Adler, 1975; Daly, 1998; Daly & Chesney-Lind, 1988; Simon, 1975). Previously, when females were examined in criminal justice literature, it was to discuss their immorality or participation in largely

sexual activities, including promiscuity and prostitution (Bonger, 1916; Lombroso, 1895; Lombroso & Ferrero, 1920; Thomas, 1923). However, with the women's movement came a push for researchers to examine what is different about female criminals, as compared to male criminals. This shift led to an increased awareness of female victimization, and ultimately the role it played in perpetuating female criminality (Daly & Chesney-Lind, 1988; Pasko & Chesney-Lind, 2010; Shoemaker, 2009). The important findings and implications from corresponding research were that although females commit less crime than their male counterparts, they have distinct problems and needs that must be met in order to keep them from offending or reoffending. Overall, females are both a lower risk and higher need group (Widom, 2000).

**Trends in Adult Female Offending**

In 2012, women made up approximately 30% of all arrests in the United States, with an increase in total arrests of nearly 3% from 10 years previous (FBI, 2013). Tracing arrest trends for women from 1980-2009 also reveals several key findings. When addressing arrests by crime, women increasingly have become involved in both robbery and aggravated assault. From 1980-2009, male arrest rates for robbery declined 40%; however, female arrest rates for robbery increased 9% (Snyder, 2011). Females accounted for only 7% of all robbery arrests in 1980, but this figure grew to over 12% in 2009. Similar findings exist for aggravated assault. From 1980-1995, male arrests for aggravated assault were up 63%, but female arrests for aggravated assault were up nearly 150% (Snyder, 2011). Overall arrest rates for aggravated assault then dissipated. By 2009, males had receded to their 1980 level, but during the same timeframe, women continued to exhibit double their 1980 arrest rate for aggravated

assault (Snyder, 2011). For other crimes, including simple assault, burglary, larceny-theft, and drug violations, females continued to show greater arrest rates than males from 1980-2009. In sum, although crime rates have fallen for many types of crimes, female rates remain higher than thirty years ago.

It is clear that while women may not participate in crime at the same prevalence and frequency as men, they are becoming involved at much higher rates than in previous decades (Schwartz & Steffensmeier, 2007; Snyder, 2011; Snyder & Mulako-Wangota, 2014; Steffensmeier, 1980). This is particularly true for violent crimes (Snyder, 2011). With the increase of female arrests for all crimes, incarceration rates have risen as well. Between 1980 and 2010, the population of women behind bars increased 646% (Cahalan & Parsons, 1986; Guerino, Harrison, & Sabol, 2011). Including both prisons and jails, more than 200,000 women are incarcerated in this country (Guerino et al., 2011). Together with probation and parole figures, the number of women under some form of correctional supervision has increased to more than one million (Glaze & Parks, 2011; Guerino et al., 2011; Minton, 2011). Although women and men commit comparable rates of both property and drug crimes, females are incarcerated at higher rates for both types of crime than their male counterparts (Guerino et al., 2011). On the other hand, although women are incarcerated at higher rates for some crimes, and overall female imprisonment has increased at a rate that is 50% higher than that of men during the past thirty years (Glaze & Parks, 2011), women still do not account for half of the prison population, as they do in the total population of the United States (U.S. Census Bureau, 2012).

If women account for smaller proportions of arrests and incarceration, why are they of concern? Women in the criminal justice system should be a concern because they are a growing and unique group that is currently not receiving the proper treatment for their problems and behaviors (Chesney-Lind & Pasko, 2012; Morash, Bynum, & Koons-Witt, 1998). Incarcerated women exhibit significant rates of abuse, both sexual and physical (Chesney-Lind & Shelden, 2013; DeHart, 2008), along with substance abuse issues (Neff & Waite, 2007). Women also suffer from higher rates of mental health issues, for which they often are not adequately treated (Cauffman, 2004, 2008; Cauffman, Lexcen, Goldweber, Shulman, & Grisso, 2007; Espelage, Holt, & Henkel, 2003).

**Trends in Juvenile Female Offending**

Adult women are not the only group fighting a battle within the criminal justice system; girls have become another group of growing concern. In 1970, the total arrest rate for juvenile females was 1288 per 100,000; for juvenile males, the overall arrest rate was 4545 per 100,000, or almost three times that of girls (Maguire & Pastore, 2001). Ten years later, female juvenile arrest rates had risen to 1758 per 100,000, and male juvenile arrest rates had risen to 6571 per 100,000 (Maguire & Pastore, 2001). By 2000, these rates had dropped for both boys and girls, but female juvenile arrest rates fell at a much slower rate. Overall arrest rates for girls in 2000 were 1608 per 100,000, only a modest decrease from the 1980 rate. In contrast, the overall arrest rate for boys in 2000 fell to 3831 per 100,000, nearly half of their arrest rate in 1980 (Maguire & Pastore, 2001).

Boys are more likely to be arrested, petitioned, and adjudicated than girls (Snyder & Sickmund, 2006). However, in recent decades, female juvenile crime rates have been increasing for many crimes (Cauffman, 2008; Chesney-Lind & Pasko, 2012). For example, from 1980 to the mid-1990s, there was an overall increase in arrests for juvenile violent crime. During that time, male juvenile arrests for violent crimes increased nearly 75%, but female juvenile arrests for violent crimes increased 150% (Snyder & Sickmund, 2006). In 1980, boys also were four times as likely as girls to be arrested. More recently, boys have been only about twice as likely as girls to be arrested (Snyder & Sickmund, 2006).

While female juvenile arrest rates have been growing more comparable to those of males, girls (like women) are a unique group. First, they are more likely to be arrested for status offenses than their male counterparts, despite findings from self-reports that males commit status offenses at similar rates as females (Canter, 1982; Cernkovich & Giordano, 1979; Steffensmeier, 1980). Historically, girls have been disproportionately arrested for status offenses, particularly running away and incorrigibility, since the inception of the status offense (Chesney-Lind, 1988). Second, some studies have shown girls to face harsher sentences than boys, including confinement (Bishop & Frazier, 1991; Chesney-Lind, 1973; Datesman & Aickin, 1984; Krisberg, Schwartz, Fishman, Eisikovits, Guttman, & Joe, 1987; Rhodes & Fischer, 1993; Tracy, Kempf-Leonard, & Abramoske-James, 2009). Although these findings are mixed (Mallicoat, 2007; Saulters-Tubbs, 1993), they do warrant attention. Finally, like adult women, juvenile girls have been revealed to have higher rates of abuse (Chesney-Lind & Shelden, 2013; DeHart, 2008), more mental health issues (Cauffman et al., 2007;

Espelage et al., 2003), and higher rates of overall victimization, as compared to boys (Chesney-Lind & Pasko, 2012; Chesney-Lind & Shelden, 2013; Pasko & Chesney-Lind, 2010). Nonetheless, although girls are committing more crimes, and they present unique problems and issues, they still are not committing illegal behaviors at the same rate as boys. Why is this true? Although various possible explanations exist, one prominent and empirically supported reason is parenting.

## Parenting and Criminality

Parents play a key role in the socialization of their children (Grusec, 2002; Lytton & Romney, 1991; Maccoby, 1992). Socialization helps children learn right from wrong, as well as proper and improper ways to act and live their lives (Grusec, 2002). This also means that parenting may play a key role in whether children become delinquent. Several meta-analyses investigating foremost predictors of delinquency found that family factors are one of the best predictors of illegal behavior (Cottle, Lee, & Heilbrun, 2001; Gendreau, Little, & Goggin, 1996; Hubbard & Pratt, 2002). Numerous individual studies also have examined the relationship between parenting and criminality (Cottle et al., 2001; Gendreau et al., 1996; Gottfredson & Hirschi, 1990; Hagan, Simpson, & Gillis, 1987; Hirschi, 2002; Hoeve et al., 2009; Hubbard & Pratt, 2002; Pratt & Cullen, 2000). Overall, these studies have found inconsistent or inappropriate parenting to be a major predictor of criminality (Gottfredson & Hirschi, 1990; Hagan et al., 1987; Hirschi, 2002; Hoeve et al., 2009; Pratt & Cullen, 2000).

The relationship between parenting and delinquent or criminal behavior also may have special meaning for female delinquency, based on the effect gender has on parenting itself. Often, gender stereotypes are built into parenting decisions (Witt, 1997).

Girls are taught to have the characteristics fitting for a homemaker or caregiver (Eagly, Wood, & Diekman, 2000), while boys are taught to be aggressive, masculine, and assertive (Eagly et al., 2000). Beyond these characteristics, which perpetuate gender roles, parents may also exert more control, rules, and supervision over girls as compared to boys (Hagan, Simpson, & Gillis, 1979). All of these factors can play a role in creating gender disparities in later offending. All of these ideas also are contained in Power-Control Theory, the major theoretical component of the current study.

## Power-Control Theory

Within the discipline of criminology, female criminality often was examined as a side note by male researchers who for centuries focused on male criminals (Adler & Adler, 1975; Daly, 1998; Simon, 1975). However, in more recent decades, criminologists began to create theories that focus specifically on females, or the differences that exist between male and female criminals. This also corresponded with the introduction of the female criminologist (Adler & Adler, 1975; Daly, 1998; Hagan, Simpson, & Gillis, 1988; Simon, 1975). Although there have been numerous theories seeking to explain female criminality, this study will test Hagan et al.'s Power-Control Theory (1985, 1987), which incorporates parenting and gender roles.

Power-Control Theory is a Marxist feminist theory of criminality and focuses on several important concepts. The theory states that power gained at work, in the form of supervisory roles, will translate into control within the home. This control is then exerted onto children, with girls being the most likely recipient of parental control, particularly when fathers work outside the home and mothers raise their children. Hagan and colleagues (1987) refer to this as a patriarchal household. The opposite of this is an

egalitarian home, where both mother and father work outside the home, and sons and daughters receive equivalent parental control. Hagan et al.'s (1987) central proposition is that girls who grow up in patriarchal homes will receive more parental control, and ultimately they will be more likely to stay within the home and commit less crime and deviance. In egalitarian homes, boys and girls will be more likely to receive similar treatment, which produces similar outcomes regardless of gender, and gender disparities in offending should be lessened (Hagan et al., 1985, 1987).

Since Power Control Theory's introduction, there have been numerous studies that have tested the theory (Avakame, 1997; Bates, Bader, & Mencken, 2003; Blackwell, 2000; Blackwell & Reed, 2003; Blackwell, Sellers, & Schlaupitz, 2002; Grasmick, Hagan, Blackwell, & Arneklev, 1996; Hadjar, Baier, Boehnke, & Hagan, 2007; Hagan, Gillis, & Simpson, 1990; Hill & Atkinson, 1988; Jensen & Thompson, 1990). Most have produced mixed results (Avakame, 1997; Collett & Lizardo, 2009; Finckenauer, Weidner, & Terrill, 1998; Mack & Leiber, 2005; Morash & Chesney-Lind, 1991; Singer & Levine, 1988), although some have generated more positive findings for the theory's empirical validity (Bates et al., 2003; Blackwell, 2000; Blackwell & Reed, 2003; Blackwell et al., 2002; Farnworth, Thornberry, Krohn, & Lizotte, 1994; Grasmick et al., 1996; Hadjar et al., 2007). Based on this research, and modern changes in female offending, further studies are warranted that thoroughly examine all of the constructs created by Hagan et al. (1987, 1988). In addition, to date, no study has utilized longitudinal data to test Power-Control Theory.

## The Current Study

This study begins with a comprehensive examination of the literature on gender disparities in offending. Chapter Two includes information regarding the extent of female crime, and trends are presented and discussed to consider how female crime has changed over the past century. In addition, the chapter discusses juvenile crime, including a review of official statistics of offending, incarceration rates, and a comparison of males and females. The uniqueness of female juveniles is considered, particularly their problems and needs in the areas of past victimization, mental health, and addiction.

Chapter Two continues by introducing a discussion of socialization, parenting, and gender roles. These concepts are each key components of the theoretical framework for the current study and are therefore important to consider. The relationship between parenting and delinquency are assessed through the discussion of several meta-analyses and other research, in order to provide a well-defined background for the theoretical framework of the current study, subsequently presented in Chapter Three.

Chapter Three contains an extensive discussion of criminological theories used to explain female criminality. Once the historical background is presented, a comprehensive discussion of the history and formation of Power-Control Theory is provided. The historical background includes conflict theories proposed by Bonger (1916), Weber (1947), and Dahrendorf (1959), which were crucial to the formation of Power-Control Theory. Next, the theory as originally designed by Hagan and colleagues

(1987) is presented, followed by a discussion of the empirical research on the theory and corresponding directions for the current study.

Chapter Four presents the methods employed for the current research. Power-Control Theory is tested by utilizing a nationally representative sample and longitudinal data from the United States. This provides the opportunity to better examine causality, not just association (Muthen, 2011). The study analyzed data from the National Longitudinal Survey of Youth (1979). This is a unique dataset, due to data being collected from both parents and children longitudinally. It has been utilized to conduct research in numerous fields and has produced important findings (Aughinbaugh, Pierret, & Rothstein, 2005; Bailey & Dynarski, 2011; Deary, Irwing, Der, & Bates, 2007; Fairlie, 2005; Light, 2005; Rodgers et al., 2014; Teachman, 2007). The analysis also employs structural equation modeling, which is a theoretically informed statistical method (Kelloway, 2015) and often is used to examine theoretical constructs in criminology (Gau, 2010).

Chapter Five presents the findings for the current research. Univariate, bivariate, and multivariate statistics are all presented. Factor analysis is also presented to conclude that structural equation modeling was appropriate and the proper measures were utilized. Twelve hypotheses are assessed and findings are mixed in favor of Power-Control Theory. Finally, full structural equation models are assessed, which is one of the main goals of the current research. First, a structural model of Hagan's Power-Control Theory is presented and then grouped by gender to examine gender differences in Power-Control Theory's main concepts. Next, an alternative model of Power-Control theory is assessed to include more detailed measures of parenting, as

well as a measure for peer pressure. This chapter concludes with the alternative model also grouped by gender. Important findings were found specifically based on gender and maternal control.

Chapter Six is the discussion of the findings and final conclusions based on the results of the current research. Each of the twelve hypotheses are discussed. Three of the twelve did not provide sufficient evidence to support Power-Control Theory. However, the evidence found based on the hypotheses and the structural models does warrant more discussion and research of Power-Control Theory, which has been absent in most of the current criminological theory literature. Policy implications are also presented in this chapter, focusing on the importance of parenting programs, which have been empirically tested. Parenting programs currently lack a gender-specific component, which according to the results of the current research could be valuable.

This study is unique and important in that the results could lead to significant implications for parents and parenting methods. Although it is not the intention of this study to evaluate which methods of parenting work best, it is intended to investigate gender differences in parenting, which many parents may not even consider. It is also important to consider modern changes in female offending that have occurred over the past several decades, as the study's findings may have implications for how to treat female offenders and help them cease further offending.

# CHAPTER TWO

# EXAMINING GENDER DISPARITIES IN OFFENDING:

# A REVIEW OF THE RELEVANT LITERATURE

Since the origins of criminology, the discipline has been dominated by men. Men commit more crime (Hagan & Albonetti, 1988); most of the employees of the criminal justice system are men (Martin & Jurik, 2006); and criminologists themselves have been predominately male (Daly, 1998). Therefore, it makes sense that for the larger part of the past century, criminology has focused on male crime. In the 1960s and 1970s, however, the women's movement affected many parts of American culture, including criminology. Crime by females began to rise (Simon, 1975), and women increasingly joined the workforce, including academia (Adler & Adler, 1975). This changed the face of criminology, by creating a group of women who wanted to study female offending (Adler & Adler, 1975; Daly & Chesney-Lind, 1988; Simon, 1975).

Although female criminologists began to study female crime, a problem still remained. Most of the research that was conducted focused on adult women, not girls, which remains an issue today (Zahn, 2009). Many have referred to delinquent girls as the "forgotten few" within the criminal justice system (Belknap, 2014; Bergsmann, 1989; Chesney-Lind, 2001; Chesney-Lind & Paramore, 2001; Chesney-Lind & Pasko, 2012; Tracy et al., 2009). Girls are a unique group, as they often commit non-violent crimes and are not believed to be dangerous; therefore; there is no perceived need to study them (Widom, 2000). Although academia and the criminal justice system often ignore this group of delinquents, the media hypes

many “mean girl” stereotypes, keeping the public interested in female offending, but possibly distorting views on typical female crime and deviance (Chesney-Lind & Pasko, 2012).

This chapter will focus on the extent of female offending in the United States, particularly over the past 30 years. This will include statistics that examine official offending, as well as incarceration rates and trends that have existed for each. Next there will be a comparison of adult crime for both males and females. This will be followed by a review of juvenile crime. The juvenile crime discussion will include official offending statistics, juvenile court outcomes, and a comparison of male and female offending. Official statistics then will be compared to self-report surveys of juvenile offending to examine similarities and differences between the two. A discussion of the uniqueness of girls compared to other groups also will be presented. This will include a focus on their mental health problems, as well as victimization of girls before and after they enter the criminal justice system.

The chapter will continue with a thorough discussion of socialization and parenting. It is important to consider the relationship between parenting, socialization, and delinquency, in order to properly prepare for the theoretical framework of the current study. This section also will focus on gender differences in socialization and parenting, and the effect gender roles may have on parenting. The chapter will conclude with a summary of how this literature creates a need for criminological theory to account for disparities in male and female offending.

## Extent of Female Crime

### Trends in Official Offending and Modern Changes

The measurement of female offending does not have a long history. Prior to the women's movement, few studies were conducted that focused on the extent of female criminality. Studies that existed on female criminals generally discussed the types of crimes women commit, paying particular attention to crimes of immorality and sexually motivated offending (Bonger, 1916; Lombroso & Ferrero, 1920; Thomas, 1923). Other early research examined possible motivations for female crime (Bonger, 1916; Freud, 1933; Thomas, 1923), along with the difficulties female criminals face (Chesney-Lind, 1986; Hanawalt, 1976; Jones, 2009).

One study, conducted by Hanawalt (1976), examined female criminals in 14th century England. These women, often convicted for their first minor offense, were shipped to Australia under deplorable conditions to assist with the "shortage" of females in the colonies. Nearly 25,000 women were transported for these reasons, and they suffered a death rate of one in three due to their traveling conditions. Because of their criminal status, they often were raped and abused by the men onboard the ship. Once in Australia, many women were forced to engage in prostitution to survive, while having no other resources (Chesney-Lind, 1986).

Another scholarly effort, *Women Who Kill*, examined female murderers in colonial America. Here, Jones (2009) discussed female indentured slaves during the 1700s-1800s who became pregnant due to sexual abuse at the hands of their masters. Many of these women feared the difficult consequences associated with

their pregnancies; therefore, they often killed their infants to hide their birth. Other female murderesses discussed within this book killed abusive spouses or lovers to gain freedom from violent relationships (Jones, 2009).

These accounts point out the historical rarity of serious female crime. However, they also reveal the victimization that many women have endured due to their gender, as well as the gender stereotypes that have existed for centuries. Beyond these works, few prominent descriptions of the extent of female crime before 1960 exist (Chesney-Lind & Pasko, 2012). The lack of studies themselves speaks volumes as to the place female criminality traditionally has held in criminology. However, this limited perspective changed with both the introduction of the women's rights movement, as well as an increase in crime that accompanied it (Chesney-Lind & Pasko, 2012; Datesman & Scarpitti, 1980; D. R. J. Steffensmeier, 1980).

Several studies utilizing data from the 1960s and 1970s found increased female arrest rates (Simon, 1975; D. J. Steffensmeier, 1980; D. J. Steffensmeier & Cobb, 1981). Simon (1975) compared arrest rate trends for females in the 1960s and 1970s. She found that the only notable differences were for property crimes, not for violent crimes. However, there were significant increases in arrests for property crimes. Another study examined the gender gap of arrests from the 1930s-1970s and also found that the gender gap in arrests had narrowed for property crimes, but not for violent crimes, reiterating the findings of Simon (Steffensmeier & Cobb, 1981). Steffensmeier (1993) later examined the gender gap in arrests at three separate time periods between 1960 and 1990, again finding a narrowing gender gap for property crimes during these time periods. Furthermore, several other

studies began to find narrowing gender gaps for violent crimes as well (Giordano, Kerbel, & Dudley, 1981; Heimer, 2000; O'Brien, 1999; D. J. Steffensmeier, Schwartz, Zhong, & Ackerman, 2005; Darrell Steffensmeier, Zhong, Ackerman, Schwartz, & Agha, 2006).

To illustrate, Giordano, Kerbel, & Dudley (1981) examined arrest rates in Ohio from 1890 to 1976. They found a narrowing gender gap for crimes such as aggravated assaults and other assaults. More recent studies, which have compared arrest data from 1960 to 1990s, also found that the gender gap for violent offenses had narrowed (Heimer, 2000; O'Brien, 1999). As studies utilize data closer to the turn of the twenty-first century, a more significant narrowing of the gender gap for violent offenses is revealed (Steffensmeier et al., 2005, 2006).

Current studies using official statistics also allow for an examination of crimes that are most often committed by females. According to the FBI, from 2000-2009, women were most often arrested for property crimes, theft, and aggravated assault (Snyder, 2011). Other assessments of female crime trends frequently focus on theft, driving under the influence, fraud, drug violations, and prostitution or other "buffer" charges for prostitution (i.e., disorderly conduct, other petty offenses) (Darrell Steffensmeier & Allan, 1996; D. R. J. Steffensmeier, 1980). The most recent official statistics from 2003-2012 show several increases in particular crimes for female offenders: robbery (+20.2%), larceny-theft (+29.6%), non-aggravated assaults (+24.7%), and driving under the influence (+20.9%) (FBI, 2013). These crimes are rarely considered violent, besides robbery, but robbery is often committed due to the criminal's necessity for income, rather than violent motives (Brookman, Mullins,

Bennett, & Wright, 2007). Some researchers believe the increase in non-aggravated assaults is due to more formal policing of minor fights involving women, which leads to assault charges (Chesney-Lind, 2002).

Although some crime rates for females are increasing, most violent crimes are not. Women constitute a small percentage of arrests for violent crime in the United States, which has been the case for many years. Current census estimates note women as 50.3% of the population in America (U.S. Census Bureau, 2012). Therefore, if gender disparities did not exist, females would make up around half of all violent crime arrests in the U.S. However, in 2012 females accounted for only 19% of all violent crime arrests in the U.S. (FBI, 2013). Overall, total arrests for violent crimes have declined nearly 3% since 2003, while female arrest rates for violent crimes have remained fairly steady (FBI, 2013). These steady rates reveal that the current amount of female violent offending is not a new occurrence. However, increases in overall female arrests have led to an increase in incarcerated women.

**Trends in Incarceration Rates and Modern Changes**

In 1980, there were only a total of 474,368 prison inmates in the United States (Blumstein & Beck, 1999). By 2009, that number had increased to over 1,613,740 inmates (Glaze & Parks, 2011), representing nearly a 300% increase in prison populations. Although this number seems staggering, female inmate populations grew at an even larger rate. In 1980, there were only 12,000 women housed in prisons in the United States. By 2009, the figure had increased to 113,000. This equals nearly a 900% increase in female imprisonment in less than 30 years (Glaze

& Parks, 2011). The United States also imprisons three times more women than any other country, including Russia and China (Hartney, 2006).

From 1985 to 2002, females (both juveniles and adults) in the criminal justice system increased by 92%, while males in the criminal justice system only increased 29% (Snyder & Sickmund, 2006). In 1990, the imprisonment rate for women was 31 out of 100,000. By 2009, that number had risen to 68 out of 100,000 (Chesney-Lind & Pasko, 2012). Much of these increases were because “get tough on crime” and corresponding drug policy disproportionately affected women. Chesney-Lind (1995) went as far as professing “the war on drugs has been translated into a war on women” (p.111). Overall, due to the fact that women commit more property and drug crimes than violent crimes, increased attention to drugs increases the likelihood of women being incarcerated (Bush-Baskette, 1998).

**Male vs. Female Comparisons**

Official statistics indicate that females commit particular types of crimes and exhibit trends that are different from their male counterparts. To illustrate, Table 1 provides a summary of arrest trends for males and females from 2003-2012. Male crime has been decreasing (besides arrests for theft, which are up less than 1% over the past 10 years), with an overall decrease in arrests for all crimes of 12.7% (FBI, 2013). Female arrest rates have not been following the same trend (FBI, 2013). From 2003-2012, total female arrests increased by 2.9% (FBI, 2013). Female crimes have generally increased, and where female crime has decreased, it has done so at a much slower rate than male crime (J. Schwartz & Steffensmeier, 2007).

Beyond decreasing arrest rates, males participate in more violent crimes than females. Males accounted for almost 90% of all arrests for homicides in 2012, and 80% of all violent crime arrests the same year (FBI, 2013). It is clear that men are more violent and more likely to participate in crime overall. However, women have begun to participate in crime more often, decreasing the overall gender gap in offending (Heimer, Lauritsen, & Lynch, 2009; Lauritsen, Heimer, & Lynch, 2009). This narrowing gap in offending exists for juvenile girls as well. Like adults, female juveniles have begun to participate in more crime, narrowing the existing gap in offending between girls and boys (FBI, 2013).

## Extent of Juvenile Crime

### Trends in Official Offending and Modern Changes

Approximately 1.5 million arrests were made of individuals under age 18 in 2011 (OJJDP, 2013). This year also marked the fifth consecutive year of decreases in violent juvenile crime, as well as the third consecutive year of decreases in juvenile property crime. 2011 also held the lowest amount of juvenile violent crime on record since 1985. Overall, the country has been seeing some of the lowest juvenile crime rates in modern history. This is further evidence to the contrary of the commonly held belief that crime is increasing nationwide. It is important to note this decline has taken place after one of the sharpest inclines in juvenile violent crime, which occurred from the mid-1980s to the mid-1990s, when male juvenile arrests for violent crimes increased 75% and female arrests for violent crime increased 150% (Snyder & Sickmund, 2006).

Table 1

*Arrest Trends 2003-2012*

| | Males | | | Females | | |
|---|---|---|---|---|---|---|
| **Offense** | 2003 | 2012 | % Change | 2003 | 2012 | % Change |
| Murder and nonnegligent manslaughter | 7,353 | 6,303 | -14.3 | 905 | 830 | -8.3 |
| Forcible rape | 16,578 | 11,782 | -28.9 | 210 | 109 | -48.1 |
| Robbery | 63,555 | 59,033 | -7.1 | 7,512 | 9,032 | +20.2 |
| Aggravated assault | 239,489 | 201,049 | -16.1 | 62,450 | 59,103 | -5.4 |
| Larceny-theft | 486,870 | 488,888 | +0.4 | 288,894 | 374,332 | +29.6 |
| Arson | 9,153 | 6,476 | -29.2 | 1,718 | 1,436 | -16.4 |
| Violent crime[a] | 326,975 | 278,167 | -14.9 | 71,077 | 69,074 | -2.8 |
| Property crime[b] | 745,246 | 694,051 | -6.9 | 334,418 | 417,033 | +24.7 |
| Other assaults | 622,089 | 577,611 | -7.1 | 199,426 | 222,923 | +11.8 |
| Forgery and counterfeiting | 45,818 | 28,225 | -38.4 | 31,184 | 16,823 | -46.1 |
| Fraud | 120,139 | 62,673 | -47.8 | 101,513 | 42,809 | -57.8 |
| Prostitution and commercialized vice | 16,382 | 11,977 | -26.9 | 32,131 | 24,954 | -22.3 |
| Sex offenses (except forcible rape and prostitution) | 54,794 | 43,629 | -20.4 | 5,361 | 3,740 | -30.2 |
| Drug abuse violations | 887,736 | 817,198 | -7.9 | 203,212 | 211,020 | +3.8 |
| Driving under the influence | 780,679 | 649,664 | -16.8 | 174,545 | 211,019 | +20.9 |
| Drunkenness | 324,213 | 286,633 | -11.6 | 54,153 | 64,202 | +18.6 |
| Disorderly conduct | 312,480 | 249,828 | -20.0 | 108,318 | 99,540 | -8.1 |
| **TOTAL ARRESTS** | **6,904,010** | **6,028,378** | **-12.7** | **2,080,990** | **2,140,934** | **+2.9** |

[a]Violent crimes are offenses of murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault.
[b]Property crimes are offenses of burglary, larceny-theft, motor vehicle theft, and arson.

Source: FBI, 2013

In 1980, females only accounted for 21.9% of all juvenile arrests (Maguire & Pastore, 2001). By 2000, that figure had increased to 26.6% of all juvenile arrests, and by 2011, females accounted for nearly 30% of all juvenile arrests. In 1980, boys were four times more likely to be arrested as compared to girls. That ratio has dropped substantially, as boys now are only about twice as likely to be arrested compared to girls (Snyder & Sickmund, 2006). Despite these trends, in the most recent publication of arrest data from the FBI (2013), there were 259,043 arrests of females under the age of 18. That same year there were 622,485 arrests of juvenile males.

Although girls may not commit as much delinquency as boys, they do account for large portions of specific crimes. Status offenses, in particular, make up the largest proportion of female juvenile arrests, most commonly for running away. In 2000, while girls made up 26.6% of all juvenile arrests, they made up nearly 60% of all arrests for running way. This is not a new phenomenon. Since the creation of status offenses, girls have been disproportionately arrested for incorrigibility and running away from home (Chesney-Lind, 1988). However, in recent times the FBI has ceased collecting data on such arrests, because very few jurisdictions still formally arrest juveniles for these types of status offenses (Chesney-Lind & Shelden, 2013).

Beyond status offenses, the most common crime committed by both boys and girls is theft. Theft accounted for nearly 25% of all girl arrests in 1990 and nearly 20% of all girl arrests in 2000 (Chesney-Lind & Shelden, 2013). For girls, most of their involvement in theft occurs in the form of shoplifting (Chesney-Lind, 2001; Chesney-Lind, Artz, & Nicholson, 2002; Chesney-Lind & Shelden, 2013). Shoplifting may be a uniquely feminine crime, because girls feel a need to fit into the consumer culture, which

many cannot afford (Chesney-Lind & Shelden, 2013). Campbell (Campbell, 1981) points to various media outlets and advertising campaigns targeting young women as a motive for shoplifting among females. Females make up the largest group of shoplifters, particularly those aged 13-17, but often they are not charged (Hayes, 1995). However, plenty of girls still are arrested for theft. In 2012, 64,268 girls were arrested for theft, which represented a 27% decrease from 2003 (FBI, 2013). During the same timeframe, boys arrested for theft decreased 35% (FBI, 2013), again reiterating the narrowing gender gap in offending. Table 2 presents a full summary of male and female juvenile arrest changes from 2003-2012.

Another recent juvenile crime trend has been the increasing participation of girls in violent crimes. In 1970, arrest rates of girls for violent offenses averaged 19 per 100,000. Since that time, this number has been increasing. In 1980, for violent crimes the female juvenile arrest rate rose to 36 per 100,000, and by 2000, it was 42 per 100,000 (Maguire & Pastore, 2001). By 2012, one in every five violent crime arrests of juveniles involved a female (OJJDP, 2013). More specifically, according to official statistics, from 1996-2005 male juvenile arrests for aggravated assault were down 23.4%, while female juvenile arrests for aggravated assault were down only 5.4%. Therefore, although neither increased, female juvenile arrests for aggravated assault were falling at a much lower rate than boys. Furthermore, for simple assault, male juvenile arrests were down 4.1%, but female juvenile arrests for simple assault increased by 24% over the nine-year period (FBI, 2013).

Other interesting statistics concerning violent juvenile crime are those pertaining to robbery. For males, 11,831 boys were arrested for robbery in 2012, which

represented a 20.6% decline in arrests when compared to ten years previous (FBI, 2013). In contrast, only 1,369 girls were arrested for robbery in 2012, but this also was only an 8.6% decrease from ten years previous (FBI, 2013).

In sum, although female juvenile violent crime seems to be decreasing, it is decreasing at a slower rate than that of males. This pattern in female arrests also has corresponded with an increased reliance upon the juvenile justice system as a whole. Moreover, the juvenile justice system has not always treated females as being equal to their male counterparts, creating many difficulties for female juvenile offenders.

**Trends in Official Juvenile Court Outcomes and Modern Changes**

As noted by Chesney-Lind and Pasko (2012), girls now make up more than 30% of all juvenile arrests. However, they do not receive 30% of the resources allotted to juvenile delinquents, nor do they receive 30% of policy makers' attention. This is not a new occurrence. Females have a long and problematic history within the criminal and juvenile justice systems, during which time they have been treated differently and have not received the same rehabilitative measures as their male counterparts.

In 1899, the first juvenile court opened in Cook County, Illinois (Knupfer, 2001). This was the first time the courts officially made a distinction between adults and juveniles, believing that children needed more rehabilitative efforts. Beyond juvenile courts making a distinction between adults and children, in an effort to improve rehabilitation, proponents of the "child saving movement" also wanted to deter girls' immoral behavior, which quickly became a major focus of the movement (Platt, 1969). With this in mind, the opening of the first juvenile court brought the creation of status

Table 2

*Arrest Trends 2003-2012, Juveniles*

| | Males Under 18 | | | Females Under 18 | | |
|---|---|---|---|---|---|---|
| **Offense** | 2003 | 2012 | % Change | 2003 | 2012 | % Change |
| Murder and nonnegligent manslaughter | 637 | 403 | -36.7 | 66 | 40 | -39.4 |
| Forcible rape | 2,585 | 1,657 | -35.9 | 44 | 25 | -43.2 |
| Robbery— | 14,904 | 11,831 | -20.6 | 1,497 | 1,369 | -8.6 |
| Aggravated assault | 30,876 | 17,279 | -44.0 | 9,456 | 5,840 | -38.2 |
| Larceny-theft | 135,857 | 88,715 | -34.7 | 88,043 | 64,268 | -27.0 |
| Arson | 4,902 | 2,567 | -47.6 | 695 | 447 | -35.7 |
| Violent crime[a] | 49,002 | 31,170 | -36.4 | 11,063 | 7,274 | -34.2 |
| Property crime[b] | 213,708 | 130,291 | -39.0 | 100,260 | 70,533 | -29.6 |
| Other assaults | 107,045 | 71,954 | -32.8 | 51,241 | 41,665 | -18.7 |
| Forgery and counterfeiting | 2,076 | 685 | -67.0 | 1,170 | 270 | -76.9 |
| Fraud | 3,648 | 2,156 | -40.9 | 1,896 | 1,059 | -44.1 |
| Prostitution and commercialized vice | 248 | 139 | -44.0 | 707 | 425 | -39.9 |
| Sex offenses (except forcible rape and prostitution) | 11,207 | 7,711 | -31.2 | 1,182 | 865 | -26.8 |
| Drug abuse violations | 104,941 | 75,510 | -28.0 | 21,841 | 16,042 | -26.6 |
| Driving under the influence | 11,044 | 4,676 | -57.7 | 2,827 | 1,619 | -42.7 |
| Drunkenness | 8,988 | 5,006 | -44.3 | 2,669 | 1,867 | -30.0 |
| Disorderly conduct | 88,951 | 49,943 | -43.9 | 40,157 | 27,742 | -30.9 |
| **TOTAL ARRESTS** | **1,017,933** | **622,485** | **-38.8** | **385,564** | **259,043** | **-32.8** |

[a]Violent crimes are offenses of murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault.
[b]Property crimes are offenses of burglary, larceny-theft, motor vehicle theft, and arson.

Source: FBI, 2013

offenses (Steinhart, 1996). Unlike other types of crime, which are illegal for everyone regardless of age, gender, or class, status offenses are only illegal for those individuals considered under the age of adulthood. This age varies from state to state, but in most states it is 17 (OJJDP, 2014). Status offenses include behaviors such as truancy, running away from home, and disobeying one's parents. Status offenses have disproportionally affected girls since their creation (Shoemaker, 2009). One study found that between 1904 and 1927, more than 70% of girls who were processed in juvenile courts were there for incorrigibility (Knupfer, 2001).

Status offenses were not the only way girls were overrepresented in the early days of the juvenile justice system. Girls were also more likely to face harsher sentences than boys. Of the first 10 years of the existence of the Cook County juvenile court, one half of the girls tried were sent to reformatories, while only one fifth of the boys received this disposition (Schlossman & Wallach, 1978). Another study, which examined court cases in Memphis between 1900 and 1919, found that girls were sent to training schools twice as often as boys (Shelden, 1981). Chesney-Lind's (1973) study of juveniles in Honolulu from 1929 to 1964 found similar results, with girls being more likely to be referred to court and three times more likely to be institutionalized. Over half of the girls included in this study were charged with "immorality," an archaic "crime" (Chesney-Lind, 1973).

In addition, as revealed in Chesney-Lind's (1973) work, most of the girls in the early days of the juvenile justice system who were not sentenced for status offenses were found guilty of some sort of sexual offense. Gynecological exams often were performed to prove their acts. Girls whose examination found a "ruptured" or "torn"

hymen were found guilty of such offenses as “immorality” and “waywardness,” which made the public view delinquent girls as “sexualized demons” (Knupfer, 2001). Overall, early in the juvenile justice system there was a notable difference in the treatment of boys and girls, which continues in other forms today.

One major move towards trying to end the double-standard was the passage of the Juvenile Justice and Delinquency Prevention Act (JJDPA) of 1974. Although not originally intended to focus on girls, the act required states to begin deinstitutionalizing status offenders. Due to the over-representation of girls for status offenses, they received more benefits from the act than boys (Chesney-Lind & Pasko, 2013). Before the passage of JJDPA, 71% of girls housed by the juvenile justice system were there for status offenses, while only 23% of boys were incarcerated for such crimes (Chesney-Lind & Pasko, 2012). Due to the call for deinstitutionalization, incarceration rates for girls quickly dropped. To illustrate, in 1923 girls made up 23% of the juvenile correctional population, a figure that increased to 34% by 1950. By 1980, however, this figure had dropped to only 19% (Calahan, 1986).

Although reformers from the 1970s believed deinstitutionalization to be the answer for status offenses, many in the juvenile justice system did not share such a belief. Judges and other officials found other ways to incarcerate juveniles, and they also asked for a modification to JJDPA. In 1981, an amendment was added to the original act to make a juvenile who broke a court order classified as a delinquent, and subsequently prohibited them from the being covered under the deinstitutionalization provision. This posed a problem for girls who ran away from court-ordered housing, such as halfway houses and foster homes (Chesney-Lind & Pasko, 2012). However,

this also brought attention to girls and their differing needs from boy delinquents. In 1992, an added segment of the JJDPA specifically addressed the needs of girls, with the justification that:

> we have not committed enough resources to that particular issue… problems for young ladies are increasing, ever increasing, in our society and they are becoming more prone to end up in gangs, in crime, and with other problems they have always suffered. (U.S. House of Representatives, 1992, p.2)

This challenged states to create special programming to address the needs of girls and their problems. Funding also was set aside to deal with this particular programming need, and many programs were successfully created. The importance of the fully amended act was to recognize that girls can be delinquent as well as boys, but they face issues specific to their gender that should be addressed.

The focus on both status offenses and sexually motivated crimes remains a major issue for today's female delinquents, along with other trends and issues. During the mid-1900s, for example, adult women sentenced in the criminal justice system were found to have shorter and less severe sentences, perhaps due to the chivalrous nature of the male-dominated system (Pollak, 1950). Although chivalry may have existed for adult women in the system, the opposite has been suggested for female juveniles. Girls in the system often have been treated more harshly, due to their "evil" and "promiscuous" nature (Datesman & Aickin, 1984), although recent findings concerning harshness of sentences for girls compared to boys have been mixed (Cauffman, 2008).

One study, which examined the district attorney's decision to prosecute juvenile drug offenders, found that district attorneys were more likely to formally charge boys than girls (Saulters-Tubbs, 1993). Bishop and Frazier (1992) found similar results while examining the sentencing of boys and girls in the state of Florida between 1985 and 1987. They found that boys were more likely than girls to receive incarceration for most crimes, but girls were disproportionately affected by status offenses. However, other studies found that when controlling for legal variables (i.e., seriousness of charges, past criminal history) boys and girls were treated similarly by the juvenile justice system (MacDonald & Chesney-Lind, 2001). Moreover, other studies have revealed a disproportionate amount of female juveniles being incarcerated for assault (both aggravated and simple) as compared to boys (Snyder & Sickmund, 2006). All of these studies illustrate the mixed findings concerning the harshness of sentences for boys and girls. Furthermore, many factors could affect these findings, including geographic location, seriousness of crimes, past criminal histories, and criminal justice agents' discretion.

Although minor offenses are most common among juveniles, the U.S. still utilizes incarceration as a common form of punishment for youthful offending. Between 1983 and 1995, the juvenile justice system saw an increase of 47% in the total incarcerated juvenile population, culminating in more than 100,000 individuals under the age of 18 being incarcerated in the U.S. in 1997 (OJJDP, 2014). This figure decreased to roughly 60,000 individuals in 2011. Also in 2011, females accounted for nearly 15% of the incarcerated juvenile population (OJJDP, 2014). Although females only account for 15%, and some research has shown them to serve shorter sentences than males,

females are a high need group. This need is a result of the special issues females face, and males rarely encounter, which will be discussed in further detail below.

**Male vs. Female Comparisons**

From the information presented above, it is evident that boys and girls are treated differently within the juvenile justice system. First, we know boys and girls commit different types of crimes. Boys most often commit property crimes, minor assaults, and drug abuse violations (FBI, 2013). Girls are more likely to be involved in theft and running away from home (Chesney-Lind & Pasko, 2012; Chesney-Lind & Shelden, 2013; FBI, 2013). In addition, a significant disparity exists for female arrests for status offenses when compared to their male counterparts (Barrett, Ju, Katsiyannis, & Zhang, 2013; Chesney-Lind & Shelden, 2013). In 2000, status offenses accounted for more than 20% of all female juvenile arrests, but less than 10% of male juvenile arrests (Chesney-Lind & Shelden, 2013). The over-representation of females for status offenses has weakened with the lack of formal arrests for running away being included in the new data produced by the FBI (Chesney-Lind & Pasko, 2012). Status offense arrests for liquor violations and curfew violations present rather similar figures for boys (18.8% of arrests) and girls (15.6% of arrests) (Chesney-Lind & Shelden, 2013). Nonetheless, although status offense rates are growing similar, females still appear more likely to be incarcerated in some type of institution for such offenses (Chesney-Lind, 1995; I. M. Schwartz, Jackson-Beeck, & Anderson, 1984; Weithorn, 1988).

At early periods in American history, girls often were incarcerated for morality crimes such as incorrigibility and promiscuity (Schall, 2014). Since the passage of JJDPA and the corresponding focus on deinstitutionalization of status offenses, girls

have shown increased rates of confinement in private institutions and mental health facilities (Chesney-Lind, 1995; Miller, 1994; Schwartz, et al., 1984; Weithorn, 1988). In particular, the overuse of mental health facilities was examined critically by Schwartz et al. (1984), who called this method of incarceration the “hidden” system. They found this approach to be a way around formal legal proceedings and also a way to utilize money from insurance companies. Although this form of incarceration seemed to be previously over-utilized, more recently the trend has begun to slow (Chesney-Lind & Pasko, 2012). Still, females are overrepresented in private institutions (Moone, 1993; OJJDP, 2013; U.S. Department of Justice, 1989).

In recent times, there also has been an increase in the proportion of involvement girls have in more violent crimes (Siegel & Senna, 2007). Particularly, as compared to boys, girls have become more involved in gang activity, armed robbery, drug trafficking, and aggravated assault (Mullis, Cornille, Mullis, & Huber, 2004; Siegel & Senna, 2007). Despite these trends, boys are still overwhelmingly the most common offender in violent offenses (Chesney-Lind & Shelden, 2013). On the other hand, some studies have found girls to be sentenced more harshly for certain crimes (Bishop & Frazier, 1991; Chesney-Lind, 1973; Krisberg et al., 1986; Rhodes & Fischer, 1993; Tracy et al., 2009; Visher, 1983), although these results are mixed (MacDonald & Chesney-Lind, 2001; Mallicoat, 2007; Saulters-Tubbs, 1993). Finally, girls also have been shown to be more likely to be sent to mental health facilities as opposed to juvenile justice facilities (Chesney-Lind, 1995; Miller, 1994; Weithorn, 1988).

Overall, it seems that as time goes by, gender disparities in both offending and incarceration for juveniles continue to narrow. Males are still arrested and incarcerated

at higher rates than females (Chesney-Lind & Shelden, 2012; OJJDP, 2013; Puzzanchera, 2010). As noted numerous times, overall crime rates for both boys and girls are falling, although at a much slower rate for girls compared to boys (OJJDP, 2013). In addition, while major differences exist in official male and female offending, the same discrepancies do not appear when utilizing self-report studies.

**Findings from Self-Reports and Male vs. Female Comparisons**

Official statistics are gathered through government agencies, which collect data on arrests and convictions (Siegel & Senna, 2007). However, official data can be problematic or limited in several ways (Skogan, 1975). First, they cannot measure all crime that is committed. Second, they cannot control for the discretion of criminal justice agents (police, courts, etc.). Third, they cannot control for victims reporting and not reporting crimes. Fourth, they cannot always account for all crime types. Finally, they cannot deal well with all of the variability in laws from jurisdiction to jurisdiction (Piquero, Schubert, & Brame, 2014).

To counter the issues presented by official data, researchers created a self-report method of measuring crime (Porterfield, 1943; Short & Nye, 1957). This method entails individuals reporting their own acts of crime or delinquency to researchers, most often in confidential or anonymous forms. Self-report surveys were first used to study juvenile populations in the 1950s, with a study by Short & Nye (1958) to examine delinquency in the state of Washington. Since the creation of self-report surveys, researchers have discovered that much crime goes unreported or undetected, particularly non-serious offenses (Piquero et al., 2014). It is important to note that all measurement methods have flaws, including self-report surveys, which also may suffer

from deception, memory issues, problems with question wording and survey methodology, missing data, attrition, etc. (Lauritsen, 1998; Piquero et al., 2014). Despite these concerns, similarities and differences found between self-report and official statistics are important to consider in examining gender differences, as well as minor forms of delinquency, which will be the primary focuses of the current study.

Official data indicates a gradual decline in the gender gap of offending (Steffensmeier et al., 2006). Self-report data, however, suggests that females are not necessarily committing more crimes than previously. Rather, they are simply being arrested and sentenced more often (Steffensmeier et al., 2006). This can be seen in one such study that found that the incidents of simple assault for girls were more likely to be status offenses disguised as assault to warrant incarceration. In these cases, housing female juveniles in a secure placement facility became the goal, rather than maintaining a clean record or facilitating rehabilitation (Feld, 2009).

Differences in self-report and official data on gender disparities in offending have been examined numerous times (Cernkovich & Girodano, 1979; Steffensmeier, 1980; Steffensmeier et al., 2005, 2006) One study, which examined juvenile delinquency in the late 1970s, assessed official arrest ratios compared to self-reported delinquency (Cernkovich & Giordano, 1979). Findings indicated official arrest ratios of four boys for every one girl, but self-reported delinquency ratios were closer to 2:1. Steffenmeier & Steffenmeier (1980) found similar results, particularly for truancy, driving without a license, running away from home, and theft. However, when examining more serious crimes, they also found similar gender disparities for self-reported delinquency as those revealed in official data. This study is important because it points out the similar rates of

boys and girls participating in status offenses, particularly running away from home. Nonetheless, girls are disproportionately affected by such laws and have been since their inception (Barrett et al., 2013; Chesney-Lind & Shelden, 2013). This suggests differences in policing and sentencing, rather than offending.

Canter (1982) echoed the findings of Steffenmeier & Steffenmeier (1980) while utilizing data from the National Youth Survey. She found that the delinquency of boys and girls rose for a decade beginning in 1967. However, when examining individual offenses, almost half of them showed no significant differences between boys and girls. This is important because it suggests that the actions performed by boys and girls may be similar, however, the reasons they engage in them and the formal consequences often differ (Chesney-Lind & Shelden, 2013).

Another study, which examined gender differences in delinquent and risky behaviors, found very similar rates for male and female high school students, particularly for driving under the influence and making a suicide plan (Maguire & Pastore, 2001). Further investigation into the findings points to mental health problems being more common among females than males, with girls being twice as likely to seriously consider suicide or to attempt suicide. There also appear to be links between mental health issues, substance abuse, and past victimization (Alderden & Perez, 2003), which all are common female offender problems.

It seems from both official data and self-report data that the key issue is the greater probability of females being arrested and incarcerated in recent times. Why are girls now being arrested and confined more often? First, according to official data, females are committing more crime than they have in the past, although the same

gender disparities do not exist in self-report data. Second, girls commit crimes for different reasons than boys. For example, more than any other reason, girls report abuse at home as their motive for running away (Brennan, 1980; Chesney-Lind, 1989; Janus, McCormack, Burgess, & Hartman, 1987). Third, females who become involved in the juvenile justice system report higher rates of victimization (Belknap, 2014; Chesney-Lind & Pasko, 2012; Chesney-Lind & Shelden, 2013). In other words, "victimization in its various forms is typically the first step along a pathway girls take into the juvenile justice system" (Chesney-Lind & Shelden, 2013, p.146). Incarcerated girls also face more mental health issues than boys who are incarcerated (Cauffman et al., 2007; Espelage et al., 2003). Lastly, gender stereotypes are changing. Previous theorists believed women might have been committing more crime, but often were not being punished, due to male chivalry. However, with gender roles changing, males may be more likely to arrest females for crimes, which they may not have done previously. All of these factors point to the importance gender differences that exist in many different facets of American culture.

**Juvenile Victimization and Male vs. Female Comparisons**

Victimization among female offenders, both juvenile and adult, is a common theme in female offending literature. One study of girls within the juvenile justice system in Hawaii found that over 30% had a history of abuse (Pasko & Chesney-Lind, 2010). Other studies have reported delinquent girls with histories of abuse as high as 73% (Chesney-Lind & Sheldon, 2013). In addition, many of the girls who run away from home and are charged and sentenced report abuse in the home as their primary reason for running away (Pasko & Chesney-Lind, 2010; Chesney-Lind & Pasko, 2012;

Chesney-Lind & Sheldon, 2013). Often, girls who report being abused also report having told a family member, who ignored the victim's pleas, often due to the financial stability the abuser was providing (Shoemaker, 2009).

As mentioned previously, boys run away for different reasons than girls, and they are rarely arrested for such offenses (Chesney-Lind & Sheldon, 2013). Girls are not only arrested more often for running away, but they are incarcerated more often as well. This is true even though self-report data shows that boys and girls run away from home at similar rates (Snyder & Sickmund, 2009). Therefore, many girls who are being abused at home subsequently run away (a status offense), and they are then arrested and detained in facilities that are not prepared to help them. Shoemaker (2009) bluntly states "girls who run away are being victimized not only at home but also by a juvenile justice system that is not prepared for the specific needs of girl delinquents" (p.272).

**What Explains These Trends and Male vs. Female Comparisons?**

Gender is a common correlate of crime (Belknap, 2014). It is clear that overall, men and boys commit more crime and different types of crime than women and girls, and they are sentenced and treated differently for their crimes (Belknap, 2014; Chesney-Lind & Pasko, 2012; Chesney-Lind & Shelden, 2013). In recent decades, however, trends and patterns in male and female offending have been changing, along with justice system responses to this offending. Relatedly, there likely are differences between males and females that ultimately affect whether and how much they participate in delinquent behavior, along with how they respond to juvenile justice system interventions. Various theories exist that potentially explain differences in male and female offending, and some focus on biological factors. However, beyond biological

factors, what else is different between boys and girls? One possible explanation centers on how boys and girls are socialized. Socialization also affects what individuals think about the opposite sex, which may potentially explain some of the findings in official data that involve discretionary decision-making of criminal justice agents. With this in mind, the following section will discuss how individuals are socialized and, in particular, the role that parents play in the socialization process.

## Socialization and Parenting

According to Merriam-Webster (2014), socialization is "the process by which a human being beginning at infancy acquires the habits, beliefs, and accumulated knowledge of society through education and training for adult status." Therefore, socialization begins when an individual is born, and the most important agent of socialization for a child would be its parents. During the process of socialization, parents are responsible for speaking to their child and disciplining them appropriately based on the behavior deemed desirable for the child. While accomplishing this, parents also are obligated to protect, nurture, and train their children to not only present desirable behavior at home, but outside the home and throughout life as well (Grusec, 2002). Often, socialization techniques differ based on the child's gender (Witt, 1997). At this point, it is important to note the difference between sex and gender. Sex is typically used to refer to someone's biological anatomy, while gender is often used by social scientists to refer an individual's identity that is created through biology, socialization, and one's surrounding (Wharton, 2009).

## Differences in Male and Female Socialization

Growing up is typically different for males and females. Gender identity begins to play a role early in children's lives, determining certain behaviors, personality traits, and even future occupations (Chesney-Lind & Sheldon, 2013). As early as preschool, children already know which parent they identify with most, and they are fully aware of gender stereotypes (Fagot, Leinbach, & Hagan, 1986; Lott, 1987).

Often gender stereotypes are the first stereotypes children learn (Fiske, 1998; Zemore, Fiske, & Kim, 2000). There are many different characteristics of gender stereotypes, which include physical attributes, employment, personality traits, sexual orientation, and roles in society (Biernat & Kobrynowicz, 1999; Deaux & Kite, 1993; Zemore et al., 2000). This can be seen in the commonly taught nursery rhyme, where girls are made of "sugar and spice, and everything nice," and boys are made of "snakes, and snails, and puppy dog tails." This is an obvious reference to boys being tough, strong, and scared of very little, while girls should be dainty and graceful (Deaux & Kite, 1993).

Beyond the physical, men often are seen as confident and smart, while women are seen as warm, kind, and motherly (Deauz & Kite, 1993; Zemore et al., 2000). In some cases, stereotypes that exist about females are considered generally "positive," while the same might not true for men (Kite, 2001). In other cases, negative traits are revealed for both males and females. For example, men are viewed as being more aggressive and arrogant, while women are seen as being overly emotional and crying too much. All of these commonly held beliefs play directly into gender roles.

For women, the most common gender role is homemaker or caregiver. It should be clear that the positive traits mentioned above are important for a caregiver to possess. Also, the commonly cited traits of a stereotypical male are well suited for work outside the home, no matter what type of business may be chosen (Eagly et al., 2000). Historically, most females followed their prescribed gender role and became stay at home moms, focusing on their children and their home life each day. In general, mothers staying at home with their daughters would pass this gender role onto their daughters, who would consequently become better prepared for a role as homemaker when grown up.

With this in mind, studies that have examined chores given to daughters have found them often to be given responsibilities such as cooking, cleaning, and childcare, which perpetuate their role as a homemaker (Coltrane & Adams, 1997). Females who chose to work outside the home still often choose occupations which focus on caregiving or nurturing, such as nurses or teachers (Eagly et al., 2000). Occupations dominated by male employees tend to be those that focus on physical strength or aggressiveness. In sum, it should be clear that parenting and gender roles help to create who an individual becomes. Unfortunately, this includes the possibility of becoming a criminal or participating in delinquency.

**Influence of Parenting On Delinquency**

There have been many proposed causes of juvenile delinquency: biological factors, low self-control, delinquent peers, weakened bonds between the individual and significant others, and growing up in disadvantaged neighborhoods, to name a few. One of the most commonly cited causes of delinquency is inappropriate or inconsistent

parenting (Gottfredson & Hirschi, 1990; Hagan et al., 1987; Hirschi, 2002; Pratt & Cullen, 2000). Numerous criminological theories have focused on the relationship that exists (or the lack of such a relationship) between parent and child. Hirschi (2002) believed the bond created between parent and child was essential in creating a non-deviant individual. Gottfredson and Hirschi (1990) asserted that parental management was essential for creating children with high levels of self-control, which would keep them from committing criminal and analogous acts. Other theorists also have noted the importance of the parent-child relationship throughout the past 50 years (Hagan et al., 1987; Hirschi, 2002, 2004). However, the correct form of parenting and the types of parenting that create children with criminal tendencies continue to be debated (Hoeve et al., 2009).

Parenting has been examined in several different ways, but two main perspectives exist. Of these two perspectives, one examines parenting as a typology (e.g., authoritative, authoritarian), and the other examines different dimensions of parenting, such as support, control, or attachment. These two perspectives may overlap. For example, to measure authoritarian parenting, a researcher may use a measure of discipline, but discipline also can be a dimension of parenting. Several meta-analyses on the causes of delinquency have been conducted, and they tend to find family factors to be one of the top predictors of criminal behavior (Cottle et al., 2001; Gendreau et al., 1996; Hubbard & Pratt, 2002).

To illustrate, Hoeve et al. (2009) conducted a meta-analysis to investigate the relationship between parenting and delinquency. Their study included 161 manuscripts, published and unpublished. The authors noted the importance of such a study, due to

the long history of literature on parenting and delinquency. However, no prior study had been able to define the overall magnitude of the relationship. The results of the meta-analysis confirmed the strong relationship between parenting and delinquency, in that those individuals with high levels of parental monitoring or behavioral control showed lower rates of delinquency. They also found that there was little research on the relationship between gender and parenting. That is, sons and daughters may be affected by parenting from each parent differently. The authors also found that of the 161 studies examined, less than 20% focused on paternal parenting. This study further suggested a need for future research that examines the inter-relationships between parenting, gender, and delinquency.

**Parenting, Gender, and Delinquency**

Overall, parenting is one of the most important sources of socialization for a child (Brand, Hatzinger, Beck, & Holsboer-Trachsler, 2009; Henricson & Roker, 2000; Maccoby, 1992; Paulson & Sputa, 1996; Schaffer, Clark, & Jeglic, 2009). How a child is parented will help determine their interactions with others and their own social lives (Vandeleur, Perrez, & Schoebi, 2007), as well as what they will teach their own children (Van Ijzendoorn, 1992). As discussed in the previous section, numerous studies have found a relationship between parenting and delinquency (Glueck & Glueck, 1950; Gottfredson & Hirschi, 1990; Hirschi, 2002, 2004; Hoeve et al., 2009; Wells & Rankin, 1988; Wright & Cullen, 2001).

Although it is clear that gender stereotypes exist, and that children will identify with one parent more than another (Holmbeck, Paikoff, & Brooks-Gunn, 1995), few studies that focus on parenting and delinquency include a consideration of the parenting

styles of both parents (Hoeve et al., 2009). While fathers spend less time quantitatively with children, Video (2005) also suggests that the parenting of mothers and fathers is qualitatively different. This means that while mothers tend to spend more time with their children, when parenting styles are compared between mother and father, they also are often very different. This is especially important when comparing the parenting outcomes of male and females, considering daughters typically feel closer to their mothers, and sons are commonly feel closer to their fathers (Holmbeck et al., 1995).

For boys, a father's influence is evident. The strongest predictor for male offending is a history of paternal arrest (Farrington, Jolliffe, Loeber, Stouthamer-Loeber, & Kalb, 2001). Other studies have confirmed that fathers with antisocial behaviors are more likely to have children with antisocial behaviors (Jaffee, Moffitt, Caspi, & Taylor, 2003). It is unclear, however, whether this relationship is biological, sociological, or a combination of both. Liable & Carlo (2004) believe much of the relationship can be explained because children imitate the behaviors of the parent of the same sex. Therefore, boys who watch aggressive fathers will become aggressive themselves, and girls who have mothers who take care of the family will aspire to do the same. Each parent also appears to affect children differently. Holmbeck et al. (1995) found that sons believed their mother to be easier to communicate with and to be more supportive. However, sons also got into more disagreements with their mother about rules. Furthermore, although mothers were easier to communicate with, sons still felt it was more important to spend free time with their father, as well as ask him for personal advice. Daughters, in comparison, spent much less time with their fathers and felt much closer to their mothers (Holmbeck et al., 1995). Yoniss and Smollar (1990) produced

similar findings that showed fathers typically were the givers of instrumental care, while mothers took care of their children emotionally.

Other studies indicate that parenting styles differ from one parent to another, with some parents taking on more of an authoritative role, and others more of an authoritarian role (Maccoby & Martin, 1983). Authoritarian parents utilize strict rules for their children with very little (if any) explanation (Baumrind, 1991). They feel their children should understand that they should do as their parents say. This form of parenting sometimes can be considered harsh and not warm. Authoritative parents utilize the same strict rules as their authoritarian counterparts, but they explain why the rules exist. These parents also are often supportive rather than punitive (Baumrind, 1991).

Many studies have examined the outcomes for children in authoritative households. Children who are raised in authoritative households earn higher grades, are more self-sufficient, and struggle less with anxiety and depression than children from authoritarian households. These children in authoritative homes are also less likely to participate in delinquency, no matter their race, social economic standing, or family structure (see Steinberg & Silk, 2002, for a full review on the outcomes of authoritative parenting). However, this research tended to ignore that not all parents have the same consistent parenting style (Fletcher, Steinberg, & Sellers, 1999). Fletcher et al. (1999) assessed the idea of inter-parental consistency and its outcome on children. They found that parents do parent differently, but this difference alone did not have a negative impact on the child. For example, having at least one authoritative parent helped students succeed in school.

Two other important studies examined the parenting styles of both parents. Bronte-Tinkew, Moore, and Carano (2006) found that regardless of the mother's parenting style, if the father utilized an authoritarian parenting style, there was an increased risk of delinquent behavior for the children. In contrast, Simons & Conger (2007) found evidence for authoritative parents having children with less delinquent outcomes. In addition, they also found that children who grew up with neglectful parents were more likely to turn to crime and delinquency.

## Summary and Conclusions

This chapter has presented and discussed crime and delinquency trends, with comparisons of males and females in order to understand the similarities and differences that exist between genders. Thus far it has been shown that according to official data, disparities between males and females do exist (Snyder, 2011; FBI, 2013; Schwartz & Steffensmeier, 2007), particularly for violent crimes (Snyder, 2011; FBI, 2013). However, these disparities have been diminishing in recent decades, and when comparing official data to self-report surveys, existing disparities decrease even further (Cernkovich & Giodano, 1979; Steffensmeier, 1980). According to self-report surveys, those disparities are smallest for status offenses and minor theft (Steffensmeier, 1980).

From this review, it should be clear that females commit fewer violent crimes, making them a lower risk group (Snyder, 2011; FBI, 2013; OJJDP, 2013). Although lower risk, females typically are in higher need of separate programming and policies to combat mental health issues and substance abuse (Bloom, Owen, & Covington, 2003; Matthews & Hubbard, 2008; Van Voorhis, Wright, Salisbury, & Bauman, 2010), previous victimization (Pasko & Chesney-Lind, 2010; Shoemaker, 2009; Snyder & Sickmund,

2006), and to account for general differences between males and females (Turnbull & Hannah-Moffat, 2009). Beyond the need of programs and policies specific to females, the issue remains, why do females commit different amounts and types of crimes than males? And why have trends and patterns in male and female offending changed in recent decades? Many believe these questions can be answered by assessing the parenting and socialization process.

There is an established relationship between parenting and delinquency (Gottfredson & Hirschi, 1990; Hagan et al., 1987; Hirschi, 2002; Hoeve et al., 2009; Pratt & Cullen, 2000), along with associations between gender, parenting, and delinquency (Farrington et al., 2001; Hoeve et al., 2009; Holmbeck et al., 1995; Video, 2005). However, the full extent and complexity of these relationships are not fully understood. Several prominent criminologists have included parenting within their theories of crime (Gottfredson & Hirschi, 1990; Hagan et al., 1987; Hirschi, 2002), but few focus on how parenting is particularly important to explaining female criminality. The next chapter will present the history of theoretical criminology in attempting to explain female criminality, leading to the formulation and tests of Hagan's (1987, 1989) Power-Control Theory.

# CHAPTER THREE

# WOMEN AND CRIMINOLOGICAL THEORY: A ROUGH ROAD

There is a well-established association between gender and crime, which has been shown time and time again (Heidensohn & Gelsthorpe, 2012; Lauritsen et al., 2009; D. J. Steffensmeier et al., 2005; Darrell Steffensmeier & Schwartz, 2009). The correlation that exists between gender and criminality has been examined numerous times since the 1800s (Lombroso, 1895; Quetelet, 1842), and has been mentioned as "one of the few undisputable 'facts' of criminology" (Lauritsen et al., 2009, p. 362). Simply put, "men are more criminal than women" (Hagan & Albonetti, 1988, p. 147). However, as revealed in the previous chapter, women still commit a great deal of crime, although often different types of crime than men and for many different reasons.

Theorists have utilized many explanations to try to account for female crime. This chapter will discuss the evolution of Feminist Criminology during the past century, beginning with early explanations of crime from the turn of the 20th century to current theories of female crime. This discussion will lead into the relationship gender shares with social class and power, which had been largely ignored in criminological research until the introduction of Hagan's Power-Control Theory (1985). The chapter will conclude with a thorough discussion of Power-Control Theory and its current empirical status, which points to the need for the current study.

## Early Gendered Explanations of Crime

### Turn of The 20th Century

Many theorists have tried to explain the difference in offending between men and women. Lombroso and Ferrero (1920) attempted to do so in their seminal work, *The*

*Female Offender.* At the time, biological and physiological theories of criminality reigned, and the same theories were applied to female offenders. Early female offenders, most often prostitutes, were prone to have moles, large jaws and cheekbones, and excessive hair, according to Lomboso and Ferrero's observations. These authors further suggested several psychological traits of female offenders, including a lack of maternal instinct, cruelty, and greed. Various physiological differences also made these criminal women different from the criminal man: sexual coldness, physical weakness, a desire for passion, an undeveloped intelligence, and maternity (Lombroso & Ferrero, 1920).

Overall, it seems these early theorists embraced a female stereotype and believed women were simply not intelligent enough, nor physically capable of becoming "real" criminals. However, those that did become criminals, according to Lombroso and Ferrero (1920), were more similar to men physiologically. They pointed to examples of women who were so unattractive and masculine that they had to turn to crime to make up for their inability to find a mate and breed. According to this theory, women were the least evolved form of humans and had stopped growing too soon. Moreover, not only were female criminals more masculine, but they also were prone to suffer from many psychological disorders due to the small size of their brains. Although these early explanations remained for a few decades, the etiology of female criminality, like that of male criminality, would change many times.

W.I. Thomas (1923) later advanced the idea that there are basic differences between males and females that are primarily biological. He argued that humans have four basic desires: new experiences, security, response, and recognition. According to

Thomas (1923), a woman's main desire is that of response, and most often sexual response. Due to biological differences in men and women, and the sexual freedom women were beginning to experience at the time, he suggested criminal women were not like men; rather, they were amoral. Instead of being stand-up, moral women of society, criminal women would use their sexuality to get what they wanted, most often in the form of promiscuity and prostitution. However, throughout Thomas's research, he focused on working-class women and ignored the plight of those below certain economic means. So, for example, rather than examining the link between needing income and prostitution, he examined prostitution as a result of the desire for sexual response.

In 1916, Willem Bonger brought to light a unique suggestion for the causes of female criminality. Bonger (1916) was the first to propose that the relationship between gender and crime was beyond physiological; there had to be more factors at play. He focused on the idea that sociology played a formidable role in females who chose the criminological lifestyle. He therefore examined females as rational decision makers who he believed made the decision to become criminal based on sociological factors. He also alleged that sociological factors influencing a woman towards criminality would fluctuate directly with social class. These ideas were controversial for the time, and they were almost completely ignored in the relevant criminological literature. However, other theorists later would value the ideas contained in this early sentiment that women's criminality may be related to sociological factors.

Following Bonger (1916) and Thomas (1923), studies continued to embrace the stereotypes of women that were prevalent during this time period. For instance,

Sigmund Freud (1933) believed that women were anatomically inferior, and that their ultimate destiny was simply to become wives and mothers. To further elaborate on this anatomical inferiority, Freud argued sex organs are instrumental. Boys are born with a penis, and this gives girls the idea that their penis has been taken from them as a form of punishment. This also creates a state of "penis envy," which involves females growing up to be envious and vengeful. Feminine traits then become a way for females to deal with their lack of a penis. From this perspective, "Women are exhibitionistic, narcissistic, and attempt to compensate for their lack of a penis by being well dressed and physically beautiful. Women become mothers trying to replace the lost penis with a baby" (Klein, 1973, p. 335).

Ultimately, deviant women are those who set out to become a man. According to Klein (1973), Lombroso, Thomas, and Freud all reduced the difference in males and females down to a sexual level. Each researcher pointed to men as being the "aggressor" or the "active" participant, while women are "aggressed" or "inactive." Furthermore, "the male pursues the female for the purposes of sexual union, seizes hold of her and penetrates into her… by this you have precisely reduced the characteristic of masculinity to the factor of aggressiveness" (Millett, 1970, p.189).

Prior to and following the turn of the 20th century, biological and physiological explanations of crime were common. All of these theories claimed or suggested women were inferior to men. Lombroso and Ferrero (1920) and Freud (1933) asserted that as women tried to become more similar to men, they would turn to crime and deviance. In addition, many of the theories contained sexual connotations. The sexual belief and stereotype of women at the time was "ladies don't move." Repeatedly, a women's

inferiority was viewed through basic biological, physiological, and psychological reasoning, and was believed to produce deviant actions. Most often this was viewed as occurring through achieving masculine traits or trying to overcome feminine traits. Ultimately, these theories have been largely dismissed (Cullen & Agnew, 2003), but they did bring attention to female offenders and helped increase the use of scientific methods when testing criminological theory (Lanier & Henry, 2004). Also, these early theorists were beginning to set the stage for subsequent studies, which would examine differences in offending between males and females beyond just physical differences.

**The Golden Era**

In the mid-1900s, theories of female criminality continued to evolve, yet often still embraced the sexual aspect of the female identity. Otto Pollak (1950) began to discuss multiple causes of female criminality, which included biological, physiological, and sociological factors. He also further examined the types of crimes females were committing. He argued that women always have committed more crimes than we believe; however, due to the types of crime women commit, they are overlooked. According to Pollak, women shoplift, steal from homes, become prostitutes, and commit abortions and perjury. All of which are easier to conceal, and none of which are done blatantly. He therefore called female criminality “hidden” criminality.

Pollak also believed that women commit these types of crimes because they are naturally deceitful. He continued this argument by once again pointing to a sexual level, which is also physiological. During sexual intercourse women can “fake” an orgasm; however, men are incapable of such things. Societal pressures also assure women’s deceitfulness. For example, women are socially pressured into hiding their menstruation

each month. Menstruation also was thought to cause criminality due to the "psychological disturbances" it may cause. Nevertheless, although Pollak (1950) proposed much female crime to be "hidden," women also are caught. This brings up another point Pollak (1950) raised, which other feminist scholars began studying.

Pollak (1950) brought increased attention to concepts important to both the growing feminist movement and overall criminological literature, specifically the importance of police, courts, and corrections, and how the key players in these branches of the criminal justice system can change or create discrepancies in offending, particularly gender differences. From his perspective, these discrepancies are formed through gender relations between men and women. At the time, men were the key players in the criminal justice field. These same men often held gender stereotypes of women, causing them to treat women differently.

Pollak's (1950) chivalry hypothesis stated that men often have a hard time viewing women without visualizing their own mothers or daughters. In turn, this causes men to see the best in these women. These thoughts, along with gender stereotypes, cause men to be much less punitive towards women, often times releasing them without charges (Pollak, 1950). To add to his chivalry hypothesis, Pollak (1950) explained that women also commit crimes with men, as an accomplice. However, when caught, male co-offenders or male victims may be too embarrassed or chivalrous to report a woman's involvement. Pollak's (1950) theories of "hidden" crime and the chivalry hypothesis are interesting, but overall, there has been limited empirical evidence found to support his claims (Jones, 2009). Several studies have been conducted, however, that examine the ideas contained within Pollak's (1950) chivalry hypothesis and warrant some discussion.

In one study, Visher (1983) examined a sample of offenders processed by police. She found evidence that women who acted and dressed appropriately for their gender were treated more leniently than women who did not. However, few other studies have been as supportive. Anderson (1975) previously completed an extensive review of the treatment of females in the criminal justice system. She found that although many individuals believe chivalry exists within the system, it simply is a myth. Her conclusions led her to state that researchers:

> must view women as motivated by human needs, rather than by sex-based needs… Researchers have devoted most of the little attention that they have given to the female criminal to looking for ways in which she differs from her male counterpart, thereby often neglecting similarities (p.355).

This statement sums up the Golden Era of the 1950's.

The 1950's also was the high point in the "cult of domesticity," which viewed women as primarily caregivers and housewives, or the complete opposite of their hard working male counterparts. Pollak (1950) introduced the idea of the domesticated woman into criminology, and extended it to the criminal justice system, by suggesting women who did commit crimes were being released or forgiven because of their likeness to caring wives and mothers. However, the women's movement and the sexual revolution of the 1960's would soon change the stereotype of women in the United States, as well as the study of female criminality.

## Feminist Criminology

Aside from the theories mentioned above, early criminology tended to be dominated by men studying and publishing on males committing crimes. All of the theories discussed thus far pointed toward two basic types of women: 1) ladylike, stereotypical, Victorian women, and 2) criminals. Most early theories viewed female criminals as being even further atavistic versions of the human than the male criminal; biologically inferior, amoral, desiring sexual responses, masculine, and envious of a penis. However, the outlook on female criminality changed in the 1960's, as the sexual revolution and the women's movement took center stage in the United States. Suddenly females were viewed as being normal (noncriminal) or abnormal (criminal) because of more than just biological inferiority. Society's role in creating gender stereotypes, and particularly gender inequality, was influencing a new paradigm in the male dominated field of criminology.

The women's movement, which began in the 1960's and continued throughout the 1980's, allowed women to become better educated and involved in academia, which to that point had been a male dominated occupation. This created more women in the field of criminology, with their own ideas and experiences, often different from their male counterparts. This meant instead of only having men studying both male and female criminals, women were doing the same. The women's rights movement also brought attention to the social discrepancies of women; this ultimately included the larger gender-based inequalities of power, which made the necessity to study gender and crime that much larger (Cullen & Agnew, 2003).

Two key pieces of feminist criminology work were introduced in 1975. First, Rita Simon's (1975) *Women and Crime* presented the idea that as females in the workplace increased, so too would female criminality. Simon (1975) believed that women's participation in employment outside the home would increase their ability to learn and execute different types of white collar crimes. However, she also believed this would not increase violent crime, because through work, women would lose their "feelings of being victimized and exploited" (Simon, 1975, p.2), which many believed to be the rationale for female precipitated crime.

Second, Freda Adler's (1975) *Sisters in Crime* also proposed that female participation in employment would increase their criminality. Unlike Simon (1975), however, Adler did not simply believe that females would begin participating in more crime; rather they would be committing more male-like criminal offenses. From this perspective, women most often commit crimes of opportunity, such as shoplifting, prostitution, and drug use. Male offenses often require more physical work and may be considered much more violent, such as robbery or assault. Adler proposed that as women pushed their way into the workforce, toward more equal roles and away from the "cult of domesticity," groups of women also would push themselves into crime, including more violent crime.

These two works contributed to what is often referred to as emancipation theory. Simply stated, as females gain more independence, they will begin to commit more crimes. Although these two works were clearly important, they did not receive much empirical support. Even though female criminality began increasing in the 1970's and some increases have continued through today, they most often were for typical female

crimes, contrary to what Adler (1975) believed would happen. Simon's theory (1975) also has limited empirical support. Although female crime continued to rise, it is still significantly lower compared to male crime rates (D. Steffensmeier, 1995). However, Simon (1975) and Adler (1975) began a discourse that has since gained recognition in criminology.

Another group of feminist criminologists suggested that Simon (1975) and Adler (1975) made a mistake by not accounting for the power that men have in American society, which ultimately translates into a lack of power for women, due to the patriarchal nature of society. Therefore, there was a need for theories that did not include gender as an afterthought or a simple control measure, but rather served as a basis for gender-specific theories (Chesney-Lind, 1989). Ultimately, due to the patriarchal nature of our society as a whole, gender specific theories would allow for females to be studied differently because society treats females differently. In addition, other relevant concepts have received attention from criminologists and sociologists alike, such as social class. Examining social class allows for a deeper understanding of the power disparities that exist in America, but only a few theorists have discussed the relationship social class may have with gender.

## Social Class

Many criminologists who focus on social class (not just social economic status) have been influenced by the work of Karl Marx. Marx and Engels (1848) discussed class within the capitalist system and insisted there were two groups within society: the proletariat and the bourgeoisie. The proletariats are hardworking middle to lower class individuals. The bourgeoisie are upper class individuals who often own or run the

businesses in which the proletariats work. According to Marx and Engles (1848), the bourgeoisie would do what was necessary to remain upper class, often taking advantage of the proletariat. Marx did not discuss what connotations this would have for crime or the criminal justice system; however, Willem Bonger (1916) became the first to utilize Marxist ideas for the explanation of crime.

Bonger (1916) initiated conversations among criminologists on the link between crime and the “mode of production.” He theorized egoism created criminals, particularly in the upper class, and further, capitalist societies produced egoism. The purpose of a capitalist society is not equality; rather, it is wealth. The goal is to produce something worth more than it costs to produce. Ultimately, this is also what Bonger believed helped to form many criminal laws. One of his beliefs about crime and capitalism was that they were fundamentally connected. This can be seen in criminal law being created to protect the belongings of the bourgeoisie, and most often keep those belongings from the proletariat. This, along with the terrible conditions many of the working class endured, helped to perpetuate crime throughout industrialized countries.

As discussed earlier, Bonger also went one step further and began a dialogue concerning gender and crime. He stated that women were less criminal than men, but this deficit in criminality was more than biology. It was sociological and could be strongly related to social class. Therefore, social class would moderate the relationship between gender and crime. Women in the lower class may be more likely to commit crimes due to the situations their social class has created. For example, a woman could steal food for her children because she does not have money to feed them. Women in the upper

class would not have this same societal problem. Laws that were created to protect the upper class also would protect women of the upper class, not just men (Bonger, 1916).

Max Weber (1947), a known Marxist, further proposed that the separation of gender relations was important to a modern capitalist society. He theorized that gender separation can be seen in the two major spheres of society: the consumption sphere and the production sphere. Each sphere focuses on a particular part of society and the labor that is necessary to maintain a capitalist society. The consumption sphere most often consists of women and focuses on domestic labor, as well as the consumption of goods and services. The production sphere largely consists of males and is focused on the production of goods and services, while being centered on labor power.

Furthermore, the family holds the main responsibility for reproducing gender beliefs within the consumption sphere. This means, for example, the family will pass down values of women being focused on domestic labor, as well as the consumption of goods and services. Within the production sphere, the state, which includes the criminal justice system, reproduces gender types, keeping males centered on labor power and the production of goods and services. Overall, these two spheres both create and maintain gender stereotypes in a capitalist society.

Weber (1947) further suggested that within the consumption sphere, females are most often the instrument as well as object of informal control. As stated previously, the family is most important in this sphere, both for producing informal controls as well as maintaining gender reproductions. Inversely, males are the instruments as well as objects of formal control within the production sphere. This can be seen in the patriarchal criminal justice system, as well as the fact that men come into more contact

with the justice system. In addition, as the controls of the family (or consumption sphere) decrease, more contact is made with the justice system (or production sphere). In modern criminology, the concept of weakened family controls creating more interaction with the justice system has been tested numerous times (Gottfredson & Hirschi, 1990; Hirschi, 2002; Sampson, 1986; Sampson & Laub, 1997) and was a key component of Hirschi's (1969) social bonding theory.

Weber's (1947) ideas of the consumption and production spheres, and their effects on the capitalist gendered society, appeared accurate through much of the 1950's and 1960s. During this time period, the two spheres helped to recreate the "cult of domesticity" around women (Avakame, 1997). This division of men and women remained in place roughly until baby boomers became school aged children. Suddenly, more gender stereotyped jobs (librarians, teachers, secretaries, etc.) became available, and Weber's division of spheres began merging into one another. Particularly in the upper class, women were not only gaining jobs, but also gaining power within the workplace and control in the home (Hagan & Albonetti, 1988). Moreover, although Weber's spheres explained a gendered society, they did not explain how this was related to criminality. Combining the efforts of Weber (1947) and Bonger (1916) allows for a better understanding of the social class Bonger discussed, and how it could essentially affect gender and crime. Particularly, Weber's spheres allow for a closer look at the importance of women working outside the home, and the affect it may have on female criminality. More specifically, Hagan, Gillis, and Simpson (1985) took these ideas and pointed out the one concept that was apparent but often overlooked in relation to crime: power.

## Power-Control

Hagan, Simpson and Gillis (1979) first began to explore gender differences in delinquency through gender differences in social controls. They believed that women were most often the instrument as well as the object of informal social controls. These informal controls most often take place within the family structure. Along with this same sentiment, they hypothesized that men would most often be the subjects and enforcers of formal social controls. The authors presented evidence to back up these claims, which formed the basic premise of Power-Control Theory.

Beyond social control, Hagan, Gillis & Simpson (1985) believed power played a formidable role in gender differences in delinquency. Previous to Power-Control Theory, these two concepts rarely were utilized together. Power theories, most often macro level, focused on control in the workplace. On the other hand, control theories were often micro level, focusing on control in the home or within the family. While at first glance these two ideas are seemingly different, they work together to form Power-Control Theory. At the theory's most basic form, Hagan states that the power one has within the workplace can be translated into control in the home (Hagan et al., 1985). Control in the home is then held by parents and projected onto children. Overall, those children who are controlled less (most often sons) may be more likely to turn to crime and deviance.

### Power at Work

The first key concept in Power-Control Theory is power. Power is held by parents and gained through authoritative positions in the workplace. The idea of power in this theory is taken from a neo-Marxist measure of class (Hagan et al., 1985). In its original

formulation, power was measured based on Marxist ideas and the sentiment that class should be measured in relational and not gradational terms. Hagan et al. (1985, p.1158) created four questions to determine class for respondents:

1. Is the head of your household currently working full time?

2. Does the head of your household currently work for him/herself or for someone else?

3. Are there any people who work for him or her or are paid by him or her?

4. Does the head of your household supervise anybody as part of his or her job?

These four questions determined whether respondents were in one of four classes: Employers, Managers, Workers, or the Surplus Population. Employers own a means of production, control other employees, and are in charge of paying others for labor. Managers do not own a means of production, but they do control other employees, while selling their own labor (i.e., being paid for their particular job). Workers do not own a business or manage/supervise others, but are paid for their job. Finally, those who belong to the surplus population are unemployed. Although Hagan et al. (1985) believed this to be a good measure of social class that was relational at the time, they found that it both under and over-represented specific classes and did not account for both mothers' and fathers' positions in the workplace. Therefore, they changed this measure using a Dahrendorfian model of family class relations (Hagan et al., 1987).

Specifically, Hagan and Albonetti (1988) discussed his use of Dahrendorf's (1959) two concepts: power and authority. Dahrendorf (1959) proposed that power pertains to a person's ideation of his or her own control, meaning the notion of power is

created by the individual. However, authority is a person's role or position in society. "In this sense, authority can be described as legitimate power" (Dahrendorf, 1959, p. 166). Based on this distinction, Hagan and colleagues followed Dahrendorf's lead to measure power. Specifically, Hagan et al. (1987) utilized a measure of authority held in the workplace, ultimately producing a measure of legitimate power.

In addition, a major concern of Power-Control Theory lies in the disparities of authority between the father and mother. Hagan et al. (1987) separated authority into two categories for fathers, "has authority" and "has no authority"; and three categories for mothers, "has authority", "has no authority", and "not employed". Examining these items together in households, a balance or an imbalance of familial class exists. These are based on Dahrendorf's (1959) class positions scheme and included three classes: command class, obey class, and the classless (see Table 3). Individuals in the command class will exercise authority. Those within the obey class are under the supervision of those who hold authority, yet hold no authority themselves. The classless are those individuals who neither have authority nor must obey it. Once each individual is placed within a class based on their authority, their spouse's authority then determines whether the family class is balanced or unbalanced.

In households where both parents are employed in positions of authority, there is a balanced class relation where both parents fall within the command class; this group is referred to as the joint command class. Households where both mothers and fathers hold jobs with no authority also have a balanced class, where both parents fall into the obey class and are referred to as the upper obey class. The last balanced class consists of homes where the father holds no authority at work, and the mother is

unemployed. Dahrendorf (1959) placed this group in the obey class and referred to them as the lower obey class.

Table 3
*Dahrendorfian Model of Familial Class Relations*

| Wife's Authority in the Workplace | Husband's Authority in the Workplace | |
|---|---|---|
| | Has authority | Has no authority |
| Has authority | Joint command class: husband and wife in command class | Husband obey class/wife command class |
| Has no authority | Husband command class/wife obey class | Upper obey class: Husband and wife in obey class |
| Not employed | Husband command class/wife not employed | Lower obey class: husband obey class/wife not employed |

Balanced class relations

Unbalanced class relations

*Note:* Adapted from *Structural Criminology* (p.172), by J. Hagan and C. Albonetti. Hagan & Albonetti, 1988, New Brunswick, New Jersey: Rutgers University Press.

Also important in this model are the unbalanced family class relations (Dahrendorf, 1959). Within these homes, one parent has more authority than the other. The first group consists of those where the husband has authority and the wife does not. This places the husband in the command class and the wife in the obey class. The second consists of homes where the father has authority and the mother is not employed. Finally, the third group is composed of homes where the mother has authority and the father does not. In this household the mother is in the command class and the father is in the obey class.

These groups do not account for single headed households; however, Hagan (1989) proposed this to be a balanced class relation because there is no other parent to balance authority. It is important to note that although these groups are meant to measure social class, Neo-Marxist measures of social class are not gradational. Therefore, one class is not seen as higher than another. Rather, they are related structurally and contingent on their group means of production, as is important in a capitalist society (Hagan et al., 1985).

These six groups are the basis for the creation of the two main family types discussed in Power-Control Theory: patriarchal and egalitarian (Hagan et al., 1987). Within patriarchal households, fathers work in a position of authority, while mothers stay home with their children. This type of household is the *ideal* patriarchal household, which is also very similar to Dahrendorf's unbalanced family class, where the husband is in a position of authority and the wife stays home with the children or works in a job without authority. Households where both parents hold authoritative positions are considered the *ideal* egalitarian household. In Dahrendorfian terms, this is a balanced household. Households where the mother holds more authority than the father also are considered egalitarian. In subsequent tests of Power-Control Theory, Hagan et al. (1988) began to account for female-headed households, and count these too as egalitarian. These two major types of families also determine the type of control that will be exerted onto daughters and sons within the household. This is the control aspect of the theory. Subsequent literature has questioned the lack of a matriarchal household. However, the current study is a test of Power-Control Theory as laid about by Hagan et

al. (1987), therefore, including the concept of matriarchal households is beyond the scope of this study.

**Control at Home**

From this theoretical perspective, power is gained in the workplace through authority. Power then is translated into control in the home. Hagan et al. (1987) discussed this as an instrument-object relationship. Most often parents are the instruments of control, and their children are the objects of said control. This control within the home is placed most significantly upon daughters, rather than sons, and mothers are most often the instruments of this control. Hagan et al. (1987) clearly pointed out that although females are often the instruments of control, there are controls for males too, which are discussed below. These ideas of control within Power-Control Theory also are closely related to those of social control.

Social control comes in two forms: formal and informal (Hirschi, 1969). Formal controls, specific to crime, are often produced by agencies such as the police, courts, or corrections. All of these agencies seek to control individuals by threatening consequences to actions that may be against the good or the perceived good of the social group. Informal controls, in contrast, are often those which take place in the home or internal to one's self. These work in the same way as formal controls, yet with less formal punishments. Social control has been discussed throughout the criminological literature and has been the main component in many of the leading criminological theories (see Britt & Gottfredson, 2011, for a complete discussion of control theories of crime).

Hagan and colleagues (1979) discussed social controls from a gendered perspective. Their main premise being that women are most often the instruments, as well as objects, of informal social controls, while men are most often the instruments and objects of formal controls. These theses are based on the history of formal social controls, as well as the American stratification system. First, this stratification system has not always provided equal rights to all members of society to attain all levels of stratification (Hagan et al., 1979). Women have been in a minority group, which many would argue still exists, that does not allow them to attain the same career or income goals as men and sometimes leaves them out of the stratification system all together. This also is due to men's roles in the public arena, while women most often dominate the private sphere.

Second, informal social controls (or familial/kinship group controls) were once the only controls that existed, as well as the only needed control within our society. However, once men began working outside of the home to attain higher stratification, particularly during industrialization, informal social controls were no longer sufficient for men. This created a need for more formal controls for men outside of the home; these controls are now often referred to as "formal social controls" or "crime control."

Due to men's increasing presence in the public arena, men became both the instruments and objects of formal social controls (Hagan & Albonetti, 1988). More men became police officers, lawyers, and judges, but at the same time more men also were outside of the home to commit crimes and be arrested. Women who remained at home to raise their families were less available to become objects of formal controls, contributing to lower crime rates, as well as reinforcing them as the main instrument of

informal control within the home. Donald Black (1983) theorized that one type of control always would compensate for the lack of another. Therefore, those who received more informal controls within the home would have less of a need for formal controls outside of it, and vice versa.

Hagan et al. (1979) initially tested the following hypotheses based on this "sexual stratification of social control." First, as previously stated by Black (1983), formal and informal controls should be inversely related. Second, mothers would be more likely than fathers to be the instruments of informal social controls, and daughters more than sons would be the objects of informal social controls. Hagan and his colleagues went on to introduce three more hypotheses based on the idea that children learn gender roles from their parents, which are created based on the presence or lack of control. These three hypotheses were:

> $H_a$: Males will define risk-taking more positively than females.
>
> $H_b$: Males will define delinquency more positively than females
>
> $H_c$: Males will participate in more delinquency than females. (Hagan et al., 1979, p. 29)

Their test utilized a sample taken from four different high schools in Toronto, Canada, and this study would be the predecessor to the introduction of Power-Control Theory. Overall, their findings supported the hypotheses, and the authors believed there was even more to these relationships. In sum, the importance of gendered differences in formal and informal social controls was established.

Power-Control Theory also assumes that all humans can be subjected to social controls anywhere and anytime. According to Hagan et al. (1987), this does not mean

that controls will not be questioned or even ignored, but an individual must be presented with the controls in order to follow them. Power-Control Theory proposes that it is the presence of power and the lack of control that will create the greatest deviance from social norms. This is also important to the gendered differences in both control and deviance. Sons who grow up in patriarchal homes will be in a home where fathers retain power, and the mother (who has little power) will project most of her control onto her daughter. This means that sons in patriarchal households will be the most likely to commit crime and deviance, because they have the least amount of social controls on them.

Women who grow up in patriarchal households will receive a disproportionate amount of social controls, compared to their male counterparts (Hagan et al., 1987). Therefore, they will be the least likely to commit crimes and deviance. However, within more egalitarian homes, proportionate controls are placed upon both sons and daughters, which produces more comparable (although still not equal) amounts of crime and delinquency.

Moreover, the social controls placed on women are also important for teaching gender roles to both sons and daughters. Within patriarchal homes, sons are taught to be like their fathers. Therefore, they should have the power within the workplace as well as more control in the home, compared to their wives. In these same households, females are taught to be like their mothers. This means their main concern should be taking care of the household, because the woman has little power when compared to her husband. She also has little control in the home, except for the control she has over her own daughter. The opposite can be said of egalitarian homes. Children, who grow

up in homes where both parents hold power in the workplace and have control within the home, are taught to aspire to the same. This leads to more females searching for work outside of the home, as well as men being more accepting of women who may have equal or more power or control than themselves.

Overall, the basic premise of Power-Control Theory is this: power in the workplace translates into control in the home, which consequently affects the relationship between gender and delinquency (Hagan et al., 1987, p.798). The goal is not to say women will commit more crimes, as previous theorists have proposed (Adler, 1979; Simon, 1979), but to explain why gender differences in offending exist, or in some families, may not exist.

## Previous Research on Power-Control Theory

### Original Tests

Hagan et al. (1979) first examined gender differences in social control. Their premise in this original article was that females were most often the objects of informal social controls and males the objects of formal social controls. This article also examined if males and females defined risk-taking or delinquency positively, and if either were more likely to engage in delinquent acts. The study utilized a stratified sample of 611 high school students in Toronto. Employing regression, they found support for their hypotheses that females were most often the instruments and objects of informal social controls, and males were both the instruments and objects of formal social controls. The article ended with a discussion of the need for a theory that utilizes both conflict and control theory perspectives to fully understand the nature of the relationship between gender and delinquency.

Hagan, Gillis, and Simpson (1985) quickly responded to their own call for further research by publishing their introduction to Power-Control Theory. This article took the previous study a step further, and added measures of a Neo-Marxist class structure and the perceived risk of legal sanctions. The authors also clearly laid out their first casual model of gender and delinquency (see Figure 1).

The stratified random sample utilized was drawn from secondary schools in Toronto in 1979. Students, as well as their parents, were asked to provide class measures. Hagan and colleagues (1985) used a Neo-Marxian measure of class never before used in self-report surveys, as well as an updated version of Hirschi's (1969) self-report delinquency scale. Employing regression, the authors found support for their belief that gender differences would exist in delinquency. They also found evidence to support the idea that class and delinquency are related, with more respondents from the highest-class category (Employers/Managers) reporting the highest rates of delinquency. Overall, the supporting evidence gave merit to Power-Control Theory, as well as to the importance of class in the relationship between gender and delinquency.

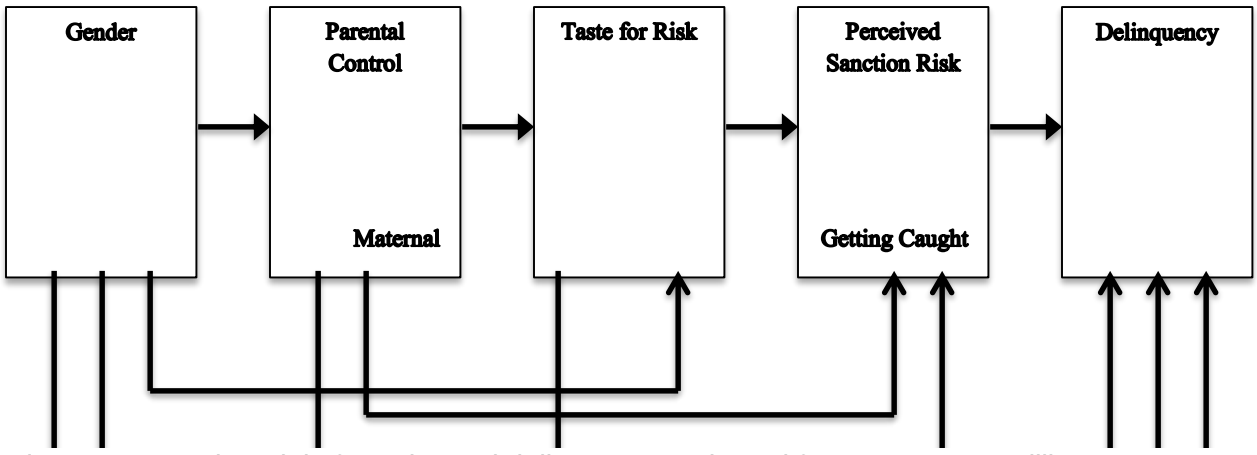


*Figure 1.* Causal model of gender and delinquency. Adapted from Hagan, J., Gillis, A.R., & Simpson, J. (1985). The class structure of gender and delinquency: Toward a power-control theory of common delinquent behavior. American Journal of Sociology, 90(6), p.1157.

Hagan, Simpson, and Gillis (1987) further extended Power-Control Theory to include patriarchal and egalitarian families. This article also changed the previous measure of class from a Neo-Marxist measure to a Dahrendorfian measure of familial class (still a Marxist measure of class), based on the positions of authority both mothers and fathers hold in the workplace. This study utilized a follow-up survey of parents from the 1985 Toronto study. Both correlation analysis and regression were employed to examine the basic premises of Power-Control Theory. Evidence was found to support the general premise that control is most often exerted onto daughters in patriarchal homes, where fathers are employed outside of the home and mothers stay home. Evidence also was found to support the idea that disparities in control between sons and daughters were less pronounced in egalitarian families. This study is key to the expansion of Power-Control Theory, because it finds support for including both husbands' and wives' occupational authority when determining class, which will ultimately affect the control used on children.

**Social Control Variables**

Hagan, Simpson, and Gillis (1988) added to the Power-Control literature by employing the use of LISREL to examine processes of social control as latent variables. Beyond the use of an advanced statistical technique, this study also examined both relational and instrumental control. Relational variables are unobserved (e.g., How close do you feel to your mother?) and instrumental controls are observed (e.g., Do your parents know who you are with when you are not home?). Using data previously collected for tests of Power-Control Theory, the researchers found that both relational and instrumental controls were utilized more by mothers on daughters than on sons,

perpetuating the previous findings in support of Power-Control Theory. However, contrary to previous findings, this study found that although more control was exercised over daughters, sons felt just as strongly controlled by their parents. There was also evidence that the mother-daughter relationship was strongest in patriarchal families. This could reflect the transfer of gender roles from mother to daughter.

Overall, Hagan and colleagues' (1985; 1987; 1988; 1990) original research revealed support for Power-Control Theory. Their studies utilized a sample of Canadian high school students, who all belonged to two parent households, to examine the instrument-object relationship and gender differences in delinquency. They found support for their assumption that mothers, rather than fathers, are most often the instruments of control in the home (Hagan et al., 1979; 1985; 1990). Also, girls within the sample reported being the object of control in the home more often than boys. Furthermore, as theorized by Hagan and colleagues (1987, 1990), the instrument-object relationship of control was more concentrated in patriarchal households.

In comparison, early tests of Hagan's theory utilizing data collected outside of Canada did not uncover the same consistent results. Hill & Atkinson (1988) utilized a sample of youths from Illinois to examine the propositions of parental control laid out by Hagan et al. in 1979. This study did find support for the proposition that males are more often the objects of formal control. However, statistical results did not indicate females were the objects of informal controls more so than males. The findings from this study indicated that informal familial controls were important for both male and female children. Although this study only revealed mixed support for Power-Control Theory, it

did not test the full model of the theory, but rather only the beginning elements of formal and informal controls described by Hagan et al. (1979).

Morash & Chesney-Lind (1991) believed that Hagan and colleagues put too much emphasis on maternal control in their formulation of Power-Control Theory. With this in mind, they conducted a study to examine both maternal and paternal controls. They found that for both sons and daughters, maternal and paternal controls were important. Therefore, paternal influence should not be excluded from future tests of Power-Control Theory. However, parental control was the only major measure examined in this study; power was completely left out. This means the study was an incomplete test of Power-Control Theory.

**Race**

Following the empirical work of Hagan and his colleagues (1985, 1987, 1988), Jensen and Thompson (1990) completed one of the largest tests of Power-Control Theory. They believed that although support had been found using a Canadian sample, it had not yet been established utilizing other samples. Their study utilized three samples from the United States. The data included: The 1979 Seattle Youth Study, the 1964-65 Richmond Youth Study, and a survey conducted by the Research Triangle Institute in 1974, which included participants from Seattle and San Francisco.

The purpose of Jensen and Thompson's research was to examine the main proposition of Power-Control Theory, that power is positively related to delinquency. However, they did not find support for this assertion. Unlike Hagan et al.'s previous tests, Jensen & Thompson (1990) included race in their analysis. They believed that for the same reasons Hagan et al. (1985) had differentiated between the power of men and

women, the same could be true of different races. Therefore, race should also be included in the model. Although their test did not find gender differences in offending by family type, they did find differences for race. Hagan (1990) responded to this critique of his theory and argued that Jensen and Thompson (1990) did not use a proper measure of power, and they tested other variables not included in power-control, such as race. Ultimately this suggests the need for further research to investigate the importance of race within Power-Control Theory.

**Peer Influence**

Other early studies of Power-Control Theory suggested the original theorists needed to expand their explanation because they were leaving out key elements in the etiology of crime. Singer and Levine (1988), for example, believed an important missing element was peer group influence on delinquency. The sample for this study consisted of 705 children and 560 parents in America. The sample was stratified based on public or private schools, allowing for a more rounded measure of class. Like earlier studies by Hagan et al. (1985, 1987, 1988), a financial incentive was offered for participation. The sampling and interview process for this research also was created based on Hagan's original test of Power-Control Theory. This means that the earlier, Neo-Marxist measure of social class was utilized. This test is notable because it was the first full test of Power-Control Theory utilizing an American sample.

The results of this study again showed mixed support for the theory. The authors expected to find similar amounts of delinquency for boys and girls in balanced households when compared to unbalanced; however, they found that boys were much more delinquent than girls in balanced households, contrary to Power-Control Theory.

They also found that even in balanced households, boys were exposed to less parental control than girls. Singer and Levine (1988) did find support for expected relationships between gender, parental control, and risk-taking, but when peer influence was included in the model, the relationships between gender and parental-control and risk-taking dissipated. These findings suggest that some important elements, such as peer influence, may have been left out of the original formulation of Power-Control Theory.

In a later study, Akavame (1997) conducted a test of Power-Control Theory to include peers, church, and television, and their effects on patriarchal attitudes. This study, like those of Hagan and colleagues (1985, 1988, 1989), utilized a Canadian sample. Utilizing linear structural models, Akavame did not find evidence that the effect of gender and parental control was mediated by family type. The research also found little evidence of sex-role attitudes varying across family types, or these attitudes changing respondents' views on delinquency and risk seeking. In addition, peers had a strong influence on an adolescent's delinquency, no matter the family type.

**Beyond Juvenile Delinquency**

Since these early major tests, other criminologists have set out to expand Power-Control Theory. Grasmick et al. (1993) ran an indirect test of Power-Control Theory while utilizing the first adult sample. They collected cross-sectional data in 1982 and 1992 to assess gender differences in perceptions of shame, embarrassment, and legal sanctions. All of these variables were created to test the proposition that risk perceptions, both formal and informal, would vary based on gender, which was an original proposition of Power-Control Theory.

Hagan (1987) asserted that females will have higher perceptions of risk, for which Grasmick et al. (1993) found support. They believed this study took Power-Control Theory beyond that of cross-sectional relationships between gender and crime. They asserted that the theory could account for changes in society over time, which includes the increase of females in the workplace. The authors also found evidence that perceived threats of legal sanctions diminished within the samples between 1982 and 1992, which could also be related to gender differences diminishing. Ultimately, this study provided support for the ability of Power-Control Theory to account for gender differences in society, beyond that of delinquency.

Grasmick et al. (1996) continued their work by expanding the theory. They believed it was important to include risk seeking in the formulation of Power-Control, for which they thought there would be a gender difference, with males being more likely to seek out greater risks. Grasmick and colleagues again utilized an adult sample, and also included an attitudinal measure of patriarchy. This measure asked respondents to explain how their parents would react to things like a mother working full time, how children would react to mothers working, the importance of the mother owning most of the income, etc. All of these measures seemingly captured traditional gender role beliefs held by the respondents' families.

Unlike previous studies, the researchers compared birth cohorts to see if, as Hagan et al. (1985) had originally hypothesized, the amount of patriarchal families would decrease as women continued to gain status in the workplace. Comparing birth cohorts from the 1940s, 1950s, 1960s, and 1970s, they found evidence to support this

sentiment. Many gendered differences began to diminish, and risk preference for the individuals increased as birth cohorts became more current.

This study is important for several reasons. First, it provided further empirical evidence that an attitudinal measure of patriarchy is important. Second, it examined an adult sample and provided evidence to support the use of Power-Control Theory to explain adult criminality. Finally, this study examined risk preferences that included more than crime. Therefore, the research by Grasmick et al. (1996) indicated that Power-Control Theory is suitable for a wider scope than first perceived. The theory has the ability to help explain risk preferences into adulthood, which could include common forms of deviance (drinking, gambling) as well as juvenile delinquency and larger adult crimes. Overall, Grasmick et al.'s (1993, 1996) studies led to further expansions of Power-Control and a renewed foundation for empirical testing.

Blackwell (2000) continued the modern expansion of Power-Control Theory. She believed that beyond the perceived threat of formal sanctions, tested by Hagan et al. (1985, 1987, 1988), Power-Control Theory needed to include measures of threats of informal sanctions, as well as shame and embarrassment, as previously examined by Grasmick et al. (1993). She believed these things could differ based on gender, family type, and parental controls, which could lead to crime and delinquency. Based on previous research, perceptions of shame and embarrassment were hypothesized to be higher for females (ultimately leading to gender disparities in offending), and also stronger than formal sanctions as a deterrent.

Blackwell (2000) used a sample of adults in Oklahoma City to test Power-Control Theory, with the added measures of informal sanctions, shame, and embarrassment.

Overall, the study yielded strong results in favor of the theory. Gender differences existed for all of the perceived threats of all sanctions, both formal and informal, and they varied as expected by family type. The only major unexpected finding was that of embarrassment. There were no gender differences in perceived threat of embarrassment in more patriarchal households, yet in less patriarchal households, females had a much smaller amount of perceived threat of embarrassment.

Similar to the research by Grasmick et al. (1996), Blackwell, Sellers, and Schlaupitz (2002) believed Power-Control Theory had the ability to explain phenomena outside the realm of delinquency. Therefore, they tested Power-Control Theory with measures of delinquency, victimization, and deviant exit roles, which also was previously examined by Hagan (1990). Their study used a sample of 1029 middle and high school students from Florida. Utilizing OLS regression, the authors found that Power-Control variables were related to delinquency. However, they did not have a strong association with victimization. They asserted that although Power-Control Theory plays a role in gender differences in the home, which leads to gender differences in delinquency, gender differences in victimization may be better explained by the routine activities of the victim. Nonetheless, the authors believed Power-Control Theory holds merit to explain more phenomena outside that of delinquency.

**Single-Mother Households**

A common critique of Power-Control Theory concerns how it pertains to single-mother households. Hagan et al. (1985) indicated that women who are raising a family and taking care of a home, without a male counter-part, will be more egalitarian in nature. Therefore, these mothers will control children in the same manner, no matter

their gender, ultimately leading to smaller disparities in delinquency. However, beyond Hagan et al.'s early studies (1985, 1986, 1989), other research found it difficult to support this claim.

Leiber & Wacker (1997) utilized two separate datasets to examine the single-parent hypothesis presented through Power-Control Theory. The first dataset was collected in Seattle, Washington, in 1978-1979. Data were produced from a stratified disproportionate random sample, to gain larger numbers of single-mother households. The second dataset was from a self-report survey conducted in Iowa in 1992. This study utilized samples whose delinquency was more serious than those tested previously. It also allowed for Power-Control Theory to be generalized to a larger population, including African-Americans, under-privileged, and single-mother families. There were some problems with the measures utilized in the study, such as class, which Leiber and Wacker (1997) measured partially with social economic status. However, the purpose of the study, to apply Power-Control Theory to single-mother households, is an important one.

A unique aspect of this study's findings was the differences that existed between the two samples. In Seattle, mothers and daughters appeared to be closer than mothers and sons. In this sample, however, sons were subjected to greater maternal control, which is in the opposite direction of the relationship proposed by Hagan et al. (1985). In contrast, the Iowa sample did not have a significantly closer relationship between mother and daughter, but daughters were subjected to more control than sons. All of this is contrary to what Hagan et al. (1985) proposed. Due to their single-mother status, these homes should have presented a balanced front on control exerted on sons and

daughters, as well as similar risk taking. However, the opposite was found. Although the findings of this study did not support Power-Control, it must also be noted that the measures utilized in the study were not those laid out by Hagan et al. (1985, 1986). It could be argued that the study was not an actual test of Power-Control Theory, but rather a test of similar concepts.

Mack and Leiber (2005) continued the examination of single-mother households by comparing non-serious delinquency across gender and race, with a Power-Control Theory framework. Data for this study were selected from the National Longitudinal Study of Adolescent Health (also known as Add Health). This particular study utilized a sample from Wave 1 (1995) and included 3,440 individuals who responded that they lived in a single-mother household. The study utilized measures similar to those used previously for maternal control, both relational and instrumental (Blackwell, 2000; Hagan et al., 1985; Hagan et al., 1987). Measures of preference for risk, as well as a delinquency measure, also were included. The sample, which consisted of both White and African-American single-mother households, should have produced similar offending rates for boys and girls, according to Power-Control Theory. However, regardless of race, boys committed more delinquent acts than girls, when controlling for Power-Control measures. These results are important for two reasons: One, it seems single-mother households are not “balanced” as Power-Control Theory proposes, and two, gender plays a more important role than race. Therefore, it seems there is merit to the concepts of Power-Control Theory, but single-mother households seem to be more complicated than Hagan et al. (1985) first thought.

Missing from much of the literature is the inclusion of different family types. Bates, Bader, and Mencken (2003) intended to fill this gap by conducting a study that included intact two-parent homes, single parent homes (either mother or father), as well as stepfamilies. The inclusion of all different types of families brings into question the original concept of patriarchy. Without a father in the home, how can one measure the amount of authority at work that becomes control in the home?

Bates and colleagues (2003) emphasize that utilizing an attitudinal measure of patriarchy allows for all different family types. They tested this measure on a convenience sample of 534 respondents in an introductory sociology course on the West coast. To measure patriarchy attitudinally, respondents were asked how their father and mother would agree with certain statements, such as “It is much better for everyone if the man earns the main living and the woman takes care of the home and family.” For respondents with both parents, an average of the two was created for each response. Where one parent was in the home, only that response was used. All other measures of Power-Control Theory (parental control, perceived risk and risk preference) were examined as in previous studies.

The overall findings of the study were that family structure did play a part in deviance. Intact biological families and step-families had similar patriarchal beliefs, while single mothers had lower patriarchal attitudes, yet little control over their child. Single fathers had very strong patriarchal attitudes, and like single mothers, very little control over their children. These findings are important because they allow for Power-Control Theory to widen its scope to all types of family structure, while still having the

ability to test patriarchy, which seems to play a role in both gendered familial control and gendered delinquency.

Finally, although some additional studies were incomplete tests of the theory, researchers began examining the theory with international samples, including: Russian samples (Finckenauer et al., 1998), German samples (Hadjar et al., 2007), Japanese samples (Tsutomi, Bui, Ueda, & Farrington, 2013), and Austrian samples (Hirtenlehner, Blackwell, Leitgoeb, & Bacher, 2014), all of which produced some support for Power-Control Theory. These studies also began testing the theory on specific types of delinquency, such as shoplifting (Hirtenlehner et al., 2014) and alcohol abuse (Okulicz-Kozaryn, 2010), as well as Power-Control's ability to explain victimization (Blackwell et al., 2002). However, researchers still have not agreed upon a single model for Power-Control that works best throughout industrialized countries, and for all types of delinquency. It seems that the use of an attitudinal measure of patriarchy is important for the ability to investigate more than two parent households (Blackwell et al., 2002, Bates et al., 2003; Hadjar et al., 2007; Hagan et al., 1990; Morash & Chesney-Lind, 1991), and the use of perceived risk of informal sanctions is very promising (Blackwell, 2000).

Overall, there have been numerous studies of Power-Control Theory since its formulation in 1985. Original tests by Hagan and colleagues (1985, 1987, 1988, 1990), which utilized a Canadian sample, found moderate support for theory. However, other studies have yielded mixed results (Avakame, 1997; Collett & Lizardo, 2009; Finckenauer, et al., 1998; Mack & Leiber, 2005; Singer & Levine, 1988). Despite these mixed findings, Power-Control Theory was the first of its kind to try to explain crime

based on both gender and social class. Beyond the mixed results of the overall research, some recent studies have provided support for Power-Control Theory. However, these studies have utilized international samples (Finckenauer et al., 1998; Hadjar et al., 2007; Hirtenlehner et al., 2014; Tsutomi et al., 2013). Therefore, further research is needed to establish Power-Control Theory's importance to the study of the etiology of crime and delinquency, but also with American samples.

This section has provided several important findings from the previous literature. First, due to its mixed findings, Power-Control Theory is in need of another large scale test. Previous studies also have suggested that Power-Control Theory may be able to account for long term deviance, with its ability to account for crime in both juvenile and adult samples (Blackwell, 2000; Grasmick et al., 1993; 1996). Finally, Power-Control Theory, as originally intended by Hagan et al., (1985, 1986), has generated separate ways to measure class, or patriarchy, in families. However, both ways can be difficult to measure and may lead to problematic findings, along with more difficult replications. The shift to an attitudinal measure of patriarchy seems to be in the right direction and has provided evidence supportive of Power-Control Theory (Blackwell, 2000; Blackwell & Reed, 2003; Blackwell et al., 2002).

## The Current Study

The current study seeks to address several holes in the current literature on Power-Control Theory. First, more research must be done on families of all shapes and sizes. Therefore, a measure of family structure is included. This study includes two-parent households and single-parent households, as well as non-biological parent-

headed households. All of these types of family structures have been addressed only one time in the Power-Control literature (Bates et al., 2003), with mixed results.

Second, this study includes an attitudinal measure of patriarchy. From previous studies, it seems the attitudinal measure has been more responsive to the inclusion of multiple family types (Bates et al., 2003; Blackwell, 2000; Grasmick et al., 1996). However, it should be noted Hagan et al. (1989) point out the importance of their occupational measure in creating a Marxist measure of power.

Third, this study employs advanced statistical techniques, specifically structural equation modeling, to examine Power-Control Theory. The use of structural equation modeling is important to theory testing because it allows for the use of latent (or unobservable variables). This will be discussed more at length in the following chapter.

Finally, the current study examines Power-Control Theory from a longitudinal perspective. This allows for an investigation of the theory's ability to account for different rates of delinquency over time, and also consider whether the control of parents continues to have an effect on individuals into young adulthood. In addition, the use of longitudinal data allows for an examination of transmissions of gender roles, from parents to children. This has not been explored thus far in the Power-Control literature.

# CHAPTER FOUR

# A STRUCTURAL EQUATION MODELING APPROACH TO TESTING POWER-CONTROL THEORY

This chapter provides a discussion of the research methods employed. The current study utilizes structural equation modeling to test Power-Control Theory from a longitudinal perspective. Data from both parents and children, gathered from a nationally representative sample, are used to test the hypotheses presented at the beginning of this chapter. Following a consideration of the hypotheses, the sampling methods and the data to be utilized will be reviewed, followed by a discussion of the key variables and measures contained in the dataset. Finally, an analysis plan will be presented for testing the hypotheses and assessing Power-Control Theory.

## Hypotheses

Based on the information contained in previous chapters, a number of hypotheses have been formulated. The first set of hypotheses will be tested to examine specific propositions of Power-Control Theory.

One of Hagan et al.'s (1979) original propositions was based on the concept of control. They first discussed both formal and informal controls, and then moved into the importance of informal controls, which often take place in the home. This early research pointed to an object/instrument relationship, in which daughters were found to be the objects of control more so than sons, and mothers were found to be the instruments of control more so than fathers. This ultimately became the basic premise behind Power-Control Theory. Various studies have examined these ideas and found support for them

(Hagan et al., 1979; 1985; 1987). Therefore, the following hypotheses are reexamined in the current research:

$H_{1.1}$: Daughters will be more likely to be the objects of control in the home.

$H_{1.2}$: Mothers will be more likely to be the instruments of control in the home.

These ideas of control were also important because they were to a way to explain one of the most basic premises in all criminology: boys commit more crime than girls. This idea is important to Power-Control Theory as well as hypotheses that follow it. Therefore, this hypothesis is essential to the current study:

$H_{1.3}$: Boys will commit more delinquency than girls.

Hagan et al. (1987) furthered their previous discussion of formal and informal controls by adding the concept of patriarchy. This is a key concept within Power-Control Theory. According to Hagan et al. (1985, 1987, 1989), there are two major types of households, patriarchal and egalitarian. Within patriarchal homes fathers work outside the home and mothers take care of their children within the home. In these homes, daughters remain the more common object of parental control and are therefore more restricted in their actions. However, boys within these homes have less control exerted upon them and are free to “be boys,” sometimes leading to delinquency (Hagan et al., 1985; 1987; 1989). Based on these ideas, the following hypothesis will be tested:

$H_{2.1}$: Different rates of offending will be found for sons and daughters within patriarchal households.

The opposite of patriarchal homes are egalitarian homes. Within these homes, mothers and fathers both may work outside the home (Hagan et al., 1987). However, Hagan et al. (1985; 1987; 1989) also included single-mother run households within this

category. In egalitarian homes, sons and daughters are treated equally with respect to parental control. Therefore, they can be expected to act in similar ways, including participation in delinquency. From this assertion, the following hypothesis has been conceived:

$H_{2.2}$: More similar rates of offending will be found for sons and daughters within egalitarian households.

Several studies have examined Power-Control Theory's ability to explain not only juvenile delinquency, but the criminal behavior of adults as well (Blackwell, 2000; Grasmick et al., 2003; Hagan, 1990; Blackwell et al., 2002). These tests have generated promising results. Therefore, this study will examine if growing up in patriarchal or egalitarian homes will have an effect on criminal behavior later in life, with the following hypotheses:

$H_{3.1}$: Gender differences in offending within patriarchal homes will remain substantial into later adolescence.

$H_{3.2}$: Gender differences in offending within egalitarian homes will remain low into later adolescence.

Previous research has pointed out that Power-Control theory is missing a key element to explain delinquent and criminal behavior, which is peer influence (Akavame, 1997; Singer & Levine, 1988). Tests that have included peer influence have produced mixed results for Power-Control theory, in contrast to Hagan et al.'s (1985, 1988, 1989) more supportive investigations, which did not include a measure of peer influence. With this in mind, the current study will consider the following hypothesis:

$H_{4.1}$: When controlling for Power-Control variables, peer influence will play a limited role in delinquency.

Hagan et al. (1985, 1987, 1989) examined parenting as an explanation for gender differences in delinquency. However, their original theory did not account well for different family types, which is one of the leading criticisms of the theory. Based on their original measure of patriarchy, which was discussed in the previous chapter and will be discussed again in this chapter, single parent households were problematic. Hagan et al. (1985, 1987, 1989) attempted to address this issue by treating single-mother households as egalitarian homes. Leiber and Wacker (1997) subsequently examined single-mother households using Power-Control variables and did not uncover findings consistent with the theory. Several other studies followed suit, and overall, it seems single-mother headed households are simply more complicated than Hagan et al. (1985, 1987, 1989) believed. Therefore, multiple family types will be examined within this study. The following hypotheses were generated based on this notion:

$H_{5.1}$: Gender differences in offending will be more pronounced in two-parent patriarchal families.

$H_{5.2}$: Gender differences in offending will be less pronounced in two-parent egalitarian households.

$H_{5.3}$: Gender differences in offending will be less pronounced in single-parent households.

$H_{5.4}$: Offending rates will be higher for single parent households, no matter the gender of respondents.

Beyond these major hypotheses, several others will be assessed utilizing advanced statistics, which are discussed further into this chapter.

## Sampling

To thoroughly examine Power Control Theory from a longitudinal perspective, a sample of both children and parents is warranted. Few studies have investigated Power Control Theory from a nationally representative standpoint; the current study does so by using available secondary data. This data allows the researcher access to a nationally representative sample of both parents and adolescents at multiple points in their lifetime. The data to be analyzed are from the National Longitudinal Survey of Youth (NLYS79). The NLSY79 was first conducted in 1979 and is sponsored by the Bureau of Labor Statistics. The data collection is conducted annually by the Center for Human Resource Research at The Ohio State University. The Center for Human Resource Research, along with the National Opinion Research Center at the University of Chicago, conducts each interview for the NLSY79.

To establish the first cohort of the NLSY79, interviewers were given a random sample of homes within selected areas throughout the United States. Interviewers then would complete “short screeners” to gather basic information on residents of each household. All individuals from the random sample of household residents who were between the ages of 14 and 21 on December 31, 1978, were included. Once initial information was collected, researchers created three sample groups. The three groups were civilians, a supplemental sample of monitories, and a military sample. Individuals then were asked to participate in the first round of the NLSY79 (for more information on the original sampling, see Frankel, McWilliams, & Spencer, 1983).

Subsequently, the NLSY79 participants were interviewed each year on several different topics, including finances, their community, and personal experiences. The original sample was a nationally representative sample of 12,686 men and women, who were all between the ages of 14 and 22 at the time of the original survey (Bureau of Labor Statistics, U.S. Department of Labor, 2012). In 1986, women of the original cohort who had given birth began answering wide-ranging questions about their children, who are referred to as the Children of the NLSY79. These children also became respondents in 1995, or once they had reached 15 years of age. The sample size of the Children of the NLSY79 fluctuated, due to more children being born and occasional attrition. In 1986, the sample size of the Children of the NLYS79 was 5,255, and by 2002, that number had grown to 7,467. Data for the Children of the NLSY79 ceased collection in 2010. The Bureau of Labor Statistics began a new set of data in 1997 utilizing many of the same variables with a new cohort of children and parents, however it does not include all previous variables, nor the extensive information on mothers.

For the current research, one specific cohort of children has been chosen from the nationally representative sample of the NLSY79. The sample chosen consists of children born between 1988 and1990. This means that data are available until these respondents have each reached 20 years old. This cohort selection of children results in a preliminary sample size of 1703. The sample contains 902 males and 801 females. In addition, the sample consists of 18% Hispanics, 24.5% African Americans, and 57.1% White/Caucasian.

## Procedures

The interviewers for the NLSY79 utilize a semi-structured interview method, which allows them to gather information based on various types of questions and responses. Each session consists of an interviewer asking the respondent a set of prepared questions, which are accompanied by a set of responses. Respondents are asked to provide their best response to the interviewer, who then enters participants' answers into the data set. Some questions do contain possible open-ended responses, however no such questions will be used for the current study. The NLSY79 is also unique because interviewers also document observations during the interview process on interactions and behaviors of their respondents, reiterating the difference in the NLSY79 and structured interviews. It is important to note this form of interview is different from qualitative interviewing. In qualitative interviews, interviewers typically are prepared with only open-ended questions for the respondent to discuss (Dantzker & Hunter, 2006). Semi-structured interviews often contain very few (if any) open-ended questions, but they generally allow for respondents to clarify answers or add additional information, as in the NLSY79.

The original purpose of the NLSY79 was to examine different aspects of labor in the United States. However, these data have been used to examine many different types of research questions. Specifically, the data have been used a number of times to examine parenting practices (Chapple, Hope, & Whiteford, 2005; Eamon, 2005; Hope & Chapple, 2004; Kirchner & Higgins, 2013; Meldrum, 2008; Pachter, Auinger, Palmer, & Weitzman, 2006; Pratt, Turner, & Piquero, 2004; Wright & Cullen, 2001), although the data set has never been used to examine Power-Control Theory.

Unlike many tests of Power-Control Theory, this study utilizes secondary data, or data that has not been collected for the exact purposes of the current study. There are both advantages and disadvantages to this form of research (Babbie & Mouton, 2002). One advantage is the reduced time and cost of the research; not utilizing surveys or conducting other interviews tremendously decreases time and costs. It is also more feasible to garner a nationally representative sample in a reasonable amount of time. Particularly important to this study is the ability to gain access to longitudinal data that spans over two decades in a small amount of time, because the data already have been collected. Although these are positives benefits to employing secondary data, negatives also exist and must be mentioned. The largest problem with the use of secondary data is that the data were not collected for the purposes of the current research, so specific variables and measures relevant to the desired research may be lacking (Agresti & Finlay, 2006;Finlay & Agresti, 2009). However, the variables measured in this dataset are well-suited for testing Power-Control Theory and the current hypotheses.

## Measures

This portion of the chapter will discuss each measure to be utilized in the statistical analysis. Reasoning for particular measures also has been included. The major analysis for the study will be structural equation modeling. Unlike other statistical techniques, SEM does not utilize dependent and independent variables (Kline, 2011). Instead, SEM utilizes exogenous and endogenous variables. Exogenous variables are similar to independent variables, the model itself is not attempting to explain the origin of the exogenous variable(s). They are utilized as the possible origin for other variables contained within the model. Endogenous are similar to dependent variables because

the model is attempting to explain their origin, however, SEM allows for the use of multiple endogenous variables. Therefore, this section will be organized based on endogenous and exogenous variables. For a full list of items used to create each measure, please see Appendix A.

## Exogenous Variables

**Patriarchy.** Hagan's original measure of patriarchy utilized a Marxist approach, which examined supervisorial roles of parents in the workplace (Hagan et al., 1987, 1989). However, various subsequent studies included attitudinal measures of patriarchy and found support for the use of an attitudinal measure (Bates et al., 2003; Blackwell, 2000; Grasmick et al., 1996). As times change and more women enter the workforce, the question arises, are patriarchal beliefs still present in households? To measure this construct, six items were utilized. Each of these items asked the respondents about their views of women's roles within the home and in the workforce (for more information, see Appendix A). The following statements were provided in the survey:

- A woman's place is in the home, not the office or shop. (HomenotWrk)
- A wife who carries out her full family responsibilities doesn't have time for outside employment. (NoTimeWrk)
- A working wife feels more useful than one who doesn't hold a job. (MoreUse)
- It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family. (ManAchiever)

- Men should share the work around the house with women, such as doing dishes, cleaning and so forth. (MenWrkHouse)
- Women are much happier if they stay at home and take care of their children. (StayatHome)

In completing the survey, respondents were asked whether they strongly agreed, agreed, disagreed, or strongly disagreed with each statement. These responses were coded to make higher responses equal to higher levels of patriarchal attitudes.

To remain consistent with the origins of Power-Control Theory, an occupational measure of patriarchy was to be included. These variables originally came from census codes for maternal and paternal occupations. According to the NLSY79's codebook, respondents with codes 001-245 were in professional, managerial, or official roles. For the sake of this research, these responses were to be considered supervisory roles. In order to create dichotomous maternal and paternal variables. For fathers, responses were coded as: no supervisory role=0, supervisory role=2. For mothers, responses were coded as: no supervisory role=0, supervisory role=1. These two measures were then added together, and respondents with a total of 2 were considered as living in patriarchal homes, while all other homes were considered egalitarian. The dichotomous variable to be employed in the statistical analysis then was recoded as egalitarian=0 and patriarchal=1. However, the measure that was created based on these variables did not contain the necessary sample sizes or variation. To compensate for the loss of this measure, the attitudinal measure of patriarchy was employed, which was discussed above and is consistent with previous research.

**Peer pressure.** Peer pressure is not a common variable included in past tests of Power-Control Theory. Hagan et al., (1985; 1987; 1989), for example, did not consider the significance of peers in relation to delinquency. However, other researchers have criticized Power-Control Theory for the exclusion of peer effects (Akavame, 1997; Singer & Levine, 1988). To address this criticism, a measure of peer pressure was included in the model for testing Power-Control Theory. This measure has been utilized in several studies employing this particular data set (Crockett, Raffaelli, & Shen, 2006; Meldrum, 2008; Wright & Cullen, 2001). Information on peer pressure was collected at the same time as the offending data, and the measure of peer pressure is based on five items from the youth self-report. The five items each ask respondent whether they felt pressure to try cigarettes, get drunk, drink alcohol, skip school, or commit a crime. The responses were simply “yes” or “no,” and they will be combined to create an overall measure of peer pressure. The responses were coded as 1=yes, 0=no, and were combined to produce a measure with a range of 0-5, with higher scores reflecting greater peer pressure.

**Gender.** Gender is a key variable within this study and is included as an exogenous variable. To measure gender, one item was used. This measure shows whether the child was male or female at the time they began participating in the study. It was coded as 1=female and 0=male.

**Broken-home.** Whether the child is from a one-parent or two-parent home also was utilized as an exogenous variable within this study. The measure shows whether the child lived with both biological parents. This was coded as a dichotomous variable, 1=two parent household and 0=single parent household.

## Endogenous Variables

**Parental control.** As suggested by Hagan et al. (1987, 1989), this study included a measure of parental control. In the original research, parents were asked “About how often do you know who your child is with when s/he is not at home?” and “Would you say you know who s/he is with when not at home?” For the current study, a similar but slightly different measure of parental control was utilized. This measure was based on the following two questions:

- How often mother knows who child is with when not at home. (MomControl)
- How often father knows who child is with when not at home. (DadControl)

Possible responses were: often, sometimes, and hardly ever. These responses were coded so that higher scores reflect greater parental control. According to Morash & Chesney-Lind (1991), both paternal and maternal controls are important for examining Power-Control Theory. Therefore, both were utilized in the current research. In addition, a second measure of parenting was employed as well.

The original measure of parental control utilized by Hagan et al., (1987, 1989) appears to be rather simplistic and only includes the mother’s and father’s knowledge of their child’s location and who they are with. While this type of measure has been utilized in previous studies, research that examines the effects of parenting and parental control has utilized additional variables. Basically, these measures take into account that parenting should encompass more than just knowing where a child is and who they are with (Gottfredson & Hirschi, 1990; Hay, 2001; Hoeve et al., 2009; Larzelere & Patterson, 1990; Sanders, 2008). Therefore, this study also utilized a comprehensive measure of parenting for hypothesis tests of Power-Control Theory.

This measure of parenting combines several variables taken from the mother's supplement to the survey. The first, monitoring TV, was created from one question, which has been utilized in other parenting literature that employed the NLSY79 data (Kirchner & Higgins, 2013; Nofziger, 2008). The question asked to respondents was:

- When your family watches TV together, do you or your child's father discuss the TV programs with him or her?"

This question's response categories are dichotomous, with 1=yes and 0=no.

The next measure was a scale of expectations. According to Power-Control Theory, in patriarchal homes, girls will have higher expectations from their parents than boys (Hagan et al., 1987, 1989). Most of the expectations contained in this measure also point to gender roles that focus on housekeeping, which could be more important to girls in patriarchal homes and reinforce gender roles. A scale of expectations was created that will combine four questions, which ask how often the child is expected to do household chores (make the bed, clean their room, etc.). The questions were stated in the survey as follows:

- How often is child expected to make their own bed?
- How often is child expected to do chores?
- How often is child expected to clean their own room?
- How often is child expected to pick up after their self?

Responses were on a scale of 1-5, with 1=almost never, 2=less than half the time, 3=half the time, 4=more than half the time, 5=almost always. These responses were then recoded 0=almost never, 1=less than half the time, 2=half the time, 3=more than

half the time, 4=almost always. These responses were added together, with higher responses indicating higher expectations.

Finally, a measure of discipline was included in the overall assessment of parenting. This measure was created utilizing the responses to one question, “Sometimes children get so angry they say things like ‘I hate you’ or swear in a temper. Which action(s) would you take if this happened?” Response choices range from talking with the child, to spanking the child. This measure of discipline has been utilized in several studies, which examine parenting’s relationship with delinquency (Chapple & Johnson, 2007; Kirchner & Higgins, 2013; Nofziger, 2008). The full range of responses are grounding the child; giving household chores; take away TV, phone, or other privileges; sending the child to their room; spanking the child; talking with the child; or ignoring the child. Each of these responses was used to create four categories of parental discipline, including privileges, ignoring the child, spanking the child, and talking with the child. Privileges was created by combining grounding, giving chores, taking away TV, and sending child to room, while the other responses remain separate categories.

Each parenting measure was first examined individually for t-tests and correlations. However, to create one measure of parenting each variable was recoded to create an indicator variable. For all respondents who indicated they did participate in each activity they were coded as 1, if not they were coded as 0. This allows the measures to be combined into one latent measure of parenting, with a successful confirmatory factor analysis.

**Risk preferences.** Another important concept within Power-Control Theory is the preference to take risks. According to Power-Control Theory, girls who grow up in more patriarchal homes typically will be under too much parental control to want to be involved in risk-seeking behaviors (Hagan et al., 1979; 1987, 1989). Previous studies have measured this construct with questions that asked respondents how likely they would be to participate in particular delinquent acts if they would not be caught (Blackwell, 2000; Blackwell & Reed, 2003; Grasmick et al., 1993). Others asked individuals if they enjoy taking risks (Grasmick et al., 1996; Hadjar et al., 2007; Hagan et al., 1979). This study included a more comprehensive measure of risk-seeking behavior.

The current study utilized a measure of risk preferences created with six questions (see Appendix A). These questions examine the impulsivity of the respondent (e.g., I often get into a jam because I do things without thinking), as well as how much they enjoy risky situations (e.g., I enjoy taking risks). These items were included to measure risky behavior in each year of the NLSY79, as well as to be a part of the American Teenage Study (Bureau of Labor Statistics, 2012). Several studies have used some or all of these measures to examine risk preference (Hay & Forrest, 2008; Turner & Piquero, 2002; Vaske, Ward, Boisvert, & Wright, 2012). Every study did not use the same measures because all of the following measures are not available for each wave of data. The following six statements were provided to respondents:

- I often get into a jam because I do things without thinking.
- I think planning takes the fun out of things.
- I have to use a lot of self-control to keep out of trouble.

- I enjoy taking risks.
- I enjoy new/exciting experiences even if they are frightening.
- Life with no danger in it would be too dull for me.

Respondents were asked how much they agree or disagree with each statement, utilizing a 4 point Likert-scale. Responses were recoded to indicate higher responses equal to a greater propensity for risk seeking. Once a factor analysis was completed to examine if each measure is measuring the same construct, they were combined to create a scale of risk preference.

**Crime/deviance.** A crime and deviance index was created to examine the delinquency of the sample. This index is consistent with other studies of Power-Control Theory (Blackwell & Reed, 2003; Farnworth et al., 1994; Leiber & Wacker, 1997). The index was created with the use of six items from the self-report survey of the children. The items used asked the respondents how many times in the past year they had committed a specific act (e.g., gotten drunk; took something without paying for it, etc.). The following questions were asked each year of the survey:

- How many times in the last year have you stayed out later than your parents said you should?
- How many times in the last year have you hurt someone badly enough to need bandages or a doctor?
- How many times in the last year have you taken something from the store without paying for it?
- How many times in the last year have you gotten drunk?

- How many times in the last year have you skipped a day of school without permission?
- How many times in the last year have you stayed out at least one night without permission?

They then were combined to create an index based on responses. Two separate indexes were created utilizing the same variables from two years: 2000 and 2006.

**Controls.** Other available measures were included as control variables. Control variables are important additions to a quantitative study because they may have potential influence on the proposed dependent variable, and they allow for a better assessment of the actual influence of the chosen independent variables on the dependent variable. For the purposes of this study, the following control variables were included: race, age of mother at child's birth, and family size.

Race is a common control measure in all studies on human behavior. Age of mother at child's birth is important because there is evidence that teenage mothers in particular have a harder time with simple parenting practices compared to older mothers (Clemmens, 2003; Higginson, 1998). Finally, family size has been shown to be related to both parenting (Sputa & Paulson, 1995) as well as delinquency (Loeber & Stouthamer-Loeber, 1986; Murray & Farrington, 2010; Wadsworth, 1979).

## Analysis Plan

Each hypothesis was tested multiple times. The methods to test these hypotheses will be discussed in more detail below. First, descriptive statistics were produced to assess the variability of the measures. Next, hypotheses were examined utilizing several different statistical analyses. The analysis employed took into account both the hypotheses as well as the level of measurement of available data. Finally, all

the hypotheses, which were based on the previous literature of Power-Control Theory, were assessed concurrently with a structural equation model.

**Descriptive Statistics**

The first step in the analysis plan was to examine the descriptive statistics for each measure. The first statistic to be examined was the mean. The mean is the average score of a measure and can be utilized for any level of data (Evans, 2013), although it is the preferred measure of central tendency for both interval and ratio level data (Reid, 2013). The main drawback of the mean is that it can be affected by extreme outliers (Sirkin, 2006). The mean shows the average response for each measure, and the mean for each initial measure to be employed in the current research can be found in Appendix B.

Along with the mean, standard deviations of each measure can be assessed. Standard deviations allow for a better understanding of the normalcy of the data distribution (Reid, 2013). This statistic represents the dispersion of each measure, centered on the mean, and allows for a consideration of how certain responses compare to the rest of the sample (Proctor & Badzinski, 2002). Similar to the mean, the most cited drawback of the standard deviation is that it can be influenced heavily by extreme outliers (Sirkin, 2006). Standard deviations also are most effective for interval and ratio level data and are important for assessing variation in each measure (Reid, 2013). The standard deviations for each initial measure also can be found in Appendix B.

To continue the examination of the normalcy of the data, both the skewness and kurtosis of the measures were examined. Skewness measures the symmetry (or lack

thereof) for the data distribution (Proctor & Badzinski, 2002). Kurtosis measures the flatness, or peaks, within a data distribution (Proctor & Badzinski, 2002). For both skewness and kurtosis, a measure of 0 is most desirable, indicating that the data fall perfectly onto a normal curve (Reid, 2013). Skewness and kurtosis for each measure can be found in Appendix B, with the other descriptive statistics.

**Scales**

In the next step of the analysis plan, scales were created. The creation of scales is important for the structural equation models, because latent measures cannot be made of only one observed variable. For the current study, several scales were created: patriarchal attitudes, risk preference, peer pressure, and delinquency. Each of these measures was a combination of variables based on the items listed above, as well as in Appendix A and Appendix B. Once each scale wass created, Cronbach's alpha was utilized to assess internal consistency. Factor analysis also was employed to investigate the unidimensionality for each scale.

**T-Tests**

Once basic examinations of descriptive statistics were concluded and the scales were created, t-tests were conducted to provide a preliminary test of some of the hypothesis presented at the beginning of this chapter. T-tests allow for the examination of the difference in means between two groups (Reid, 2013). T-tests were important to this analysis for several reasons. First, they were utilized to examine mean differences between sons and daughters necessary measures. T-Tests also were used to examine preliminary findings of mean differences for parental control as well as delinquency between those with patriarchal attitudes and those with egalitarian attitudes. Finally,

they were used to examine differences between two-parent and single parent households for several other variables within the study: patriarchal attitudes, parental control, and delinquency. As mentioned, this was a preliminary analysis to assess differences in means between the groups mentioned.

**Structural Equation Modeling**

The final steps of the analysis plan were completion and presentation of structural equation models. Structural equation modeling (SEM) is a theory-driven process and is a combination of statistical tests that examine the relationship between one or more independent variables with one or more dependent variables (Hardy & Bryman, 2009). Unique to SEM is the ability to utilize latent variables. A latent variable is not directly measured; instead, it is examined indirectly through at least two other variables. The use of latent variables is extremely important to theory testing because most theoretical concepts cannot be observed by an individual, such as patriarchal attitudes or an individual's risk preference. Therefore, tests utilizing SEM should be based on theory, in order to account for all concepts, whether directly observable or latent. For the purposes of this study, the model of Power-Control Theory presented in Figure 2 was assessed.

Structural equation modeling takes place in five steps (Bollen & Long, 1993). The first is model specification. This process is a confirmatory technique (Kelloway, 2015). Through this process, a model is presented based on the theoretical framework and previous literature on the topic. The ultimate goal of the model is to assess patterns of covariance between the chosen variables and find the most appropriate model to

explain these patterns. Some believe this is the most difficult aspect of SEM (Cooley, 1978).

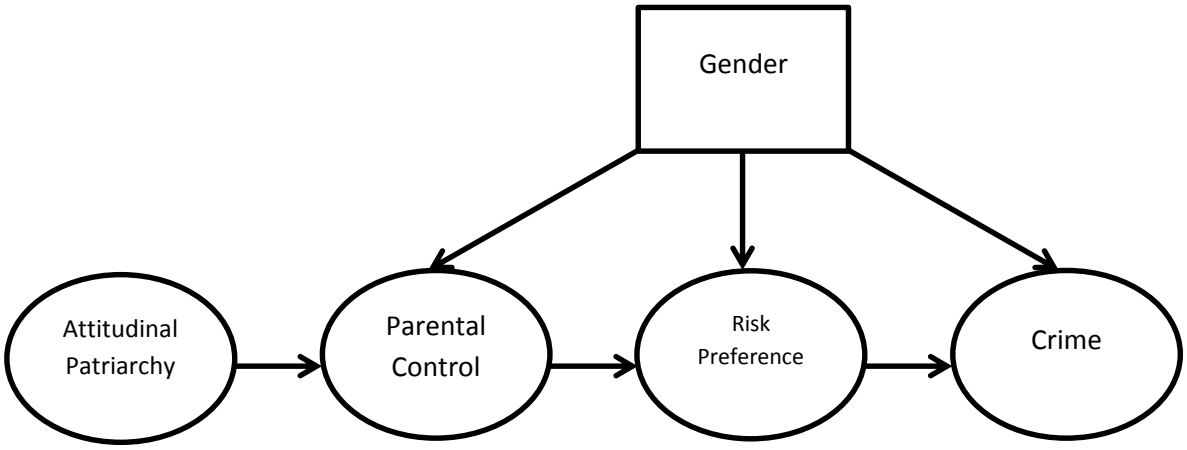


*Figure 2.* Model of Power-Control Theory.

It may be necessary to define “model” at this point. First, within SEM there are two types of variables: endogenous and exogenous. These are similar to independent and dependent variables. Exogenous variables are the starting point of the study, in this case patriarchy. We are not concerned how this variable came about, but rather how well it may predict the endogenous variables: patriarchal attitudes, parental control, risk preferences, and delinquency. The model consists of the theoretical concepts that link the exogenous and endogenous variables, as shown in Figure 2.

Figure 2, which provides the model specification of Power-Control Theory in path analysis form, must now be converted into a structural equation model. This step is known as model identification. Models must meet two requirements to be identified. The first is that there must be as many observations as there are model parameters. The

second is that every latent variable must consist of a scale, not simply one observed item (Kline, 2011). If the model fits both of these requirements, the measurement model can be created.

In this step a measurement model also is produced. The measurement model utilizes factor analysis. There are two types of factor analysis: confirmatory factor analysis (CFA) and exploratory factor analysis (EFA). EFA is the most common factor analysis in social science research (Costello & Osboren, 2005). This method is used when researchers are unaware of the measures required to create a latent variable; therefore, this form of factor analysis is not based on theory (Kim, 1978; Maruyama, 1997; Rabe-Hesketh & Skrondal, 2008). Overall, the purpose of a factor analysis is to examine whether several measures combine to create a factor, and they are actually measuring the same idea (Kim, 1978). However, when utilizing SEM for a theory test, the measures necessary to create factors often are already known from previous literature. Based on the previous literature on Power-Control Theory, evidence is available on the variables required to create the latent measures contained in the theory. Moreover, this warrants the use of CFA. The measurement model of SEM uses CFA to provide assurance that the items utilized to create latent measures are measuring what they are intended to measure; this provides evidence of factorial validity (Loehlin, 2004). The full measurement model intended for analysis can be seen in Figure 3. Next, the measures of fit and magnitude of factor loadings will determine if the measurement model is accurate.

The third step in SEM is estimation. Once a model is determined to be identified, there are numerous and sometimes infinite potential solutions to the model. It would be

virtually impossible to produce a solution by hand; computer software will estimate possible parameters through iterative estimation. In general, the software inputs the estimations into a covariance matrix and compares them to the observed covariance matrix. The goal is for the two matrices to be as similar as possible. However, at this point possible problems could arise from missing data. Due to the use of longitudinal data in the current research, missing data will exist. This can be a problem, as missing data can cause difficulties with estimation. This is particularly important when individuals who do not have recorded responses are systematically different from those who do have recorded responses (Brame & Piquero, 2003). For the purposes of this research, Full Information Maximum Likelihood (FIML) will be employed to deal with missing data. In general, FIML begins and ceases the iteration process, and then resumes it, to search for the best parameters of the missing data. Essentially this process utilizes all of the available responses to estimate missing responses when data are missing at random (Kelloway, 2015). Moreover, FIML allows for a reduced bias, which can be an issue with missing data when employing structural equation models (Allison, 2003; Enders, 2001). At this point, once model specification, identification, and estimation have been completed, model fit can be determined.

Testing fit involves assessing a model's ability to replicate the covariance matrix. There are many different measures of model fit, which have a lengthy history of discussion and debate (Kelloway, 2015). The first important statistic concerns the factor loadings for each measurement. These factor loadings each should be 0.5 or above to indicate a strong factor loading (Kline, 2011). Next, fit statistics will help to determine if the model fits with the data (Kline, 2011). Several statistics will be utilized to assess this:

chi-square, comparative fit index (CFI), root mean square error of approximation (RMSEA), and standardized root mean residual (SRMR).

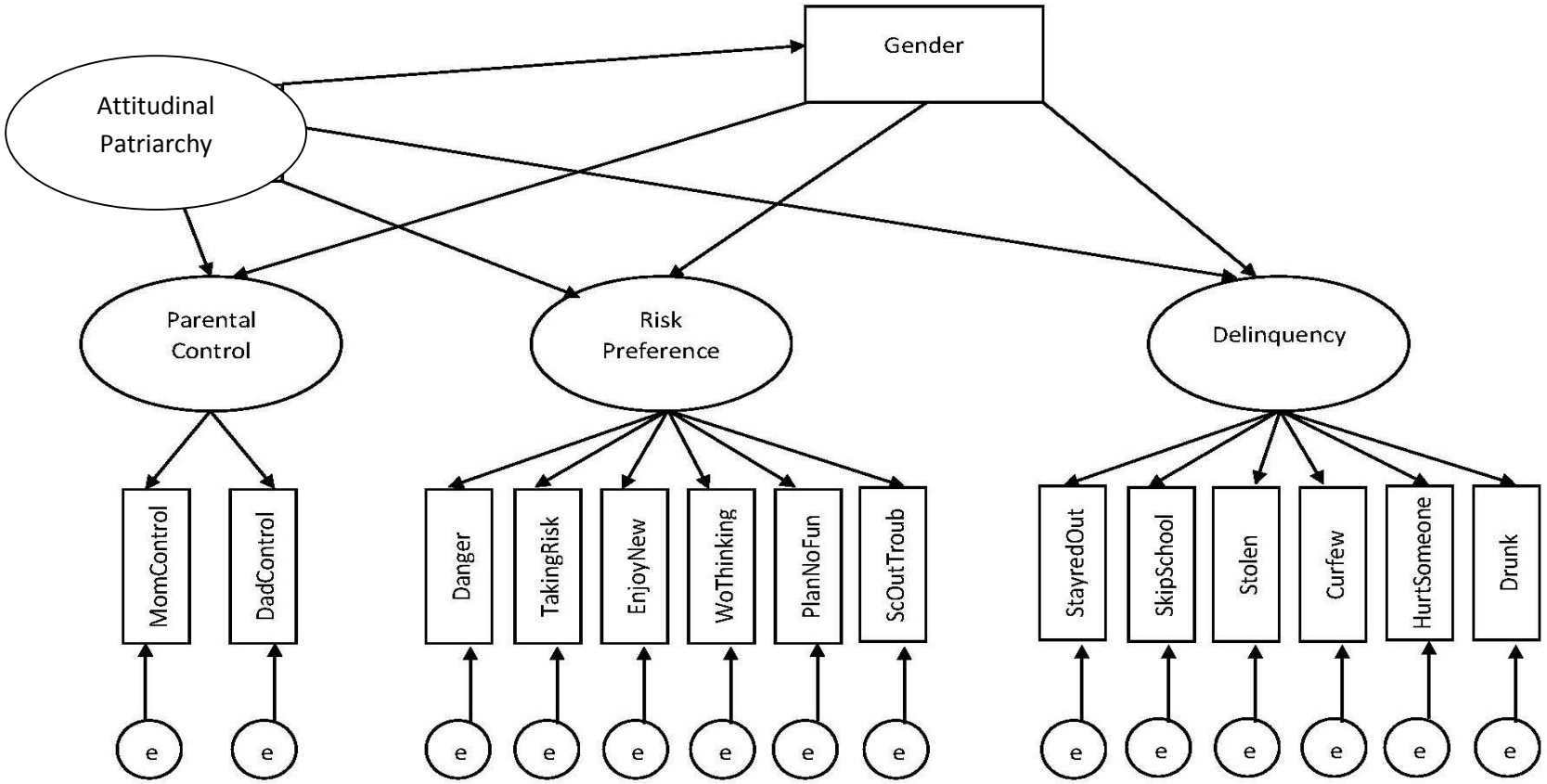


*Figure 3.* Measurement model of PCT.

Table 4 provides a list of each fix index employed. There is currently no one index that represents the “gold standard” for all models. Therefore, it is recommended that studies utilize more than one fit index, because different indices examine different aspects of the model (Kline, 2011). It is also important to note that fit indices do not represent theoretical meaningfulness, and values which suggest good or adequate fit do not verify that the model has strong predictive powers (Kline, 2011, p. 134).

Table 4

*Fix Indices with Standard*

| Index | Standard |
|---|---|
| $\chi^2$ | Non-significance |
| Root mean square error approximation (RMSEA) | <0.10 |
| Standard root mean square residual (SRMSR) | <0.05 |
| Comparative fit index (CFI) | 0.90 |

To begin, the chi-square examines if relationships between the independent and dependent variables are by chance, or are actually significant (Marcoulides & Schumacker, 2001). For the purposes of SEM, an insignificant chi-square is necessary. This would indicate that the relationship between the two variables in question is more than just chance (Marcoulides & Schumacker, 2001). If the resulting chi-square is significant, more fit statistics should be examined. The CFI examines the lack of fit of the model, compared to the null model, which assumes there is no relationship between the variables (Kelloway, 2015). CFI ranges from 0 to 1, and a CFI over 0.9 indicates a good fit of the model to the data (Hu & Bentler, 1999; Kelloway, 2015).

The next fit statistic examined was the RMSEA. This measure examines the parsimonious fit of the measurement model, or the residuals of the data (Kelloway, 2015). Smaller values will indicate greater fit. However, the exact number necessary to prove best fit can be argued. Steiger (1990) suggests values below .1 point to a good fit, while values below .05 specify a very good fit to the data. However, Hu & Bentler (1999) argue that .06 is sufficient to indicate best fit. For the purposes of this study, a .10 will be desired to indicate goodness of fit.

The final fit statistic examined was the SRMSR. This statistic investigates the difference between theoretical and observed covariance; a value of less than .05 will indicate a good fit (Kline, 2011). Once all fit statistics are produced and examined, it is anticipated that all statistics will be significant (except for chi-square) and will indicate a "good-fitting" model (Bollen & Long, 1993).

Once the measurement model is complete and the results have been examined to assess fit, the final step of the analysis can be conducted: generating and reporting on the results of the full structural equation model. While the measurement model's task is to assure that the items constructing the latent measures are correct, relationships between the variables will be tested with a full structural model. This involves examining the links between measures as shown in Figure 4. The goal is for the structural models to provide a good fit to the data and be useful for assessing hypothesized relationships between variables, ultimately contributing to the literature on Power-Control Theory.

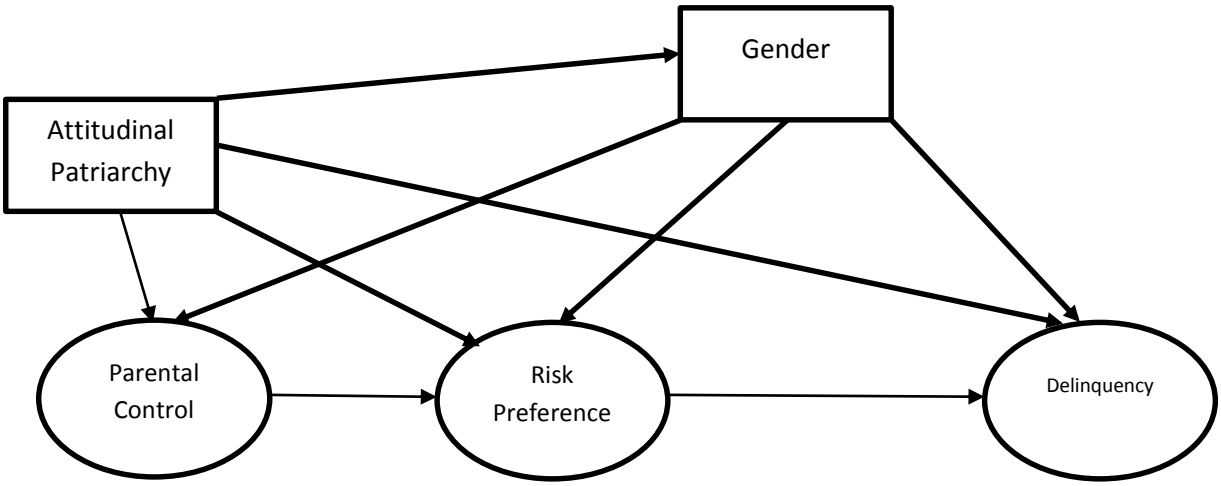


*Figure 4.* Structural equation model of Power-Control Theory.

# CHAPTER FIVE

# ANALYSIS AND RESULTS

This chapter will implement the analysis plan, as introduced in the previous chapter, and will discuss the results of the statistical analysis. The chapter will begin by reviewing the descriptive statistics for each of the variables. Once this is complete, there will be a discussion of the factors to be utilized to conduct hypothesis tests and produce the full structural model. Hypotheses will be addressed by utilizing different statistical analyses dependent on the level of measurement employed, as well as the hypothesis itself. Answering initial hypotheses will set up the final part of this chapter: testing the full structural model of Power-Control Theory.

## Descriptive Statistics

The first task for the analysis is to examine descriptive statistics for each measure. Each measure first will be examined individually, before measures are combined to create scales and subsequent latent variables. First, exogenous variables will be examined. This will be followed by endogenous variables, and finally, control variables.

### Exogenous Variables

**Patriarchy.** The attitudinal measure for patriarchy came from the youth supplement to the NLSY79's 2006 wave of data. Each respondent was between the ages of 16-18 when this measure was produced. The latent variable was created from six measures, which assessed the respondents' views on women's roles. The response choices utilized a scale of agreement from 0-3. The responses were recoded to make higher responses representative of more patriarchal attitudes. The descriptive statistics for these six measures can be found in Table 5.

Table 5
*Descriptive Statistics for Patriarchal Attitudes 2006 Measures*

| Latent Measure | Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis | n |
|---|---|---|---|---|---|---|---|
| Patriarchal Attitudes 2006 | HomenotWrk | 0.74 | 0.72 | 0-3 | 0.74 | 0.37 | 1195 |
| | NoTimeWrk | 0.91 | 0.61 | 0-3 | 0.21 | 0.25 | 1194 |
| | MoreUse | 1.42 | 0.71 | 0-3 | 0.24 | -0.16 | 1168 |
| | ManAchiever | 1.11 | 0.67 | 0-3 | 0.21 | 0.02 | 1187 |
| | MenWrkHouse | 0.74 | 0.60 | 0-3 | 0.57 | 1.43 | 1196 |
| | StayatHome | 1.14 | 0.63 | 0-3 | 0.23 | 0.15 | 1140 |

The first variable, HomenotWork, asked respondents if they agreed that a woman's place is in the home, not the office or shop. A response of 0 signified strong disagreement, while a response of 3 designated strong agreement. From the mean response (0.74) for this variable, it is noted that on average, the respondents did not believe that a woman's place is in the home. However, variability did exist, with a moderate standard deviation (0.72) for a scale of 0-3. Both skewness and kurtosis are positive, but at acceptable levels.

The next variable, NoTimeWrk, asked respondents if a woman who carries out her family responsibilities would have time for employment outside the home. This was written as a statement, and respondents were asked how much they agreed or disagreed. These responses were recoded so that 0 indicated the respondent believed women could take care of household responsibilities and work outside the home, while a response of 3 indicated the respondent believed women who took care of their homes and families would not have time to work outside the home. Therefore, a higher score would indicate a more patriarchal viewpoint. The mean response for this variable (0.91) indicates that on average respondents disagreed with the recoded statement, but not

strongly. Variability existed within the distribution, with a standard deviation of 0.61. Skewness (0.21) and kurtosis (0.25) indicate normalcy of the measure.

MoreUse, the next variable, asked respondents how much they agreed or disagreed with the statement “A working wife feels more useful than one who doesn’t hold a job.” A response of 0 indicated strong agreement and a less patriarchal attitude. A response of 3 indicated strong disagreement and a more patriarchal attitude, because individuals who chose this response believe women must hold a job outside of the home to feel useful. The average response (1.42) suggested that respondents’ attitudes on this question did not seem as non-patriarchal as previous questions. The standard deviation (.71) also indicates a decent amount of variability. The normalcy of the data was indicated by both skewness (0.24) and kurtosis (-0.16).

The following variable, ManAchiever, stated “It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.” Individuals again were asked how much they agreed or disagreed with the statement. Responses were recoded so that a response of 3 indicated strongly agree, a more patriarchal attitude, and a response of 0 indicated strongly disagree, a less patriarchal attitude. The mean response (1.11) indicates that on average respondents disagreed with the statement, and the standard deviation (0.67) indicates variability within the responses. Skewness (0.21) and kurtosis (0.02) indicate that the distribution of the variable was near normal.

The fifth variable included to measure patriarchal attitudes, MenWrkHouse, asked respondents if men should share the housework with women. The responses were recoded so that a response of 3 meant strong disagreement and a response of 0

meant strong agreement, a less patriarchal attitude. Again, the mean response (0.74) indicates an overall less patriarchal attitude based on this question. The standard deviation (0.60) indicates variability among the responses, and the statistics for skewness (0.57) and kurtosis (1.43) suggest the data are somewhat positively skewed and leptokurtic. Skewness and kurtosis may seem problematic, but they will be reassessed once these items have been combined as a scale.

The final variable for patriarchal attitudes, StayatHome, states “Women are much happier if they stay at home and take care of their children.” Respondents were asked how much they agreed or disagreed with the statement. Responses were coded 0-3, with a response of 0 indicating strongly disagree and a responses of 3 indicating strongly agree and a patriarchal viewpoint. The mean response (1.14) indicated on average the sample disagreed with the statement. The standard deviation for the measure (0.63) shows variability, and normalcy of the data is indicated by both the skewness (0.23) and the kurtosis (0.15)

An additional measure of patriarchal attitudes also was assessed. This measure was taken in 2000 from the child’s survey, when respondents were between the ages of 10-12. This measure was created from six separate items, each examining an earlier idea of gender roles/patriarchal attitudes. The descriptive statistics for each of the six items can be found in Table 6.

The first measure, TreatedSame, asked respondents how much they agreed that “boys and girls should be treated alike.” The responses were coded to indicate more patriarchal attitudes with higher responses. Therefore, TreatedSame was coded

Table 6
*Descriptive Statistics for Patriarchal Attitudes 2000 Measures*

| Latent Measure | Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis | n |
|---|---|---|---|---|---|---|---|
| Patriarchal Attitudes 2000 | TreatedSame | 0.43 | 0.60 | 0-3 | 1.35 | 2.09 | 735 |
| | Smarter | 1.63 | 1.02 | 0-3 | -0.17 | -1.09 | 729 |
| | Unpopular | 1.11 | 0.89 | 0-3 | 0.59 | -0.30 | 724 |
| | GirlsPay | 1.90 | 0.91 | 0-3 | -0.49 | -0.56 | 721 |
| | College | 0.72 | 0.88 | 0-3 | 1.17 | 0.64 | 728 |
| | GirlsDate | 0.98 | 0.87 | 0-3 | 0.80 | 0.17 | 727 |

0=strongly agree, 1=agree, 2=disagree, 3=strongly disagree. The mean response (0.43) indicated that most respondents agreed that boys and girls should be treated in the same manner. There was enough variation indicated by the standard deviation (0.60) to conduct analyses with the measure. However, skewness and kurtosis do indicate positively skewed responses as well as a leptokurtic curve. These measures will be reassessed once the variables have been combined to create a scale.

The next measure, Smarter, asked respondents how much they agreed with the statement “a girl should not say she is smarter than a boy.” These were recoded as 0=strongly disagree, 1=disagree, 2=agree, 3=strongly agree, with higher responses indicating more patriarchal attitudes. The mean response was 1.63, with a standard deviation of 1.02. Therefore, respondents on average answered between agree and disagree, although there was much variation. Skewness (-0.17) is slightly negative, and the kurtosis (-1.09) indicates a somewhat flat, or platykurtic distribution, although both are in the acceptable range.

The third measure, Unpopular, asked respondents if they agreed or disagreed with the statement “competing with boys will make girls unpopular.” Those who agreed

with the statement were viewed as holding more patriarchal views, thus responses were coded 0=strongly disagree, 1=disagree, 2=agree, 3=strongly agree. The mean response (1.11) indicated that most respondents disagreed with the statement, although there was variation among responses (standard deviation=0.89). Both skewness (0.59) and kurtosis (-0.30) are within the acceptable range.

The fourth measure, GirlsPay, questioned the respondents about their opinion on girls paying their own way on a date. The responses were coded as 0=strongly agree, 1=agree, 2=disagree, 3=strongly disagree. The chivalrous or patriarchal viewpoint is that a lady should not pay her own way on a date, therefore, higher responses indicated stronger patriarchal viewpoints. The mean response (1.90) indicates that responses were between agree and disagree, but closer to disagree. This mean is the highest among the variables used to create the 2000 measure of patriarchal attitudes. Skewness (-0.49) and kurtosis (-0.56) indicate a slightly negative skew and flat distribution, but acceptable.

The fifth measure used to create the latent measure for patriarchal attitudes in 2000 was College. This measure asked respondents how much they agreed or disagreed that “when there is not enough money, boys should go to college instead of girls.” This was recoded to indicate 0=strongly disagree, 1=disagree, 2=agree, 3=strongly agree, with higher responses representing more patriarchal attitudes. The mean response (0.72) indicates most respondents disagreed with the statement, and skewness (1.17) indicates a slightly positive skew for responses.

The final measure for patriarchal attitudes from the 2000 wave of data is GirlsDate. This measure asked respondents how much they agreed or disagreed that “it

is okay for a girl to ask a boy for a date." The responses were recoded, 0=strongly agree, 1=agree, 2=disagree, 3=strongly disagree. The mean response (0.98) indicates most respondents agreed with the statement. Skewness (0.80) and kurtosis (0.17) indicate a near normal distribution for the responses.

**Peer pressure.** These measures were taken during the 2006 wave, therefore respondents were between the ages of 16-18 when these data were collected. There are a total of five measures, which combine to create a latent measure of peer pressure. Each of the following measures asked the respondent whether they felt pressure from peers to engage in specific activities. Responses to these items each were coded dichotomously, where 0=no and 1=yes. The frequencies of these measures are included in Table 7.

The first measure, PPCigs, assessed whether respondents felt they were pressured into trying cigarettes. Only 8.1% of the respondents felt pressure from peers to try cigarettes. The next measure, PPCrime, asked if the respondent felt peer pressure to engage in crime. Merely 5% of the sample felt pressured by their peers to participate in crime.

The highest proportion of peer pressure was found for the measure PPAlcohol, or feeling pressure to drink alcohol, where nearly 17% of the respondents felt pressured by friends to drink. For PPDrugs, or feeling peer pressure to try drugs, 9% of the sample felt pressured by peers to try drugs. The final measure of peer pressure, PPSkip, asked individuals if they felt pressured by peers to skip school. About 14% of the sample felt pressured by friends to skip school.

Table 7
*Frequency of Peer Pressure Measures*

| Measure | Frequency | | Percentage |
|---|---|---|---|
| PPCigs | Yes | 97 | 8.1 |
| | No | 1102 | 91.9 |
| | Total | 1199 | 100.0 |
| PPCrime | Yes | 59 | 4.9 |
| | No | 1138 | 95.1 |
| | Total | 1197 | 100.0 |
| PPAlcohol | Yes | 198 | 16.5 |
| | No | 999 | 83.5 |
| | Total | 1197 | 100.0 |
| PPDrugs | Yes | 108 | 9.0 |
| | No | 1090 | 91.0 |
| | Total | 1198 | 100.0 |
| PPSkip | Yes | 162 | 13.6 |
| | No | 1029 | 86.4 |
| | Total | 1191 | 100.0 |

**Gender.** Gender is included within the exogenous variables for this study, rather than simply a control measure, due to the importance of gender in Power Control Theory. Due to the fact that gender plays such a key role, it is important to have an acceptable proportion of males and females within the sample. The frequencies of each can be found in Table 8. The current sample contained 801 females, or 47% of the sample. There are also 902 males, or 53% of the sample. This created a total sample of 1703 respondents.

Table 8
*Frequency of Gender*

| Gender | Frequency | Percentage |
|---|---|---|
| Female | 801 | 47.0 |
| Male | 902 | 53.0 |
| Total | 1703 | 100.0 |

**Family structure.** The final exogenous variable contained within this study was family structure, or being from a broken home. This was a dichotomous measure that was coded as 0=two parent home and 1=single parent home. The frequencies of each can be found in Table 9. First, there was a number of missing responses for this measure, however, there is still a large enough sample of those with responses to assess the measure in the proposed hypotheses tests. To account for missing data, SEM will utilize Maximum Likelihood Estimation, which was discussed more thoroughly in the methods section of this dissertation. Of the sample, 460 (59.1%) indicated they live with both parents, and 319 (40.9%) indicated they live with only one parent.

Table 9
*Frequency of Family Structure*

| Family Structure | Frequency | Percentage |
|---|---|---|
| Both Parents | 460 | 59.1 |
| Single Parent | 319 | 40.9 |
| Total | 779 | 100.0 |

## Endogenous Variables

**Parenting measures.** There are several measures of parenting utilized within this study, making it different from previous tests of Hagan's Power-Control Theory. Each of these measures is examined first separately, and then utilized within different structural equation models later in this chapter.

***Parental control.*** The first measure of parenting, parental control, is similar to the original measures of control utilized by Hagan and colleagues (Hagan et al., 1979). The measure includes two separate variables to examine mothers and fathers. The descriptive statistics for these measures can be found in Table 10. The measures were

taken from the child's self-report survey, during the 2002 wave, when respondents were between the ages of 12-14. Each question asks how often each parent knows who the child is with when not at home. The possible responses were recoded 0=hardly ever, 1=sometimes, 2=often. This means a higher response represents greater parental control. For father's control, the mean of 1.28 represents an average response of slightly more than sometimes knowing who the child is with when not at home. The standard deviation was slightly high (.80), representing much variance in the sample. Maternal control was greater than paternal control, with a mean of 1.73, representing an average within the sample of often knowing who children are with. Variance of this measure was lower, with a standard deviation of .52.

Table 10
*Descriptive Statistics for Parental Control*

| Latent Variable | Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis | n |
|---|---|---|---|---|---|---|---|
| Parental Control | MomControl | 1.73 | 0.52 | 0-2 | -1.86 | 2.60 | 1011 |
| | DadControl | 1.28 | 0.80 | 0-2 | -0.55 | -1.24 | 862 |

***Monitor.*** Besides the measure for parental control, all other parenting measures were taken from the mother's supplement of the NLSY79. This means each of these measures were based on questions asked of the mother and not the child. Each measure was taken during the 2002 wave, when the children were between 12-14 years old.

One such measure examined how often parents monitored their children's behavior. This was produced with a question asking the mother if the family discussed television programs with their child. This was coded as 0=no, 1=yes. The frequencies

for Monitor can be found in Table 11, with nearly 82% reporting discussion of television program with the child.

Table 11
*Frequency of Monitor*

| Monitor | Frequency | Percentage |
|---|---|---|
| Yes | 908 | 81.6 |
| No | 205 | 18.4 |
| Total | 1113 | 100.0 |

***Expectations*.** Four variables asked about parents' expectations of their children. Each variable was originally coded to include the following response categories: 0=almost never, 1=less than half the time, 2=half the time, 3=more than half the time, 4=almost always. However, after examining descriptive statistics, the measures were collapsed into dichotomous measures. Responses that were originally 0-2 were recoded to 0 (half the time or less), and responses originally coded 3-4 were recoded to 1 (more than half the time). The proportions of each were then examined, which can be found in Table 12.

ExpBed, which asked how often children are expected to make their bed, indicated 76.3% of the children were expected to make their bed more than half of the time. ExpChores examined how often children were expected to complete chores. 68.1% of the children were expected to complete chores more than half of the time. ExpCleanRm asked how often children are expected to clean their rooms. Nearly 90% of the children were expected to clean their room more than half of the time. The most common expectation was ExpCleanSelf, cleaning one's self, for which 95% of the children reported being expected to do more than half of the time.

Table 12
*Frequency of Expectations*

| Latent Measure | Measure | Frequency | | Percentage |
|---|---|---|---|---|
| Expectations | ExpBed | More than half | 854 | 76.3 |
| | | Less than half | 265 | 23.7 |
| | | Total | 1119 | 100.0 |
| | ExpChores | More than half | 763 | 68.1 |
| | | Less than half | 357 | 31.9 |
| | | Total | 1120 | 100.0 |
| | ExpCleanRm | More than half | 968 | 86.4 |
| | | Less than half | 152 | 13.6 |
| | | Total | 1120 | 100.0 |
| | ExpCleanSelf | More than half | 1064 | 95.0 |
| | | Less than half | 56 | 5.0 |
| | | Total | 1120 | 100.0 |

***Discipline.*** The measure for discipline was created from eight items, each examined here individually. All measures were coded dichotomously, with 0=no and 1=yes. Each was based on the response to one question asking what form of discipline parents utilize when responding to a tantrum. The frequencies for each can be found in Table 13.

The first option was talking with children as a response to a tantrum (Talk), with 62% of the sample utilizing this form of response. Spanking children (Spank) frequencies reveal 12% of the sample responded to tantrums with spanking the child. Ignore indicates that 7% of the sample simply ignored their children during a tantrum. StopAllow reveals that 6% of the parents stopped giving the child an allowance when responding to a tantrum. Grounding children (Ground) was a popular response, with 25% of the sample indicating this was a common form of discipline. Sending children to

their room was also a popular response, with 29% of the sample utilizing this method. Finally, giving a child a period in time out (TimeOut) was utilized by 13% of the sample. It should be noted that parents could indicate more than one response, which is why each response is examined separately from one another.

Table 13
*Frequency of Discipline*

| Latent Measure | Measure | Frequency | | Percentage |
|---|---|---|---|---|
| Discipline | Talk | Yes | 691 | 62.2 |
| | | No | 420 | 37.8 |
| | | Total | 1111 | 100.0 |
| | Spank | Yes | 129 | 11.6 |
| | | No | 982 | 88.4 |
| | | Total | 1111 | 100.0 |
| | Ignore | Yes | 78 | 7.0 |
| | | No | 1033 | 93.0 |
| | | Total | 1111 | 100.0 |
| | StopAllow | Yes | 71 | 6.4 |
| | | No | 1040 | 93.6 |
| | | Total | 1111 | 100.0 |
| | GiveChore | Yes | 73 | 6.6 |
| | | No | 1038 | 93.4 |
| | | Total | 111 | 100.0 |
| | Ground | Yes | 280 | 25.2 |
| | | No | 831 | 74.8 |
| | | Total | 1111 | 100.0 |
| | SendtoRoom | Yes | 323 | 29.1 |
| | | No | 788 | 70.9 |
| | | Total | 1111 | 100.0 |
| | TimeOut | Yes | 145 | 13.1 |
| | | No | 966 | 86.9 |
| | | Total | 1111 | 100.0 |

**Risk preference**. Risk preference is an important element of Power-Control Theory. To examine this concept, six variables were employed. Each measure looks at a different risk taking or impulsive behavior. Each question asked the respondent how much they agreed or disagreed with each statement. The response categories were on

a 4 point Likert scale and were recoded so that higher responses indicate greater risk seeking behaviors. The descriptive statistics for risk preference can all be found in Table 14.

Table 14
*Descriptive Statistics for Risk Preference Measures*

| Latent Variable | Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis | n |
|---|---|---|---|---|---|---|---|
| Risk Preference | Danger | 1.65 | 0.90 | 0-3 | -0.14 | -0.76 | 970 |
| | TakingRisk | 1.47 | 0.87 | 0-3 | 0.08 | -0.67 | 980 |
| | EnjoyNew | 2.01 | 0.80 | 0-3 | -0.60 | 0.06 | 972 |
| | WoThinking | 1.39 | 0.85 | 0-3 | 0.85 | -0.63 | 969 |
| | PlanNofun | 1.29 | 0.78 | 0-3 | 0.36 | -0.18 | 979 |
| | ScOutTroub | 1.50 | 0.99 | 0-3 | 0.01 | -1.04 | 976 |

The first measure, Danger, asked respondents how much they agreed/disagreed with the statement “Life with no danger in it would be too dull for me.” The average response was 1.65, indicating some agreement. There was a moderate amount of variation, indicated by a standard deviation of .902. Skewness (-.14) and kurtosis (-.76) suggest a relatively normal distribution for the variable. TakingRisk asked students how much they enjoyed taking risk. The mean of 1.47 indicates both disagreement and agreement with the enjoyment of taking risks, with moderate variation and a standard deviation of .87. The next item, I enjoy new/exciting experiences even if they are frightening (EnjoyNew), had a mean response of 2.01. On average, respondents agreed with this statement, with moderate variation (standard deviation=.80), and the distribution approached normality based on skewness (-.60) and kurtosis (.06).

Another measure examined impulsivity (WoThinking), by asking respondents how much they agreed with the statement “I often get into a jam because I do things

without thinking." The average response was 1.39, which indicates some disagreement, and moderate variation with a standard deviation of .846. Both skewness (.85) and kurtosis (-.63) indicate near normalcy. PlanNoFun asked individuals if planning takes the fun out of things. An average response of 1.29 indicates some disagreement, with slightly less variation than the previously mentioned measures of risk preference, based on a standard deviation of .78. There also are no issues with normalcy for this measure (skewness=.36, kurtosis=-.18). The final measure of risk preference asked respondents how much they agreed with the statement "I have to use a lot of self-control to keep out of trouble." An average response of 1.50 falls directly between agree and disagree, and the standard deviation (.99) for this measure was higher than other measures. This variable also was normally distributed according to its skewness (.01) and kurtosis (-1.04), although somewhat platykurtic.

**Delinquency.** Two measures of delinquency were created to examine delinquency at different points in the respondent's life. The first measure was taken in 2000, when the respondents were between the ages of 10-12 years old. This second measure was taken during the 2006 wave, when respondents were between the ages of 16-18. Both crime and deviance indices were created from six variables, which asked respondents about their recent delinquent activities. Each measure asked the respondent how many times they had participated in each activity during the past year. Responses originally were coded to indicate 0=never, 1=once, 2=twice, 3=more than twice. However, due to the limited variation, the responses were recoded to a dichotomous variable, coded 0=never and 1=at least once. The frequencies for both measures of Delinquency can be found in Table 15.

Table 15
*Frequency of Delinquency*

| Latent Measure | Measure | Frequency | | Percentage |
|---|---|---|---|---|
| Delinquency (2000) | StayedOut_00 | Yes | 57 | 7.8 |
| | | No | 671 | 92.2 |
| | | Total | 728 | 100.0 |
| | SkippedSchool_00 | Yes | 42 | 5.8 |
| | | No | 686 | 94.2 |
| | | Total | 728 | 100.0 |
| | Stolen_00 | Yes | 70 | 9.6 |
| | | No | 658 | 90.4 |
| | | Total | 728 | 100.0 |
| | Curfew_00 | Yes | 329 | 45.2 |
| | | No | 399 | 54.8 |
| | | Total | 728 | 100.0 |
| | HurtSomeone_00 | Yes | 123 | 16.9 |
| | | No | 604 | 83.1 |
| | | Total | 727 | 100.0 |
| | Drunk_00 | Yes | 12 | 0.7 |
| | | No | 716 | 98.4 |
| | | Total | 728 | 100.0 |
| | DmgProp_00 | Yes | 40 | 5.5 |
| | | No | 688 | 94.5 |
| | | Total | 728 | 100.0 |
| Delinquency (2006) | StayedOut_06 | Yes | 215 | 20.9 |
| | | No | 812 | 79.1 |
| | | Total | 1027 | 100.0 |
| | SkippedSchool_06 | Yes | 242 | 23.5 |
| | | No | 786 | 76.5 |
| | | Total | 1028 | 100.0 |
| | Stolen_06 | Yes | 94 | 9.2 |
| | | No | 932 | 90.8 |
| | | Total | 1026 | 100.0 |
| | Curfew_06 | Yes | 620 | 60.5 |
| | | No | 404 | 39.5 |
| | | Total | 1024 | 100.0 |
| | HurtSomeone_06 | Yes | 132 | 12.9 |
| | | No | 895 | 87.1 |
| | | Total | 1027 | 100.0 |
| | Drunk_06 | Yes | 271 | 26.3 |
| | | No | 758 | 73.7 |
| | | Total | 1029 | 100.0 |
| | DmgProp_06 | Yes | 74 | 7.2 |
| | | No | 952 | 92.8 |
| | | Total | 1026 | 100.0 |

The first variable, StayedOut, asked how many times the respondent had stayed out for at least a night without permission. In 2000, 7.8% of the sample indicated participation in staying out for an entire night. In 2006, this increased to 20.9%. The second measure, SkipSchool, asked how many times the respondent skipped a day of school without permission. This behavior had little participation in 2000, with only 5.8% of the respondents indicating participation. In 2006, nearly 25% of the youth indicated skipping school at least one time.

The third measure, Stolen, asked respondents how many times they had taken something without paying for it. In 2000, 9.6% of the respondents indicated they had stolen something. Of all the delinquency measures, this had the lowest participation in 2006, with only 9.2% indicating theft, which was actually lower than in 2000. The fourth measure of delinquency, Curfew, asked how many times in the last year the respondent had stayed out later than parents said they could. This measure had the highest percentage in both 2000 and 2006. In 2000, 45.2% of the sample had skipped curfew, and in 2006, 60.5% of the sample had done so.

The fifth measure, HurtSomeone, asked how many times in the past year the respondent had hurt someone badly enough to need a doctor. In 2000, 16.9% of the responses indicated hurting someone this badly, which dropped to 12.9% in 2006. The fifth measure of delinquency, Drunk, asked how many times the respondent had gotten drunk in the past year. Only 1.6% of the sample indicated getting drunk in the past year in 2000, which increased to 26.3% by 2006. The final measure of delinquency, DmgProp, asked respondents how many times in the last year they had damaged school property on purpose. In 2000, only 5.5% of the respondents indicated

participation in such delinquency. In 2006, 7.2% indicated participating in damaging school property.

**Control Variables**

Control measures in this study included race, ethnicity, age of mother at child's birth, and family size. The first of these measures was for race. Race was coded as a dichotomous variable with 1=black and 0=nonblack. The frequencies for each can be found in Table 16. These frequencies show nearly 25% of the sample was considered black. This would be considered an over-representation of the black population, which according to the 2000 census was only 18% of the U.S. population (U.S. Census Bureau, 2000).

Table 16
*Frequency of Race*

| Black | Frequency | Percentage |
|---|---|---|
| Black | 418 | 24.5 |
| Non-Black | 1285 | 75.5 |
| Total | 1703 | 100.0 |

The next control measure was Hispanic. This measure examined whether a respondent considered themselves Hispanic or non-Hispanic. This was coded as a dichotomous variable where 1=Hispanic and 0=non-Hispanic. The frequencies for each are located in Table 17. According to these frequencies, 18.3% of the sample considered themselves Hispanic. Again, this was an over-representation of the minority group, which in 2000 was 12.5% of the US population (U.S. Census Bureau, 2000).

Table 17
*Frequency of Hispanic*

| Hispanic | Frequency | Percentage |
|---|---|---|
| Hispanic | 312 | 18.3 |
| Non-Hispanic | 1391 | 81.7 |
| Total | 1703 | 100.0 |

The two final control measures were interval/ratio level variables. The first was the age of mother at the child's birth. The descriptive statistics for this measure can be found in Table 18. The youngest mother within this sample was 23 years old at the time of her child's birth. This age was taken for the birth of the respondent, which does not mean the respondent was the first born child. The average age for mothers was 27.68 years old at the time of the child's birth. This is slightly higher than the average age of women who gave birth in the year 1990 (children in the current cohort were born between 1988-1990), which was 24.2 years of age (U.S. Census Bureau, 2012). The oldest mothers in the study were 33 years old when the child in question was born.

Table 18
*Descriptive Statistics for Mother's Age and Family Size*

| Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis | n |
|---|---|---|---|---|---|---|
| AgeMom | 27.68 | 2.35 | 23-33 | 0.15 | -0.82 | 1703 |
| FamilySize | 2.52 | 1.30 | 0-9 | 1.19 | 2.96 | 1231 |

The final control measure for the current study was family size. Family size does fluctuate over time, therefore the family size measure was taken when the parenting measures were taken in 2002. The family size variable only includes the number of

children living in the household. The descriptive statistics for this measure also can be found in Table 18. The number of children within the household ranged from 0-9. This measure is taken from the mother's household, which may account for the 31 respondents who claimed zero children were present in the household. The average number of children within the household was 2.52, with variation being noted by the standard deviation of 1.30.

## Factor Analysis

There are two main types of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). CFA often is used for theory tests, as the factors and variables that create them already have been identified (Kelloway, 2015). EFA allows the researcher to examine numerous variables to "find" the latent variables or model to be tested. The current study is a theory test, so CFA is appropriate. However, parts of this study are exploratory in nature. Therefore, EFA is employed first to examine variables to be utilized in alternative models. The utilization of EFA, particularly scree plots, also allows the researcher to determine the unidimensionality of the measures (Kim & Mueller, 1978). The SEM that follows later is a form of CFA, to be used to fully test Power-Control Theory.

There are seven latent variables within this study. As discussed, a latent measure is an unobserved variable, which is very common in theory tests. These unobserved measures are created by conducting factor analyses on observed variables. Each unobserved or latent measure will be created from at least three separate measures. To determine the proper measures to be used to create the latent measure, several properties of the measures are assessed.

First, each measure, which is essentially a scale, will be examined utilizing Cronbach's alpha. This statistic tells us the variance that is shared among the variables. This shared variance is commonly presumed to be attributable to the fact that these measures are, for all intents and purposes, measuring the same construct or idea. The overall premise of utilizing this statistic is to determine the internal consistency of the measure (Field, 2013). Acceptable alpha coefficients can range from .6 to .9. Commonly, coefficents must be at least .65 to be deemed minimally acceptable (DeVellis, 2012). However, it is viewed as being much more acceptable to utilize coefficients closer to or above .9. It is the desire of the researcher to generate higher alpha coefficients, however, the utilization of secondary data makes it difficult to change the scales from their current form. Other researchers have discussed the problems with Cronbach's alpha as a measure of internal consistency (see Nunnally, 1978 p. 227-228; Sijtsma, 2009); however, it is still the most commonly utilized measure, particularly among practical researchers (Sijtsma, 2009). The goal of this research is to attain alphas of at least 0.65, although item-total correlations and factor analyses may help to reinforce the internal consistency of the measures to become latent variables. This will again be tested with a measurement model before running a full structural equation model.

Secondly, item-total correlations for each item will be presented. Due to the belief that each of the observed variables that make up a latent measure are measuring the same construct, each should highly correlate with one another. The calculations presented here signify the associations between the observed measure and the unobserved latent measure being created (DeVellis, 2012). Items should have item-total

correlation coefficients of 0.30 or higher, signifying at least 30% shared variance among the items (De Vaus, 2002).

Finally, before hypothesis testing will begin, scree plots and eigenvalues will be examined. This is a form of exploratory factor analysis. Factor analysis is a method used to determine the amount of shared variance that exists within a set of variables (Field, 2013). Also a data reduction tool, factor analysis determines if different observed variables are measuring the same idea or larger construct. To determine the number of factors a set of variables represents, eigenvalues are examined. Scree tests plot the eigenvalues to allow a visual representation of explained variance among the measures (Kelloway, 2015). Eigenvalues themselves show the total variance explained by each factor. In a scree plot, the factors above the "elbow" explain most of the variance, while those values located below the "elbow" explain less of the variance. For SEM purposes, the largest space should occur between the first and second factors within a scree plot. Therefore, when the "elbow" is located between the first two factors, this signifies all the measures are measuring the same construct, also known as unidimensionality, which is important for determining construct validity (Kelloway, 2015).

**Patriarchal Attitudes**

There are two separate measures of patriarchal attitudes. The first measure was taken in 2000 and the second in 2006. The questions that make up the measures are different. This is necessary in order to make the questions appropriate for the age of the respondent at the time of each interview.

**Patriarchal attitudes 2000.** The first measure was taken from the child's survey in 2000, when respondents were between the ages of 10-12. This measure examined

early childhood ideas of gender roles. To examine this latent construct, six measures were gathered together. The first analysis to conduct was the Cronbach's alpha to investigate internal consistency. All six items combined had a Cronbach's alpha of 0.22. This would not constitute internal consistency. The descriptive statistics for the scale are presented in Table 19.

Table 19
*Scale Statistics for Patriarchal Attitudes 2000*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Patriarchal Attitudes | 5.68 | 2.36 | 6 | 0.22 | 0.30 | 0.10 |

Table 20
*Item-Total Correlations for Patriarchal Attitudes 2000*

| Factor | Item | Item-Total Correlations |
|---|---|---|
| Patriarchal Attitudes | 1. Boys and girls should be treated alike (Treated) | 0.25 |
| | 2. A Girl should not say she is smarter than a boy (Smarter) | -0.05 |
| | 3. It is okay for girls to ask boys on dates (Dates) | 0.01 |
| | 4. Competing with boys makes girls unpopular (Unpop) | 0.15 |
| | 5. Girls should pay their own way on dates (GirlsPay) | 0.06 |
| | 6. If there is not enough money, it is more important for boys to go to college instead of girls (College) | 0.25 |

Due to the importance of the measure, several other tests were conducted. The second was to examine item-total correlations, which should each be at least 0.30. The results can be found in Table 20. The highest item-total correlation among the six items

was for “girls should pay for their own dates (0.27),” and the lowest item-total correlation was for “boys and girls should be treated alike (0.01).” Again, this test did not supply sufficient evidence to utilize this overall measure of patriarchal attitudes.

Table 21
*Scale Statistics for Corrected Patriarchal Attitudes 2000*

| Factor | Mean | Std. Dev. | N of Items | Cronbach’s alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Patriarchal Attitudes | 6.09 | 1.89 | 3 | 0.49 | 0.68 | 0.64 |

Table 22
*Item-Total Correlations for Corrected Patriarchal Attitudes 2000*

| Factor | Item | Item-Total Correlations |
|---|---|---|
| Patriarchal Attitudes | 1. Competing with boys makes girls unpopular (Unpop) | 0.32 |
| | 2. Girls should pay their own way on dates (GirlsPay) | 0.27 |
| | 3. If there is not enough money, it is more important for boys to go to college instead of girls (College) | 0.34 |

After examining the evidence from the Cronbach’s alpha, as well as item-total correlations, a decision was made to drop three of the variables. Those three measures were: Treated, Dates, and Unpop. This decision was made by deleting one variable at a time to attain the highest Cronbach’s alpha and item-total correlations, to be sure the final items were each measuring the same construct. The descriptive statistics for the corrected measure of Patriarchy from 2000 are located in Table 21. The Cronbach’s alpha is now at a more acceptable level, although still not ideal. The mean response on the corrected scale is 6.09, with a range of 0-9, indicating a more patriarchal viewpoint on average. Skewness and kurtosis indicate normalcy of the data. Once the descriptives were examined for the corrected scale, new item-total correlations were

produced (Table 22). These each examine how strong the association is between each observed measure and the overall unobserved latent measure, or scale. For the purposes of SEM, each should be 0.30, which are acceptable for an exploratory measure.

The final test for the 2000 measure of patriarchal attitudes was a factor analysis, which included a scree plot, shown in Figure 5. According to the scree plot, the original 2000 measure of patriarchal attitudes should be two separate factors, which was consistent with the determination to drop several items. The revised scree plot is located in Figure 6, with corresponding factor loadings following in Table 23 and indicating only one factor with acceptable item-total correlations and factor loadings.

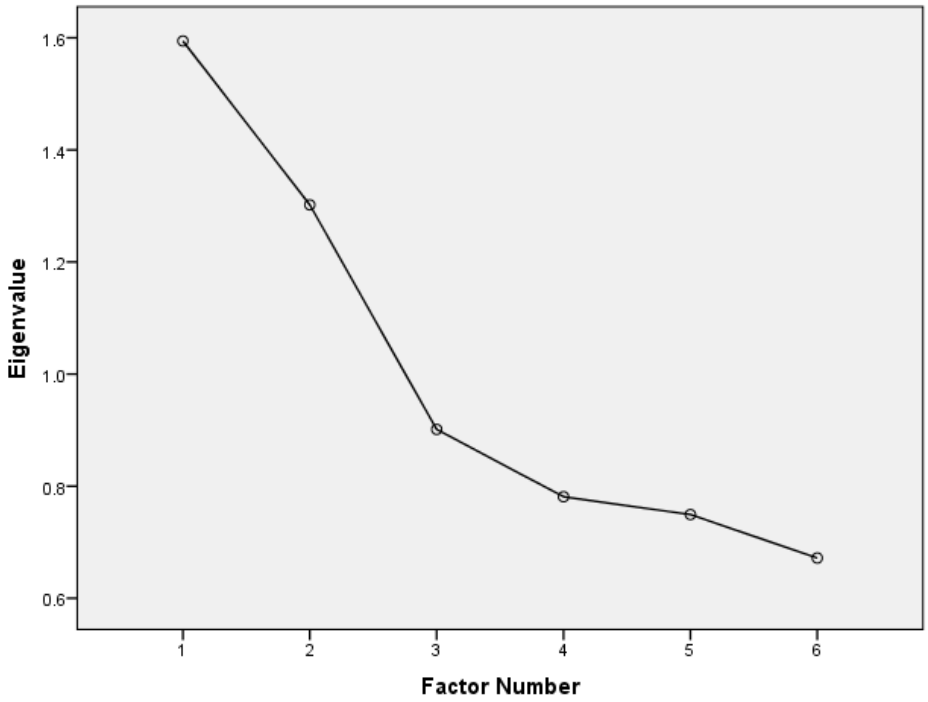


*Figure 5.* Scree plot for patriarchal attitudes 2000.

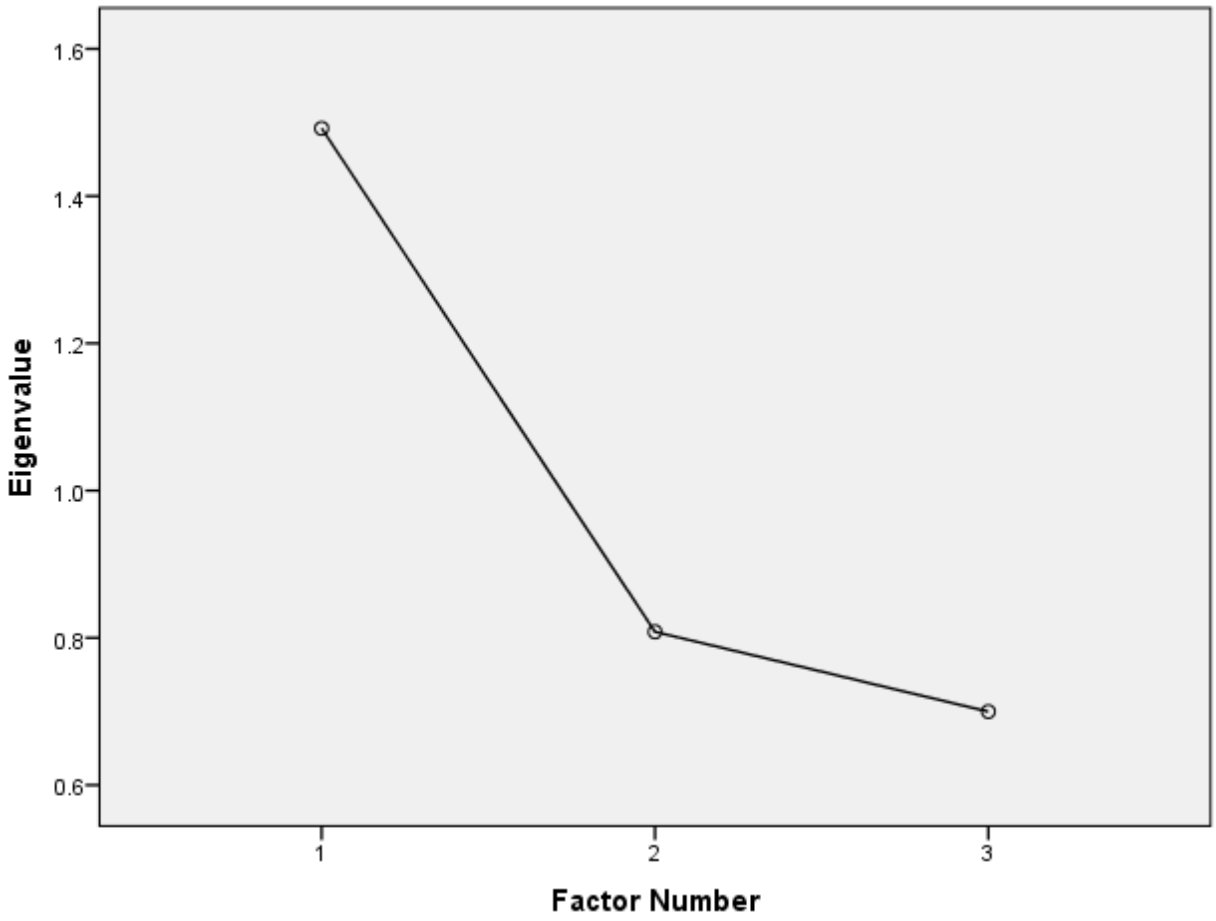


*Figure 6.* Scree plot for revised patriarchal attitudes 2000

Table 23
*Factor Loadings and Revised Item-Total Correlations for Patriarchal Attitudes 2000*

| Factor | Item | Factor Loadings | Item-Total Correlations |
|---|---|---|---|
| Patriarchal Attitudes | 1. Competing with boys makes girls unpopular (Unpop) | 0.71 | 0.32 |
| | 2. Girls should pay their own way on dates (GirlsPay) | 0.65 | 0.27 |
| | 3. If there is not enough money, it is more important for boys to go to college instead of girls (College) | 0.74 | 0.34 |

The second latent measure for patriarchal attitudes was taken from the Youth survey in 2006, when the respondents were between the ages of 16-18. Like the previous measure, patriarchal attitudes originally was comprised of six items. However, after preliminary investigations, one measure, MoreUse, which measured if the respondent believed a working wife felt more useful, was dropped to increase the Cronbach's alpha and make the measure more reliable. This created a Cronbach's alpha of 0.74, which means there is internal consistency and the measure is reliable and in the expected range. As a scale, there was a mean response of 4.64, on a scale of 0-15. The descriptives can be seen in Table 24. The mean response leaned towards egalitarian attitudes, however, there was plenty of variation among responses (standard deviation=2.27).

The next preliminary investigation examined the item-total correlations among the five measures. For the current variable, Patriarchal attitudes, each item has the desired item-total correlation of more than .30. These results can be seen in Table 25. This indicated strong correlations among the variables used to create a measure of patriarchal attitudes. The highest shared variance was for the variable HomenotWrk, which examined the attitude that the place of the woman is within the home. This variable had a 59% shared variance among the other variables used to create this latent measure.

Table 24
*Scale Statistics for Patriarchal Attitudes 2006*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Patriarchal Attitudes | 4.64 | 2.27 | 5 | 0.74 | 0.19 | 0.47 |

Once the measure was deemed reliable, a factor analysis was conducted. First, eigenvalues for each factor were plotted on a scree plot, as shown in Figure 7. According to the scree plot and the corresponding eigenvalues, these five items measure one single factor. Table 26 displays the factor loadings for each of the five items. These are interpreted similar to a correlation coefficient. The closer the absolute value is to 1, the more the factor explains for the corresponding measure, which in this case is patriarchal attitudes. From the resulting factor loadings, it is evident that each of the five measures is important to the overall creation of patriarchal attitudes, with factor loadings ranging from 0.53 to 0.78. The higher the absolute value, the more the item explains, therefore the measure HomenotWrk explains the most of patriarchal attitudes.

Table 25
*Item-Total Correlation for Patriarchal Attitudes 2006*

| Item | Item-Total Correlation |
|---|---|
| 1. The place of the woman is within the home (HomenotWrk) | 0.59 |
| 2. Wife with a family has no time for other employment (NoTimeWrk) | 0.55 |
| 3. It is much better if the man is the achiever and the woman takes care of the home (ManAchiever) | 0.57 |
| 4. Men should share housework with women (MenWrkHouse) | 0.34 |
| 5. Women are happier if they stay home and take care of the children (StayatHome) | 0.47 |

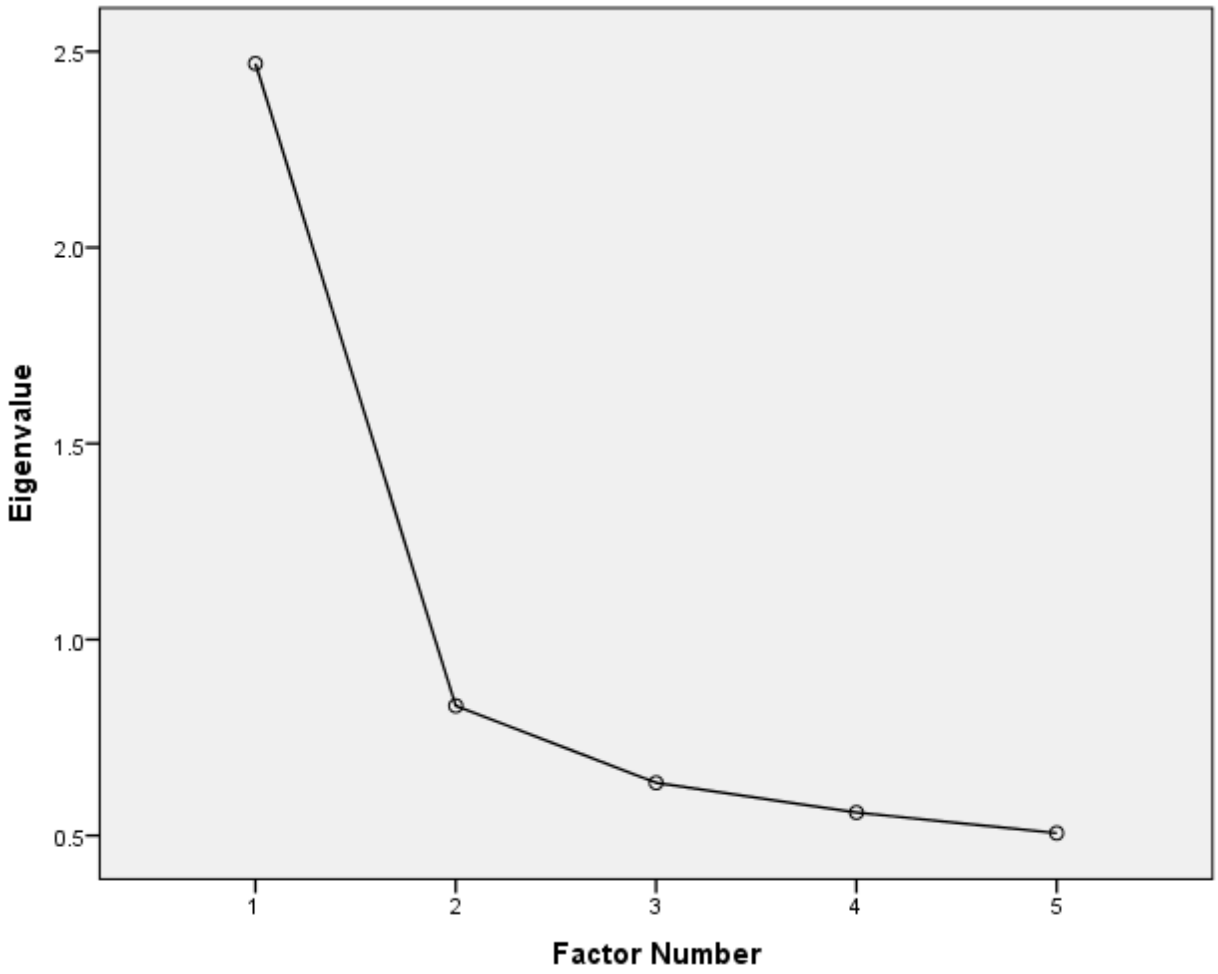


*Figure 7.* Scree plot for patriarchal attitudes 2006 items.

Table 26
*Factor Loadings for Patriarchal Attitudes 2006*

| Item | Factor Loadings |
|---|---|
| 1. The place of the woman is within the home (HomenotWrk) | 0.78 |
| 2. Wife with a family has no time for other employment (NoTimeWrk) | 0.74 |
| 3. It is much better if the man is the achiever and the woman takes care of the home (ManAchiever) | 0.76 |
| 4. Men should share housework with women (MenWrkHouse) | 0.53 |
| 5. Women are happier if they stay home and take care of the children (StayatHome) | 0.68 |

**Peer Pressure**

The measure for peer pressure was created utilizing five separate items from the 2006 wave of the youth survey. First, as can be seen in Table 27, descriptive statistics for the created measure were examined. On a scale of 0-5, the mean response was 0.52, indicating little peer pressure felt by the respondents. However, there was enough variation to warrant further examination of the measure. Skewness and kurtosis show the measure is not distributed normally, however, they are in the acceptable range for SEM: skewness less than 3, and kurtosis less than 10 (Kline, 2011).

Table 27
*Scale Statistics for Peer Pressure*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Peer Pressure | 0.52 | 1.04 | 5 | 0.72 | 2.35 | 5.28 |

The Cronbach's alpha for the created measure was 0.72, indicating reliability and internal consistency. The next procedure was to examine the item-total correlation for the items, seen in Table 28. The necessary item-total correlation for each measure is .30, with each item having an item-total correlation between 0.39 and 0.62. The highest correlation was for PPDrugs, which was peer pressure the respondent felt to try drugs. This measure is interpreted as a Pearson's Correlation Coefficient between the item and the scale as a whole. Therefore, there is a moderately strong relationship between PPDrugs and overall Peer Pressure.

Next, the eigenvalues for the measure were plotted on a scree plot (Figure 8), indicating one factor created by the items. All factor loadings, seen in Table 29, are

close to 1.0, signifying the importance of each item to the creation of the peer pressure latent variable.

Table 28
*Item-Total Correlation for Peer Pressure*

| Item | Item-Total Correlation |
|---|---|
| 1. Feels pressure from friends to commit a crime (PPCrime) | 0.39 |
| 2. Feels pressure from friends to drink alcohol (PPAlcohol) | 0.53 |
| 3. Feels pressure from friends to skip school (PPSkip) | 0.44 |
| 4. Feels pressure from friends to try cigarettes (PPCigs) | 0.49 |
| 5. Feels pressure from friends to try drugs (PPDrugs) | 0.62 |

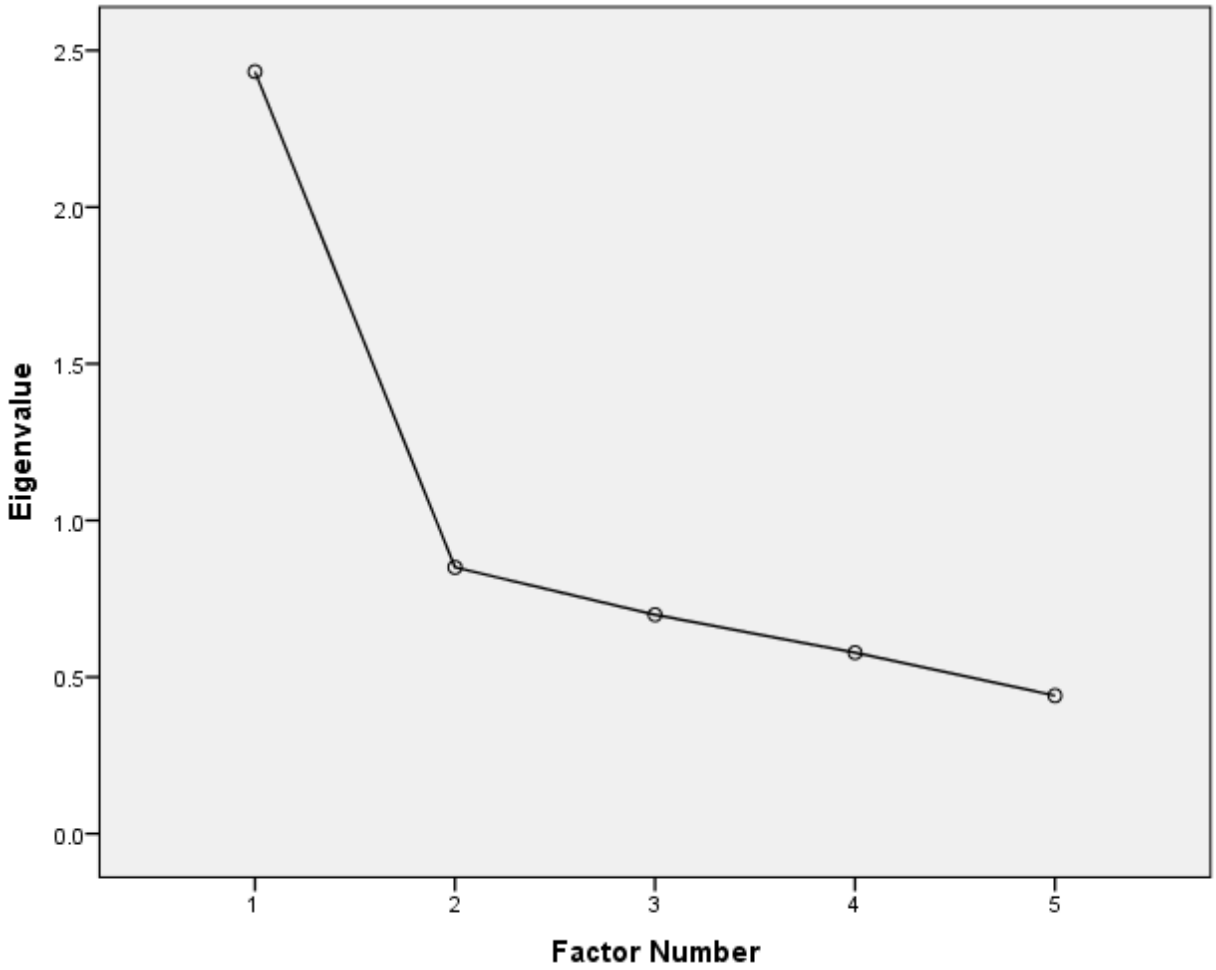


*Figure 8.* Scree plot for peer pressure items.

Table 29
*Factor Loadings for Peer Pressure*

| Item | Factor Loadings |
|---|---|
| 1. Feels pressure from friends to commit a crime (PPCrime) | 0.59 |
| 2. Feels pressure from friends to drink alcohol (PPAlcohol) | 0.73 |
| 3. Feels pressure from friends to skip school (PPSkip) | 0.64 |
| 4. Feels pressure from friends to try cigarettes (PPCigs) | 0.70 |
| 5. Feels pressure from friends to try drugs (PPDrugs) | 0.81 |

**Expectations**

Expectations is a part of the new latent measure of parenting to be included in alternative models of Power-Control Theory. This measure was made up of 4 dichotomous items. The descriptive statistics of the scale as a whole can be found in Table 30. The mean response was 3.26 for the measure as whole, on a scale of 0-4. This represents many of the respondents' parents having high expectations of them, however, there was a somewhat large variance among responses. The Cronbach's alpha of 0.63 is not ideal, but is close to acceptable according to DeVellis (2012). Further tests were conducted and can be found below. The measure is negatively skewed, however, both skewness and kurtosis are in the acceptable range for SEM.

Table 30: Scale Statistics for Expectations

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Expectations | 3.26 | 1.03 | 4 | 0.63 | -1.52 | 1.75 |

Table 31 presents the item-total correlations for the scale of Expectations. Compared to previous measures, the item-total correlations are lower than expected. However, all are in the acceptable range of 0.3 to 1.0. Therefore, all items have been retained and more analyses utilizing the measure are warranted.

Table 31: Item-Total Correlation for Expectations

| Item | Item-Total Correlation |
|---|---|
| 1. How often child is expected to make their own bed (ExpBed) | 0.45 |
| 2. How often child is expected to do routine chores (ExpChores) | 0.31 |
| 3. How often child is expected to clean their own room (ExpCleanRm) | 0.55 |
| 4. How often child is expected to pick up after their self (ExpCleanSelf) | 0.46 |

The next step, placing the items' eigenvalues onto a scree plot, is shown in Figure 9. All four of the items create one factor, and the factor loadings are all acceptable (Table 32).

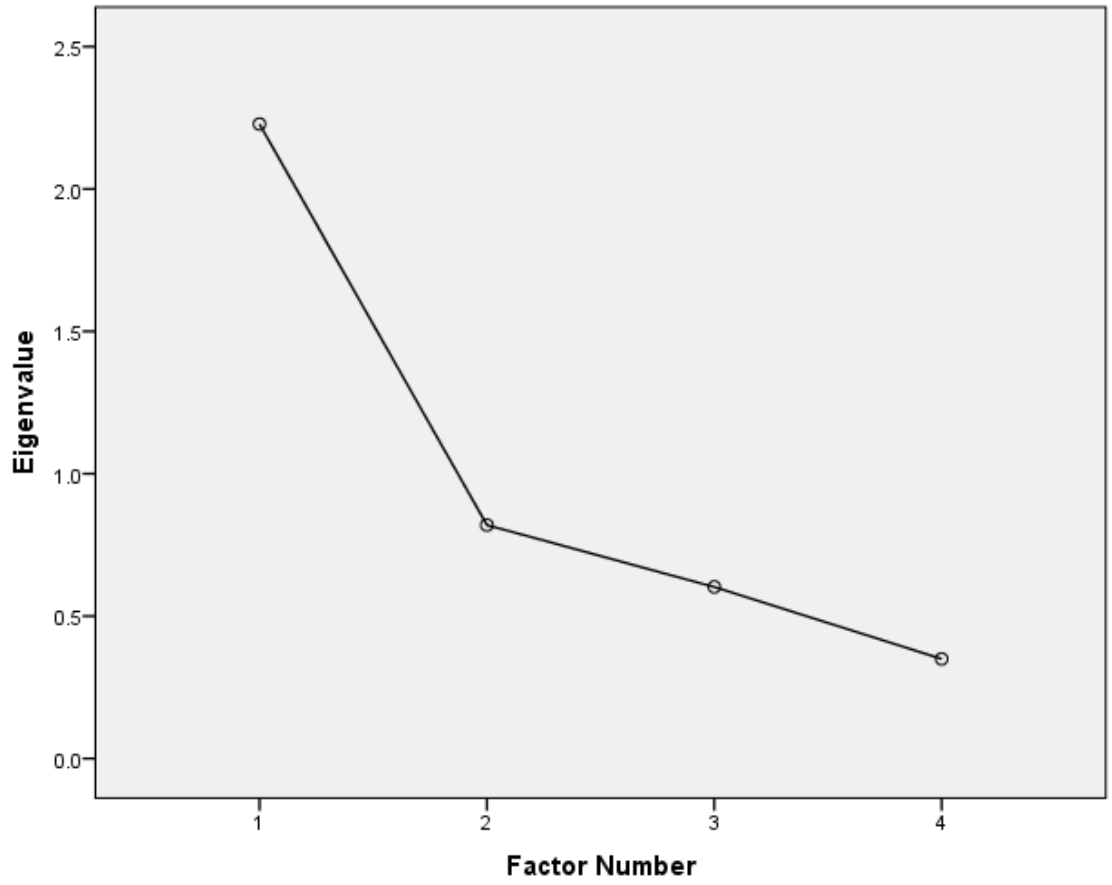


*Figure 9.* Scree plot for expectations items.

Table 32
*Factor Loadings for Expectations*

| Item | Factor Loadings |
|---|---|
| 1. How often child is expected to make their own bed (ExpBed) | 0.75 |
| 2. How often child is expected to do routine chores (ExpChores) | 0.55 |
| 3. How often child is expected to clean their own room (ExpCleanRm) | 0.82 |
| 4. How often child is expected to Pick up after their self (ExpCleanSelf) | 0.73 |

**Discipline**

The latent measure for discipline was created using several different measures, consisting of single items as well as one factor. Previous studies (Higgins et al., 2011; Kirchner & Higgins, 2014; Nofizer, 2008), which employed this data, have utilized this measure in the same way: several items individually, with one scale for privileges. When all items are included for privileges, a Cronbach's alpha of 0.51 is found. This means there may be internal consistency, however, it is not as high as would be considered ideal. The descriptive statistics found in Table 33 show a mean response of 0.80, on a scale of 0-5, with a standard deviation of 0.99. Skewness and kurtosis are slightly elevated, but each are at an acceptable level for SEM (Kline, 2011).

Table 33
*Scale Statistics for Privileges*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Privileges | 0.80 | 0.99 | 5 | 0.51 | 1.54 | 2.58 |

Table 34
*Item-Total Correlation for Privileges*

| Item | Item-Total Correlation |
|---|---|
| 1. Response to tantrum: Send child to room (SendtoRoom) | 0.15 |
| 2. Response to tantrum: Give child chore (GiveChore) | 0.36 |
| 3. Response to tantrum: Put child in time out (TimeOut) | 0.13 |
| 4. Response to tantrum: Ground child (Ground) | 0.31 |
| 5. Response to tantrum: Stop allowance (StopAllow) | 0.36 |

The item-total correlations (Table 34) show low correlations among the variables, however, only two of these items are below the necessary .30. To reassess the internal consistency of the measure, the Cronbach's alpha was examined by deleting each item separately to increase internal consistency. After completing this, it was deemed necessary to remove SendtoRoom and TimeOut. Taking these privileges from the overall measure would make sense, because the respondents are each over the age of 10, and parents may find the other options more age appropriate.

After deleting two of the measures, new descriptive statistics were calculated (Table 35). The mean of the scale was 0.38, on a scale of 0-3, with a standard deviation of 0.70. The Cronbach's alpha did increase to 0.54, making it a more acceptable measure of internal consistency, although again still not ideal. However, the item-total correlations also increased and can be found in Table 36, each reaching 0.30 or above, making them appropriate for SEM. The internal consistency will be measured again utilizing the measurement model later in this chapter.

Table 35
*Scale Statistics for Corrected Privileges*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Privileges | 0.38 | 0.70 | 3 | 0.54 | 1.94 | 3.38 |

Table 36
*Item-Total Correlation for Corrected Privileges*

| Item | Item-Total Correlation |
|---|---|
| 1. Response to tantrum: Give child chore (GiveChore) | 0.38 |
| 2. Response to tantrum: Ground child (Ground) | 0.38 |
| 3. Response to tantrum: Stop allowance (StopAllow) | 0.40 |

Table 37
*Factor Loadings for Privileges*

| Item | Factor Loadings |
|---|---|
| 1. Response to tantrum: Give child chore (GiveChore) | 0.74 |
| 2. Response to tantrum: Ground child (Ground) | 0.72 |
| 3. Response to tantrum: Stop allowance (StopAllow) | 0.76 |

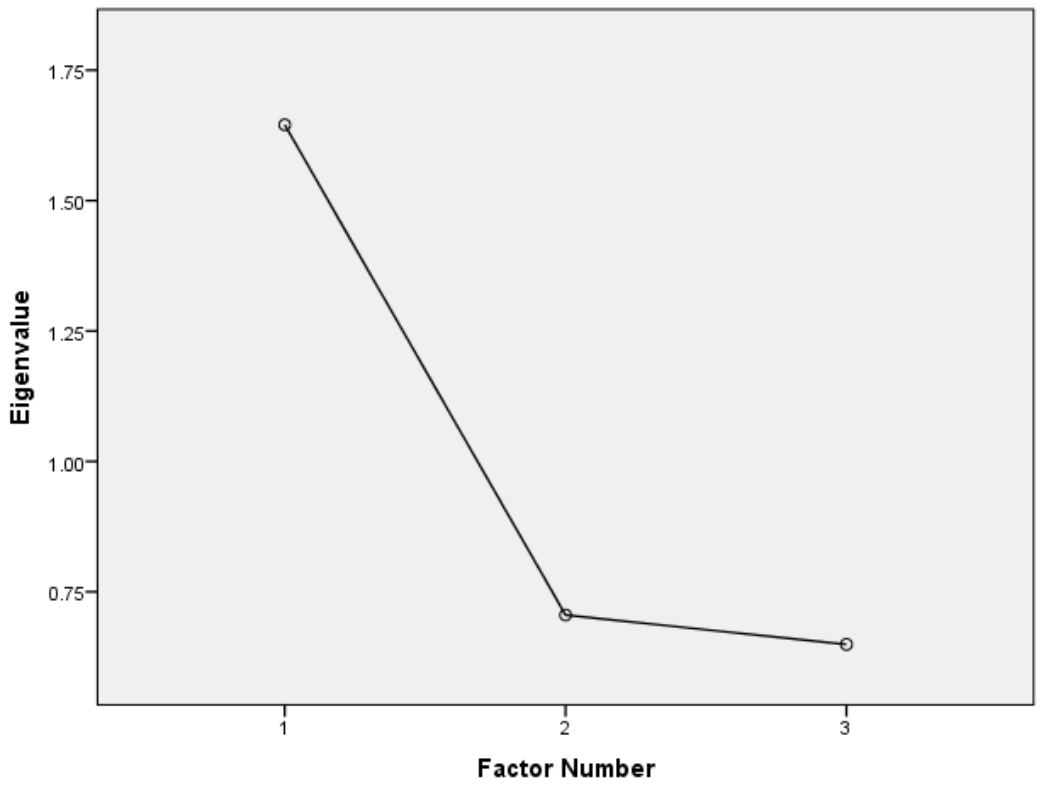


*Figure 10.* Scree plot for privilege items.

The scree plot for Privilege, shown in Figure 10, shows only one factor. Each of the factor loadings (Table 37) are high and show importance to the creation of the scale for privilege.

**Risk Preference**

The initial measure for risk preference was created with six items. Together these six items have a Cronbach's alpha of 0.64, indicating acceptable internal consistency for this analysis (Nunnally, 1978). As one scale, these measures have a mean of 9.33, on a scale of 0-18, with a standard deviation of 3.10 (Table 38). However, after an initial examination, including a scree plot, it seems risk preference may be best suited for two separate factors (Figure 11). The two factors were separated by first running a factor analysis with all 6 items. Varimax Rotation was then employed to determine which items fit into each factor.

Table 38
*Scale Statistics for Risk Preference*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Risk Preference | 9.33 | 3.10 | 6 | 0.64 | 0.06 | 0.31 |

Once separated, the descriptive statistics (Table 39) change. Items making up the first factor have a mean of 4.18, with a standard deviation of 1.84, and a Cronbach's alpha of 0.50 (although this is low, further tests show the measure to be appropriate for SEM). These three items, WoThinking, PlanNofun, and ScOutTroub, seem to make up characteristics of impulsivity (see Higgins, Kirchner, Ricketts, & Marcum, 2013, for a more complete review of impulsivity literature), which certainly would be relevant to risk preference based on previous literature (Beauchaine & Neuhaus, 2008; Carrasco,

Rothhammer, Moraga, Henriquez, Chakraborty, Aboitiz, & Rothhammer, 2006; Neumann, Koot, Barker, & Maughan, 2010). Therefore, this first factor of risk preference will now be referred to as Impulsivity.

The other three items, EnjoyNew, TakingRisk, and Danger, have a mean of 5.14, a standard deviation of 2.1, and a Cronbach's alpha of 0.68. These items seem to be consistent with previous items which have assessed risk preference and risk seeking. Therefore, this factor of risk preference will now be referred to as Risk Seeking.

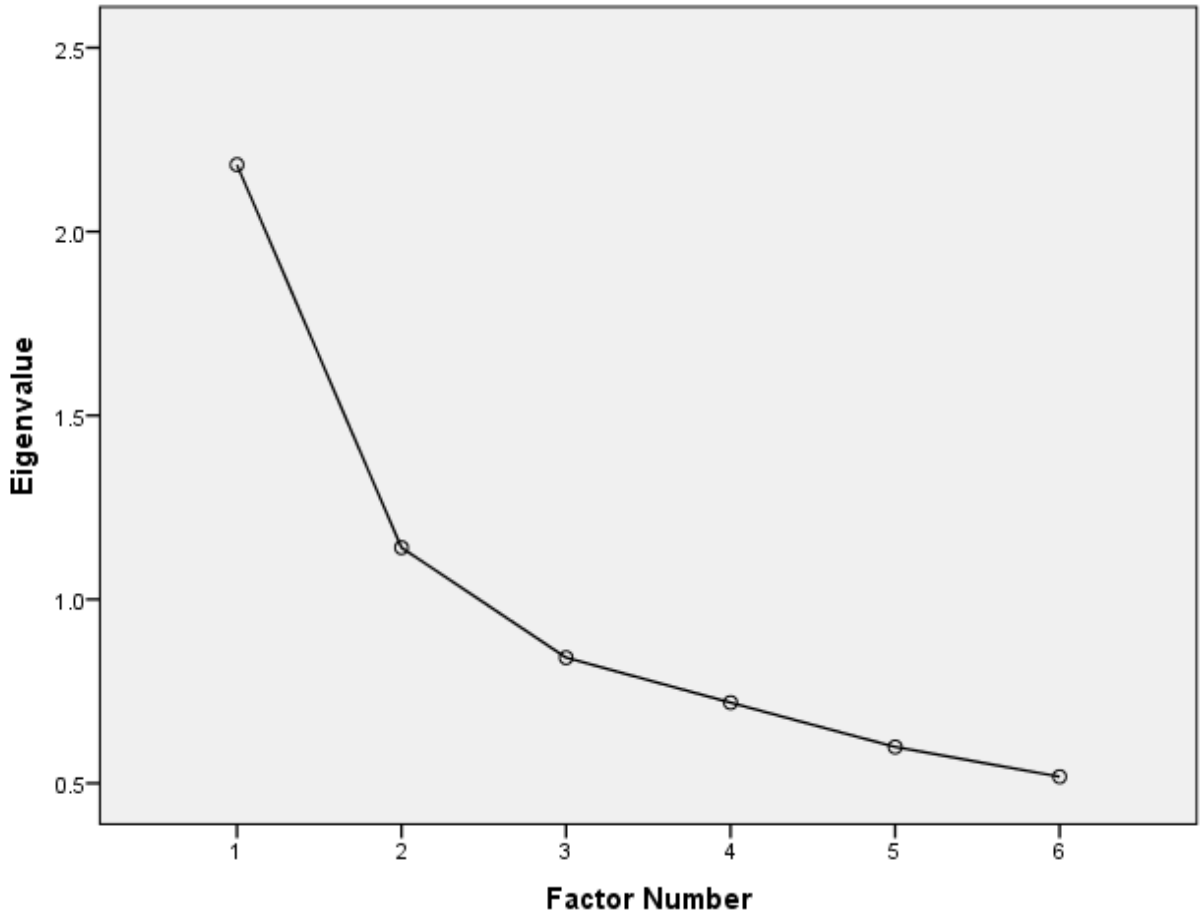


*Figure 11.* Scree plot for risk preference.

Table 39
*Scale Statistics for Risk Preference Factors*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Impulsivity | 4.18 | 1.84 | 3 | 0.50 | 0.11 | -0.09 |
| Risk Seeking | 5.14 | 2.01 | 3 | 0.68 | -0.05 | -0.15 |

Table 40 presents the item-total correlations for each of the factors created from the six items. The first factor, Impulsivity, has lower item-total correlations, ranging from 0.27-0.33. This could be problematic, however, the full structural equation model will confirm the usefulness of this measure when the measurement model is conducted. The item-total correlations for Risk Seeking are much higher, with a range of .44 to .53.

Table 40
*Item-Total Correlation for Risk Preference Factors*

| Factor | Item | Item-Total Correlation |
|---|---|---|
| Impulsivity | 1. I often get into a game because I do things without thinking (WoThinking) | 0.33 |
| | 2. I think that planning takes the fun out of things (PlanNofun) | 0.27 |
| | 3. I have to use a lot of self-control to keep out of trouble (ScOutTroub) | 0.31 |
| Risk Seeking | 1. I enjoy new and exciting experiences, even if they are a little frightening or unusual (EnjoyNew) | 0.53 |
| | 2. I enjoy taking risks (TakingRisk) | 0.44 |
| | 3. Life with no danger in it would be too dull for me (Danger) | 0.50 |

Once each factor was separated, scree plots were produced to make sure each of the items created only one factor. These scree plots, in Figure 12 and Figure 13,

confirm that the new measures load onto one factor each. The factor loadings for each, Table 41, also confirm this finding, with high factor loadings for each item.

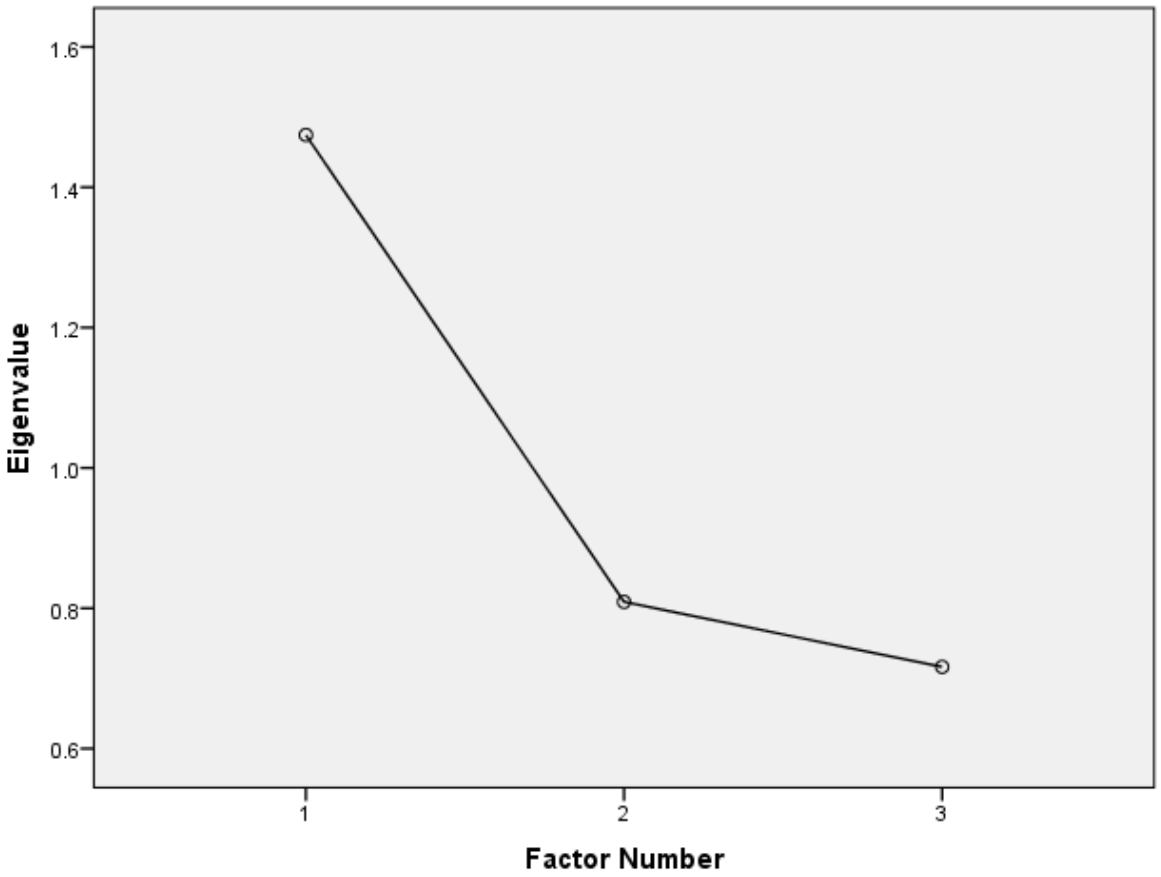


*Figure 12:* Scree plot for impulsivity.

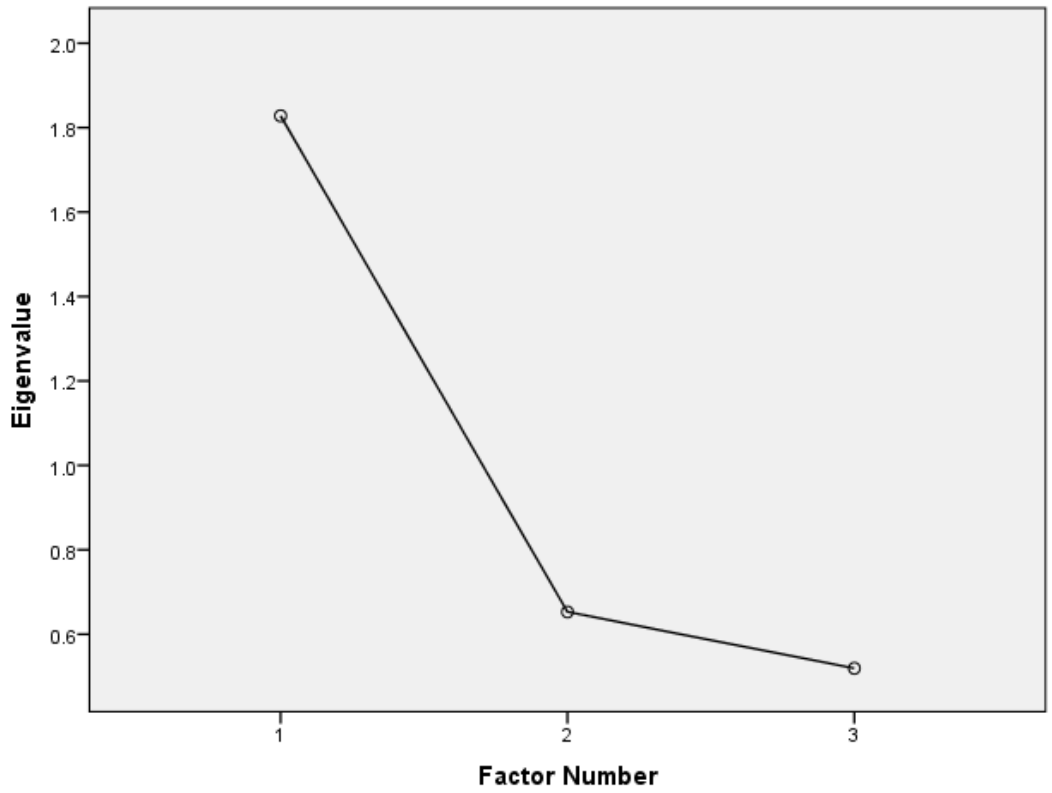


*Figure 13. Scree plot for risk seeking.*

Table 41
*Factor Loadings for Risk Preference Factors*

| Factor | Item | Factor Loadings |
|---|---|---|
| Impulsivity | 1. I often get into a game because I do things without thinking (WoThinking) | 0.72 |
| | 2. I think that planning takes the fun out of things (PlanNofun) | 0.61 |
| | 3. I have to use a lot of self-control to keep out of trouble (ScOutTroub) | 0.75 |
| Risk Seeking | 1. I enjoy new and exciting experiences, even if they are a little frightening or unusual (EnjoyNew) | 0.79 |
| | 2. I enjoy taking risks (TakingRisk) | 0.75 |
| | 3. Life with no danger in it would be too dull for me (Danger) | 0.76 |

## Delinquency

There are two separate measures of delinquency contained within this study. The first was taken in the year 2000, when respondents were between the ages of 10-12, and the second was taken in 2006, when respondents were between the ages of 16-18. Each was examined separately for factor analysis.

**Delinquency 2000.** The first step to determine if the items for Delinquency 2000 were appropriate was to find a Cronbach's alpha. A first attempt utilizing all eight items found that LiedtoPars was not a good measure for the scale, therefore it was dropped from the overall measure. The new measure, which utilized seven items, had a Cronbach's alpha of 0.64, which is nearly acceptable (Table 42). The measure had a mean of 0.911, on a scale of 0-7, which showed there was little delinquency among the sample during this wave. Skewness and kurtosis are high, but acceptable for SEM (Kline, 2011).

Table 42
*Scale Statistics for Delinquency 2000*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Delinquency 2000 | 0.91 | 1.20 | 7 | 0.64 | 2.20 | 6.815 |

Next, item-total correlations were assessed. Only one of the seven variables was under 0.30, but was close at 0.28. However, this will be checked again when conducting a measurement model for the SEM. The item-total correlations are located in Table 43.

Table 43
*Item-Total Correlations for Delinquency 2000*

| Factor | Item | Item-Total Correlation |
|---|---|---|
| Delinquency 2000 | 1. Times in the last year respondent has gotten drunk (Drunk) | 0.47 |
| | 2. Times in the last year respondent has stayed out all night without permission (StayedOut) | 0.49 |
| | 3. Times in the last year respondent has skipped a day of school without permission (SkipSchool) | 0.42 |
| | 4. Times in the last year respondent has stayed out later than parents said (Curfew) | 0.28 |
| | 5. Times in the last year respondent has damaged school property on purpose (SchoolProp) | 0.44 |
| | 6. Times in the last year respondent has hurt someone bad enough to need a doctor (HurtSomeone) | 0.35 |
| | 7. Times in the last year respondent has taken something from a store without paying for it (Stolen) | 0.35 |

Following the item-total correlations, a scree plot was produced to determine if one factor was sufficient for measuring delinquency during the 2000 wave. The scree-plot (Figure 14) shows that one factor is sufficient, and the factor loadings are all appropriate for the measure to remain as one factor (Table 44). Although Curfew and HurtSomeone are low, this may be due to the few respondents who participated in such activities, because of their age at the time of the measure. However, due to the very low factor loadings, as well as item-total correlations, Curfew and HurtSomeone were removed. The revised scree plot is located in Figure 15, with revised factor loadings and item-total correlations in Table 45.

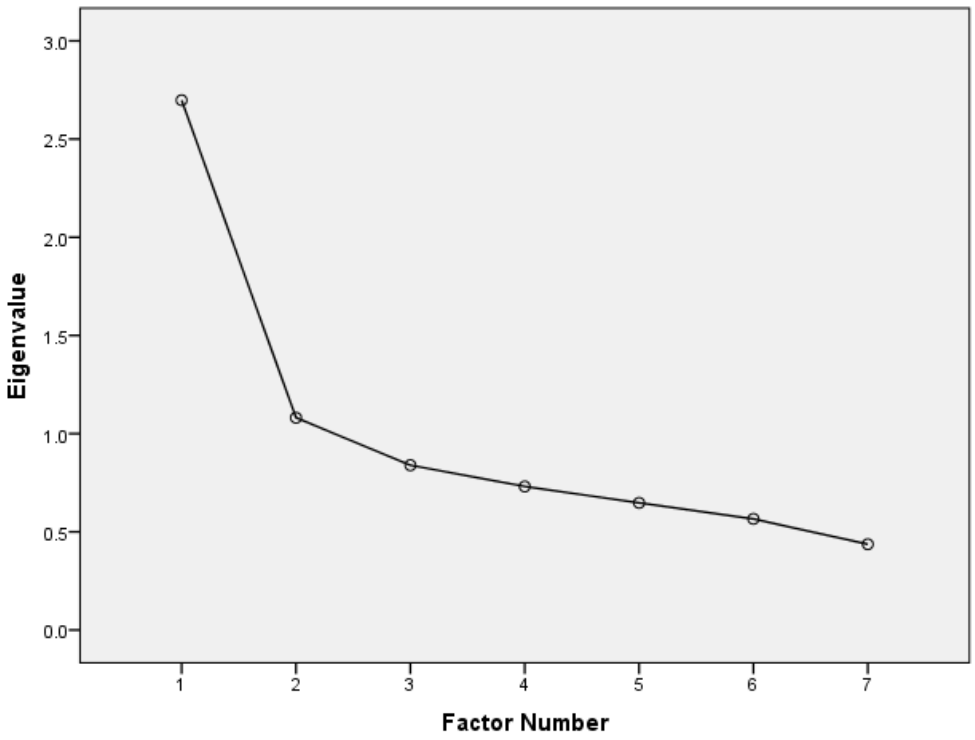


*Figure 14.* Scree plot for delinquency 2000.

Table 44
*Factor Loadings for Delinquency 2000*

| Factor | Item | Factor Loadings |
|---|---|---|
| Delinquency 2000 | 1. Times in the last year respondent has gotten drunk (Drunk) | 0.75 |
| | 2. Times in the last year respondent has stayed out all night without permission (StayedOut) | 0.70 |
| | 3. Times in the last year respondent has skipped a day of school without permission (SkipSchool) | 0.69 |
| | 4. Times in the last year respondent has stayed out later than parents said (Curfew) | 0.36 |
| | 5. Times in the last year respondent has damaged school property on purpose (SchoolProp) | 0.71 |
| | 6. Times in the last year respondent has hurt someone bad enough to need a doctor (HurtSomeone) | 0.48 |
| | 7. Times in the last year respondent has taken something from a store without paying for it (Stolen) | 0.54 |

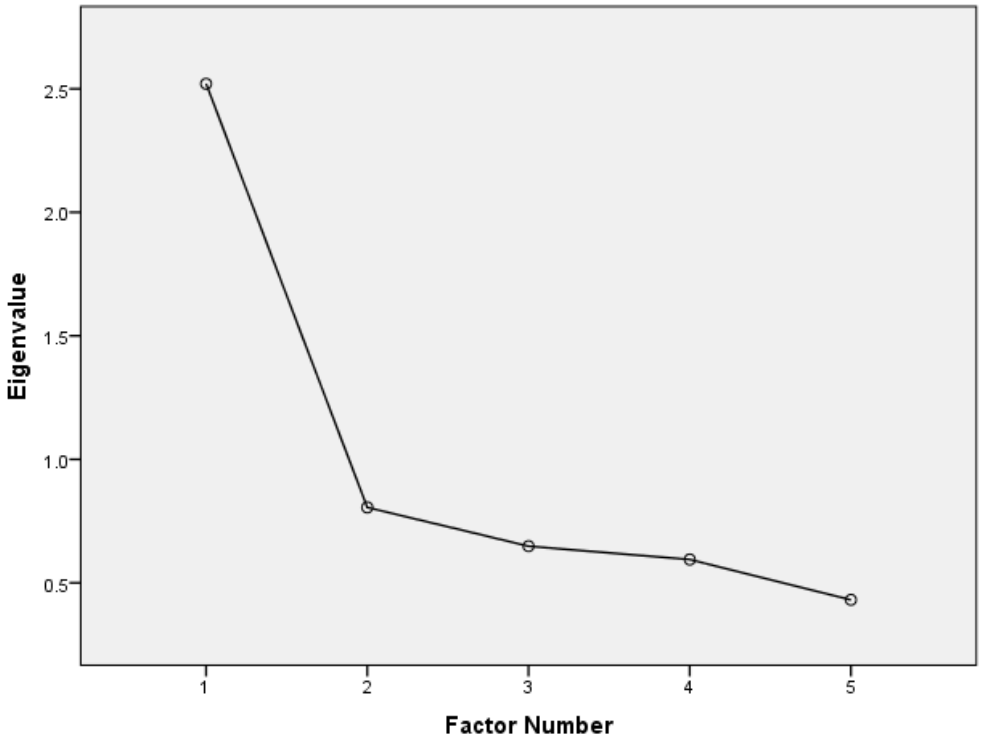


*Figure 15.* Scree plot for revised delinquency 2000.

Table 45
*Item-Total Correlations and Factor Loadings for Revised Delinquency 2000*

| Factor | Item | Factor Loadings | Item-Total Correlations |
|---|---|---|---|
| Delinquency 2000 | 1. Times in the last year respondent has gotten drunk (Drunk) | 0.81 | 0.61 |
| | 2. Times in the last year respondent has stayed out all night without permission (StayedOut) | 0.69 | 0.46 |
| | 3. Times in the last year respondent has skipped a day of school without permission (SkipSchool) | 0.73 | 0.52 |
| | 4. Times in the last year respondent has damaged school property on purpose (SchoolProp) | 0.75 | 0.52 |
| | 5. Times in the last year respondent has taken something from a store without paying for it (Stolen) | 0.55 | 0.37 |

**Delinquency 2006.** The 2006 measure for delinquency also has been utilized in several other studies (Kirchner & Higgins, 2014; Nofziger, 2008; Turner & Piquero, 2002). In each of these studies, types of offenses were separated (i.e., serious, non-serious). To confirm this, a factor analysis first was conducted to find the two separate factors. However, the scree plot produced (Figure 16) suggests only one factor for this wave of data. Therefore, only one factor was created from the eight items to measure delinquency. For the eight items combined, a Cronbach's alpha of 0.68 was found (see Table 46). The mean was 2.05, indicating that on average, respondents engaged in two separate types of delinquent activities, with plenty of variance. Skewness and kurtosis indicate normalcy for the measure.

Table 46
*Scale Statistics for Delinquency 2006*

| Factor | Mean | Std. Dev. | N of Items | Cronbach's alpha | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Delinquency 2006 | 2.05 | 1.77 | 8 | 0.68 | 0.85 | 0.24 |

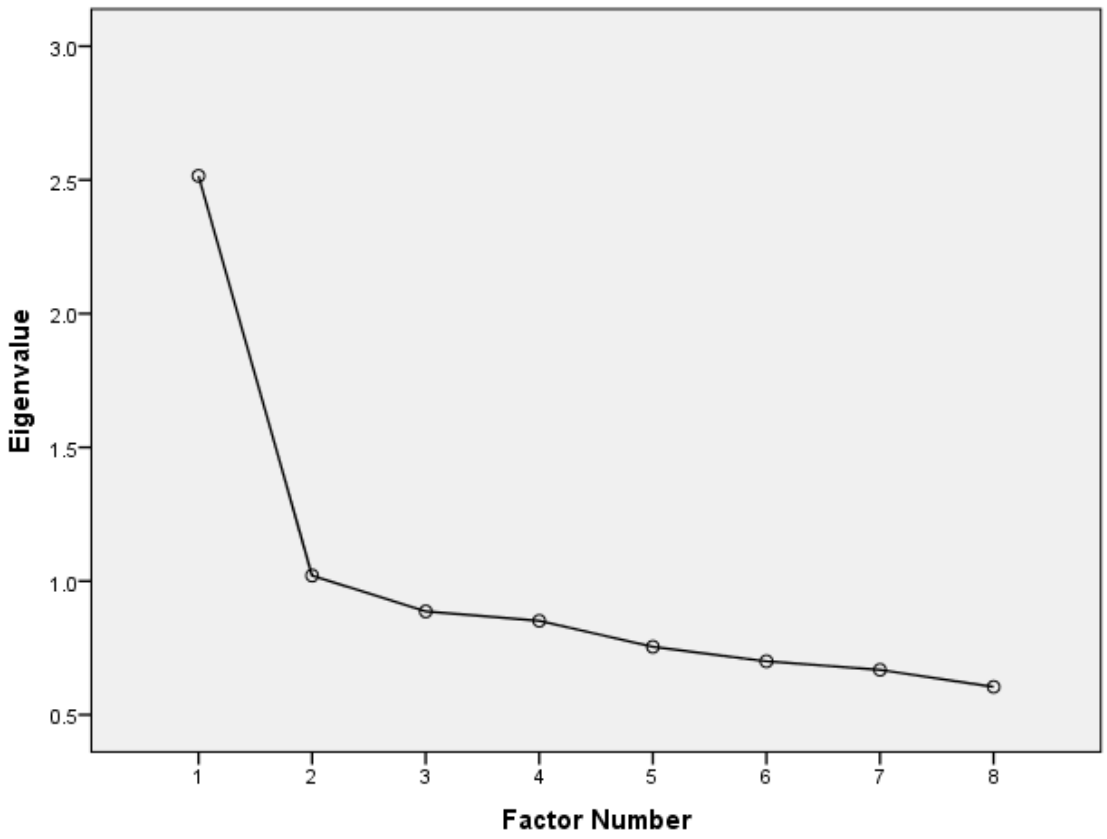


*Figure 16.* Scree plot for delinquency 2006.

Table 47 displays the item-total correlations for the delinquency factor for 2006. Item-total correlations should be at least 0.30 (Kline, 2011). All of the corresponding correlations are over 0.30. Therefore, each is acceptable for SEM. Finally, the factor loadings for each of the items are displayed in Table 48. Each of the factor loadings are acceptable, although not high. HurtSomone is the lowest of the factor loadings, however, this item also occurred the least among the measures of delinquency.

Table 47
*Item-Total Correlations for Delinquency 2006*

| Factor | Item | Item-Total Correlation |
|---|---|---|
| Delinquency 2006 | 1. Times in the last year respondent has gotten drunk (Drunk) | 0.40 |
| | 2. Times in the last year respondent lied to parents about something important (LiedtoPars) | 0.34 |
| | 3. Times in the last year respondent has stayed out all night without permission (StayedOut) | 0.47 |
| | 4. Times in the last year respondent has skipped a day of school without permission (SkipSchool) | 0.44 |
| | 5. Times in the last year respondent has stayed out later than parents said (Curfew) | 0.37 |
| | 6. Times in the last year respondent has damaged school property on purpose (SchoolProp) | 0.33 |
| | 7. Times in the last year respondent has hurt someone bad enough to need a doctor (HurtSomeone) | 0.30 |
| | 8. Times in the last year respondent has taken something from a store without paying for it (Stolen) | 0.33 |

Table 48
*Factor Loadings for Delinquency 2006*

| Factor | Item | Factor Loading |
|---|---|---|
| Delinquency 2006 | 1. Times in the last year respondent has gotten drunk (Drunk) | 0.59 |
| | 2. Times in the last year respondent lied to parents about something important (LiedtoPars) | 0.51 |
| | 3. Times in the last year respondent has stayed out all night without permission (StayedOut) | 0.66 |
| | 4. Times in the last year respondent has skipped a day of school without permission (SkipSchool) | 0.65 |
| | 5. Times in the last year respondent has stayed out later than parents said (Curfew) | 0.54 |
| | 6. Times in the last year respondent has damaged school property on purpose (SchoolProp) | 0.52 |
| | 7. Times in the last year respondent has hurt someone bad enough to need a doctor (HurtSomeone) | 0.48 |
| | 8. Times in the last year respondent has taken something from a store without paying for it (Stolen) | 0.51 |

## Hypothesis Testing

The current section of this chapter will present statistical analyses to test each hypothesis laid out in previous portions of this dissertation. Each hypothesis will utilize different analyses, based on the hypothesis and the variables themselves. The hypotheses first will be discussed individually, and then as a whole, to distinguish preliminary support for Power Control Theory and a full structural model.

### Hypothesis 1.1

The first hypothesis is based on one of the most basic principles of Power Control Theory: daughters will be more likely to be the objects of control in the home. To examine this hypothesis, an independent samples t-test was conducted utilizing parental control as the dependent variable. An independent t-test will allow the researcher to examine mean differences between male and female respondents. The results from the t-test can be found in Table 49.

Based on the results, females do have a slightly higher average response to parental control (3.11) compared to males (2.99). Utilizing a one-tailed test, there is a significant mean difference for parental control between sons and daughters, as previously discussed by Hagan et al. (1979). Therefore, this evidence is supportive of Hypothesis 1.1: daughters will be more likely to be the objects of control in the home.

Table 49
*Independent Group T-Test between Gender and Parental Control*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Parental Control | 3.11 | 1.01 | 422 | 2.99 | 1.08 | 437 | -1.68* |

p<.05

**Hypothesis 1.2**

The second hypothesis also was based on the object/instrument relationship of control within the home, a basic premise of Power-Control Theory. However, this hypothesis focused on the instruments of control in the home: mothers will be more likely to be the instruments of control in the home. To examine this hypothesis a paired-sample t-test was conducted. This allows the researcher to examine two separate conditions, in this case maternal and paternal control, for each case, or respondent. These results can be found in Table 50.

Table 50
*Dependent Group T-Test for Parental Control*

| | Maternal Control | | | Paternal Control | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Parental Control | 1.76 | 0.50 | 859 | 1.28 | 0.80 | 859 | 17.20*** |

***p<0.001

Examining the means of each, maternal control is higher (M=1.76), with a smaller standard deviation (0.50), than paternal control (M=1.28, SD=0.80). The t-test results also show a significant mean difference (t=17.20, p<0.001) between maternal and paternal control. This would provide supportive evidence for Hypothesis 1.2: mothers will be more likely to be the instruments of control in the home.

**Hypothesis 1.3**

Before testing more advanced hypotheses, it is necessary to find if there is a significant mean difference between males and females for delinquency. This is not only a component of Power Control Theory, but also one of the more tested premises in criminology. Therefore, the current hypothesis to be tested is that there will be more delinquency among boys than girls.

To examine this hypothesis, two independent t-tests were conducted. The first t-test compared a delinquency measure taken in 2000, when respondents were between the ages of 10-12 years old. The second utilized a later measure of delinquency from 2006, when the respondents were between 16-18 years old. Each measure was produced identically, therefore they are comparable to one another across time.

The results for the first dependent variable, Delinquency (2000), can be found in Table 51. The range of each delinquency measure was 0-7. According to the results for the independent t-test, females self-reported an average of 0.65 different delinquent acts over the previous year. Males reported an average of 1.14 different delinquent acts over the past year, with more variance among responses (SD=1.32). The resulting t-test (t=5.65), provides evidence that males did commit a significantly greater amount of delinquent acts, during the ages of 10-12.

Table 51
*Independent Group T-Test between Gender and Delinquency (2000)*

| | Female | | Male | | |
|---|---|---|---|---|---|
| | M | SD | M | SD | t-test |
| Delinquency | 0.65 | 1.00 | 1.14 | 1.32 | 5.65** |

**p<.001

The second dependent variable, Delinquency (2006), allows the researcher to examine if the mean differences in offending between males and females persisted into later adolescence. The results found in Table 52 do show evidence that the statistically significant difference between the groups remains. Not only is the relationship still significant, but both males and females committed more delinquent acts than when the previous measure was taken, which is consistent with previous research (FBI, 2013; Maguire & Pastore, 2001; Snyder & Sickmund, 2006).

Table 52
*Independent Group T-Test between Gender and Delinquency (2006)*

| | Female | | Male | | |
|---|---|---|---|---|---|
| | M | SD | M | SD | t-test |
| Delinquency | 1.79 | 1.66 | 2.29 | 1.84 | 4.49* |

*p<.01

**Hypothesis 2.1**

The next hypothesis (2.1) stated that different rates of offending would be found for sons and daughters within patriarchal households. However, several problems exist. The first problem was that a previously mentioned occupational measure of patriarchy was impossible to utilize. There was too much missing data for the selected cohort, making the measure virtually nonexistent. However, attitudinal measures still were available. Attitudinal measures are consistent with previous research that found them to be more applicable than the previously conceived occupational measures (Bates et al., 2003; Blackwell et al., 2002; Grasmick et al., 1996; Hadjar et al., 2007; Hagan et al., 1990; Morash & Chesney-Lind, 1991).

The current data had two attitudinal measures of patriarchy. The first was a child's measure taken in 2000. During this time frame, respondents would have been between the ages of 10-12. The second measure was taken from the youth survey in 2006, when respondents were between 16-18 years of age. Each was measured with interval/ratio level data. However, Hagan (1987) originally presented the idea of patriarchy as a dichotomy. Therefore, to further examine gender differences in delinquency, two steps were taken. First, the measure of patriarchal attitudes was changed to reflect a dichotomy. Once this measure was created, the sample was broken into only those homes considered more patriarchal, utilizing the 2000 measure

of patriarchy. To attain this measure, the combined scale of patriarchy, which consisted of a range of 0-9, was recoded based on the median (6). Individuals with scale responses of 0-5 were considered more egalitarian, and those with responses of 6-9 were considered more patriarchal. An independent samples t-test was then conducted to test the hypothesis: different rates of offending will be found for sons and daughters within patriarchal households. The results can be found in Table 53.

Table 53
*Independent Group T-Test between Gender and Delinquency (2000) for Individuals within More Patriarchal Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 0.15 | 0.50 | 255 | 0.23 | 0.53 | 225 | 1.73* |

p<.05

The measure for delinquency ranges from 0 to 5. Therefore, when examining only the means for both males and females within patriarchal homes, it does seem that males are committing more delinquent acts (M=0.23) than females (0.15). This was a one-tailed test, examining that the mean difference would be higher for males than females. Therefore, there was statistical significance with a p=.04. This also shows support for Hypothesis 2.1, which states that there would be significant mean differences in offending between males and females within patriarchal homes. Hypothesis 3.1 will address the same hypothesis utilizing the later measure of delinquency.

It should be noted that when utilizing only individuals who have been deemed more patriarchal from the 2000 attitudinal measure, the sample becomes much smaller due to missing data. For this specific hypothesis the sample size is 480, much lower

than intended. This is important for three reasons: 1. with a larger sample size it is possible that there would be a more significant difference between males and females. 2. It points out how rare true patriarchal families may currently be. 3. These problems may exist because of creating a dichotomy of more egalitarian and more patriarchal homes. These are all findings that are discussed in further detail in the next chapter.

**Hypothesis 2.2**

The next hypothesis examined gender differences in offending in more egalitarian homes. The hypothesis as stated in the previous chapter was: More similar rates of offending will be found for sons and daughters within egalitarian homes. Therefore, the overall sample was separated into only those respondents within an egalitarian home, when constructing a dichotomy as introduced by Hagan et al. (1979). According to the theory, there should not be mean differences in male and female delinquency within these egalitarian homes. To assess this, an independent samples t-test was conducted, with delinquency as the dependent variable (see Table 54).

The results are similar to those found for Hypothesis 2.1, which examined gender differences in more patriarchal homes. According to Hagan et al. (1985) gender differences in offending should be more pronounced in patriarchal homes and less pronounced in egalitarian homes. The current results show a statistically significant difference between male and female offending in more patriarchal homes, however, the mean differences are not significant in more egalitarian homes (t=1.20). This hypothesis, like the previous one, was tested with a one-tailed test, however this one-tailed test still resulted in a p-value of 0.16. These results are supportive of Power-Control Theory.

Table 54
*Independent Group T-Test between Gender and Delinquency (2000) for Individuals within more Egalitarian Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 0.41 | 1.02 | 69 | 0.61 | 0.21 | 143 | 1.20 |

Once t-tests were conducted, another analysis was produced to examine the relationship patriarchal/egalitarian attitudes had with delinquency. This allowed the researcher to utilize the interval/ratio or spectrum measure of patriarchy. Higher responses on the patriarchal attitude scale signaled higher patriarchy. To further examine this variable, a regression analysis was conducted. The dependent variable was Delinquency (2000).

The results (Table 55) show that there is a significant negative effect from patriarchal attitudes (based on the 2000 measure), however, gender is not a significant predictor. The model as a whole, which consisted of gender and the attitudinal measure of patriarchy, only had the ability to explain 7% of the variation in delinquency. Patriarchal attitudes play a role in delinquency, however the explanatory power of this model was limited.

Once this analysis was conducted, another analysis was produced, which examined the 2006 measure of delinquency as the dependent variable. These results (Table 56) are different than those previously found. The variable female is negative and significant, indicating that females commit less crimes based on this sample. In contrast, unlike the previous regression results, patriarchal attitudes (2000) is not significant. Therefore, it does not seem to be a good predictor of future delinquency when children have grown into later adolescence.

Table 55
*Regression Results for Hypothesis 2.2 (2000 Measure of Delinquency)*

| | Unstandardized Coefficients | | Standardized Coefficients | |
|---|---|---|---|---|
| | B | Std. Error | Beta | *t* |
| Constant | 0.944 | 0.09 | | 9.62*** |
| Female | -0.09 | 0.06 | -0.06 | -1.55 |
| Patriarchy Attitudes (00) | -0.10 | 0.02 | -0.24 | -6.34*** |

Dependent Variable=Delinquency (00)
$R^2$=0.07, *p<.05, **p<.01, ***p<.001, n=707

Table 56
*Regression Results for Hypothesis 2.2 (2006 Measure of Delinquency)*

| | Unstandardized Coefficients | | Standardized Coefficients | |
|---|---|---|---|---|
| | B | Std. Error | Beta | *t* |
| Constant | 2.10 | 0.25 | | 8.34*** |
| Female | -0.40 | 0.15 | -0.13 | -2.60** |
| Patriarchy Attitudes (06) | 0.03 | 0.04 | 0.03 | 0.64 |

Dependent Variable=Delinquency (06)
$R^2$=0.01, *p<.05, **p<.01, ***p<.001, n=707

After conducting the above linear regression analysis with the 2000 measure of patriarchy, a fourth analysis was conducted with the 2006 measure of patriarchal attitudes. Similar to the previous model, gender remains a significant predictor for delinquency. However, different from the previous model, the current model (Table 57) found that patriarchal attitudes were a significant predictor as well. As the response to patriarchy increases, delinquency decreases by .07 acts according to the slope (B=-0.07). This also indicates that as patriarchal attitudes decrease, getting closer to egalitarian attitudes, delinquency will increase. Beta weights still indicate gender (Beta=-0.18) being the more important variable, compared to patriarchy (Beta=-0.09), when predicting delinquency. The overall model still only has the ability to explain 3% of the

variation in delinquency. Therefore, there seems to be much more at play than only gender and the attitudes held about gender roles, based on the very low $R^2$.

Table 57
*Regression Results for Hypothesis 2.2*

| | Unstandardized Coefficients | | Standardized Coefficients | |
|---|---|---|---|---|
| | B | Std. Error | Beta | *t* |
| Constant | 2.67 | 0.016 | | 17.07*** |
| Female | -0.64 | 0.12 | -0.18 | -5.48*** |
| Patriarchy Attitudes (06) | -0.07 | 0.03 | -0.09 | -2.55** |

Dependent Variable=Delinquency (06)
$R^2$=0.02, *p<.05, **p<.01, ***p<.001, n=1127

**Hypothesis 3.1**

Hypothesis 3.1 examines if gender differences in offending remain into later adolescence in patriarchal homes. According to Power Control Theory, they should remain. To examine this hypothesis, a sample of only households deemed more patriarchal, utilizing the dichotomy similar to that presented by Hagan (1985), was used to run an independent sample t-test on a delinquency measure taken six years from the previous measure. The findings (Table 58) were very similar to those which utilized the 2000 measure of delinquency. In 2006, when respondents were between 16-18 years of age, females committed an average of 1.90 different delinquent acts during the previous year. During the same time frame, males committed an average of 2.27 different delinquent acts. These results do present a mean difference, and the t-test (t=2.07) was significant. This presents evidence that supports the hypothesis and Power Control Theory.

Table 58
*Independent Group T-Test between Gender and Delinquency (2006) for Individuals within More Patriarchal Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 1.90 | 1.72 | 206 | 2.27 | 1.84 | 180 | 2.07* |

*p<.05

Due to the small sample size for the 2000 measure of patriarchal attitudes, a second independent t-test was run. The dependent variable remained Delinquency (2006). However, the 2006 measure of patriarchal attitudes was utilized. Again, to be consistent with Hagan et al. (1985), this was coded as a dichotomy split at the median (0-4= more egalitarian, 5-14= more patriarchal). Utilizing the 2006 measure, a much larger sample size was attainted. The results are located in Table 59. When utilizing this sample, the t-test did find a significant mean difference ($p<0.01$) between male and female offending within more patriarchal households. This is consistent with Power Control Theory.

Table 59
*Independent Group T-Test between Gender and Delinquency (2006) for Individuals within More Patriarchal Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 1.56 | 1.52 | 205 | 2.27 | 1.84 | 334 | 4.67*** |

***p<.001

**Hypothesis 3.2**

Hypothesis 3.2 investigates gender differences in offending within egalitarian homes into late adolescence. Power Control Theory asserts that gender differences in egalitarian homes will be low and remain low into adulthood. To test this hypothesis, the

original sample was constricted to only those within egalitarian homes, according to the dichotomy presented by Hagan (1985). An independent t-test utilizing the 2006 measure of delinquency was conducted to examine gender differences.

The results from the initial t-test are located in Table 60. The mean difference between males and females in this analysis are slightly less than for patriarchal homes, and statistical significance now does not exist for egalitarian homes (t=1.56). Therefore, these results are supportive of the hypothesized results, and it seems that the differences in offending between males and females within egalitarian homes are insignificant in late adolescence.

Table 60
*Independent Group T-Test between Gender and Delinquency (2006) for Individuals within More Egalitarian (2000) Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 1.77 | 1.40 | 57 | 2.21 | 1.87 | 116 | 1.56 |

An independent samples t-test was also conducted with the 2006 measure of patriarchy. The results are located in Table 61. The 2006 measure of patriarchy was also important because the sample size increased, allowing us more reliable results regarding the mean differences in delinquency for each gender. According to the second test, there is a significant difference in male and female offending within egalitarian households. This provides mixed support for Power-Control Theory.

Table 61
*Independent Group T-Test between Gender and Delinquency (2006) for Individuals within More Egalitarian (2006) Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency | 1.93 | 1.70 | 259 | 2.44 | 1.82 | 154 | 2.84** |

**p<.001

**Hypothesis 4.1**

The next hypothesis examined the role of peer influence: when controlling for Power-Control variables, peer influence will play a limited role in delinquency. To test this hypothesis, variables introduced by Hagan et al (1985) were included in a linear regression analysis. These variables were patriarchal attitudes, risk preference, parental control (both maternal and paternal), and peer pressure.

The findings from the regression analysis are located in Table 62. These results are interesting in combination with previous results. First, the 2006 measure of patriarchal attitudes (B=-0.05) was not significant. Therefore, it does not appear to play much of a role in the explanation of delinquency. Both risk preference measures, impulsivity (B=0.09, p<.01) and risk seeking (B=0.13, p<.001) were significant, consistent with Power Control Theory. Parental control is a significant predictor, but only for mothers (B=-0.35, p<.01) and not for father's control (B=-0.11, p=0.18). Therefore, as maternal control increases, delinquency decreases. Finally, peer pressure is also significant (B=0.59, p<.001), and according to the Beta weights, peer pressure (Beta=0.38) plays the most important role.

The model results in 25% of the variation in delinquency being explained. These results provide mixed support of Power Control Theory. As Hagan et al. (1985) theorized, parental control, particularly maternal control, is important in keeping children from participating in delinquent acts. Also similar to Power Control Theory, both risk preference measures are significant predictors of delinquency. However, according to Power Control Theory, the effects of patriarchal attitudes, risk preference, and parental control should overshadow those of peer influence, and this was not the case. Similar to

Table 62
*Regression Results for Hypothesis 4.1*

| | Unstandardized Coefficients | | Standardized Coefficients | |
|---|---|---|---|---|
| | B | Std. Error | Beta | *t* |
| Constant | 1.84 | 0.39 | | 4.78*** |
| Female | -0.41 | 0.13 | -0.12 | -3.15** |
| Patriarchal Attitude (06) | -0.05 | 0.03 | -0.70 | -1.89 |
| Impulsivity | 0.09 | 0.04 | 0.10 | 2.75** |
| Risk Seeking | 0.13 | 0.03 | 0.14 | 3.92*** |
| Maternal Control | -0.35 | 0.13 | -0.09 | -2.59** |
| Paternal Control | -0.11 | 0.08 | -0.05 | -1.40 |
| Peer Pressure | 0.59 | 0.06 | 0.38 | 10.67*** |

Dependent Variable: Delinquency (2006)
$R^2$=0.25, *p<.05, **p<.01, ***p<.001, n=623

previous results of other studies, which examined peer influence on delinquency (Akavame, 1997; Singer & Levine, 1988), peer pressure was the most significant predictor of delinquency.

**Hypothesis 5.1**

To examine Hypothesis 5.1, gender differences in offending will be more pronounced in two-parent patriarchal families, a factorial ANOVA was conducted. Factorial ANOVAs allows for the examination of group differences for one dependent variable, referred to as a factor, when more than one categorical independent variable is involved. This allowed for the examination of whether gender as well as being from a broken home would increase or decrease instances of delinquency within patriarchal homes. The factorial ANOVA will test three separate null hypotheses at once (Agresti & Finlay, 2008). First, it must be determined if there is an interaction between the two independent variables, in this case gender and family structure. One method of examining this is creating a multiple line chart, where the lines represent the mean of the dependent variable, which in this case is delinquency. If the lines intersect, this is preliminary evidence of an interaction between the two independent variables. Figure 17

displays the current hypothesis' line graph, which does not suggest an interaction between gender and family structure.

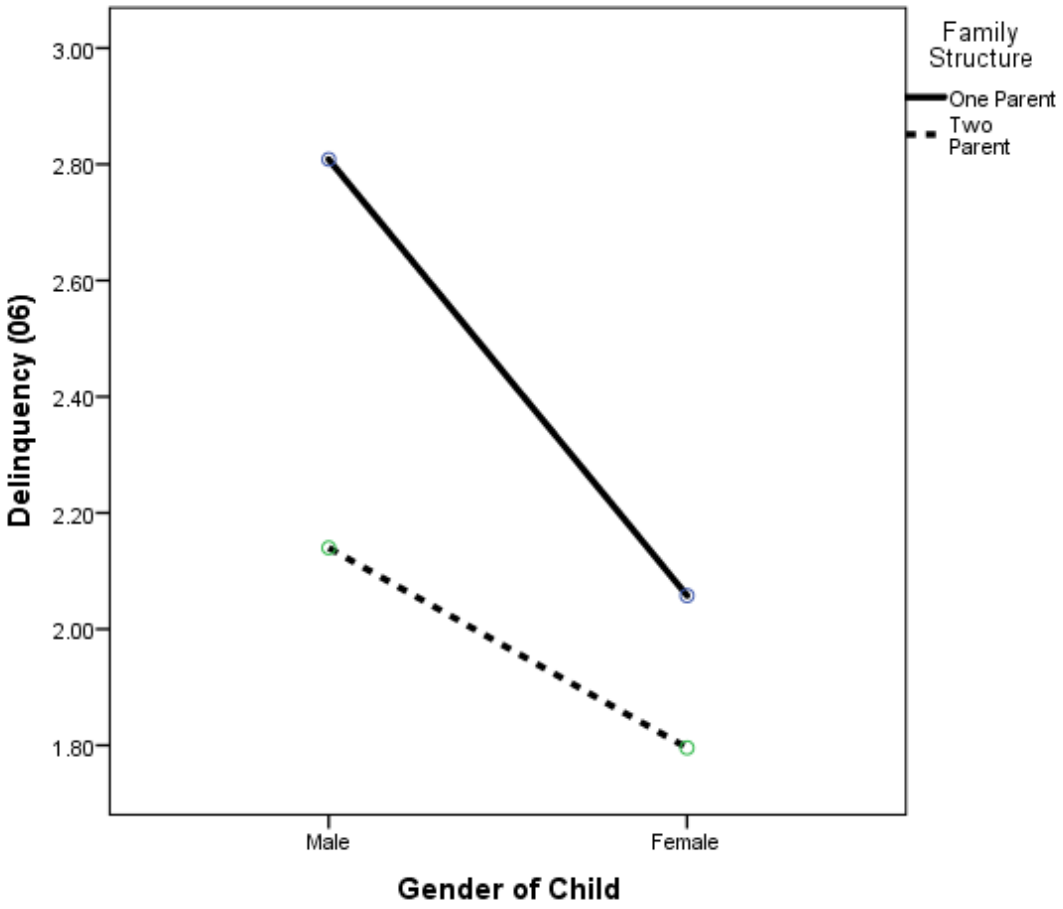


*Figure 17.* Multiple line chart examining gender and family structure interactions.

Once an interaction is determined (or not determined), the factorial analysis of variance is conducted. When an interaction exists, the variables cannot be interpreted individually as an effect on the factor; they must instead be interpreted as how they work together (Mertler & Vannatta, 2005). For the current hypothesis, an interaction is not found, therefore, each variable can be examined separately in relation to the dependent variable, Delinquency. Table 63 displays the results of the Factorial ANOVA. The results show significant differences in delinquency between males and females, as

well as a significant difference between single and two parent homes. According to the factorial ANOVA this interaction is not significant F(1, 281)=2.67, p=0.36. According to these results, there are significance group differences within patriarchal homes for gender as well as family structure.

Table 63
*Factorial Analysis of Variance of Delinquency Factor by Gender and Family Structure in More Patriarchal Homes*

| Source | Sum of Squares | df | Mean Square | F Ratio |
|---|---|---|---|---|
| **Between Treatments** | 32.30 | 3 | 10.77 | 3.47* |
| Female | 19.33 | 1 | 19.33 | 6.23*** |
| Two Parent Home | 13.97 | 1 | 13.97 | 4.50* |
| **2 Way Interaction** | | | | |
| Female x Two Parent | 2.67 | 1 | 2.67 | 0.86 |
| **Within Treatments** | 872.41 | 281 | 3.11 | |
| **Total** | 2189.00 | 285 | | |

Dependent Variable: Delinquency (2006)
$R^2$=0.04, *p<.05, **p<.01, ***p<.001, n=285

Table 64 goes into further detail to examine the estimated marginal means for each group. Within more patriarchal homes, females with only one parent present committed on average 2.06 delinquent acts, while those within two parent homes committed 1.80 delinquent acts. This would be supportive of Power Control Theory, although Hagan et al. (1985) examine all single parent homes as egalitarian rather than patriarchal.

Table 64
*Estimated Marginal Means of Delinquency by Gender and Family Structure in More Patriarchal Homes*

| Gender | Family Structure | Mean | Std. Error | 95% Confidence Interval | |
|---|---|---|---|---|---|
| | | | | Lower | Upper |
| Female | One Parent | 2.06 | 0.24 | 1.58 | 2.54 |
| | Two Parent | 1.80 | 0.18 | 1.44 | 2.16 |
| Male | One Parent | 2.81 | 0.26 | 2.30 | 3.31 |
| | Two Parent | 2.14 | 0.18 | 1.78 | 2.50 |

**Hypothesis 5.2**

The following hypothesis: gender differences in offending will be less pronounced in two-parent egalitarian households, also was examined utilizing a factorial ANOVA. First, a multiple line chart was created to determine preliminary evidence of a possible interaction between the two independent variables. Figure 18 displays this chart, where there is little evidence of an interaction between gender and family structure. Therefore, each variable may be interpreted individually.

Next, the factorial ANOVA was conducted. The findings do not show statistical significance for gender or family structure (see Table 65). Based on these findings, females within this sample do not commit significantly less delinquent acts than males. The findings also do not show significant differences in delinquency based on family structure when only examining egalitarian homes. This provides further support for Power Control Theory. Along with the previous hypothesis, more significant gender differences in offending in patriarchal homes are presented, rather than in egalitarian homes.

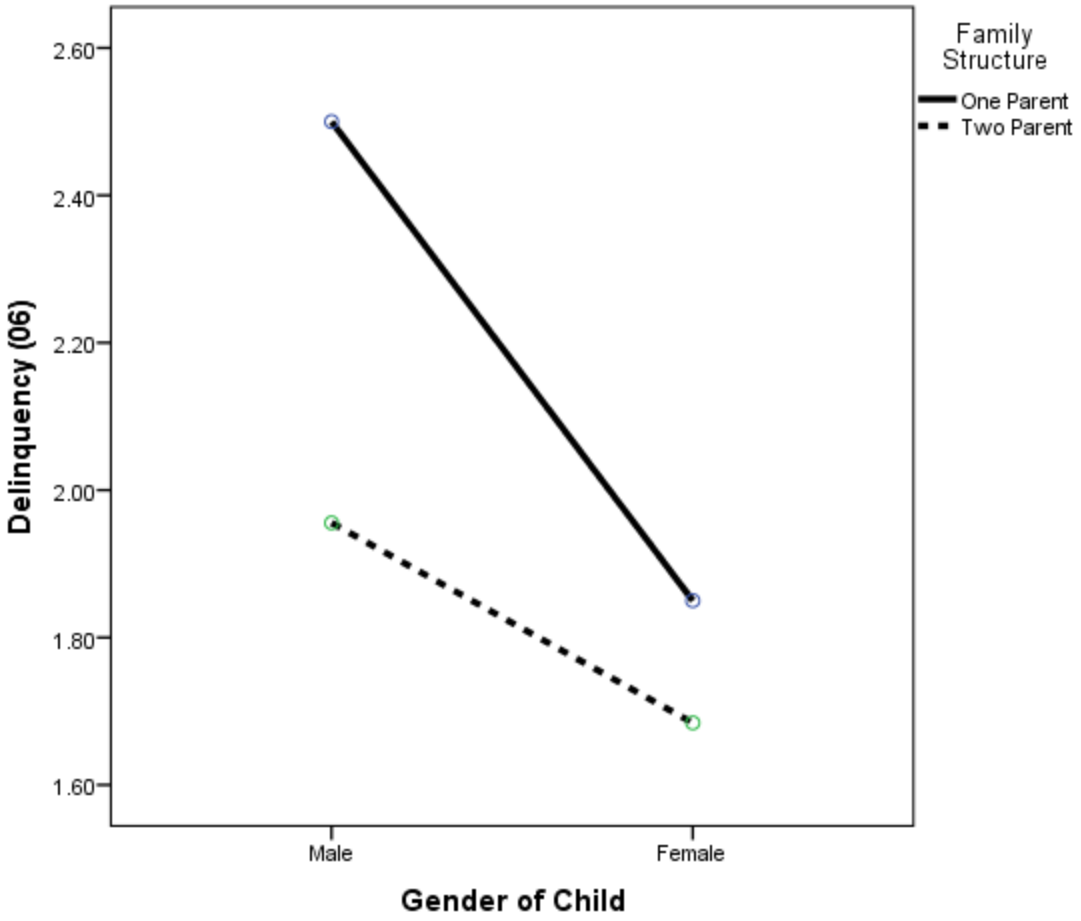


*Figure 18.* Multiple line chart examining gender and family structure interactions.

Table 65
*Factorial Analysis of Variance of Delinquency Factor by Gender and Family Structure in More Egalitarian Homes*

| Source | Sum of Squares | df | Mean Square | F Ratio |
|---|---|---|---|---|
| **Between Treatments** | 10.22 | 3 | 3.41 | 1.19 |
| Female | 5.44 | 1 | 5.44 | 1.90 |
| Two Parent Home | 3.23 | 1 | 3.23 | 1.13 |
| **2 Way Interaction** | | | | |
| Female x Two Parent | 0.92 | 1 | 0.92 | 0.32 |
| **Within Treatments** | 320.57 | 112 | 2.86 | |
| **Total** | 815.00 | 116 | | |

*p<.05; $R^2$=0.03, n=116

**Hypothesis 5.3**

The next hypothesis focuses on single parent households. According to Power Control Theory, single parent households should be treated as if they are egalitarian homes. Therefore, the current hypothesis is that gender differences in offending will be less pronounced in single-parent households. To examine this, an independent t-test was conducted on all single parent households, utilizing delinquency as the dependent variable. Both measures of delinquency from 2000 and 2006 were tested.

Table 66 includes the t-test results for both measures of delinquency. For both years, the gender differences in offending are statically significant. Therefore, there is a significant difference in offending for males and females in single parent homes, which remains into late adolescence. This is contrary to Power Control Theory, but similar to previous results (Bates et al., 2003).

Table 66
*Independent Group T-Test between Gender and Delinquency for Individuals within Single Parent Households*

| | Female | | | Male | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency 2000 | 0.30 | 0.86 | 96 | 0.57 | 0.98 | 113 | 2.05* |
| Delinquency 2006 | 1.93 | 1.82 | 105 | 2.59 | 1.81 | 127 | 2.75** |

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

**Hypothesis 5.4**

The final hypothesis, before constructing a full structural model, examines offending rates within single parent and two parent households. According to previous research (Bates et al., 2003) there should be higher delinquency within single parent homes than two parent homes, regardless of gender. Therefore, t-tests were conducted

utilizing the full sample with both measures of delinquency used as dependent variables.

The results (Table 67) show that there is a significant mean difference in offending, between single parent homes (M=1.15) and two parent homes (M=0.78) when the respondents were between 10-12 years old. The significant mean difference persists when the respondents were between 16-18 years of age. In 2006, respondents in single parent homes report 2.30 different delinquent acts in the past year, while those in households with both parents report 1.96 different delinquent acts, which is statistically significant.

Table 67
*Independent Group T-Test between Household Makeup and Delinquency*

| | Single Parent | | | Both Parents | | | |
|---|---|---|---|---|---|---|---|
| | M | SD | n | M | SD | n | t-test |
| Delinquency 2000 | 0.45 | 0.93 | 209 | 0.18 | 0.62 | 307 | 3.84*** |
| Delinquency 2006 | 2.29 | 1.84 | 232 | 1.96 | 1.70 | 370 | 2.29* |

*p<.05, **p<.001, ***p<.0001

## Structural Equation Modeling

Based on the findings from the previous hypotheses, further exploration of Power Control Theory is warranted. The final portion of this chapter will present several structural equation models to determine Power Control Theory's explanatory value for delinquency. To conduct a full structural model, a measurement model first must be assessed, as described in the previous chapter.

Before assessing the measurement model, the identification of the model must be determined. To be sure of model identification, Kenny, Kash, & Bolger (1998)

present a four step method. The first step is to be sure that one loading for each construct is set to 1.0. This condition was met within the measurement model, which can be viewed in Table 68. The second condition is to have the correct number of indicators for each latent measure. There is argument within the literature as to whether two or 3 indicators should be used (see Kenny & McCoach, 2003). However, to be safe, the current model utilizes three indicators as sufficient for the creation of a latent measure. The measure for parental control utilized only two indicators, therefore it is examined as two separate observed variables, rather than a latent measure. This means the second condition for identification is also met.

The third condition requires that constructs not have correlated measurement error (Kenny & McCoach, 2003). Measurement error within the measurement model was found to not hold statistical significance. The fourth and final condition is that for each indicator there must be at least one other indicator for which it does not share correlated measurement error. Both the third and fourth conditions were examined with the use of STATA and were also met. Therefore, it can be determined that this model is identified and a measurement model can be examined further.

**Theoretical Model**

As presented in the analysis chapter the fit indices must be examined. If the model does not fit the data, there is no reason to continue with either a measurement or structural model (Hoyle, 1995). There are four fit indices which were assessed before analysis began. Below, Table 69 shows the fit indices for the measurement model.

Table 68
*Measurement Model for Hagan's PCT*

| Latent Measure | Measure | | Factor Loading |
|---|---|---|---|
| Attitudinal Patriarchy | Unpopular | Competing with boys will make girls unpopular. | 1.00 |
| | GirlsPay | Girls should pay their own way on dates. | 0.69** |
| | College | When there is not enough money, boys should go to college instead of girl. | 1.30** |
| | MomControl | How often mother knows who child is with when not at hom? | |
| | DadControl | How often father knows who child is with when not at home? | |
| Risk Preference | TakingRisk | I enjoy taking risks. | 1.00** |
| | EnjoyNew | I enjoy new/exciting experiences even if they are frightening. | 0.62** |
| | Danger | Life with no danger in it would be too dull for me. | 0.83** |
| Delinquency (06) | DmgProp | How many times have you damaged property? | 1.00** |
| | Curfew | Have you stayed out later than your parents said you should? | 1.10** |
| | HurtSomeone | Have you hurt someone badly enough to need bandages or a doctor? | 0.66** |
| | Stolen | Have you taken something from a store without paying for it? | 0.56** |
| | Drunk | Have you gotten drunk? | 1.10** |
| | SkipSchool | Have you skipped school without permission? | 1.36** |
| | StayedOut | Have you stayed out at least one night without permission? | 1.27** |

**p<.01

Table 69

*Fit Statistics for Measurement Model for Hagan's Power Control Theory*

| Index | Value | Standard |
|---|---|---|
| $\chi^2$ | 200.581, p<0.01 | Non-significance |
| Root mean square error approximation (RMSEA) | 0.05 | <.10 |
| Standard root mean square residual (SRMSR) | 0.05 | <.05 |
| Comparative fit index (CFI) | 0.84 | .90 |

Fit indices are one of the most debated portions of SEM (Bollen & Long, 1993). However, the researcher has chosen the are the most commonly utilized fit indices throughout criminological research. The first index is chi squared. As displayed in Table 69, the standard for structural equation modeling is a chi square measure which does not reach statistical significance. However, chi square also can be affected by sample size, and a larger sample will always make this value significant (Bollen & Long, 1993). Therefore, examination of other fit indices are warranted. The RMSEA should be below 0.10, and is with a value of 0.05. The SRMSR should be below 0.05. This value was 0.049 before rounding, and therefore we will designate this value also as acceptable. The CFI should be near 0.90, and like the other indices it is very close, with a value of 0.84. Based on these indices, we will note that the model does seem to fit the data, and we can move on to the measurement model itself. The factor loadings for the Measurement Model are located in Table 68.

Each of the factor loadings were acceptable and statistically significant. This means that each observed variable was an acceptable measure for the latent variable it

is expected to measure. There are no factor loadings for parental control because there were not enough measures to make a latent measure, therefore these observed variables were included as measured.

Along with factor loadings, correlations among the latent measures also are examined at this point. Table 70 shows the correlations among the variables. Although the correlations are somewhat weak, most are in the expected direction and are statically significant at the p<.05 or p<.01 level. The most interesting correlation is between Attitudinal Patriarchy and the variables for parental control. According to these correlations, an increase in attitudinal patriarchy reflects a decrease in parental control. The structural model will help to further examine this relationship by controlling for other variables. Although these findings are not ideal, they are enough to warrant a structural model.

Table 70
*Correlations among Latent Variables in Power Control Theory*

| | | | | | |
|---|---|---|---|---|---|
| Attitudinal Patriarchy | 1.00 | | | | |
| Mom Control | -0.18** | 1.00 | | | |
| Dad Control | -0.08 | 0.26** | 1.00 | | |
| Risk Preference | 0.11* | -0.13** | -0.07* | 1.00 | |
| Delinquency (06) | 0.09* | -0.17** | -0.14** | 0.27** | 1.00 |

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

The structural equation model will utilize the same observed variables to create the latent variables as in the measurement model. Identical to the measurement model, fit indices first must be examined. The same four indices that were examined previously were assessed for the full structural model. The fit statistics in Table 71 show a model that fits the data, even more so than the measurement model.

The value of chi square, 140.06, is again significant (p<0.01). Although the standard is non-significance, it seems this may be due to the sample size and therefore more indices should be examined. The second measure, RMSEA has a standard of less than 0.10, which is met with a value of 0.04. The third index, SRMSR, has a standard of less than 0.05, which similar to the measurement model is closely met. Finally, the CFI should be around 0.90 and with a value of 0.92 it does meet that qualification. Since we have determined the model fits the data, we can examine the path coefficients.

Table 71

*Fit Statistics for Structural Model of Hagan's Power-Control Theory*

| Index | Value | Standard |
|---|---|---|
| $\chi^2$ | 140.06, p<0.01 | Non-significance |
| Root mean square error approximation (RMSEA) | 0.04 | <0.10 |
| Standard root mean square residual (SRMSR) | 0.05 | <0.05 |
| Comparative fit index (CFI) | 0.92 | 0.90 |

All of the data were analyzed using Structural Equation Modeling Builder in STATA 14, with FIML for missing data. (Some researchers who utilize structural equation modeling prefer the use of a covariance matrix inputted into the computer software. For those researchers a covariance matrix has been provided in Appendix C). Numerous models were produced to find models supported by Power-Control Theory, previous literature, and fit with the current data set. This was not a simple task. The first

structural model examines the ideas presented in Hagan's Power-Control Theory (see Figure 19).

The results of the full structural model show partial support of Power-Control Theory. Only two paths are statically significant. Those paths are Maternal Control → Patriarchal Attitudes and Maternal Control→ Delinquency. This is important because some of the key concepts Hagan describes seem to have little or no effect on delinquency, particularly patriarchal attitudes (or gender roles). However, that being said, there still seems to be some important paths that exist.

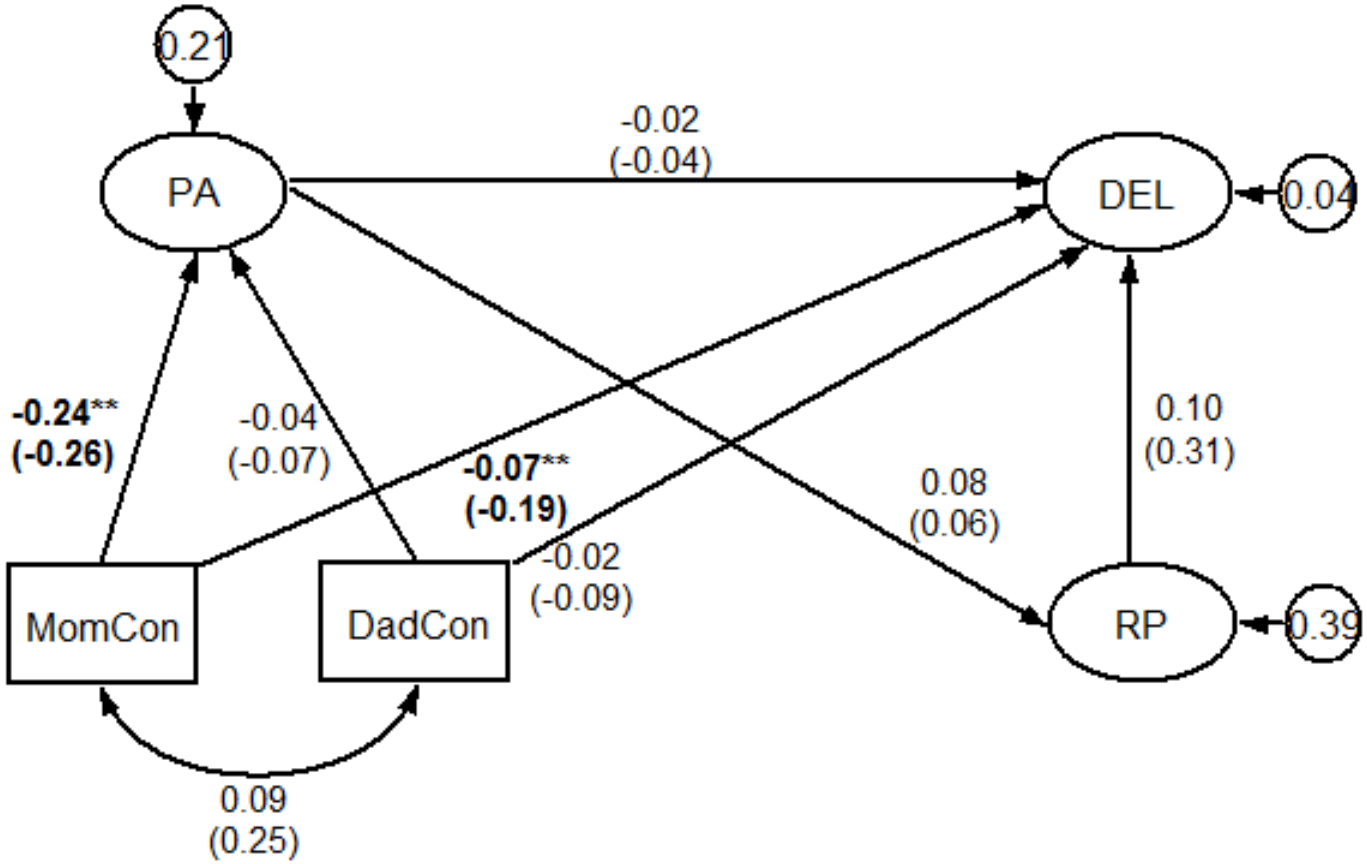


*Figure 19.* Full structural model for theoretical model. **p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

The first is that of Maternal Control → Patriarchal Attitudes. The unstandardized coefficient was -0.24 and standardized coefficient for this relationship was -0.26, which was significant at the .01 level. This indicates that although weak, when controlling for all other variables in the model, maternal control does have an effect on the patriarchal attitudes the child possesses. More specifically, as mom is more aware of who the children are with, they develop less patriarchal attitudes. This relationship does not exist between paternal control and patriarchal attitudes.

The second important path is between Maternal Control → Delinquency. This would be supportive of Power-Control Theory. The path has an unstandardized coefficient of -0.07, significant at the .01 level, and a standardized coefficient of -0.19. This shows that as maternal control increases, delinquency seems to decrease. This is also notable because of the time frame. The control variables were measured in 2002, while the delinquency measures in this model were taken in 2006. This would mean that maternal control also has a lasting effect on delinquency. Like the relationship between control and patriarchal attitudes, paternal control also does not seem to be important to a child's delinquency.

Next, group differences were examined by running the same model for males and females separately. These models are below in Figures 20 and 21.

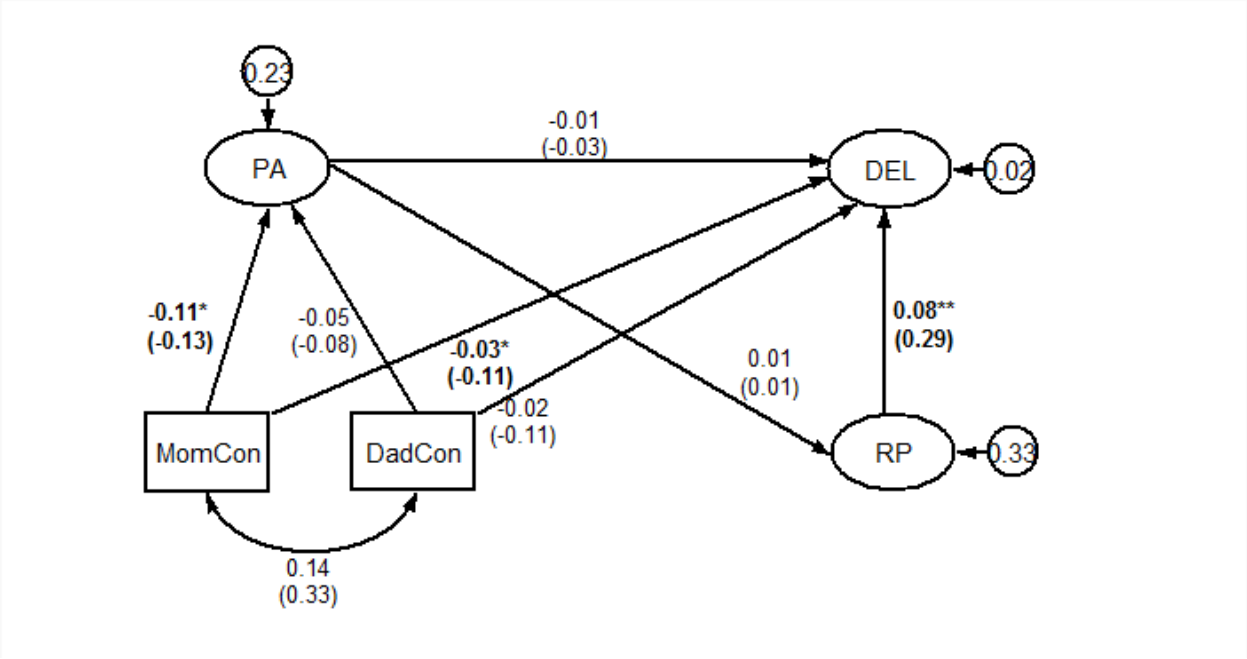


*Figure 20.* Structural model for males. **p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

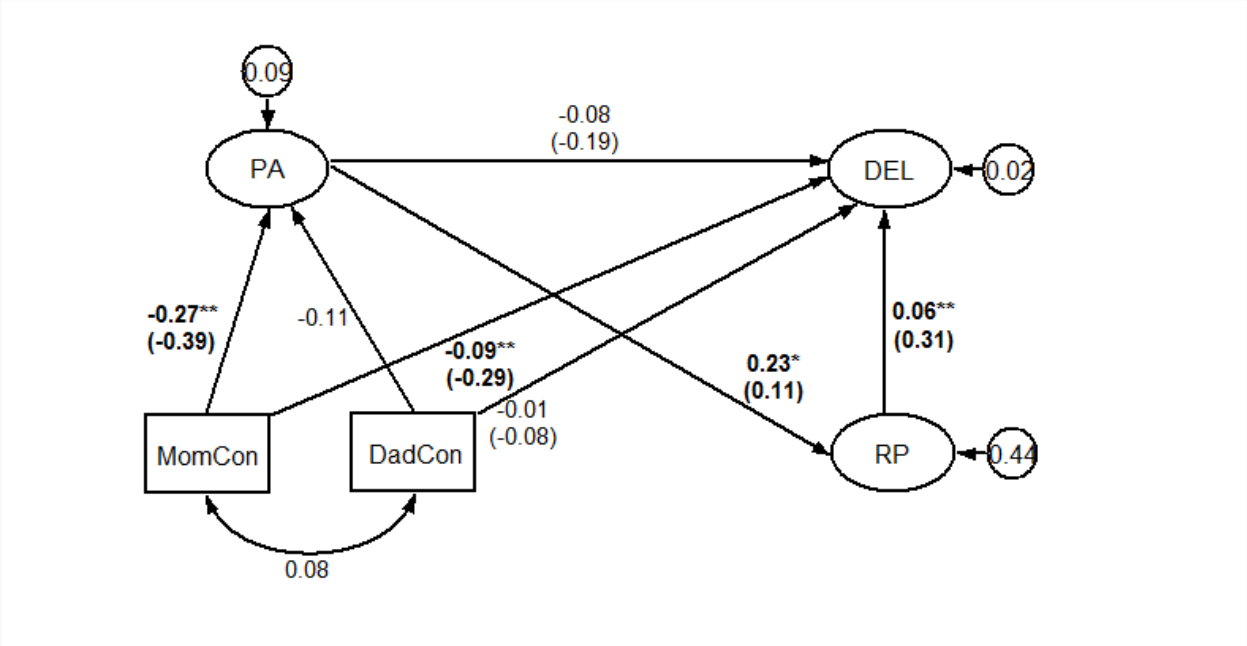


*Figure 21*. Structural model for females. **p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

By examining Figures 20 and 21, it can be noted there are differences between males and females. For males, three paths have statistical significance. Those paths are Maternal Control → Patriarchal Attitudes, Maternal Control→ Delinquency, and Risk Preference → Delinquency. For females, one more path was significant, Patriarchal Attitudes → Risk Preference.

Maternal Control and Patriarchal Attitudes had a standardized coefficient of -0.13 ($p<.05$) for boys and -0.39 ($p<.01$) for girls. By examining the standardized coefficients, we can evaluate the direction of the relationship as well as compare it across models. Therefore, the role that mother's control plays in creating gender roles, or patriarchal attitudes, seems to be more important for daughters than sons. However, this relationship is important for both daughters and sons, which is consistent with Power-Control Theory (Hagan et al., 1979). Like the overall model, paternal control did not play an important role in creating gender roles for either sons or daughters.

Maternal Control plays a similar role with Delinquency, for both sons and daughters, as it did in predicting Patriarchal Attitudes. Sons had a standardized coefficient of -0.11 ($p<.05$) for this path, and daughters had a standard coefficient of -0.29 ($p<.01$). This can be interpreted as mothers who exhibit more control over their children have children who commit fewer delinquent acts. It also seems that this control is more important for daughter's delinquency than sons. This too is consistent with Power Control Theory (Hagan et al., 1979).

The path from Risk Preference to Delinquency seems comparable for both males and females. Males had a standardized coefficient of 0.29 ($p<.001$) and females had a standardized coefficient of 0.31 ($p<.001$). Both paths have a positive coefficient,

therefore as risk preference increases, so too does delinquency. Compared to other paths in the SEM, this is the most important path for males. However, for females it is very similar to the path of Maternal Control→Delinquency and slightly less than the path from Maternal Control→Patriarchal Attitudes. The gender differences in these paths seems to corroborate the basic tenants of Power-Control Theory.

The final coefficient to discuss is that between Patriarchal Attitudes → Risk Preference. This standardized coefficient, 0.11 ($p<.05$), is only statistically significant for daughters. There is a positive relationship between the two variables, which means that as patriarchal attitudes increase, risk preferences also increase. This is not the expected direction of this path for females. According to Power Control Theory, as females hold stronger patriarchal views, their risk and delinquency should decrease. However, the opposite seems to be happening within this data. Although this seems to be the case, it is also interesting that these attitudes seem to matter more for females than males, which could be support for Power-Control Theory in some ways.

**Alternative Model**

After examining previous models, it was evident that further models should be run. Of particular interest to this dissertation was expanding the measures of parenting beyond simple "control," as described by Hagan et al. (1979). To do this several different models were produced to find a model that fit the current data, while utilizing expanded parenting measures. The measures added in the current model were Expectations and Monitoring. Peer pressure was added as a control, due to the importance it plays throughout the delinquency and Power-Control literature (Akavame, 1997; Singer & Levine, 1998). Like the previous models, a measurement model was run

first to examine factor loadings and correlations between latent measures. Table 72 presents the factor loadings.

Similar to the previous measurement model, the alternative measurement model also contains factor loadings that are appropriate and statistically significant. It should be noted that like the previous model, parental control measures do not have a factor loading because there are not enough indicators to create a latent measure. This is also true of the measure for parental monitoring. These three variables will be examined as observed variables, rather than latent measures. Since all factor loadings are as intended, the correlations among latent measures and fit statistics should be examined.

Table 74 displays the fit statistics for the measurement model of the alternative model. Chi square has a standard of non-significance for structural equation modeling (Bollen & Long, 1993; Kenny & McCoach, 2003). However, it is the only fit statistic that is affected by sample size. The value of chi squared for the current model is 432.38 ($p<0.01$), therefore more fit indices are needed for evaluation of model fit. The three other previously agreed on indices were then evaluated. Each of these, RMSEA (0.04), SRMSR (0.05), and CFI (0.88) were at, or very near their intended standard to conclude that the model fits the data. This creates the necessary standards to examine a full structural model.

Table 72
*Measurement Model for Alternative Model*

| Latent Measure | Measure | | Factor Loading |
|---|---|---|---|
| Attitudinal Patriarchy | Unpopular | Competing with boys will make girls unpopular. | 1.00** |
| | GirlsPay | Girls should pay their own way on dates. | 0.61** |
| | College | When there is not enough money, boys should go to college instead of girl. | 1.10** |
| | Maternal Control | How often mother knows who child is with when not at home? | |
| | Paternal Control | How often father knows who child is with when not at home? | |
| | Monitor | Do parents monitor the television shows you watch? | |
| Expectations | ExpBed | How often is child expected to make their own bed? | 1.00** |
| | ExpChore | How often is child expected to do chores? | 0.59** |
| | ExpRoom | How often is child expected to clean their own room? | 1.00** |
| | ExpSelf | How often is child expected to pick up after their self? | 0.41** |
| Risk Preference | TakingRisk | I enjoy taking risks. | 1.00** |
| | EnjoyNew | I enjoy new/exciting experiences even if they are frightening. | 0.61** |
| | Danger | Life with no danger in it would be too dull for me. | 0.85** |
| Peer Pressure | PPCrime | Do you feel pressure to commit crimes? | 1.00** |
| | PPDrink | Do you feel pressure to drink alcohol? | 2.70** |
| | PPSkip | Do you feel pressure to skip school? | 2.00** |
| | PPCig | Do you feel pressure to smoke cigarettes? | 2.00** |
| | PPDrug | Do you feel pressure to try drugs? | 2.50** |
| Delinquency (06) | DmgProp | How many times have you damaged property? | 1.00** |
| | Curfew | Have you stayed out later than your parents said you should? | 1.10** |
| | HurtSomeone | Have you hurt someone badly enough to need bandages or a doctor? | 0.68** |
| | Stolen | Have you taken something from a store without paying for it? | 0.58** |
| | Drunk | Have you gotten drunk? | 1.10** |
| | SkipSchool | Have you skipped school without permission? | 1.36** |
| | StayedOut | Have you stayed out at least one night without permission? | 1.27** |

Table 73
*Correlations among Latent Variables in Alternative Model*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Attitudinal Patriarchy | 1.00 | | | | | | |
| Mom Control | -0.18** | 1.00 | | | | | |
| Dad Control | -0.08 | 0.26** | 1.00 | | | | |
| MonitorTV | -0.01 | 0.02 | 0.11** | 1.00 | | | |
| Risk Preference | 0.11* | -0.13** | -0.07* | 0.01 | 1.00 | | |
| Peer Pressure | 0.02 | -0.01 | -0.02 | 0.01 | 0.11** | 1.00 | |
| Delinquency (06) | 0.09* | -0.17** | -0.11** | -0.02 | 0.27** | 0.37** | 1.00 |

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

Table 74

*Fit Statistics for Measurement Model of Alternative Model*

| Index | Value | Standard |
|---|---|---|
| $\chi^2$ | 432.38 p=0.00 | Non-significance |
| Root mean square error approximation (RMSEA) | 0.04 | <.10 |
| Standard root mean square residual (SRMSR) | 0.05 | <.05 |
| Comparative fit index (CFI) | 0.88 | .90 |

The alternative structural model is presented in Figure 22. This model does provide some indirect support for Power-Control Theory. However, when controlling for other measures, patriarchal attitudes seems to have little effect on other measures. From the information presented in this model, Maternal Control→Patriarchal Attitudes does have a significant relationship, but the coefficient (-0.19, both standardized and

unstandardized, p<.05) is in the opposite of the theorized direction. According to these findings, as maternal control increases, it seems patriarchal attitudes are decreased. Patriarchal Attitudes → Expectations also has a statistically significant standardized coefficient (-0.16, p<.05) and in the opposite of the theorized direction. Therefore, an increase in patriarchal attitudes indicates a decrease in expectations, which could be supportive of Power Control Theories for sons, but not daughters. Only these two path coefficients for patriarchal attitudes were statistically significant. Although Patriarchal Attitudes did not seem to play a large part in this model, there are still other significant findings.

Maternal control has statistically significant path coefficients for two paths beyond that of patriarchal attitudes. Maternal Control→ Risk Preferences has a standardized coefficient of -0.14 (p<.05), which is in the theorized direction. With the variables controlled for in this model, maternal control had the greatest impact on risk preferences. This is indirect support for Power Control Theory. Maternal Control → Delinquency has a standardized coefficient of -0.24 (p<.05), showing that there are important implications for the level of maternal control and its ultimate impact on delinquency. This too would be indirect support for Power Control Theory.

Beyond the path for maternal control, Delinquency was also impacted by other variables within the model. Risk Preference→Delinquency had a standardized coefficient of 0.30 (p<.05), which shows a positive, statistically significant relationship that had greater predictive abilities that that of Maternal Control→Delinquency. A still greater predictive relationship existed among Peer Pressure→Delinquency (0.38,

p<.05). This is not supportive of Power-Control Theory, however, it is consistent with the literature on delinquency (Siegel & Welsh, 2016).

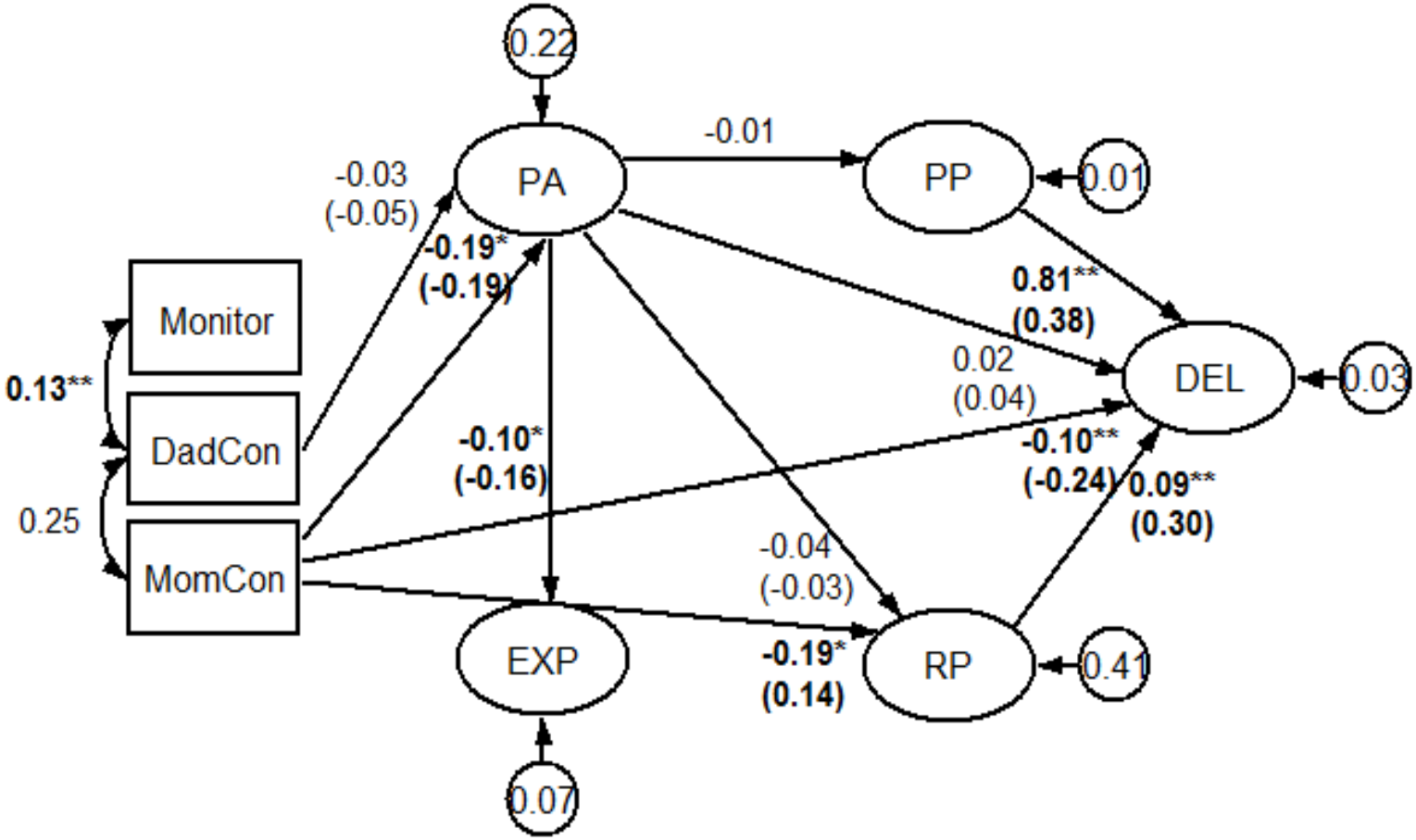


Figure 22: Full Structural Model for Alternative Model

**p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

The final models are extensions of the alternative structural equation model, grouped by gender. These models can be found below in Figures 23 and 24. Figure 23 presents the alternative model for only male respondents, while Figure 24 displays the same model for female respondents.

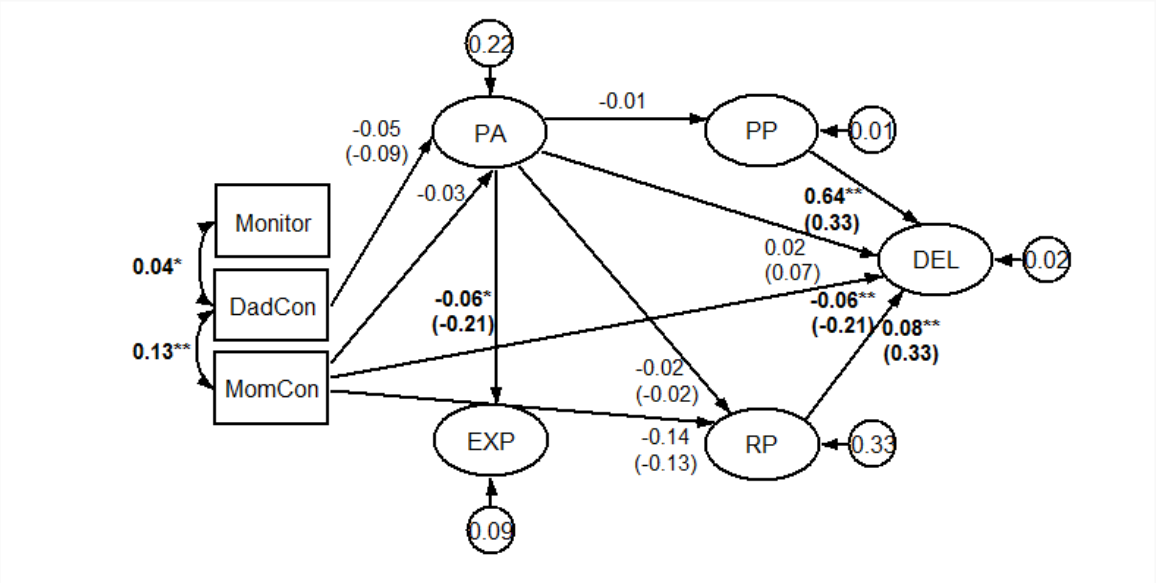


*Figure 23.* Alternative structural model for males. **p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

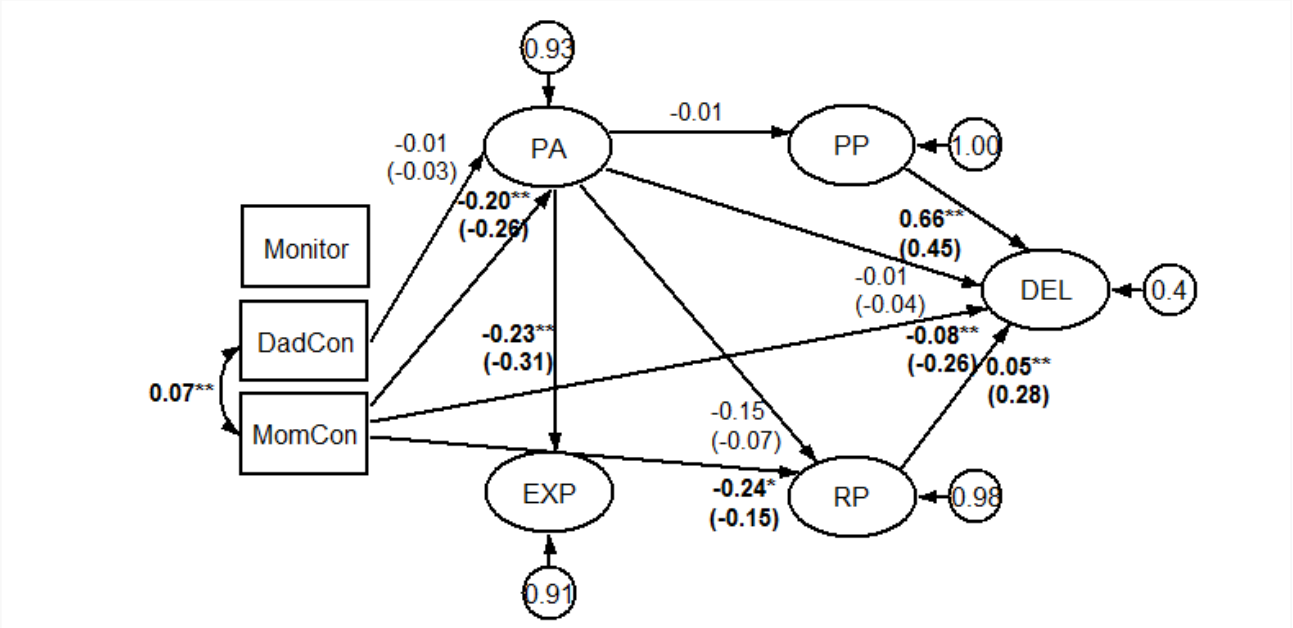


*Figure 24.* Alternative structural model for females. **p<.01, *p<.05. Unstandardized coefficients are presented on top, standardized coefficients are presented in parentheses.

These models are very similar, however, there are a few important differences. Once the groups are separated, the significant path between Maternal Control→Patriarchal Attitudes no longer exists for males, with a standardized coefficient of -0.03 ($p>.05$). However, it is statistically significant for females, with a standardized coefficient of -0.26 ($p<.01$). Although this path is significant for females, the coefficient is not in the theorized direction, similar to the model involving both males and females. The path from Patriarchal Attitudes→Expectations is significant in for both males with a standardized coefficient of -0.21 ($p<.05$), and females, with a standardized coefficient of -0.31 ($p<.01$). When comparing these beta weights within the models, these are the second most important paths for both males and females. However, for females the higher beta weight presents a medium effect, rather than only a small effect as revealed in the male model. When comparing both of these paths (maternal control and expectations) involving Patriarchal Attitudes, it would seem that more is at work creating the expectation levels parents have for their children beyond their monitoring, control, and patriarchal ideas of the household. These findings do not support Hagan et al.'s (1979) Power-Control Theory.

One finding that does support concepts within Power-Control is the importance of maternal control. Paternal control did not have significant relationships with any of the endogenous variables, but did show a weak, but significant correlation with maternal control ($r=0.13$, $p<.01$). Maternal control was a significant predictor for delinquency in both the male (beta=-0.21, $p<.01$) and female (beta=-0.26, $p<.01$) models. Both are also in the expected direction. Therefore, the more control a mother exerts, the fewer delinquent acts her children will commit. In the model of females, the path Maternal

Control→Risk Preferences was also significant (beta=-0.15, p<.05), but was not mirrored by the male model. This could be further evidence that maternal control is more important within the mother-daughter relationship to curb risk preferences, and eventual delinquency, than it is for the mother-son relationship. These findings are supportive of Hagan et al.'s (1979) Power-Control Theory.

As expected the path from Risk Preference→Delinquency is significant in all models as well. For males it is equivalent to peers as the most impactful predictor with a standardized coefficient of 0.33, (p<.01). For females although strong, this relationship does not have the highest effect with a standardized coefficient of 0.28 (p<.01). It is possible that for females the path between Maternal Control→Risk Preferences does moderate this effect. This could be further support for Power-Control Theory, although it is also supportive of other theories of delinquency as well, which will be discussed shortly.

When examining all models peer pressure is the most effective predictor of delinquency in both the male sample (beta=0.33, p<.01) and in the female sample (beta=0.45, p<.01). This is consistent with previous literature (Siegel & Welsh, 2016), however, this is not evidence supporting Power Control Theory. The measure, which was utilized as a control due to its importance within the delinquency literature, was collected at the same time as delinquency.

## Summary

The findings of this research have shown mixed support for Power-Control Theory. This study included twelve hypotheses based on Hagan's original Power-Control Theory (Hagan et al., 1985). Of the hypotheses all but three showed moderate

support for the theory. Those that did not show support for the theory included important findings regarding single-parent households, and peer influence, which are discussed at greater depth in the next chapter. The hypotheses did present enough evidence to run full structural models.

Two structural equation models were employed in this research. The first was a model based on Hagan's original Power-Control Theory (Hagan et al., 1985). This model estimated partial support for Power-Control Theory and warranted a grouped model, grouped by gender, to examine gender differences in Power-Control concepts. The most interesting gender difference was with the relationship between patriarchal attitudes and risk preference. For boys, this was not a significant relationship. However, for girl it was a significant positive relationship, which could be evidence to support the notion that gender roles are actually making girls rebel and be more prone to risky behaviors.

The final structural model was an alternative model to add to the current literature on Power-Control Theory. This model included more measures of parenting and a measure or peer pressure. Peer pressure was a significant predictor of delinquency, contrary to Power-Control Theory. Gender differences were also examined with a grouped structural equation model. Similar to the theoretical model there was interesting gender differences regarding patriarchal attitudes, as well as maternal control. Overall, the models present important gender differences, which will be discussed further in the next chapter.

# CHAPTER SIX

# DISCUSSION AND CONCLUSIONS

Similar to other crime rates, those perpetrated by females have decreased in recent years (FBI, 2013). However, they have decreased at a slower pace as compared to males (FBI, 2013; Schwartz & Steffensmeier, 2007) and females are committing more “masculine” crimes, (such as assault) than in previous times (Schwartz & Steffensmeier, 2007; Snyder, 2011; Snyder & Mulako-Wangota, 2014; Steffensmeier, 1980). This has led to an interesting problem within the criminological theory literature, because most theories are created to explain male crime. Hagan and colleagues (1987) were one of the few to create a theory to not only explain female criminality, but also explain the criminality differences that have long existed between males and females.

Few studies have fully examined Power-Control Theory, particularly in recent decades when female crime rates become an issue. Previous research produced overall mixed results for Power-Control Theory (Avakame, 1997; Collett & Lizardo, 2009; Finckenauer, et al., 1998; Mack & Leiber, 2005; Singer & Levine, 1988). Many of those studies that found stronger support for the theory were conducted in the 1970s and 1980s with a Canadian sample (Hagan et al., 1979; 1985; 1987; 1988; 1990). More recent studies providing support utilized international samples (Finckenauer et al., 1998; Hadjar et al., 2007; Hirtenlehner et al., 2014; Tsutomi et al., 2013), which could be influenced by cultural gender differences that exist.

The current study intended to add to the literature by utilizing a nationally representative sample from the United States where little support has been provided for Power-Control Theory previously (Avakame, 1997; Collett & Lizardo, 2009;

Finckenauer, et al., 1998; Mack & Leiber, 2005; Singer & Levine, 1988). Examining parenting and its tendency to be gender specific was also a goal of the study. Furthermore, the study hoped to provide a better understanding of the importance of gender roles in the predictability of juvenile delinquency and adult offending. To attain these goals, the basic premises of Power-Control Theory first were examined before estimating structural equation models to assess the theory as a whole. The research utilized an attitudinal measure of patriarchy along with future measures of criminality. Although Hagan et al. (1985) did not clarify the ability of Power Control Theory to account for future criminality, this longitudinal assessment adds to the literature on Power-Control Theory. Multiple hypotheses were tested and several structural equation models were examined, including group models for males and females, to examine gender differences in Power-Control variables and delinquency more closely.

This final chapter will discuss major findings of the study, as well as conclusions which can be drawn from them. First, the findings for the hypotheses will be discussed. This discussion will be enhanced by the findings from the structural models of Power-Control Theory. Next, relevant policy implications will be presented, based on the findings as well as the theory itself. This will be followed by a discussion of the limitations of the current research, as well as suggestions for research moving forward. The study will conclude with a final summary of the overall research.

## Findings and Hypotheses

A total of 12 hypotheses were examined using numerous methods of statistical analysis. A table has been provided in Appendix D to clarify results of each hypothesis as well as their support, or lack thereof for Power-Control Theory. The data and specific

research question determined the method employed. Of the 12 hypotheses, all but three received some support for Power-Control Theory. It should be noted that the nine supported hypotheses also contain partial or full support for other criminological explanations of gender differences in offending, meaning they should not be viewed as sufficient evidence to show full support for Power-Control Theory.

Hypotheses 1.1 through 1.3 examined very basic tenants of the theory, which included the instrument-object relationship of Power-Control Theory (i.e., daughters are more likely to be objects of control and mothers are more likely to be the instruments of that control). These hypotheses also tested the proposition that boys will commit more delinquency than girls. Utilizing independent and paired t-tests, evidence was found to support these claims, consistent with previous research on these matters (Hagan et al., 1979; 1985; 1990; Leiber & Wacker, 1997; Mack & Leiber, 2005). These findings add little to the literature on female offending or parenting, however, as these facts are rarely disputed. Nonetheless, they were included to find preliminary support for the theory before continuing with more detailed hypotheses and analyses.

Hagan et al. (1985) placed much of the emphasis of parental control on mothers. They believed mothers to be the source of parental control in the home for both sons and daughters, but more importantly for daughters. This control also would come with the transference of stereotypical gender roles in more patriarchal homes. Hagan and colleagues placed little importance on paternal control throughout numerous tests of Power-Control Theory (1979; 1985; 1987; 1988; 1990). However, Morash & Chesney-Lind (1991) saw this to be problematic and reintroduced the importance of paternal control throughout their study. Preliminary t-tests within the current research supported

Hagan et al.'s (1985) original thesis on the importance of maternal rather than paternal control. Nevertheless, paternal control measures were included in the structural equation models and are discussed in more detail below.

One of the most difficult tasks of this study was creating a satisfactory measure of patriarchy. Hagan (1985) provided an initial measure of patriarchy, in which the parent's occupation and the control they exerted within that job determined whether a family would be considered patriarchal or egalitarian. However, the dataset employed in the current research did not contain sufficient variables to utilize such a measure. Therefore, an attitudinal measure was used, similar to previous studies (Bates et al., 2003; Blackwell, 2000; Blackwell & Reed, 2003; Blackwell et al., 2002). To further complicate the issue, Hagan's measure of patriarchy was discussed more as a dichotomy as opposed to a continuum of patriarchy. To assess this in both ways (as a dichotomy and a continuum of patriarchy) and add to the literature on differences in patriarchal and egalitarian homes multiple analyses were conducted.

The measure of patriarchy first was divided into a dichotomy by coding the responses based on the median response. This allowed a larger sample size while distinguishing between egalitarian and patriarchal households. The sample was split based on these two groups, and t-tests were conducted to examine gender differences in offending. Similar to previous studies and consistent with Power-Control Theory, there was a more pronounced gender difference in offending within homes that were considered patriarchal, with boys committing more delinquent acts on average (Hagan et al., 1979; 1985; 1987; 1988; 1990).

To take advantage of the interval measure of patriarchy, regression models also were run. The first of these models utilized the patriarchal and delinquency measures from 2000, when the respondents were between 10-12 years old. During this time frame, according to the results of the regression, both gender and patriarchy were significant predictors of delinquency. However, patriarchal attitudes were a better predictor of delinquency than gender. This could be evidence to support the idea that parenting matters more at younger ages. Therefore, patriarchal ideas presented to daughters when they are young may keep them away from delinquent behaviors.

To examine the effect of patriarchy longitudinally, the same model was estimated, exchanging the delinquency measure from 2000 with the measure from 2006, when the sample respondents were between 16-18 years old. Similar to the previous model both gender and patriarchy were significant predictors, but in this model gender was a better predictor than patriarchal attitudes. This could mean that patriarchal attitudes that exist in the home produce diminishing effects over time on delinquent behaviors. This would be limited evidence to support the ability of Power-Control Theory to account for crime longitudinally. Furthermore, it should be noted that the $R^2$ for this model was only 0.01, meaning that although gender and patriarchy may be significant predictors, they only had the ability to explain a small proportion of the variance in delinquent behavior. This is preliminary evidence that there are more factors at play, besides patriarchy and gender, when discussing the etiology of crime and delinquency. To examine this more fully, a regression model was produced utilizing the 2006 measure of patriarchal attitudes to explain the 2006 measure of delinquency. Like the previous two models, the model itself was significant. However, patriarchal attitudes

were not a significant predictor for delinquency. This was not surprising as the number of respondents who reported living in more patriarchal households diminished as the respondents aged.

To examine longitudinal gender differences more closely, utilizing the dichotomous measure of patriarchy, independent t-tests were run for the patriarchal and egalitarian samples. As further support of Power-Control Theory, there were gender differences in offending into young adulthood, when using both the 2000 and 2006 measure of patriarchy. However, when examining only the egalitarian homes support for Power-Control Theory became mixed.

When dividing the t-tests by the 2000 measure of patriarchy there were not significant mean differences in offending in 2006 between males and females, when the youth were between 16-18 years of age. However, when using both patriarchy and delinquency measures from 2006, the significant mean differences among gender were once again present. These findings could be indicative of the small sample size when employing the 2000 measure of patriarchy for egalitarian homes (female n=57, male n=116). Therefore, it may be best to put more weight on the findings for the second t-test. The second t-test, Hypothesis 3.2, which utilized both measures from 2006 could not be supportive of Power-Control Theory because the gender differences in offending were still significant. This is further support that Power-Control Theory does not have the ability to account for gender differences in offending long term.

Peer pressure (or having delinquent peers) has been shown for decades to be one of the best predictors of crime and delinquency (Pratt & Cullen, 2005). Peer measures also have been included in previous tests of Power-Control Theory

(Akavame, 1997; Singer & Levine, 1988). Therefore, it was valuable to examine peer pressure along with measures of Power-Control Theory in the current study as well. To do this, an OLS regression was produced utilizing several key variables of Power-Control Theory (gender, patriarchy, impulsivity, risk-seeking, maternal control, paternal control), as well as peer pressure. This regression model was estimated utilizing the delinquency measure from 2006 as the dependent variable.

The findings were interesting, as they called into question the findings of the previous hypotheses. According to Power-Control Theory, peer pressure should only have a limited effect on delinquency. However, this was not the case. When controlling for the listed Power Control variables, peer pressure was the most significant predictor of delinquency. Compared to previous regression analysis of the Power-Control Variables, there was also a significant increase in $R^2$, going from 0.01 to 0.25 when adding peer pressure. This would be consistent with previous literature, particularly those studies that focus on social learning theory (Akers, 2002; Akers & Jensen, 2011), as well as more recent studies of Power-Control Theory that have included a peer influence measure (Akavame, 1997; Singer & Levine 1988).

Moreover, patriarchy as well as paternal control were not significant predictors of delinquency. The finding that patriarchy was not significant is direct evidence contradictory of Power-Control Theory. However, the finding that maternal control was significant, while paternal control was insignificant, is indicative of the importance of the mother as the instrument of control within the home. This is supportive of Power Control Theory, as well as consistent with the parenting literature (Baer, 1999; Bowman,

Prelow, & Weave, 2007; Gainey, Catalano, Haggerty, & Hoppe,1997; Klein, Forehand, Armistead, & Long, 1997; Mowen & Schroeder, 2015).

Within the criminological literature, family structure is a common predictor of delinquency (Gottfredson & Hirschi, 1990; Hirschi, 2002; Hope & Chapple, 2004; Jaffee et al., 2003). This is commonly seen in the form of single parent households—often female headed (Leiber & Wacker, 1997; Mack & Leiber, 2005). Hagan et al. (1985) discussed single parent and two parent homes in regards to his patriarchal-egalitarian dichotomy. He presented two parent homes as being more patriarchal and single parent homes being more egalitarian. Therefore, gender differences in offending would not be significant within single parent homes, where sons and daughters would be parented similarly. To examine this proposition, four hypotheses were tested. The first two examined two parent homes, in both patriarchal and egalitarian homes utilizing Factorial ANOVA. It was hypothesized that there would be pronounced gender differences in two parent patriarchal homes, and less pronounced gender differences within two parent egalitarian homes. As Hagan et al. (1985) hypothesized, the results of this study were supportive of these hypotheses. There were significant gender differences in offending in two parent patriarchal homes, but similar rates of offending in two parent egalitarian homes.

To examine single parent homes, another hypothesis was generated. This hypothesis was that gender differences in offending would be less pronounced in single parent homes, because Hagan et al. (1985) believed these homes to be egalitarian in nature. Therefore, females and males would be treated similarly and ultimately commit similar rates of offending. An independent group t-test was performed, and utilizing both

the 2000 and 2006 measures of delinquency, significant differences in offending were found between males and females. This was not supportive of Power-Control Theory and suggests that gender differences in offending are more complicated than being from patriarchal or egalitarian homes. It also calls into question the idea of single parent homes presented by Hagan et al. (1985). To propose that single parent homes are more commonly single mothers and that single mothers will treat sons and daughters in a similar manner appears questionable. Findings regarding single mothers and Power-Control Theory have been mixed in the past, and have revealed more maternal control for sons in such households (Leieber & Wacker, 1997). This indicates that single mother households are different than Hagan originally theorized.

The final hypothesis examined before full structural models were estimated was that offending rates would be higher in single parent homes than two parent households, no matter the gender of respondents. Utilizing an independent group t-test, this hypothesis was supported and was consistent with previous criminological literature (Blackwell, 2000; Hagan et al., 1985; Hagan et al., 1987; Leiber & Wacker, 1997; Mack & Leiber, 2005).

Overall, these twelve hypotheses and resulting tests provided mixed support for Power-Control Theory. However, they did provide reason to generate a full structural model, which was a major purpose of this research. Although previous studies had been conducted on Power-Control Theory, few had utilized a national representative sample from the United States, and to date no previous study had used multiple waves of a longitudinal data set. Therefore, this study had the ability to add to the current literature on Power-Control Theory as more than a simple replication.

## Structural Models

Numerous models were assessed, however, only a few provided statistically significant results worth reporting. The first model, referred to as the Theoretical Model, is displayed in Figure 19. This model does not provide substantial support for Power-Control Theory. However, it does present some interesting findings. Most importantly is the effect of maternal control. As previously stated by Hagan and colleagues (1979), the instrument-object relationship between parents and children is a key to understanding delinquency. Maternal control was a significant predictor for both patriarchal attitudes and delinquency. Moreover, out of the Power-Control variables, it was the only significant predictor of delinquency.

Examining maternal control is not a new phenomenon within criminology. Many theorists have discussed the importance of parenting in relation to delinquent behaviors (Glueck & Glueck, 1950; Gottfredson & Hirschi, 1990; Hirschi, 2002; Sampson & Laub, 1997). However, few researchers discuss the difference between maternal and paternal control, often lumping them together and discussing them simply as “parental control.” This study provides evidence that researchers evaluating predictors of delinquency should examine the roles of mothers and fathers separately, rather that together. This was introduced by Hagan and colleagues (1979) as the precursor to what later would become Power-Control Theory.

Although the full structural model did not strongly support Power-Control Theory, further examination of the theoretical model was conducted by separating the model by gender. If Hagan was correct in his propositions, males and females should be different in how the variables within Power-Control Theory affect them. Once the model was

separated by gender it was evident that although the variables of significance remained, they were more impactful depending on gender. For males (see Figure 20), maternal control was a significant predictor of both patriarchal attitudes and delinquency. However, risk preference was a much greater predictor for male's future behaviors. This is not a surprising finding, as boys are often viewed as more risk seeking (Byrnes, Miller, & Schafer, 1997; Croson & Gneezy, 2009; Eckel & Grossman, 2008; Grasmick et al., 1996; Hagan et al., 1985; 1987; Singer & Levine, 1988).

The female model (see Figure 21) presented one more important predictor variable, separate from that of males. Patriarchal attitudes predicted risk preference. This was expected to be a negative predictor, but it was a positive predictor, meaning as patriarchal attitudes increased, so too did risk preference. Patriarchal attitudes for females would include believing that boys are essentially more important than girls outside the home. This means that females who held this belief would have been expected to stay home and help their family, rather than have a preference to be outside the home, making impulsive or risky decisions. This is evidence in direct opposition of Power-Control Theory, and not previously discussed in other research. It is possible that females who feel pressured by their beliefs (i.e., staying home and raising a family) may resort to rebellion, or at least a preference for rebellion. In other words, gender stereotypes could actually be pushing girls to commit crimes.

Comparing the two models, there are a few important distinctions. First, for males the most important predictor was risk preference. For females, it was maternal control. This goes back to girls being the more likely object of control within the home, which is supportive of Power-Control Theory, as well as previous literature (Hagan et al., 1979;

Hagan & Albonetti, 1988; Hirschi, 2002). The other important distinction is the significance of patriarchal attitudes, which only exists for females. One conclusion to be drawn from this is the practical significance it plays in the lives of females. Males being taught to attain a career outside of the home and to be a dominant person are not new ideas for young men. However, in recent decades the call for women to remain in the home, raise a family, and be more submissive have been viewed as negative female gender stereotypes (Kray, Thompson, & Galinsky, 2001). It is possible that the push for equality among the sexes has caused females to be more cognizant of the role these attitudes play, ultimately causing the significance of these attitudes for females.

Although there are some important findings within the theoretical model, parenting and criminological literature would suggest there is more to the relationship between parenting and delinquency that can cause gender differences in offending, which always have been present. To examine this further, an alternative model was estimated in this study. This alternative model (see Figure 22) led to the discovery of several more significant predictors of delinquency. Maternal control remained significant, however, risk preference as well as peer pressure also showed the ability to predict delinquency. In contrast the theoretical model, an added scale of expectations (i.e., what is expected of a child, cleaning room, cleaning themselves) produced an interesting finding. According to the results, patriarchal attitudes significantly predict expectations of children. There was a negative coefficient, meaning that the higher the patriarchal attitudes, the lower the expectations of the child. This would be consistent with Power-Control Theory for boys. For girls, however, this would be an unexpected finding.

Examining the standardized coefficients, peer pressure is the most significant predictor of delinquency. Although this is not supportive of Power-Control Theory, it is supportive of Social Learning Theory (Akers, 2002). These two measures (peer pressure and delinquency) were collected during the same wave of data, therefore this could be more complicated, as we do not know exactly what is causing youth to choose friends who may be considered delinquent or may pressure them into delinquent behaviors. This model, like the theoretical model, was further examined by gender.

The alternative model for males (see Figure 23) maintains that maternal control is predictive of delinquency, which remains an important finding within the criminological literature. However, maternal control was not as strong of a predictor when considered along with other variables. Among the significant coefficients, peer pressure and risk preference were the greatest predictors of delinquent behavior for boys, and in the expected positive direction. Variables that were not significant were parental monitoring, paternal control, and expectations. This again suggests that parenting is more complicated than Hagan et al. (1985) presumed, as the measures utilized here (monitoring, paternal control, and expectations) do not seem to have a direct effect on delinquency.

For females, the alternative model (see Figure 24) was similar to that of males, with a few minor differences. First, it is a common finding that delinquent peers have a stronger effect on males than females (Alarid, Burton, & Cullen, 2000; Gottfredson & Hirschi, 1990; Piquero, Gover, MacDonald, & Piquero, 2005; Smith & Paternoster, 1987), but the standardized coefficients indicate this is not the case in this study. The strongest predictor of delinquency for females was delinquent peers. This suggests that

in this sample, peer pressure played a large role in delinquency for both boys and girls. Risk preference was the second strongest predictor, followed by maternal control. The finding that is different in the female model is the seemingly complicated nature of maternal control. In the male model, maternal control had a significant relationship only with delinquency. In the female model, maternal control had a significant effect on both patriarchal attitudes and risk preference. This suggests that maternal control has both direct and indirect relationships with delinquency, perhaps making it more important to female delinquency rates than male delinquency rates.

## Key Findings and Interpretations

Based on all of the findings within this study, there are five points to emphasize. First, this study does partially support Power-Control Theory, utilizing an American sample. Prior studies that provided the most support for Power-Control Theory utilized samples from outside of the United States. While this study does not provide complete support for the theory, it does show the importance of maternal control, which also experienced gender differences. This could be evidence that Power-Control Theory is not able to account for cultural differences, as some countries emphasize much stricter gender roles than others.

The second key finding pertained to peer pressure. Numerous studies (Hoeve et al., 2009; Hubbard & Pratt, 2002; Piquero et al., 2005; Pratt & Cullen, 2000) have supported the notion that peer pressure is a significant predictor of delinquent behavior. Other theorists have provided alternative reasoning for the importance of peers, such as Gottfredson and Hirschi's (1990) explanation that certain types of individuals attract delinquent peers. However, no matter which conclusion theorists have come to they all

point to a strong relationship between peers and delinquent behavior, whether directly or indirectly. The results of this study, which did not examine peer pressure as the only cause of delinquency certainly add to this argument. This relationship cannot be ignored, and ultimately all theorists need to include delinquent peers in their theories, as the relationship between peers and delinquency is difficult to refute.

Third, this study provided evidence that Power-Control Theory may not have the ability to explain crime and delinquency later in life. This means that once an individual leaves a home that is considered egalitarian or patriarchal, their delinquent or non-delinquent behavior has not been established permanently. It is important to note that Hagan et al. (1979) did not introduce Power-Control Theory as a longitudinal perspective of criminal behavior, however Power-Control Theory does seem similar to other longitudinal perspectives (see Gottfredson & Hirschi, 1990; Hirschi, 2002; Moffitt, 1993; Sampson & Laub, 1997 for other longitudinally tested criminological theories). However, although the results do not support longitudinal perspectives into adulthood it does seem that patriarchal attitudes play a more significant role in the behavior of younger children, rather than teenagers. This could point to other significant findings in this and other studies, particularly that of peer pressure. Once children become teenagers, peer pressure may take over as the controlling force on their behavior, rather than the behavior of their parents as suggested by Power-Control Theory.

The fourth major finding of this study regarded gender stereotypes. A major goal of this research was to see if females who held strict gender stereotypes would turn to crime less than those who did not. The findings regarding this hypothesis were far from expected. Based on an examination of the full structural models, it would seem that

females who reported higher levels of control from their mothers were showing less patriarchal attitudes, which is a unique finding regarding Power-Control Theory. This could be evidence that pushing gender stereotypes on females is actually providing a negative response. This is further supported by the finding that as patriarchal attitudes increased, expectations of females decreased.

If Hagan et al. (1985) were correct, there should have been positive relationships between maternal control, patriarchal attitudes, and expectations for females. Power-Control Theory was created in the 1980s and was a product of feminist and Marxist ideas. Findings such as these could suggest that times have changed and patriarchal ideas do not produce behaviors and feelings as once thought, particularly for women who are growing increasingly equal to men in the public realm.

The fifth and final major finding was that the parenting measures presented here were more effective for females than males. The reason for this finding has yet to be determined. It could be because of the importance relationships play in the lives of young girls and women (Siegel & Welsh, 2016). Females may be taught to rely on family and friends, rather than to truly become independent. If this is the case, females would be much more receptive of their parents control. This finding would also be expected using samples from other cultures that have stricter gender stereotypes.

## Policy Implications

Previous studies of Power-Control Theory have added much to the literature regarding the theory itself. This research has produced modification to the original theory and suggested better ways of testing its hypotheses. However, few prior researchers have discussed important policy implications that can be derived from the

theory and resulting research. Much of these implications point to the importance of parenting. Other theoretical orientations (i.e., social bonds, social learning, and self-control theory) have discussed the importance of parenting to the future behaviors of children. Findings based on these theories have led to program development and implementation such as head start programs, parenting programs, and family therapy (see Crimesolutions.gov for a complete list of evidence based prevention strategies). The difference in those theories and empirical findings and the current research lie in the gender differences, which are central to Power-Control Theory.

Numerous parenting programs exist that focus on teaching more acceptable methods of parental control and discipline, which are associated with decreases or resistance to delinquency. Recently, Piquero, Jennings, and Farrington (2010) conducted a meta-analysis on parenting programs. These programs were focused on treating or controlling behaviors like impulsivity and risk preference, which are relevant ideas to Power-Control Theory. Two of these programs in particular have been evaluated numerous times and continue to be two of the most effective forms of delinquency prevention programs. These two programs are The Incredible Years and the Triple P Positive Parenting Program.

The Incredible Years was created by Carolyn Webster-Stratton, a clinical psychologist and nurse, to promote appropriate social skills among children and decrease problem behaviors through a multifaceted approach involving children, teachers, and parents. The program has been in existence for more than 30 years and continues to be implemented in schools throughout the United States and Europe. The base of the program is the parenting component, which first began as a “how to” and

later developed into teaching parents to become “emotional coaches” for their children (Webster-Stratton, 1992). This aspect of the program teaches parents to use more efficient parental control and attachment, which have become central tenants to Power-Control Theory. Presently, the Incredible Years focuses on both maternal and paternal control, however according to Power-Control Theory and the results of this research more focus could be placed on maternal control to be effective and possible cost efficient. Numerous evaluations of the Incredible Years program show it is successful in helping curb problem behaviors at young ages, but also delinquent and criminal behavior later in life (Beauchaine, Webster-Stratton, & Reid, 2005; Taylor, Schmidt, Pepler, & Hodgins, 1998; Webster-Stratton, 1992; Webster-Stratton, Reid, & Hammond, 2004; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988). The effectiveness of the program also could be based on its multisystem approach. Although beyond the scope of Power-Control Theory, the results of this study have shown the need to examine more variables with the ability to predict delinquent behaviors. Some of these could be accounted for through programs such as The Incredible Years.

The program itself is made up of multiple series, which are divided by age group: one month to two years, three to five years, and six to twelve years. Children often complete each series, but are not required. Each portion uses combined methods of video, role-playing, and homework for all participants in the program. The program also has a specialized series for children considered to be violent or at risk. While the program has empirical evidence to support the decrease of aggressive and anti-social behavior of the youth who participate (Beauchaine et al., 2005; Taylor et al., 1998; Webster-Stratton, 1992; Webster-Stratton et al., 1998; 2004), there is also empirical

evidence to support the program's ability to teach parents new parenting methods (Gross, Fogg, Webster-Stratton, Garvey, Julion, & Grady, 2003; Webster-Stratton, 1992), including reduced use of corporal punishment.

Another effective program is the Triple P-Positive Parenting Program. Developed in 1999 by Sanders and colleagues, the program has been the subject of much empirical research. This program focuses more directly on parenting techniques rather than the children's behaviors. Triple P aims at producing more supportive relationships between parent and child, teaching children more positive attitudes and resulting in positive conduct by utilizing aspects of cognitive behavioral therapy (Leung, Sanders, Leung, Mak, & Lau, 2003; Markie-Dadds, & Sanders, 2006; Sanders, Markie-Dadds, Tully, & Bor, 2000; Sanders & Morawska, 2007). The Incredible Years discussed previously was created to help all parents, and similar to Incredible Years, Triple P offers a basic approach, which introduces parental management skills. However, Triple P more specifically focuses on at risk youth and employs a public health perspective, which focuses on evidence based practices for a wide range of outcomes and individuals. Numerous studies have provided empirical support for the effectiveness of Triple P in curbing problem behaviors of its participants (Leung et al., 2003; Markie-Dadds, & Sanders, 2006; Sanders & Morawska, 2007; Sanders et al., 2000). Both of these programs and the use of multiple systems, including parents, school, and community resources, also are consistent with suggestions made by the Center for Disease Control (CDC) to prevent crime and violence (CDC, 2016).

Triple P focuses on parents of children 0-12, but also offers special programs for parents of teenagers, parents of children with disabilities, parents who have gone

through divorce or transitions, homeless parents, and parents of overweight children. This is evidence that Triple P is aware that parenting is not a “one size fits all” endeavor. The results of the current study also provide evidence of gender differences in parental effectiveness. These results are similar to other studies (Ma & Huebner, 2008; Raley & Bianchi, 2006), however, few parenting programs exist for the general public that are marketed or presented as gender-specific. It could be beneficial to offer such programs for parents and children, as the literature continues to support gender differences in parental effectiveness, risk preference, peer pressure, and delinquency.

One area which has begun to offer more gender specific programming revolving around parents and children is that of incarcerated populations, or populations where the law has intervened in some way previously. These programs also have been shown to be effective (see Loper & Tuerk, 2006, for a more detailed discussion on parenting programs for incarcerated parents) and add to the literature on gender specific programming. One such program is Girl Scouts Beyond Bars. This program is specifically for daughters whose mothers are currently incarcerated. To increase the bond between mother and daughter, a girl scout troop consisting of these daughters meets in a correctional institution so that mothers can be a part of the program. Girl Scouts Beyond Bars has been shown to be effective for both the mother and the daughter in coping with stresses and keeping daughters from delinquent behaviors (Grant, 2006; Hoffman, Byrd, & Kightlinger, 2010; Miller, 2006). While parental incarceration is an added stressor, as well as predictor of delinquent behavior, it is beyond the scope of this research. However, this is evidence of gender-specific programming that exists and is working for the most at risk youth.

There are numerous other parentings programs available to parents of children, at risk children, or special needs children. However, as previously mentioned, there are very few gender-specific programs, outside of the criminal justice realm. Findings of this study, as well as previous studies, have shown gender differences exist in offending as well as parenting strategies. While some theorists believe parenting alone can account for gender differences in offending (Gottfredson & Hirschi, 1990), others believe biology/genetics can create them (Pollock, 1950), and still others believe they may be learned (Akers, 2002). While researchers at this time cannot point to the exact cause of gender differences, they do exist and policies and programs can be created to account for them, particularly at a time when female delinquency is changing.

## Limitations & Future Research

This study sought to add the literature on Power-Control Theory by presenting a longitudinal perspective with a nationally representative sample. Although some results were not hypothesized, this research did provide some significant findings that are consistent with previous literature (Hagan et al., 1979; Hagan & Albonetti, 1988; Hirschi, 1969). However, the limitations of the study cannot be ignored. This portion of the chapter will discuss those limitations and make suggestions for researchers moving forward.

### Limitations

One limitation of the study was the inability to include an occupational measure of patriarchy, as originally intended. When examining code books and univariate statistics, it seemed this data would be readily available to the researcher to create an occupational measure of patriarchy. However, further examination of the data available

for statistical analysis revealed this measure was insufficient. Hagan's (1985) original measure of patriarchy did include this occupational variable, but as time has passed few researchers have employed such a measure, instead utilizing an attitudinal measure of patriarchy (Bates et al., 2003; Blackwell, 2000; Grasmick et al., 1996) as used in the current study.

The measures in this study also had marginal Cronbach alpha's, ranging from 0.49-0.74. These measures of internal consistency for the latent measures created are not ideal. Ideally, these measures would have been near 0.90 (DeVellis, 2012; Nunnally, 1978). However, these measures were sufficient within the context of structural equation modeling (Kline, 1998), which was affirmed through the measurement models for each model employed.

An occupational measure of patriarchy also would have accounted for social class, according to Hagan et al. (1985). Therefore, the exclusion of this variable also takes away an important aspect of Power-Control Theory, which accounts for both gender and social class, unlike other criminological theories. The social class portions of Power-Control Theory essentially have been forgotten in recent studies (Bates et al., 2003; Blackwell, 2000; Grasmick et al., 1996) and should be revisited, as income inequality becomes more apparent, particularly in the United States (Bergstrand, Cosimano, Houck, & Sheehan, 2015).

The current study also cannot account for different family structures. Hagan's (1985) theory defines patriarchal and egalitarian families, while utilizing an occupational measure of patriarchy. His research included only two parent households and single mother headed households. However, there are many other family types, including step

parents, grandparents, and other family members as guardians. Data employed in the current research did not include that information. Along with family structure, a measure of matriarchal homes also was not included in this study. Although the importance of such a measure is not lost, this was not an idea introduced by Hagan's (1985) original theory. It is possible that a matriarchal home variable could produce more important findings regarding crime and the changing face of female stereotypes and offending.

The final limitation was the use of secondary data. However, the current study did utilize a nationally representative longitudinal data set. Although the secondary data was not originally intended for the purposes it was employed collecting data from a nationally representative sample, with questions that spanned 15 years, would have been impossible to complete for the current research. Therefore, the use of secondary data was a necessity for the current study. The use of secondary data is also becoming common practice within the criminal justice field, with entire books now being published to utilize it as a method (see Riedel, 2000) and recent studies show that nearly 60% of all criminological and criminal justice research relay on secondary data (Kleck, Tark, & Bellows, 2006).

**Suggestions for Future Research**

This study was intended to be a theoretical test. Therefore, measures were created based on ideas and concepts consistent with Hagan's (1985) theory. Although the results from this study do provide some support for Power-Control Theory, the current research suggests the need for more detailed studies that include alternative family structures and more various measures of parenting. Some studies have begun to move in this direction by examining step families, as well as single parent households

headed by mothers and fathers (Bates et al., 2003). To add to this literature, more diverse families should also be examined, such as same sex couples, transgender parents, and single father headed households.

Parenting is a complex process, which cannot be accounted for through a minimal list of questions. Although this study did include more measures of parenting than previous studies (Blackwell, 2000; Grasmick et al., 1993; 1996), more extensive measures that include parental attachment and discipline should be examined. This study also produced evidence to support the separation of maternal and paternal parenting measures. Future research should examine, these measures both together and separate, to help more evidence about gender and parenting.

Future researchers also should return to the study of social class as a correlate or possible etiological explanation of criminal behavior. As previously mentioned, it has become excluded from many theoretical tests, on crime and with an ever-apparent and growing income inequality in the United States, more tests are warranted.

Finally, research should begin examining gender stereotypes in greater depth. Their existence is hard to deny. However, their effects have yet to be determined, particularly with regard to crime and delinquency. Crime is a typically viewed as a masculine behavior, and it is possible that commonly accepted gender stereotypes could influence female as well as male offending.

## Conclusions

As compared to many popular criminological theories, Power-Control Theory has been lacking in empirical support. This study sought to add to the existing literature by utilizing a nationally representative American sample of youth and employing

longitudinal variables. This allowed the theory to be examined in a way it had yet to be assessed. This study also presented the first comprehensive review of the history and evolution of Power-Control since Hagan et al.'s (1985) publication.

Although some findings were not as expected, the results do support more research on this theoretical explanation of criminal behavior. It is possible that Power-Control Theory has a greater ability to explain female criminality in other countries, with stricter gender stereotypes. In addition, it could have the ability to show the importance of gender stereotypes as an explanatory factor. The results of this study also add more strength to the literature that ineffective parenting is an important predictor of delinquent behavior, and more policies and programs should focus on improving parenting. Beyond teaching parents proper methods of parenting, there is evidence to support gender-specific parenting programs, which are not currently popular outside of criminal justice institutions.

Finally, this study might revive discussion regarding the explanatory ability Power-Control Theory and the possibility of longitudinal effects. Parenting most certainly plays a role in delinquency over the long term, however, the current research suggests patriarchal attitudes handed down through parenting do not seem to have a significant relationship with delinquency and crime later in life. This is a topic for continued examination in future tests of Power-Control Theory.

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# Appendix A

## Measures

Occupational Patriarchy

Patriarchy=1

Egalitarian=0

Created by adding the following variables and then creating a dummy variable:

1. DadJob: Census Code for Occupation of Father
   Recoded: 2=Supervisor, 0=Non-Supervisor
2. MomJob: Census Code for Occupation of Mother
   Recoded: 1=Supervisor, 0=Non-Supervisor

Patriarchal Attitudes (2006)

Higher Responses indicate higher patriarchal attitudes

Created by adding the following variables:

1. HomenotWrk: A woman's place is in the home, not the office or shop.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed
2. NoTimeWrk: A wife who carries out her full family responsibilities doesn't have time for outside employment.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed
3. MoreUse: A working wife feels more useful than one who doesn't hold a job.
   0=strongly agreed, 1=agreed, 2=disagreed, or 3=strongly disagreed
4. ManAchiever: It is much better for everyone concerned if the man is the achiever outside the home and the woman takes care of the home and family.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed
5. MenWrkHouse: Men should share the work around the house with women, such as doing dishes, cleaning and so forth.
   0=strongly agreed, 1=agreed, 2=disagreed, or 3=strongly disagreed
6. StayatHome: Women are much happier if they stay at home and take care of their children.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed

Patriarchal Attitudes (2000)

Higher Responses indicate higher patriarchal attitudes

Created by adding the following variables:

1. TreatedSame: Boys and girls should be treated alike.
   0=strongly agreed, 1=agreed, 2=disagreed, or 3=strongly disagreed
2. Smarter: A girl should not say she is smarter than a boy.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed
3. Unpopular: Competing with boys will make girls unpopular.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed

4. GirlsPay: Girls should pay their own way on dates.
   0=strongly agreed, 1=agreed, 2=disagreed, or 3=strongly disagreed
5. College: When there is not enough money, boys should go to college instead of girl.
   3=strongly agreed, 2=agreed, 1=disagreed, or 0=strongly disagreed

Peer Pressure (2006)

Higher responses indicate more peer pressure

Created by adding the following variables:

1. PPCigs: Do you feel pressure to try cigarettes?
2. PPCrime: Do you feel pressure to commit a crime?
3. PPAlcohol: Do you feel pressure to drink alcohol?
4. PPDrugs: Do you feel pressure to get drunk?
5. PPSkip: Do you feel pressure to skip school?
   Repsonses: 1=yes, 0=no

Parental Control (Hagan's Measure) (2004)
Higher responses indicate greater parental control.

Created by adding the following variables:

1. MomControl: How often mother knows who child is with when not at home.
2. DadControl: How often father knows who child is with when not at home.

   Responses: 0=hardly ever, 1=sometime, 2=often

Parenting (2000)
Each observed measure is measured separately and will be combined in the structural model after a confirmatory factory analysis.
Created with the following variables:

1. MonitorTV: When your family watches TV together, do you or your child's father discuss the TV programs with him or her? (Taken from the mother's supplement)
   Responses: 1=yes, 0=no
2. Scale of expectations.
   Created by adding the following variables:
   1. How often is child expected to make their own bed?
   2. How often is child expected to do chores?
   3. How often is child expected to clean their own room?
   4. How often is child expected to pick up after their self?
      Responses were recoded: 0=almost never, 1=less than half the time, 2=half the time, 3=more than half the time, 4=almost always

3. Discipline: Created with the responses to one question: sometimes children get so angry they say things like 'I hate you' or swear in a temper. Which action(s) would you take if this happened? Possible responses were:
    1. Grounding the child
    2. Giving household chores
    3. Taking away TV, phone, or other privileges
    4. Sending the child to their room
    5. Spanking the Child
    6. Talking with the Child
    7. Ignoring the Child

    Responses: 1=chosen, 0=not chosen

Risk Preference (2006)

Higher responses indicate higher propensity to risk seeking.

Created by adding the following variables:

- WoThinking: I often get into a jam because I do things without thinking.
- PlanNoFun: I think planning takes the fun out of things.
- ScOutTroub: I have to use a lot of self-control to keep out of trouble.
- TakingRisk: I enjoy taking risks.
- EnjoyNew: I enjoy new/exciting experiences even if they are frightening.
- Danger: Life with no danger in it would be too dull for me.

  Responses: 0=strongly disagree, 1=disagree, 2=agree, 3=strongly agree

Crime/Deviance (2000 and 2006)

Higher responses indicate higher delinquency participation.

Created by adding the following variables:

1. Curfew: How many times in the last year have you stayed out later than your parents said you should?
2. HurtSomeone: How many times in the last year have you hurt someone badly enough to need bandages or a doctor?
3. Stolen: How many times in the last year have you taken something from the store without paying for it?
4. Drunk: How many times in the last year have you gotten drunk?
5. SkipSchool: How many times in the last year have you skipped a day of school without permission?
6. StayedOut: How many times in the last year have you stayed out at least one night without permission?

Responses: 0=never, 1=once, 2=twice, 3=more than twice

Appendix B

Descriptive Statistics

| Latent Measure | Measure | Mean | Std. Dev. | Range | Skewness | Kurtosis |
|---|---|---|---|---|---|---|
| Patriarchal Attitudes (2006) | HomenotWrk | 0.74 | 0.72 | 0-3 | .740 | .372 |
| | NoTimeWrk | .91 | .611 | 0-3 | .207 | .247 |
| | MoreUse | 1.42 | .709 | 0-3 | .238 | -.157 |
| | ManAchiever | 1.11 | .667 | 0-3 | .206 | .019 |
| | MenWrkHouse | .74 | .602 | 0-3 | .572 | 1.430 |
| | StayatHome | 1.14 | .627 | 0-3 | .227 | .145 |
| Patriarchal Attitudes (2000) | TreatedSame | 0.43 | 0.60 | 0-3 | 1.35 | 2.09 |
| | Smarter | 1.63 | 1.02 | 0-3 | -0.17 | -1.09 |
| | Unpopular | 1.11 | 0.89 | 0-3 | 0.59 | -0.30 |
| | GirlsPay | 1.90 | 0.91 | 0-3 | -0.49 | -0.56 |
| | College | 0.72 | 0.88 | 0-3 | 1.17 | 0.64 |
| | GirlsDate | 0.98 | 0.87 | 0-3 | 0.80 | 0.17 |
| Peer Pressure | PPCigs | .08 | .273 | 0-1 | 3.078 | 7.485 |
| | PPCrime | .05 | .217 | 0-1 | 4.169 | 15.409 |
| | PPAlcohol | .17 | .372 | 0-1 | 1.803 | 1.254 |
| | PPDrugs | .09 | .287 | 0-1 | 2.866 | 6.223 |
| | PPSkip | .14 | .343 | 0-1 | 2.126 | 2.525 |
| Gender | Female | .47 | .499 | 0-1 | .119 | -1.988 |
| Broken-Home | BothParents | .59 | .494 | 0-1 | -.32 | -1.90 |
| Parental Control | MomControl | 1.73 | .521 | 0-2 | -1.863 | 2.595 |
| | DadControl | 1.28 | .803 | 0-2 | -.552 | -1.235 |
| Monitor | MonitorTV | .82 | .388 | 0-1 | -1.632 | .663 |
| Expectations | ExpBed | 3.22 | 1.359 | 0-4 | -1.455 | .552 |
| | ExpChores | 3.00 | 1.275 | 0-4 | -.998 | -.232 |
| | ExpCleanRm | 3.56 | .955 | 0-4 | -2.276 | 4.429 |
| | ExpCleanSelf | 3.80 | .659 | 0-4 | -3.977 | 16.647 |
| Discipline | Talk | .62 | .485 | 0-1 | -.504 | -1.749 |
| | Spank | .12 | .321 | 0-1 | 2.400 | 3.766 |
| | Ignore | .07 | .256 | 0-1 | 3.369 | 9.367 |
| | StopAllow | .06 | .245 | 0-1 | 3.571 | 10.770 |
| | GiveChore | .07 | .248 | 0-1 | 3.510 | 10.770 |
| | Ground | .25 | .434 | 0-1 | 1.144 | -.693 |
| | SendtoRoom | .29 | .454 | 0-1 | .923 | -1.150 |
| | TimeOut | .13 | .337 | 0-1 | 2.197 | 2.830 |
| Risk Preference | Danger | 1.65 | .902 | 0-3 | -.142 | -.758 |
| | TakingRisk | 1.47 | .872 | 0-3 | .079 | -.674 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | EnjoyNew | 2.01 | .800 | 0-3 | -.602 | .055 |
| | WoThinking | 1.39 | .846 | 0-3 | .846 | -.630 |
| | PlanNofun | 1.29 | .784 | 0-3 | .358 | -.177 |
| | ScOutTroub | 1.50 | .991 | 0-3 | .011 | -1.036 |
| Delinquency (2006) | StayedOut | .37 | .814 | 0-3 | 2.287 | 4.155 |
| | SkipSchool | .48 | .962 | 0-3 | 1.820 | 1.800 |
| | Stolen | .17 | .594 | 0-3 | 3.817 | 14.033 |
| | Curfew | 1.36 | 1.268 | 0-3 | .165 | -1.645 |
| | HurtSomeone | .21 | .608 | 0-3 | .608 | 10.878 |
| | Drunk | .58 | 1.066 | 0-3 | 1.560 | .760 |
| | DmgProp | 0.14 | 0.54 | 0-3 | 4.32 | 18.26 |
| Delinquency (2000) | StayedOut | 0.13 | 0.50 | 0-3 | 4.45 | 20.46 |
| | SkipSchool | 0.10 | 0.44 | 0-3 | 5.14 | 27.59 |
| | Stolen | 0.13 | 0.47 | 0-3 | 4.23 | 19.68 |
| | Curfew | 0.89 | 1.14 | 0-3 | 0.89 | -0.76 |
| | HurtSomeone | 0.26 | 0.64 | 0-3 | 2.76 | 7.33 |
| | Drunk | 0.03 | 0.24 | 0-3 | 10.19 | 112.50 |
| | DmgProp | 0.09 | 0.46 | 0-3 | 6.53 | 55.48 |
| Race | Hispanic | .18 | .387 | 0-1 | 1.639 | .688 |
| | Black | .25 | .430 | 0-1 | 1.184 | -.599 |
| Controls | AgeMom | 27.68 | 2.35 | 28-33 | 0.15 | -0.82 |
| | FamilySize | 2.52 | 1.30 | 0-9 | 1.19 | 2.96 |

Appendix C

Covariance Matrix

| | PA | MomCon | DadCon | RP | DEL | Monitor | EXP | PP |
|---|---|---|---|---|---|---|---|---|
| PA | 2.153 | | | | | | | |
| MomCon | -0.13 | 0.27 | | | | | | |
| DadCon | -0.09 | 0.11 | 0.65 | | | | | |
| RP | 0.07 | -0.08 | -0.01 | 4.03 | | | | |
| DEL | 0.21 | -0.15 | -0.16 | 0.78 | 2.84 | | | |
| Monitor | -0.01 | 0.01 | 0.04 | 0.02 | -0.01 | 0.15 | | |
| EXP | -0..06 | -0.01 | -0.02 | -0.06 | -0.09 | 0.01 | 1.08 | |
| PP | 0.04 | -0.01 | -0.01 | 0.23 | 0.65 | 0.01 | -0.01 | 1.09 |

Appendix D

Results Summary

| Hypothesis | Method | Finding | Page # |
|---|---|---|---|
| 1.1 Daughters will be more likely to be the objects of control in the home. | Independent Group t-test | Support for PCT | 160 |
| 1.2 Mothers will be more likely to be the instruments of control in the home. | Dependent Group t-test | Support for PCT | 161 |
| 1.3 There will be more delinquency among boys than girls. | Independent Group t-test | Support for PCT | 162 |
| 2.1 Different rates of offending will be found for sons and daughters within patriarchal households. | Independent Group t-test | Support for PCT | 164 |
| 2.2 More similar rates of offending will be found for sons and daughters within egalitarian households. | a. Independent Group t-test (2000 Dichotomy Patriarchy)<br>b. Regression (2000 Scale of PA and DV: 2000 Delinquency)<br>c. Regression (2000 Scale of PA and DV: 2006 Delinquency)<br>d. Regression (2006 Scale of PA and DV: 2006 Delinquency) | a. Support for PCT<br>b. Partial Support for PCT**<br>c. No Support for PCT**<br>d. Support for PCT**<br>**All Regression results had an $R^2$ of less than 0.02 | 166-168 |
| 3.1 Gender differences in offending within patriarchal homes will remain substantial into later adolescence. | a. Independent Group t-test (2000 Dichotomy Patriarchy and DV: 2006 Delinquency)<br>b. Independent Group t-test (2006 Dichotomy Patriarchy and DV: 2006 Delinquency) | a. Support for PCT<br>b. Support for PCT | 169-170 |
| 3.2 Gender differences in offending within egalitarian homes | a. Independent Group t-test (2000 Dichotomy Patriarchy and DV: 2006 Delinquency) | a. Support for PCT<br>b. No Support for PCT | 170-171 |

| | | | |
|---|---|---|---|
| will remain low into later adolescence. | b. Independent Group t-test (2006 Dichotomy Patriarchy and DV: 2006 Delinquency) | | |
| 4.1 When controlling for Power-Control Variables, peer influence will play a limited role in delinquency. | Regression (DV: Delinquency 2006) | Minimal Support for PCT | 172 |
| 5.1 Gender Differences in Offending will be more pronounced in two-parent patriarchal homes. | Factorial ANOVA (DV: Delinquency 2006) | Support for PCT | 175 |
| 5.2 Gender differences in offending will be less pronounced in two-parent egalitarian homes. | Factorial ANOVA (DV: Delinquency 2006) | Support for PCT | 177 |
| 5.3 Gender differences in offending will be less pronounced in single-parent households. | a. Independent Group t-test (DV: Delinquency 2000)<br>b. Independent Group t-test (DV: Delinquency 2006) | a. No Support for PCT<br>b. No Support for PCT | 178 |
| 5.4 Offending rates will be higher for single parent households, no matter the gender of respondents. | a. Independent Group t-test (DV: Delinquency 2000)<br>b. Independent Group t-test (DV: Delinquency 2006) | a. Support for PCT<br>b. Support for PCT | 179 |