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## Offending in every way :: toward an understanding of physically violent girls/

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OFFENDING IN EVERY WAY: TOWARD AN UNDERSTANDING OF  
PHYSICALLY VIOLENT GIRLS

A Dissertation Presented

by

LINDSEY BERKELMAN

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

September 2007

Clinical Psychology

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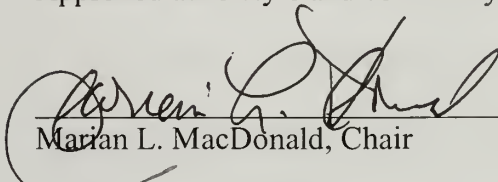
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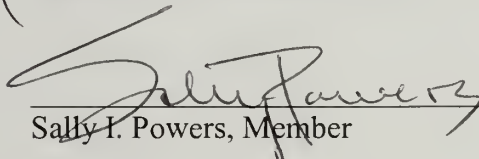
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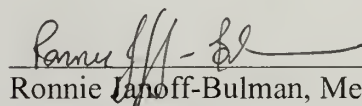
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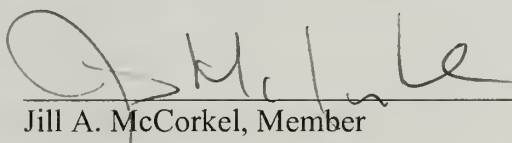
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ABSTRACT

OFFENDING IN EVERY WAY: TOWARD AN UNDERSTANDING OF  
PHYSICALLY VIOLENT GIRLS

SEPTEMBER 2007

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Historically, aggression among girls has not been regarded as a problem worth studying due to the cultural assumption that aggression is a male phenomenon. Recently, however, the juvenile justice system has documented increasing rates of violent offending among adolescent girls. Girls now account for one out of four arrests, with non-traditional and/or violent offenses among those showing the greatest increase.

Unfortunately, little is known about physically violent girls. The current study sought to advance our understanding of the nature of girls' aggressive behavior by differentiating girls in the juvenile justice system adjudicated on violent versus nonviolent offenses while attending to racial and ethnic differences. Participants included 242 girls who had been committed to or detained within a Massachusetts Department of Youth Services (DYS) residential facility and referred for a psychological evaluation between the dates of 1996 and 2003. Results indicated that among the entire sample, girls who identified as Black and had a lack of positive parental support were significantly more likely to be

classified as “violent” based on their criminal offense histories. Results also revealed significant racial differences in the pathway to violence among White and Black participants. Findings from the current study highlight the importance of treating girls in the juvenile justice system as a heterogeneous group and attending to issues of diversity in future research and interventions.

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## CHAPTER 1

### INTRODUCTION

#### Offending in Every Way: Toward an Understanding of Physically Violent Girls

Historically, aggression among girls has not been recognized as a problem worth studying (e.g., Buss, 1961), due to the formulation of aggression as a male phenomenon (e.g., Maccoby & Jacklin, 1974; for a review see Chesney-Lind & Pasko, 2004). Early researchers trivialized and dismissed female offenders as “on the whole, a sorry lot” (Glueck & Glueck, 1934, p. 300), maintaining that “the delinquent girl is much less frequent than her male counterpart, and ...she is criminologically much less interesting” (Cowie, Cowie, & Slater, 1968, p. 1). Girls involved in the juvenile justice system were most frequently charged with waywardness, immorality, and/or status offenses (i.e., offenses such as running away, truancy, or being a “stubborn child,” for which only juveniles may be taken into custody; Chesney-Lind & Shelden, 2004). Essentially, female delinquency was viewed as less serious than male delinquency, and therefore, not worthy of attention (Simourd & Andrews, 1994). Thus, girls who engage in aggressive acts have been labeled “the forgotten few” (Bergsmann, 1989), frequently overlooked in research on both aggression and the juvenile justice system.

In recent years, however, research has demonstrated that a substantial proportion of adolescent girls do engage in aggressive behaviors. For example, a 2001 nationwide study among early adolescent racial/ethnic minority youth demonstrated that 40% of girls reported threatening to “beat someone up,” 36% reported engaging in a physical fight, and 18% reported carrying a knife or razor to school (Clubb, Browne, Humphrey, Schoenbach, Meyer, Jackson, et al., 2001). These trends are also reflected within the



juvenile justice system, which has documented increasing rates of violent offending among adolescent girls. Girls now account for one out of four arrests, with non-traditional and/or violent offenses among those showing the greatest increase. In the United States, charges for serious violent crimes (i.e., murder, rape and other sexual assaults, robbery, and aggravated assault) increased 28% between 1991 and 2000 among girls (OJJDP Statistical Briefing Book, 2002). This increase is largely explained by simple assault charges among girls, which evidenced a 77% increase between 1991 and 2000 (FBI Uniform Crime Report, 2002). By comparison, charges for serious violent crimes decreased 23% between 1991 and 2000 among boys (OJJDP Statistical Briefing Book, 2002). Simple assault charges rose 25% among boys (as compared to the 77% increase among girls) during this same time period (FBI Uniform Crime Report, 2002). Similar trends may be seen among Canadian adolescents (Leschied, Cummings, Brunschot, Cunningham, & Saunders, 2001).

Some researchers have debated the significance of arrest statistics that indicate a dramatic increase in girls' delinquency. Chesney-Lind and Shelden (2004) cite numerous studies (e.g., Canter, 1982) that have used self-report measures of aggression to show that female delinquency has always been more prevalent than suggested by official arrest statistics. Chesney-Lind and colleagues (e.g., Chesney-Lind & Okamoto, 2001; Chesney-Lind & Pasko, 2004; Chesney-Lind & Shelden, 2004) propose that it is the policing of girls' aggression that has changed, not girls' participation in serious violence, and suggest that "the gap is closing between what girls have always done (and reported, when asked anonymously) and arrest statistics" (Chesney-Lind & Okamoto, 2001, p. 3). The Surgeon General's 2001 report on youth violence, however, indicates that girls'

anonymous self-reports of violence are also increasing, narrowing the gap between boys' and girls' acts of physical aggression (U.S. Department of Health and Human Services, 2001). Despite the recent surge in the number of arrests, it is important to note that girls are still *substantially* less likely than boys to commit serious acts of violence. For instance, in 2001, girls comprised only 18% of juvenile arrests for violent crime (Snyder, 2003).

Regardless of whether girls are truly committing more violent offenses or if arrest records reflect a change in law enforcement policies, the increasing number of girls in the juvenile justice system has pushed the issue of aggressive girls to the forefront of delinquency research, posing the question, "Does gender matter for our understanding of violent behavior and how to reduce its occurrence?" Unfortunately, because girls and women who commit crimes are violating traditional gender role expectations, "they have not generated the same responses from scholars, practitioners, and the public as females who have been victimized. This false dichotomy of females as either offenders or victims masks much of what is understood about female criminality" (Koons-Witt & Schram, 2003, p. 361). Thus, as researchers begin to address the role of gender in delinquency, "the most prevalent impressions left from a review of the female delinquency literature are the ambiguities and piecemeal nature of the research" (Hoyt & Scherer, 1998, p. 101).

Less ambiguous, however, is the individual and societal impact of female delinquency. Despite past claims that aggression among girls is less serious than among boys, delinquency among girls has important long-term negative consequences. Adult outcome studies show that conduct disordered and/or delinquent girls have increased



mortality rates, high rates of comorbid psychological diagnoses, and dysfunctional, often violent, relationships with their partners and children (Lewis, Yeager, Cobham-Portorreal, Klein, Showalter, & Anthony, 1991; Pajer, 1998). A recent study conducted in New Zealand by Fergusson and Woodward (2000) found that girls with high levels of conduct problems were significantly more likely to drop out of school, remain unemployed for extended periods of time, engage in polysubstance abuse, and demonstrate significant mental health problems (i.e., depression, anxiety disorders, and suicidal behavior). Furthermore, results from this study suggested that girls with conduct disorder were six times more likely to become pregnant by the age of 18, a finding consistent with previous research (e.g., Kovacs, Krol, & Voti, 1994; Woodward & Fergusson, 1999). Thus, in light of the increasing numbers of girls charged with violent crimes, the poor prognosis of delinquent girls, and an obvious absence of research on violent girls, the current study sought to advance our understanding of the nature of girls' aggressive behavior.

### The Invisibility of Girls in Aggression Research

In the past, research on aggression has emphasized overt aggression, which includes verbal and physical behaviors that are directed at others with the intent to harm (e.g., hitting, kicking, threatening, etc.). Boys have consistently been shown to be more overtly aggressive than girls (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989; Eagly & Steffen, 1986; Maccoby & Jacklin, 1974; Parke & Slaby, 1983; Tiet, Wasserman, Loeber, McReynolds, & Miller, 2001). This pattern is also consistently reflected in arrest statistics; more boys than girls are arrested, prosecuted, and convicted for perpetrating aggressive offenses (Snyder & Sickmund, 1999). These trends led

researchers to the conclusion that aggression was a predominantly male phenomenon, and as a result, previous research on aggression has often disregarded girls by focusing on exclusively male samples (e.g., Owleus, 1978) and/or operationalizing aggression in a decidedly male fashion (e.g., focusing exclusively on physical acts of aggression such as hitting; Bjokqvist & Niemela, 1992).

As a result of the emphasis on overt aggression and focus on the male experience of aggression, sociologists and criminologists generated male-centered theories of delinquency (e.g., Chesney-Lind & Shelden, 2004; White & Kowalski, 1994). While the issue of gender has received significantly more attention in contemporary discussions of delinquency theory, all of the most well established theories (e.g., theories of strain, social control, and differential association) were created to explain male behavior and as such, ignored or dismissed the experience of aggression from a female perspective (for a review and critique of delinquency theory, see Chesney-Lind & Shelden, 2004). The experience of women was only explicitly addressed in an effort to explain the gender gap (i.e., men are involved in significantly more criminal behavior than women) in patterns of delinquency and crime. The gender equality hypothesis (Sutherland, 1924) assumes that the gap is less in social settings where female roles differ less from those of males. This explanation, widely accepted by academics, attracted public attention in the 1970s when criminologists attributed the increase in female arrests to the women's liberation movement (e.g., Adler, 1975).

A more recent version of the gender equality hypothesis is evident in the power-control theory of female delinquency (Hagan, Simpson, & Gillis, 1987). The authors argue that girls commit fewer delinquent acts when their behavior is more closely

controlled by patriarchal families and more delinquent acts when they are raised in “egalitarian families” (i.e., families in which mothers hold positions of authority equal to or greater than those held by fathers). More specifically, the power-control theory asserts that as girls from egalitarian families are socialized to be risk takers and subject to lower levels of social control, they are more likely to engage in delinquent acts. The theory is grounded in both gender and class relations, such that it posits that children from wealthier backgrounds will be more delinquent than those from poorer ones. Thus, similar to the gender equality hypothesis (although decidedly more nuanced), the power-control theory implicitly suggests that increasing rates of female delinquency are, at least in part, attributable to more equality between men and women in the workforce.

Some researchers and scholars contend that existing delinquency theories adequately explain and account for girls’ participation in violence and aggression and their subsequent involvement in the juvenile justice system (e.g., Rowe, Vazsonyi, & Flannery, 1995; Sommers & Baskin, 1993). Other researchers contend that “general theories of delinquency are applicable to gender divergence, *at least in minor acts of deviance*” (Liu & Kaplan, 1999, p. 212; italics added); however, they fail to address discrepancies between males and females in more serious forms of delinquency. Despite these examples, many researchers continue to question the validity and/or generalizability of delinquency theories, arguing that they are inherently sexist because they minimize the importance of aggression among girls, overlook risk and protective factors uniquely important to girls, and over-pathologize girls who are aggressive (e.g., Chesney-Lind & Pasko, 2004; Chesney-Lind & Shelden, 2004; Mathews, 1998; White and Kowalski, 1994). Like Liu and Kaplan (1999), Steffensmeier and Allan (1996) suggest that

traditional theories have been useful to explain general patterns of female and male offending, particularly as they relate to minor delinquencies; however, they argue that traditional theories lack sensitivity to gender differences in terms of the paths to crime (e.g., prior victimization among women) and in terms of context. As a result of these limitations, there is an increasing demand for a gender sensitive model that draws on the strengths of traditional theories while incorporating the unique experience and perspective of girls (e.g., Chesney-Lind & Shelden, 2004; Goodkind, 2005; Hoyt & Scherer, 1998, Steffensmeier & Allan, 1996).

In addition to prompting theoretical debates, the predominantly male focus in research on aggression has led to decidedly more “real world” concerns, namely the systematic maltreatment of girls in the juvenile justice system (Acoca, 1998; Bergsmann, 1989; Chesney-Lind & Pasko, 2004, Chesney-Lind & Shelden, 2004; Dohrn, 2004; Goodkind, 2005). Due to the pervasive belief that girls are not (or should not be) aggressive, there are only a small number of programs that target delinquent girls or offer gender-specific programming (Acoca, 1998). Some researchers such as Bloom, Owen, and Covington (2004) note that many programs are viewed as “gender neutral,” when in reality the main components are modeled after our understanding of the male expression and experience of violence and aggression. According to Bloom, et al., the male-centric model may be tied to the influence of dominant culture (i.e., patriarchy), which, because it is so pervasive and because we are so deeply entrenched in it, often goes unrecognized. Regardless of the underpinnings of this view, the reality is that only 5% of federal, local, and private funds for juvenile justice are designated for girls (Chesney-Lind & Pasko, 2004).



Girls who break from traditional gender expectations by demonstrating defiant or aggressive behaviors are often considered “deviant,” “nasty,” and/or mentally ill and, as such, discriminated against within the juvenile justice system (Acoca, 1998; Barron & Lacombe, 2005; Bergsmann, 1989; Dembo, Williams, & Schmeidler, 1993; Hoyt & Scherer, 1998; MacDonald & Chesney-Lind, 2001; White & Kowalski, 1994). For example, girls are arrested and involved in the juvenile justice system for less serious offenses more often than boys (Poe-Yamagata & Butts, 1996), as well as more harshly sanctioned for similar offenses (Horowitz & Pottieger, 1991; MacDonald & Chesney-Lind, 2001). Similarly, girls are more likely to be detained for probation and parole violations, as well as sent back to detention after release, as a means of social control for girls’ behavior considered dangerous to themselves (American Bar Association & National Bar Association, 2001).

It is important to note that a discussion of girls’ experiences in the justice system is not complete without an explicit recognition of the role of race and ethnicity at all levels of the system from arrest patterns to sentencing. The juvenile justice system has long been affected by racial stereotypes, prejudice, and discrimination (e.g., Feld, 1998; Leiber & Mack, 2003). For example, self-reports of violent offenses reveal very small differences between Black and White youth; however, arrest records evidence large differences that vary by racial group. Black and Latino teenagers are consistently arrested at substantially higher rates compared to White teenagers. For instance, for every White teenager arrested for aggravated assault, three Black teenagers are arrested (Snyder & Sickmund, 1999). Broadly speaking, then, it seems that the probability of being arrested, but not of committing a violent offense, varies with an adolescent’s race

or ethnicity. Thus, the description of the typical female juvenile offender as a person of color (e.g. Mullis, Cornille, Mullis, & Huber, 2004) should not necessarily be understood as indicative of significant racial/ethnic differences in self-report data. In fact, Chesney-Lind and Shelden (2004) note that despite arrest records, White girls report slightly higher rates of delinquency.

In addition to impacting arrest patterns, stereotypical beliefs and prejudices also affect decision-making in the juvenile courts. There is evidence that juvenile offenders of color are more likely to be referred by intake for formal processing, to be held in secure detention facilities, and to be petitioned to court by prosecutors (Frazier & Bishop, 1995). For example, one study indicated that 63% of all youth offenders in residential placements in 1997 were minorities (Gallagher, 1999). Similarly, another study found that minority youth typically outnumber White youth in public custody facilities 2:1 (Sickmund, Snyder, & Poe-Yamagata, 1997). A study focusing specifically on girls in the juvenile justice system reported that White girls were significantly more likely than girls of color to receive no punishment during the sentencing (Horowitz & Pottieger, 1991). A 2001 report issued jointly by the American Bar Association and the National Bar Association confirms this finding. The report notes that

African American girls make up nearly half of all those in secure detention and Latinas constitute 13%. Although Whites constitute 65% of the population of at-risk girls, they account for only 34% of girls in secure detention. Seven of every 10 cases involving White girls are dismissed, compared with 3 of every 10 cases for African American girls (pp. 20-21).

Bridges and Steen (1998) suggest that Black youth offenders are often seen as possessing negative attributional and personality traits while White youth offenders are viewed as “victims” of their social environments. As a result, it is believed that courts

frequently transfer minority delinquents to adult courts where they receive harsher punishments (Jackson & Pabon, 2000). For instance, a recent study on criminal sentencing in Maryland indicated that when age, gender, and recommended sentence length are held constant, Black offenders have 20% longer sentences than White offenders (Bushway & Piehl, 2001). Likewise, a recent study by Leiber and Mack (2003) found that “being African American has different implications for decision-making than being White where considerations of gender and family status appear to be more important” (p. 61).

Once involved with the justice system, research shows that many girls and women experience emotional, physical, and sexual intimidation and abuse that mirrors abuse they have suffered at home or on the streets (Acoca, 1998; Dirks, 2004). Gaarder, Rodriguez, and Zatz (2004) found that juvenile court staff typically interacts with girls based on assumptions and perceptions that frequently do not match the realities of girls’ lives. This study found that the majority of professionals working with girls in the juvenile justice system viewed them as “difficult” at best and “criers, liars, and manipulators” at worst. The authors suggest that this results in a demoralizing outcome for girls because “they are not treated according to the reality of their lives, and probation officers continue to express frustration and even hostility towards girls who are not responding favorably to the programming being offered” (Gaarder, et al., 2004, p. 575). Echoing these findings, another study found that girls involved in the system report a moderate level of discrimination, including being treated disrespectfully, being called names and/or insulted, and being treated as if they were unintelligent (Ruffolo, Sarri, & Goodkind, 2004). It is argued that because the juvenile justice system has been created to serve the

needs of boys, a “mix and stir” approach has devastating effects on girls due to their unique emotional (e.g., post traumatic stress disorder stemming from sexual victimization) and physical (e.g., pregnancy, menstruation, nutrition) needs.

### A Newly Recognized Form of Aggression: Relational Aggression

Recognizing the limitations of past conceptualizations of aggression, and research conducted on the basis of them, researchers expanded the definition of aggression to encompass a subtler form of aggression that was thought to be more salient to girls. This form of aggression has been referred to as relational (Crick & Grotpeter, 1995), social (Cairns et al., 1989), and/or indirect aggression (Lagerspetz, Bjorkqvist, & Peltonen, 1988). In the present study, the term *relational aggression* is used. Relational aggression includes acts that are intended to damage another person’s friendships or feeling of inclusion in a peer group (e.g., spreading rumors, purposefully excluding a peer from a social activity, etc.).

Crick and Grotpeter (1995) argue that when relational aggression is included in general measures of aggression, which have been focused on overt aggression in the past, gender differences are greatly reduced. Accordingly, some research on aggression mentions sex differences in terms of quality rather than quantity. For example, Hyde (1984) argues that only 5% of variation in aggression scores is explained by sex, while Bjorkqvist and colleagues argue that it is “nonsensical to claim that males are more aggressive than females” (Bjorkqvist, 1994, p. 177) and maintain that in terms of motivation to harm others, females are as aggressive as males (Bjorkqvist & Niemela, 1992).



A number of empirical studies show that relational aggression is more common than overt aggression among girls (Cairns, et al., 1989; Crick, 1995; Crick & Grotpeter, 1995; Lagerspetz, et al., 1988; Moretti, Holland, & McKay, 2001). Crick, Bigbee, and Howes (1996) found that boys report more overt aggression in their peer groups, while girls report that relational aggression is more common in their peer groups. In addition, there is also some evidence that suggests that girls engage in more relational aggression than boys (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992; Crick & Grotpeter, 1995).

The concept of relational aggression fits neatly with traditional gender role formulations. Girls are socialized to be more cognizant of interpersonal issues and encouraged to define themselves by their relationships, while boys are socialized to be more independent and assertive. Thus, it is logical to assume that girls would express aggression in a way that uses relationships rather than physical force. At least one study suggests that this idea is deeply engrained within children early on; Giles and Heyman (2005) found that children as young as three reliably associated relational aggression with girls and physical aggression with boys and demonstrated systematic memory distortions when asked to recall stories that conflicted with these gender schemas.

Lagerspetz and Bjorkqvist (1994) have suggested that because girls' overt aggression is socially discouraged, they are more likely to express aggression relationally, substituting one form of aggression (relational) for another (overt). Support for this idea may be found in a recent study of 52 high school girls focused on navigating conflict in girls' friendships (Crothers, Field, & Kolbert, 2005). This study found that adolescent girls who identified with a traditional feminine gender role were more likely to engage in relational aggression than girls who identified with a nontraditional gender

role. Additionally, the authors found that girls who used relational aggression to navigate conflict were able to “pursue power and assert control in relationships and yet still meet the prevailing expectations of adults that girls are not supposed to contribute to conflict or to have wants and needs within a relationship that would result in emotional intensity and confrontation” (p. 353). There is also research indicating that children who engage in gender nonnormative forms of aggression are significantly more maladjusted than children who engage in gender normative forms of aggression and nonaggressive children (Crick, 1997). This research shows that overtly aggressive girls and relationally aggressive boys exhibit more social-psychological adjustment problems than relationally aggressive girls, overtly aggressive boys, and/or nonaggressive children.

Yet not all studies support the idea that relational aggression is a female form of aggression that functions as a substitute for more socially unacceptable overt aggression. Some research finds few, if any, gender differences in relational aggression (e.g., Galen & Underwood, 1997; Rys & Bear, 1997; Tiet, et al., 2001). Moreover, some research indicates that on average, boys demonstrate more overt *and* relational aggression (Little, Jones, Henrich, and Hawley, 2003; Salmivalli and Kaukiainen, 2004).

Somewhat complicating matters, it appears that results differ according to the methodology used to assess aggression. First, Little, et al. (2003) recently found evidence for two bipolar discrete dimensions of aggression: two overriding forms (overt and relational) and two underlying functions (instrumental and reactive). While past research has recognized the necessity of evaluating both overt and relational forms of aggression, the vast majority of studies have ignored underlying functions of aggression, perhaps limiting their validity. In addition, results from Russell and Owens (1999)

suggest that the target of aggression (same sex versus opposite sex) is a critical aspect in a complete understanding of boys' and girls' aggressive behaviors. The target of aggression is a factor rarely accounted for by previous studies. Finally, Crick (1996, 1997) and Bjorkqvist and Niemela (1992) found different results depending on whether peer nominations or self-reports are used to assess overt and relational aggression. In these studies, data from peer nominations indicates that boys are higher than girls on overt aggression, but girls are higher than boys on relational aggression. Yet, when self-report measures are used, boys are shown to be higher on overt aggression as well as relational aggression.

Taken together, the inconsistencies of the previous studies indicate that more research is needed on both the forms and functions of aggression among both boys and girls; however, there are at least two conclusions that may be drawn from the research thus far. First, relational aggression is *not* an exclusively female form of aggression. All of the studies found that boys engaged in at least some relational aggression within friendships. Second, it appears that gender differences in aggression are most apparent within aggression types. More specifically, there is a robust finding that boys are more likely to use overt rather than relational aggression, while girls are more likely to use relational rather than overt aggression (see also Odgers & Moretti, 2002).

#### Toward an Understanding of Physically Violent Girls

The recognition of relational aggression has informed and advanced our understanding of gender and aggression in a fundamental way. Girls are no longer viewed as nonaggressive. It is accepted that girls frequently engage in relational aggression, which has been identified as a distinct form of aggression, associated with,

yet separate from, overt aggression (Little, et al., 2003). Research also indicates that overt and relational aggression are highly correlated in both girls and boys. Correlations between overt and relational aggression have been estimated to be between .73 and .83 in various high risk and community samples, respectively (Crick, 1996; Little, et al., 2003; Tiet, et al., 2001).

The implication of the high correlation consistently found between overt and relational aggression is significant. To clarify, if girls who engage in relational aggression are also more likely to exhibit overt aggression, then it is obvious that one form of aggression is not being substituted for another, as suggested by Lagerspetz and Bjorkqvist (1994). The high correlation suggests, rather, that “relational aggression may form the interpersonal context in which acts of severe physical aggression are perpetrated by girls” (Odgers & Moretti, 2002, p. 106). Thus, contrary to what has been popularly regarded as true, relational aggression does not fully explain aggression among girls, nor differentiate between boys’ and girls’ aggressive behavior. Additionally, relational aggression is neither necessary nor sufficient in explaining the increase in physically aggressive offenses among girls. Consequently, researchers have sought to identify gender specific risk factors for delinquent behavior among adolescents.

As noted by Dixon, Howie, and Starling (2004), “it is widely accepted that juvenile delinquency is the result of complex interactions between numerous risk factors over time and environments” (p. 11502). But what about unique risk factors for males and females? The results of studies examining gender specific risk factors for juvenile delinquency have been mixed. Some research suggests that there are few, if any, discernable differences between male and female risk factors (e.g., Nichols, Graber,



Brooks-Gunn, Botvin, 2006; Rowe, et al., 1995; Simourd & Andrews, 1994). Yet, as Hubbard and Pratt (2002) note, most meta-analyses often fail to account for school and family relationships and/or a history of physical or sexual abuse. Studies that account for these variables find that despite the similarities in delinquency risk factors for boys and girls (e.g., alcohol and substance use, mental health issues, history of victimization, low academic achievement), girls in the juvenile justice system are more likely to be at high risk in multiple domains, as well as demonstrate unique patterns of risk (e.g., Bergsmann, 1989; Chesney-Lind & Shelden, 2004; Hubbard & Pratt, 2002; McCabe, Lansing, Garland, & Hough, 2002; Wood, Foy, Goguen, Pynoos, & James, 2002).

Unfortunately, “as researchers and policymakers push forward to understand and respond to the unique issues/needs of females, race and ethnicity are often overlooked in favor of defining girls as a homogeneous group” (Holsinger & Holsinger, 2005, p. 211). As such, extant research often essentializes gender, failing to account for other, equally important demographic factors (e.g., SES, race/ethnicity, etc.). Consequently, the literature on offending among girls is understood only within the context of a patriarchal, but not racist, society. Without an explicit discussion of the role of race and ethnicity in female delinquency, we miss the complexity and depth of girls’ experiences in the juvenile justice system.

The assumption of homogeneity among girls in the system (e.g., Gorman-Smith & Loeber, 2005; Saner & Ellickson, 1996; Williams, Van Dorn, Hawkins, Abbott, & Catalano, 2001) has widespread implications such that it denies potential within-group differences among risk factors, which may ultimately lead to misguided intervention and treatment efforts. As Goodkind (2005) notes,

programs that focus on gender without attention to its intersections with other socially constructed categories risk being relevant to only a certain group of women or girls – those whose experiences were used to formulate the gendered approach, in this case, upper- and middle-class, heterosexual, White ethnic girls and women (p. 61).

With this in mind, focus will be turned to five interconnected areas of risk for girls' involvement in the juvenile justice system with specific attention paid to racial and ethnic differences. The risk factors include psychopathology, substance abuse, gang involvement, a history of victimization, and familial factors.

### Psychopathology

Several studies have highlighted the distinct relationship between mental health problems and delinquency for girls, although it is still unclear whether mental health issues precede or result from involvement in the juvenile justice system. Dembo and colleagues found that girls in the juvenile justice system have more emotional and psychological problems (often related to trauma) than boys (Dembo, Pacheco, Schmeidler, Ramirez-Garmica, Guida, & Rahman, 1998; Dembo, et al., 1993). Another comparable study found that 84% of female juvenile offenders suffered from identified mental health disorders compared to 27% of their male counterparts (Timmons-Mitchell, Brown, Schulz, Webster, Underwood, & Semple, 1997). Similarly, using longitudinal data for more than 4500 high school seniors and dropouts, Ellickson, Saner, and McGuigan (1997) found that violent girls were two to three times more likely than violent boys to suffer from "poor mental health." When compared with girls in the general population, one study found that female juvenile offenders were three times more likely to demonstrate clinical symptoms of depression or anxiety (Kataoka, Zima, Dupre, Moreno, Yang, & McCracken, 2001), while another found that female offenders were

three to five times more likely to score in the clinical range of depression, anxiety, post traumatic stress, anger, and dissociation (Flannery, Singer, & Wester, 2001). McCabe, et al. (2002) examined psychopathology within a sample of 625 (112 females) adjudicated delinquents and found that both genders showed elevated rates of mental health problems; however, girls had higher prevalence rates on all disorders (except substance use disorder and comorbidity), as well as significantly higher rates of internalizing and externalizing disorders than boys. From their results, the authors concluded that “female adjudicated delinquents suffer from more severe psychopathology, including externalizing disorders, than their male counterparts” (McCabe, et al., 2002, p. 865). This relationship appears to hold among serious juvenile offenders as well (Cauffman, Piquero, Broidy, Espelage, & Mazerolle, 2004).

In comparison to boys, girls in the juvenile justice system also demonstrate a higher prevalence of specific disorders. Cauffman, Feldman, Waterman, and Steiner (1998) examined the incidence of posttraumatic stress disorder (PTSD) in a sample of 96 adolescent female offenders. They found that 65.3% of the incarcerated female offenders had experienced PTSD at some point in their lives, a rate significantly higher than that of the general population. In addition, incarcerated girls exhibited a significantly higher incidence of current PTSD symptomatology than incarcerated boys (48.9% versus 32.3%). Finally, results indicated that girls experienced significantly higher levels of distress than boys. Similar results were obtained by Wood, et al. (2002) in their sample of incarcerated girls. They found that the girls reported dramatically high rates of PTSD and depressive symptomatology, rates that were significantly higher than those reported by their male counterparts. Moreover, there is also evidence suggesting that a history of

trauma in combination with a low verbal IQ places girls at a unique risk for reactive aggression, such that these girls may be acutely sensitive to perceived threats and unable to “modulate behaviors and feelings with words” (Connor, Steingard, Anderson, & Melloni, 2003, p. 290).

Depression has also been linked to juvenile delinquency among girls (e.g., Blitstein, Murray, Lytle, Birnbaum, & Perry, 2005; Ulzen & Hamilton, 1998). A study by Zoccolillo and Rogers (1991) found that close to 90% of aggressive girls could be diagnosed with conduct disorder with major depression as the second most frequent diagnosis. Another study reported that over half of adolescent female offenders have attempted suicide, and that 64% of the attempters had tried more than once (Bergsmann, 1989). More recently, Obeidallah and Earls (1999) found that 57% of mildly to moderately depressed girls engaged in higher levels of aggressive behavior, compared with 13% of those who were not depressed. In addition, 82% of mildly to moderately depressed girls committed a crime against another person, compared with 42% of girls who were not depressed. Finally, in their study of delinquent, diverted, and high-risk girls, Ruffolo, et al.(2004) note that a majority of the girls reported moderate to severe depression, yet only one-third had received mental health services to address their symptoms.

The high prevalence of depression among female juvenile delinquents may place them at unique risk for suicidal behavior, particularly among White youth (e.g., Holsinger & Holsinger, 2005; Ruffolo, et al., 2004). Among an Australian sample, Dixon, et al. (2004) found that 46 out of 100 offenders had attempted suicide compared to 4 out of 100 non-offenders ( $p=.001$ ). Using a community sample, Flannery, et al. (2001) found that



dangerously violent female adolescents were at a significantly higher risk for suicide compared to a matched control group of girls, as well as compared to dangerously violent male adolescents.

Yet some research suggests that the relationship between suicide and aggression among girls is more complex than the previous studies suggest. A 2004 study by Liu found that delinquency moderated the relationship between emotional distress and suicidal gestures. To clarify, although delinquency has been shown to be a risk factor for suicidal gestures among girls, girls under significant emotional distress who conform to social roles are more likely to attempt suicide than are distressed delinquent girls. While similar results were found for the boys in Liu's sample, the main and moderating effect of delinquency was much weaker. Liu hypothesizes that girls who conform to social roles may feel powerless over their inability to act out or express their pain. Furthermore, although delinquency among girls is considered taboo, "the fact that girls could overcome obstacles and act in defiance of the conventional standards may bring some status and power and, hence, self-respect for these girls (p. 711).

Female juvenile offenders are also at a higher risk for anxiety disorders. For example, a recent study examining gender differences in psychiatric disorders among adolescents at probation intake found that girls demonstrated significantly higher rates of anxiety (and affective) disorders than boys (Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005). Moreover, girls who were arrested for violent offenses were three to five times more likely to report symptoms consistent with anxiety disorders. Calhoun (2001) reported similar results in her study of paroled male and female juvenile delinquents. More specifically, using the Behavioral Assessment System for Children

(BASC), Calhoun found that girls demonstrated a significantly higher external locus of control (i.e., the perception that one's life is controlled by circumstances outside of one's control), higher levels of social stress in their interpersonal relationships, higher levels of anxiety, and finally, lower self-esteem when compared with boys.

Finally, there is an abundance of evidence that suggests girls involved in the juvenile justice system are significantly more likely to suffer from multiple mental health problems in comparison to boys (e.g., Abram, Teplin, McClelland, & Dulcan, 2003; Kataoka, et al., 2001; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). Ulzen and Hamilton (1998) studied rates of psychiatric comorbidity among incarcerated adolescents and found that whereas boys had a multiple disorder rate of 57.9%, girls had a rate of 81.8%. In a comparable study conducted with Australian female juvenile offenders, Dixon, et al. (2004) found that approximately 83% of the girls met criteria for two or more psychiatric disorders, with some girls carrying as many as eight diagnoses. Furthermore, they found that as "the probability of being an offender increased dramatically as the number of diagnoses increased" (p. 1155). The elevated risk of co-occurring mental health problems among delinquent girls have led some researchers to support the notion of a "gender paradox," such that delinquent girls are more impaired across multiple dimensions than their male counterparts (Wasserman, et al., 2005).

Generally speaking, studies on mental health needs among juvenile delinquents focus on gender or racial differences, but not both. While race and ethnicity are typically acknowledged as demographic variables, researchers often fail to consider the possibility that risk factors and offending patterns may differ by race within the subcategory of gender (Calhoun, 2001; Cauffman, et al., 1998; Dembo, et al., 1993; Dembo, et al., 1998;

Grover, 2004; Jasper, et al., 1998; Kataoka, et al., 2001; McCabe, et al., 2002; Wasserman, et al., 2005). For example, Dembo and colleagues (Dembo, et al., 1993; Dembo, et al., 1998) noted that among both Black and White juvenile offenders, girls demonstrated more mental health problems and histories of trauma (i.e., sexual abuse); however, the studies failed to present within-group racial comparisons. Cauffman, et al. (2004) state that “merely classifying youths as a homogenous group is inappropriate” (p. 247), yet fail to recognize that by essentializing gender, they have done just that.

To date, only a few studies have examined racial differences in mental health needs among female juvenile delinquents. Two studies comparing Black, Hispanic, and White female juvenile detainees found that White girls had significantly higher rates of psychological disorders (Teplin, et al., 2002) and were significantly more likely to have comorbid diagnoses (Abram, et al., 2003). This gap in the literature was also addressed in a recent study by Holsinger and Holsinger (2005) focusing on differential pathways to violence and self-injury among Black and White female delinquents. With respect to mental health concerns, the study demonstrated that Black female delinquents have significantly higher self-esteem than White female delinquents, and that they are significantly less likely to engage in self-injurious and suicidal behavior.

### Substance Use/Abuse

The use and/or abuse of substances has been established as a significant risk factor in delinquency among girls (e.g., Abram, et al., 2003; Blitstein, et al., 2005; Bloom, et al., 2003; Fergusson & Woodward, 2000; Gaarder & Belknap, 2002; Teplin, et al., 2002; Wood, et al., 2002). Among a sample of juvenile detainees, Teplin, et al. (2002) found that nearly half (46.8%) of the girls met criteria for a substance use disorder

(primarily alcohol and marijuana). Although these rates were comparable to the male detainees in their sample, they also found that girls were significantly more likely to have an “other substance” use disorder (e.g., cocaine and hallucinogens) than boys. Among female juvenile delinquents, substance use disorders (particularly polysubstance abuse) are typically comorbid with other psychiatric diagnoses, such as major depression and a variety of anxiety disorders (Abram, et al., 2003; Dixon, et al., 2004). For example, in a study of 54 female youth incarcerated in California, Kataoka, et al. (2001) found that 71% of the girls reported a substance abuse problem, 41% of whom indicated “comorbid emotional symptoms.” Furthermore, in the same study, 40% of the girls reported five or more problems associated with substance use; legal problems (i.e., engaging in illegal activities such as prostitution to obtain the substance) were the most common. Other problems attributed to substance use among this sample were relational (trouble with friends, family, school, community) and health related (i.e., physical, mental, etc.).

A history of substance use/abuse has been linked to more serious forms of delinquency (Dembo, Williams, & Getreu, 1991). For instance, among a sample of one hundred girls referred to an adolescent forensic mental health service, significantly more girls who committed violent offenses had abused or “misused” substances when compared to girls who committed nonviolent offenses (50% compared to 18.8%; Jasper, Smith, & Bailey, 1998). Moreover, girls involved with the juvenile justice system who abuse substances are more likely to persist in criminal activity, making substance abuse a contributing factor to girls’ recidivism (Kataoka, et al., 2001).

As seen in the literature on female delinquency and mental health issues, very few of the studies examining substance use/abuse within the juvenile justice population attend



to both gender *and* racial differences (e.g., Dembo, et al., 1993; Dixon, et al., 2004; Jasper, et al., 1998; Kataoka, et al., 2001). Within extant substance abuse literature, Black youth demonstrate less severe substance abuse problems than White youth, as well as fewer problems associated with their use/abuse (e.g., Albrecht, Amey, & Miller, 1996; Amey & Albrecht, 1998; Friedman & Ali, 1997).

This pattern appears to be replicated within the juvenile justice population. Using a sample of over 1800 youth in juvenile detention, Teplin et al., (2002) found that White adolescents had significantly higher rates of any substance use disorder and substance use disorders other than alcohol and marijuana (e.g., cocaine and hallucinogens) than Black adolescents. Compared to Latino youth, White adolescents also had significantly higher rates of substance use disorders other than alcohol and marijuana. The study by Teplin et al., (2002) also examined rates of substance use/abuse by gender. When compared to boys, girls were significantly more likely to demonstrate substance use disorders other than alcohol and marijuana. Taking into account race and ethnicity, results for girls mirrored those found for both genders. Specifically, in comparison to Black girls, White girls were significantly more likely to demonstrate all substance use disorders; in comparison to Latina girls, White girls were significantly more likely to demonstrate substance use disorders other than alcohol and marijuana.

In a study specifically examining risk factors among Black and White girls in the juvenile justice system, Holsinger and Holsinger (2005) found that for the total sample, higher drug use was associated with violent offenses, suicide attempts, and self-injurious behaviors. Interestingly, this relationship only held for White girls; among Black girls, higher drug use was only associated with committing violent offenses. Moreover, for

Black youth, the strongest correlates for overall delinquency were history of abuse, poor family experiences, and antisocial personality, while for White youth the strongest correlates were antisocial personality, mental health problems, and drug use.

Despite the knowledge that substance use and delinquency among girls are linked (with variations among different racial and ethnic groups), there have been few studies conducted to determine the nature of this relationship. More specifically, does substance use precede delinquency or develop as a result of participation in “high risk” behaviors with other delinquent peers? Or, perhaps, is the relationship bidirectional? A qualitative study conducted with girls in the California juvenile justice system by Bloom et al. (2003) found that “while some young women acknowledged that drug problems contribute to their delinquency, most felt that drug and alcohol use was symptomatic of wider personal problems...Drug use itself seemed to be tied to destructive friendships and ‘not caring what happens to me’” (p. 129). In a somewhat similar study using quantitative methods (specifically latent growth curve analysis), Farrell, Sullivan, Esposito, Meyer, and Valois (2005) found that among both boys and girls, aggressive behaviors preceded and predicted subsequent drug use and future involvement in delinquent acts. In this study, boys and girls differed in their initial levels of aggression, substance use, and delinquency; however, the patterns of change did not differ between genders. Thus, from the, albeit limited, extant research, it appears that aggressive behaviors and/or poor decision making leads to higher risk of substance use, which in turn predicts future involvement in delinquent behaviors.

## Gang Involvement

Although significantly fewer girls belong to gangs than boys, girls' involvement in gangs represents an important contributor to their involvement in delinquency (e.g., Bloom, et al., 2003; Campbell, 1993; Shelden, Tracy, & Brown, 2004). Lanctot and LeBlanc (1997) found that approximately 69% of delinquent girls were involved in gang activity in some capacity. According to Chesney-Lind and Shelden (2004), there are three general types of female gang involvement including membership in an independent gang, membership in a male gang as a "coed," and being a female "auxiliary" of a male gang. Most girls fit within the third category, becoming associated with a male gang through friendships, romantic relationships, and family members.

Regardless of how a girl becomes a part of a gang, "gang girls commit a wide variety of offenses, similar to the pattern exhibited by gang boys, only at a slightly lower frequency (Esbensen, Deschases, & Winfree, 1999, p. 47). Likewise, there appear to be virtually no differences in the reasons that girls and boys join gangs (i.e., to satisfy basic needs such as self-esteem and protection; Chesney-Lind & Shelden, 2004; Esbensen, et al., 1999; Miller, 2001), although there is some evidence of higher levels of family dysfunction among female gang members in comparison with their male counterparts (e.g., Wood, et al., 2002). Research also indicates that there may be distinct qualitative differences between gang boys and girls, particularly with respect to perceived social isolation, sensitivity to family dysfunction, and self-esteem. Specifically, girls involved with gangs and guns acknowledge higher perceived social isolation, more family dysfunction, and lower self-esteem than their male counterparts, all of which may be ameliorated by gang membership (Chesney-Lind & Shelden, 2004; Bloom, et al., 2003;

Dukes & Stein, 2003; Esbensen, et al., 1999; Miller, 2001). As one girl stated, “I always felt that I was missing something in my life: drugs and gangs help you replace that” (Bloom, et al., 2003, p.126).

A discussion of gangs is not complete without an explicit focus on the role of race/ethnicity and, of course, social class. As Chesney-Lind and Shelden (2004) note, boys and girls involved in gangs typically come from backgrounds characterized by single-parent families, poverty, and minority status. One study found that among former and current girl gang members, 96% of their families were receiving unemployment or welfare benefits and 56% were receiving food stamps (Harper & Robinson, 1999). In fact, some studies have shown that poverty predicts delinquency as well as a history of abuse (e.g., Herrera & McCloskey, 2001). Summarizing case studies on girls in gangs, Chesney-Lind and Shelden (2004) state:

The crimes that they commit are for the most part attempts to survive in an environment that has never given them much of a chance in life. Most face the hardships that correspond to three major barriers – being a member of the underclass, being a woman, and being a minority. The gang, although not total solution, seems to them a reasonable solution to their collective problems (p. 96).

#### History of Trauma/Victimization

A history of violent victimization and/or exposure to community violence has been established as a “warning signal” for future violent offending among all juveniles (DiNapoli, 2003; Halliday-Boykins & Graham, 2001; Nofziger & Kurtz, 2005; Rivera & Widom, 1990; Shaffer & Ruback, 2002), yet it is particularly pronounced in the lives of aggressive girls; in fact, a history of trauma may be more strongly associated with girls’ involvement in serious juvenile delinquency than boys (Blum, Ireland, & Blum, 2003; Breslau, David, Andreski, & Peterson, 1991). In a review of literature on girls in the



juvenile justice system, Acoca (1999) proclaimed that “victimization – physical, sexual, and emotional – is the first step along females’ pathways into the juvenile justice system” (p. 5). Bloom, Owen, Rosenbaum, and Deschenes (2003) note that the effects of girls’ abuse are “long-lasting and create problems with running away, emotional adjustments, trust and secrecy, future sexuality and other risk behaviors,” which few juvenile justice programs address (p. 127). Furthermore, a recent study examining the convergent and predictive validity of the *Psychopathy Checklist – Youth Version (PCL-YV)* (Forth, Kossen, & Hare, 2003), long considered the “gold standard” in violence risk assessment, found that the relationship between *PCL-YV* scores and aggressive behavior “disappeared when victimization was simultaneously considered” among an adolescent female population (Odgers, Reppucci, & Moretti, 2005, p. 759).

Numerous studies and reviews indicate that delinquent girls have been (and often continue to be) victimized at an alarming rate (e.g., Bloom, et al., 2003; Chamberlain & Moore, 2002; Chesney-Lind & Shelden, 2004; Gaarder & Belknap, 2002; Lane, 2003) across racial categories (Dembo, et al., 1993). While boys are more likely to be traumatized as observers of violence (e.g., Farrell & Sullivan, 2004), girls are more likely to be direct victims, particularly in their own homes (Cauffman, et al., 1998; Flannery et al., 2001). Among a sample of juvenile offenders, McCabe, et al. (2002) found that girls reported significantly higher rates of physical abuse, physical neglect, and emotional abuse.

Subtleties involved in the experience of abuse (e.g. experiencing versus witnessing abuse, the type and frequency of abuse, etc.) have been studied over the past few years. Among a sample of 517 sexually active adolescent girls, Berenson, Wiemann,

and McCombs (2001) found that compared to witnessing violence, experiencing abuse increased the risk for adverse health behaviors such as high-risk sexual activity and substance abuse. Moreover, adolescents who both witnessed and experienced violence were at the greatest risk. These results, unfortunately, did not take into account race/ethnicity. Nofziger and Kurtz (2005) also found that “the more exposure to violence is a part of the individuals’ everyday lifestyle, the more likely juveniles are to engage in violent offending” (p. 19). Results from their study using over 4,000 adolescents suggest that it is vitally important to go beyond measuring exposure to violence as a broad category and begin looking at the nature of the exposure, as well as the type and frequency of the violence. Yet again, however, Nofziger and Kurtz (2005) failed to disaggregate their results by gender and race/ethnicity.

In line with the research that highlights the importance of examining different subtypes of violence and abuse, the experience of physical abuse in childhood has been the focus of much research. Overall, physical abuse seems to place girls at a higher risk of offending compared to boys in similar situations. Herrera and McCloskey (2001) found that physically abused girls were more than seven times more likely to engage in violent offending than nonabused girls; however, it is important to note that this relationship held only for *violent* offenses, not for simply being referred to court. Other research has yielded comparable results indicating that experiencing violence and abuse significantly increases the likelihood of girls being arrested for committing a violent crime (Widom & Maxfield, 2001; Rivera & Widom, 1990). Similarly, Farrell and Bruce (1997) found that exposure to community violence was related to an increase in the frequency of violent behavior (but not emotional distress) reported among girls but not

boys. Findings such as these have prompted some researchers to speculate that, contrary to boys, girls have a “threshold of abuse” that, once crossed, significantly increases their risk of engaging in violent offences (Herrera & McCloskey, 2001).

Interestingly, the few studies that have disaggregated results based on race/ethnicity suggest that perhaps White and Black youth respond differently to the experience of abuse. For instance, in the 1990 study by Rivera and Widom, abused or neglected White adolescents did not have higher rates of violent arrests compared to adolescents without a history of abuse; however, abused and neglected Black adolescents did have significantly higher rates of violent offending. These results are consistent with findings from a recent study on Black and White adolescents in the juvenile justice system (Holsinger & Holsinger, 2005). Rates of abuse (physical and sexual), drug and alcohol use, attempted suicide and self injury were significantly lower among the Black girls in comparison to the White girls. Moreover, the Black girls also had significantly higher self-esteem and more positive family experiences. The study found that a history of abuse was the only significant variable that predicted serious violent behavior among Black female adolescents. Among White female adolescents, a history of abuse was also significant; however, it was *negatively* correlated, which indicates that girls who experience less abuse are more likely to commit violent offenses. This study also found that a history of abuse predicted suicide attempts and self-injurious behavior (e.g., cutting) for White teens but not for Black teens (Holsinger & Holsinger, 2005). The authors use their results to highlight the importance of disaggregating the effects of race/ethnicity simultaneously with gender rather than treating girls as a homogeneous group.

Along with physical abuse, sexual abuse has been established as a major risk factor in girls' delinquency (e.g., Bloom et al., 2003; Chesney-Lind & Shelden, 2004). Wood, et al. (2002) found that incarcerated girls experienced significantly higher levels of sexual abuse and unwanted sexual contact than boys. Approximately 18% of the 100 girls surveyed in their study reported that an adult forced them to have sex before the age of 14. A study by Chamberlain and Moore (2002) also found a high rate of sexual abuse among female juvenile delinquents who reported an average age of 7.43 years when at least one unwanted sexual experience occurred. Moreover, a recent study supports the idea that sexual abuse may, in fact, be a unique contributor to nonviolent and violent delinquency among girls, even when other forms of victimization are taken into account (Herrera & McCloskey, 2003; see also Siegel & Williams, 2003).

Finally, girls involved in the juvenile justice system also demonstrate a pervasive history of multiple forms of abuse, including physical, emotional, and sexual abuse (e.g., Bloom, et al., 2003; Chamberlain & Moore, 2002; Moretti, Catchpole, & Odgers, 2005; Wood et al., 2002). In a study examining the impact of sexual abuse, physical abuse, and marital violence on adolescent girls, Herrera and McCloskey (2003) found that the proportion of girls involved in delinquent behavior increased as exposure to multiple forms of abuse increased (30% in the "no abuse" category to 77% with all three forms of abuse). Using a sample of 100 female juvenile delinquents referred to a forensic mental health service, Jasper, et al. (1998) found that 71 girls were abused in some way; however, the vast majority reported being "multiply abused." Wood, et al. (2002) also suggest that delinquent girls have unique trauma histories. More specifically, among the 100 incarcerated girls whom they interviewed, they found that one out of every four



reported “being beaten up by a boyfriend, being threatened with a weapon by a boyfriend, having been forced to have sexual intercourse within the past few years, or having been hit with an object such as a bat or tire iron” (p. 123). Yet again, however, these studies treated girls as a homogenous group and failed to differentiate results among Black, White, and Latina participants.

### Familial Factors

As noted by Moretti, et al. (2005), “a common picture is emerging across researchers pointing to family fragmentation and disconnection in the lives of girls with serious patterns of aggressive and violent behavior” (p. 23). Accordingly, Bloom, et al. (2003) report that family issues, conflict with parents, and subsequent running away were the primary reasons for delinquency within their sample of girls. Chamberlain and Moore (2002) found similar results among the 42 girls participating in their study. Specifically, results indicated that the girls experienced an average of 14 parental transitions (e.g., a father moves away, a mother’s new boyfriend moves in, they are placed in foster care, etc.), or approximately one parental transition for each year of their lives. Furthermore, Saner and Ellickson (1996) also found that “adolescent girls evidence a particular vulnerability to family disruption and family deviance, exhibiting increased levels of violence when they experience parental job loss, separation, divorce, or death and when they live with parents who use drugs” (p. 102).

Although few studies have specifically examined racial/ethnic differences in response to family disruption, there is some evidence that, different from boys, the relationship between familial factors and delinquency may vary among girls of different racial/ethnic groups (Taylor, Biafora, Warheit, & Gil, 1997). These results, however,



were not supported by a recent study involving urban minority adolescents that found no significant sex differences in predicting increases in delinquency amid family disruption (Nichols, et al., 2006). As such, it is clear that more studies are needed to disentangle possible differences among adolescents from different racial/ethnic backgrounds in coping with disruptions within the family unit.

Familial dysfunction is a recurrent theme running through the research on delinquent girls. Adjudicated girls are more likely to report that their families are dysfunctional (i.e., less accepting, more rejecting) than nonadjudicated girls (Kroupa, 1988). Similarly Wood, et al. (2002) found that girls involved with gangs and guns reported higher levels of family dysfunction compared to boys in similar situations. Studies indicate that delinquent girls are more likely to come from families with a history of psychopathology (McCabe, et al., 2002) and interpersonal conflict (Henggeler, Edwards, & Borduin, 1987), particularly between mothers and daughters (Fejes-Mendoza, Miller, & Eppler, 1995). For example, in one study, girls who felt alienated from and unhappy with their mothers indicated higher levels of emotional distress, expressed anger in response to frustrating situations, and more frequent violent behavior toward other people and objects (Ding, Nelsen, & Lassonde, 2002). In fact, the presence of a nurturing, warm, responsive mother has been shown to be a protective factor for violence among girls (Blitstein, et al., 2005).

Feelings of alienation from parents are thought to create a sense of loneliness and frustration, prompting adolescents to “drift” into delinquent peer associations and violent behaviors (Benda & Corwyn, 2002). This may be especially true for Black girls as demonstrated in the 2005 study by Holsinger and Holsinger. Their results suggest that a

negative family experience (e.g., being deserted by one or more parent, drug/alcohol use by parent(s), feeling “disliked” by parent(s), etc.) may have a “more damaging effect for African American girls, considering the increased importance of the family network” within Black communities (p. 237).

Emotional disengagement and inattention and/or poor communication characterizes a vast majority of the homes of delinquent girls (e.g., Acoca, 1999) and there is some evidence suggesting that these negative emotional experiences may be more critical for girls than boys (Blum, et al., 2003). Bjorkqvist and Osterman (1992) found that maternal and paternal verbal and physical aggression were significantly related to daughters’ aggression with peers and within the home. Other studies have shown that negative communication styles (i.e., harsh, authoritarian discipline, a lack of bi-directional communication between parent and child) and low parental support are related to adolescent girls’ aggression (Pakaslahti, Spoof, Asplund-Peltola, & Keltikangas-Jarvinen, 1998; Saner & Ellickson, 1996). In fact, research indicates that there is a stronger relationship between parents’ indirect social control (i.e., emotional attachment) and delinquency than direct social control (i.e., supervision, restriction). Stated differently, a parent’s physical presence does less to inhibit delinquent behaviors among adolescents than their psychological or emotional presence (Cernkovich & Giordano, 1987; Demuch & Brown, 2004).

Interestingly, the family environment also appears to provide both the reason for and the context of girls’ offending. Women and girls who commit crime are often motivated by close relationships and concern for others (Simpson, 1989). Gilfus (1992) found that many women who were involved in street crime described themselves as

“caretakers” and “protectors,” often of younger siblings. These women often committed crimes to protect these relationships and emotional commitments. In addition, results from Broidy, Cauffman, Espelage, Mazerolle, and Piquero (2003) suggest that while delinquent girls demonstrate significantly less emotional empathy (i.e., thinking about the feelings of others before acting) than nonoffending girls, there is no difference in behavioral empathy (i.e., engaging in behaviors for the express benefit of others). In other words, among girls, behavioral empathy may be manifested in either prosocial or antisocial behaviors. This relationship was not found for boys, lending support to the notion that girls engage in criminal behavior to protect close relationships.

Finally, girls also appear to be uniquely at risk for violent behavior against family members. In one of the few studies that includes data on violent girls, Loper and Cornell (1996) analyzed homicide reports from 1984 and 1993. They found that homicides by girls were more likely to involve interpersonal conflict (often with a family member) rather than a criminal motive such as robbery. This study is also noteworthy as it also disaggregates potential effects of gender and race. Results show that offender race was not significantly associated with gender or juvenile status. Adult female offenders also appear to be more at risk for violence toward family members; Greenfield and Snell (1999) found that the vast majority of female perpetrated homicides were committed within intimate relationships rather than against strangers (i.e., 31.9% acquaintance, 28.3% spouse, 14% boyfriend/girlfriend, and child/stepchild, 10.4%), whereas male perpetrated homicides involved more acquaintances (54.6%) and strangers (25.1%).

When examining violent crimes that do not result in death, girls are again more likely to offend against known victims. In a study of high school seniors and dropouts,

Ellickson, Saner, and McGuigan (1997) found that although boys were significantly more likely than girls to commit violent acts (64.9% of boys committed violent acts versus 41.5% of girls), they were equally as likely to strike out at family members. Similarly, results from Herrera and McCloskey (2001) indicate that among the girls in their study ever arrested for a violent offense, 89% were arrested exclusively for domestic violence (i.e., violence between family members, usually child to parent).

### The Current Study

Much of the existing literature on juvenile delinquency is focused on boys. Research that has included aggressive girls often uses boys as a comparison. In other words, the experience of aggression among boys has been the standard by which we have assessed and understood the experience of aggression among girls. This perspective has served as a fine starting point, as it is clear that there are a number of similarities between boys and girls along the path to aggressive behaviors. The perspective has afforded us a rich understanding of aggressive behavior (both violent and nonviolent) among boys, as well as a preliminary understanding of nonviolent aggressive behavior among girls; however, virtually nothing is known about what factors lead to violence among girls and/or what differentiates girls in the juvenile justice system charged with violent offenses versus nonviolent offenses. A continued focus on between group differences in the study of aggressive behavior will limit our ability to capture the depth and complexity of their aggression, which is clearly problematic given that the more serious the crime committed as a juvenile, the more likely it is that a female offender will continue to engage in criminal activity (Lane, 2003).



Given advances in our understanding of the developmental and gender role differences between boys and girls, as well as the fact of the historical oversight of attending to girls in the juvenile justice system, it is appropriate to revisit our understanding and treatment of overt aggression, particularly violent aggression, in girls at this time. Based on existing research, it appears that aggression among girls is both related to, and distinct from, aggression among boys, suggesting that pursuing the answer to the question “who is more aggressive?” is no longer of use. Examining differences between boys’ and girls’ aggression to identify distinct risk and protective factors, and therefore, different potential intervention targets, is of clear importance; however, exploring factors that differentiate between girls who commit violent offenses and girls who commit nonviolent offenses seems of greater importance. Framing the question in this manner could identify risk and protective factors and therefore, intervention targets, of specific and perhaps unique importance in girls.

In addition to the aforementioned gap in the literature on the use of physical aggression among girls, there is also a notable lack of research that adequately attends to the role of race and ethnicity in the experience of girls in the juvenile justice system. The current study argues that we have done a disservice to girls by not focusing on the ways in which their experiences in the juvenile justice system may differ from that of boys; the assumption of homogeneity among girls in the system is equally problematic. Therefore, this study will include an explicit focus on how the risk factors and experiences of girls of color may differ from those of White girls in the juvenile justice system.

The current study seeks to flesh out the experiences of physically aggressive girls as measured by their involvement in the juvenile justice system. The broad research goal



of this study focused on the factors that differentiate girls in the juvenile justice system who are adjudicated on violent versus nonviolent offenses, while taking into account racial/ethnic differences. Violent offenses included homicide, aggravated assault (including weapons offenses and attempted murder), robbery, kidnapping, voluntary manslaughter, rape or attempted rape, and arson of an occupied building (Loeber, Farrington, & Waschbusch, 1998). Not included in this list are minor forms of aggression such as simple assault because they “rarely lead to prosecution” (Loeber, et al., 1998, p. 15). Nonviolent offenses included status based offenses (e.g., running away from home, being incorrigible, truancy, violating probation, etc.) and simple assault charges, as well as other crimes such as larceny-theft, prostitution, and drug/alcohol offenses.

The current study was conducted with a number of hypotheses in mind. First, considering the entire sample, it was believed that there would be a number of significant racial/ethnic differences with respect to risk factors. Specifically, it was hypothesized that (1) girls of color would demonstrate significantly less suicidal and self-injurious behaviors than White girls; (2) girls of color would demonstrate significantly less psychopathology than White girls; (3) girls of color would demonstrate significantly less polysubstance use/abuse than White girls; (4) significantly more girls of color would acknowledge gang membership than White girls; (5) girls of color would be significantly less likely to acknowledge a history of trauma (i.e., abuse) than White girls.

Next, recalling the notion that physical aggression defies traditional gender role expectations, as well as the idea of a “gender paradox” proposed by researchers such as Wasserman, et al. (2005), it was believed that girls who engaged in violent offenses

would demonstrate more risk factors in multiple domains when compared to girls who committed nonviolent offenses. Therefore, first, it was hypothesized that girls adjudicated for violent offenses would demonstrate more risk factors for juvenile delinquency than girls adjudicated for nonviolent offenses, regardless of race/ethnicity. In line with this reasoning, it was also hypothesized that in comparison to girls who committed nonviolent crimes, girls who committed violent crimes would (1) demonstrate more psychopathology (i.e., higher rates of comorbidity); (2) evidence less suicidal and self-injurious behavior given their use of overt aggression as an outlet for releasing emotional distress; (3) demonstrate a more pervasive history of abuse, as well as be more likely to experience multiple forms of abuse; and (4) demonstrate a more pervasive pattern of family dysfunction (i.e., lack of parental support or nurturance, anti-social role modeling, poor attachment history, and parental mental illness and/or substance abuse). Second, based on preliminary research that links substance use to violent behaviors in girls (e.g., Dembo, et al., 1991; Jasper, et al., 1998), it was hypothesized that girls who committed violent crimes would be significantly more likely to acknowledge a history of polydrug use than those who committed nonviolent offenses. Third, given the context and nature of gangs, it was hypothesized that girls who committed violent offenses would be significantly more likely to be involved with a gang than girls who committed nonviolent offenses.

The current study also conducted an in-depth study of the subset of girls adjudicated for violent offenses using extant research conducted with violent girls (Loper & Cornell, 1996) and women (e.g., Greenfield & Snell, 1999; Koons-Witt & Schram, 2003) to formulate hypotheses. First, based on previous research suggesting that women

of color have an elevated risk of involvement in violent crimes (e.g., Kruttschnitt, 2001), it was hypothesized that a higher percentage of girls of color would be adjudicated for violent offenses than Caucasian girls. Second, based on research indicating that girls and women are more likely to demonstrate aggressive behaviors within intimate relationships (Greenfield & Snell, 1999; Loper & Cornell, 1996), it was hypothesized that girls would perpetrate acts of violence within their families and intimate relationships significantly more than they would offend against strangers or acquaintances. Third, given traditional gender role expectations, it was hypothesized that violent girls would demonstrate a pattern of reactive (i.e., responding to being provoked) rather than proactive (i.e., using aggression to gain something, such as material goods) violence. Along with this, it was hypothesized that girls who demonstrated proactive violence would be significantly more likely to commit offenses in groups of two or more. Finally, in line with violent offending among women (Koons-Witt & Schram, 2003), it was hypothesized that girls would be more likely to be involved in violent incidents where personal weapons (e.g., hands, feet, etc.) were used rather than knives or guns.

Finally, the current study included exploratory analyses to create a model to predict and account for a significant percentage of girls' involvement in violent crime, as evidenced by criminal charges filed against them within the juvenile justice system. It was hypothesized that the previously discussed general risk factors of psychopathology, substance use/abuse, gang membership, history of trauma, and familial dysfunction would partially account for involvement in violent behavior among girls. This model was developed with respect for the heterogeneity of the sample and, as such, separate models were conducted for girls according to their racial/ethnic identities.

## CHAPTER 2

### METHOD

#### Participants

Participants in the current study were girls who had been committed to or detained within a Massachusetts Department of Youth Services (DYS) residential facility and referred to Forensic Health Services of the Bedford Policy Institute for a psychological evaluation between the dates of 1996 and 2003. Gender comparisons of youth committed to the Massachusetts DYS mirror national patterns; since 1996 the number of committed boys has decreased by 13% while the number of girls has increased by nearly 81%. As of January 2006, girls comprised approximately 16% of the total youth committed to DYS in Massachusetts.

When an adolescent is charged with a crime in Massachusetts, s/he appears in front of a judge for an arraignment and bail hearing. At that time, the judge informs the teen of the charges against him/her and makes a decision about whether to release the teen, set bail, or “hold” him/her in custody at a DYS detention facility. The maximum punishment in a delinquency case is commitment to DYS until the teen’s 18<sup>th</sup> birthday or, in the case of a “youthful offender,” the teen’s 21<sup>st</sup> birthday. While every teenager committed to DYS will spend time in a residential or secure (locked) facility, not all of the teens will remain in physical custody of DYS until their 18<sup>th</sup> (or 21<sup>st</sup>) birthday. Many adolescents involved with DYS eventually return home to live with a parent or legal guardian while remaining on probation. If the teen violates the conditions of his/her probation, s/he will be required to return to court and possibly sent back to a DYS facility.



While involved in the DYS system, some adolescents are referred for a psychological evaluation. The decision to request an evaluation is typically made by the adolescent's caseworker with the approval of the supervising clinical psychologist in the area; however, at times the clinical director of a DYS program or even a member of the administration (e.g., commissioner of the child counsel) may request that the caseworker proceed with an evaluation. Evaluations are requested for a variety of reasons, including (but not limited to) concern for an adolescent's psychological health/functioning (e.g., depression, psychosis, anger management problems, etc.), questions regarding intellectual functioning, and uncertainty about treatment needs and recommendations. All of the psychological evaluations requested by the Massachusetts DYS are conducted in the treatment facility where the youth is committed/detained by Forensic Health Services employees. A very small percentage of specialized neuropsychology evaluations are referred to specialists outside of the agency.

Forensic Health Services was created in September of 1996 in response to a request from the Massachusetts DYS for a clinical program specifically designed to provide risk and treatment needs assessments of juvenile offenders. At present, there are four half-time forensic psychologists and a full-time director of Forensic Health Services. All staff are licensed psychologists with the added credential of Designated Forensic Psychologist (DFP). In addition to these staff, Forensic Health Services also uses a pool of fee-for-service forensic psychiatrists and psychologists to provide evaluations on an as needed basis.

Forensic Health Services is equipped to provide approximately 500 forensic psychological evaluations a year for DYS-involved youth in Massachusetts. Through



2003, Forensic Health Services had completed approximately 2800 evaluations of DYS-involved youth, 2117 of which had also been coded and entered into a computer data base. The participants in this study included the 242 (13%) of these 2117 youth who had been referred to Forensic Health Services for a psychological evaluation, whose evaluations had been completed, coded, and entered into the FHS database, and who were girls. These girls ranged in age from 12 to 21 ( $M = 15.9$  years,  $SD = 1.39$ ).

Approximately 41% of them self-identified as Caucasian, 29% as African American, 19% as Latina, and 11% as "other," which included (but was not limited to) Asian, Cape Verdean, Cambodian, and Haitian. The average number of offenses committed by each girl was 4.9 ( $SD = 3.8$ ); the most common offenses, and the percent of the sample which had committed them, were assault with a dangerous weapon (52%), simple assault (47%), disorderly conduct (29%), and larceny less than \$100 (24%). Approximately 63% of the girls involved in this study had been charged with at least one violent offense.

### Measures

The data analyzed in this study were drawn from a data bank comprised of information concerning six broad areas: 1) demographics (e.g., name, race/ethnicity, gender, etc.); 2) delinquency history (i.e., list of prior delinquency adjudication and commitment offenses); 3) mental health history and data (e.g., psychiatric hospitalizations, history of suicide attempts, self injurious behaviors, etc.); 4) clinical data/risk factors (e.g., history of abuse, academic achievement, substance use, level of responsibility assumed/remorse shown for the crime, etc.); 5) nature of offense(s) (e.g., age/gender of victim, relationship to youth, level of injury to victim, etc.); and, 6) clinical

judgments made about the youth (e.g., psychological diagnosis, risk factors identified, treatment needs, etc.).

This information was extracted from material yielded during a comprehensive forensic psychological assessment conducted by a doctoral-level Designated Forensic Psychologist licensed in the state of Massachusetts. These assessments involved completing a review of all relevant records and reports, consultations with casework team members and program clinicians, and a thorough and comprehensive clinical interview of the juvenile that focused on risk factors found in the youth's history and their current clinical functioning. Among the areas specifically targeted for assessment during the gathering of this information were the adolescent's family background, family relationships, early childhood development, peer and community relational functioning, school achievement and adjustment, substance abuse, mental health functioning, delinquency and violence history, and social service and child welfare involvement. In addition, the juvenile was asked to provide a narrative account of his/her past offenses, highlighting the antecedent conditions and post-event reactions and behaviors (e.g., level of remorse, willingness to accept responsibility for actions, etc.).

The material gathered during this review is compiled and studied, and a forensic evaluation is prepared on the basis of it, for presentation to the court where it will be used to aid in the classification of offenders, identify risk-relevant treatment issues, and provide thorough assessments of mentally ill youth in need of Intensive Residential Treatment Programs (IRTP) within the Department of Mental Health (DMH). Upon completion of this evaluation, the information concerning the six broad areas identified above is extracted from it and coded onto a datasheet (see Attachment A). Most often,

the material in the written evaluation is immediately coded onto the datasheet by the psychologist completing the evaluation; however, immediate recording is not always possible, and occasionally the evaluation will be left for coding at a later date by other trained Forensic Health Services employees.

### Procedure

Access to the database used in this study was obtained by directly contacting Frank DiCataldo, Ph.D., Director of Juvenile Evaluation Services for Forensic Health Services. Dr. DiCataldo agreed to grant this doctoral student access to information on all of the girls in the agency's database in exchange for coding evaluations. Given that the study is archival in nature and does not include identifying information on any of the participants, Dr. DiCataldo determined that an ethics review by the DYS IRB was not necessary; however, the study was presented to the University of Massachusetts, Amherst IRB and permission to conduct the study was granted.

Two distinct Microsoft Access databases were provided to this doctoral student: one database contained the offense history of the girls and the other database contained demographic information obtained from the psychological evaluation. The databases were combined and reformatted for SPSS. To identify possible duplicate cases, the database was scanned for matching birth dates. Among those cases with matching dates, other variables, such as race/ethnicity and offense history, were examined to determine if the case was a duplicate. All duplicate cases were eliminated from the database leaving information on 242 girls.

## CHAPTER 3

### RESULTS

#### Demographic Information

Consistent with past research, the girls in the current study evidenced significant dysfunction and chaos both internally and in their external environments. First, many of the girls in this study evidenced significant mental health problems: 60% had at least one psychiatric diagnosis, 20% had more than one diagnosis, 32% were on psychotropic medication(s) at the time of the evaluation, and 42% had a history of at least one psychiatric hospitalization. The most common psychiatric diagnoses among the girls in this sample included Post Traumatic Stress Disorder (28% of the total sample), Major Depression (27% of the total sample), and Conduct Disorder (11% of the total sample). Furthermore, 15% of the girls acknowledged having engaged in self-injurious behaviors (e.g., cutting, burning, ingesting objects, etc.), and over one-third of the total sample (35%) acknowledged having made at least one suicide attempt.

The girls in the sample also reported having dysfunctional home lives. Seventy-three percent reported involvement with the Department of Social Services (DSS) as a result of having been the victim of at least one type of abuse or neglect. Forty-one percent of the girls reported a history of sexual abuse, 39% a history of physical abuse, 31% neglect, and 18% emotional abuse by a primary caregiver. Moreover, approximately 37% of the girls in the sample acknowledged experiencing multiple forms of abuse. In addition to experiencing overt abuse, many of the girls in the sample lived in chaotic homes. Forty percent of the girls acknowledged witnessing domestic abuse, and 58% of the girls lived with a primary caregiver who abused substances. Furthermore,



poor parental control was seen in 81% of the households, and a lack of parental support and/or nurturance was seen in 55% of the households.

Finally, the difficulties that many of these girls experienced in their homes often extended into their academic and social lives. For example, 46% of the girls had been placed into special education, and 26% of them had been retained in at least one grade. Seventy-nine percent of the girls were labeled “truant,” 74% were considered “disruptive” at school, 62% acknowledged fighting at school, and 16% stated that they had brought a weapon to school. In their social lives, 15% of the girls acknowledged gang membership, and 83% were labeled as having a “negative” peer group. Furthermore, over three quarters of the girls acknowledged abusing substances, over half admitted to polydrug use, and over one third stated that they had used “harder” drugs (i.e., substances other than marijuana and/or alcohol, such as heroin or cocaine).

### Race and Ethnicity

To begin hypothesis testing, data were analyzed for racial/ethnic differences among risk factors. Univariate analyses of variance (ANOVAs) were conducted to test for a main effect of race on suicidal and self-injurious behaviors among the girls. Results revealed a significant difference for a history of attempting suicide [ $F_{(3, 241)} = 3.50, p = .016, \eta^2 = .04$ ]. The Levene statistic indicated that homogeneity of variance and equal group sizes could not be assumed ( $p < .05$ ), and therefore, the Games-Howell test was used for post-hoc comparisons, which revealed that significantly more White girls than Black girls had attempted suicide ( $p = .007$ ). White girls were nearly three times more likely to have made at least one suicide attempt than Black girls (odds ratio [OR] = 2.96;



95% confidence interval [CI] = 1.26 – 3.56). No other significant differences were found on this variable among racial/ethnic groups (please see Table 1 for group means).

Results also revealed significant racial/ethnic differences for a history of self-injurious behavior such as burning or cutting oneself [ $F_{(3, 241)} = 2.78, p = .042, \eta^2 = .03$ ]. A Games-Howell post-hoc analysis indicated that White girls were significantly more likely than were Black girls to self-injure ( $p = .027$ ), with approximately 22% of White girls and 7% of Black girls reporting engaging in self-injurious behaviors (OR = 2.52; 95% CI = 1.22 – 5.21). No other significant differences were found on this variable among racial/ethnic groups (please see Table 2 for group means); however, exploratory analyses revealed further differences between Black and White girls with respect to self-injurious behavior. For White girls, engaging in self-injury was significantly correlated with polysubstance abuse ( $r = .226, p = .043$ ) and the use of harder substances ( $r = .310, p = .005$ ), while for Black girls it was significantly correlated with physical abuse ( $r = .289, p = .016$ ), emotional abuse ( $r = .569, p < .001$ ), neglect ( $r = .314, p = .009$ ), and lack of parental support/nurturance ( $r = .238, p = .049$ ).

Next, univariate ANOVAs were conducted to determine if there were differences in psychological disorders among girls from various racial/ethnic groups. It was hypothesized that significantly more White girls would demonstrate psychopathology than girls from racial/ethnic minority backgrounds. Results confirmed this hypothesis, indicating significant racial/ethnic differences in the presence of at least one psychological disorder [ $F_{(3, 241)} = 3.48, p = .017, \eta^2 = .04$ ]. A Games-Howell post-hoc analysis revealed that White girls were significantly more likely to be diagnosed with a psychological disorder than were their Black counterparts ( $p = .016$ ). Approximately

72% of White girls had been diagnosed with at least one psychological disorder in comparison to 49% of Black girls ( $OR = 2.33$ ;  $95\% CI = 1.12 - 1.67$ ). No other significant differences on this variable were found (please see Table 3 for group means).

To further investigate the nature of this difference, univariate ANOVAs were conducted to determine if there were also dissimilarities in other areas of mental health including the number of diagnoses held by participants, a history of psychiatric hospitalization(s), the presence of multiple psychological diagnoses (comorbidity), and current psychotropic medication(s). Results indicated that there were significant racial/ethnic differences in the number of psychological diagnoses [ $F_{(3, 241)} = 3.81, p = .011, \eta^2 = .05$ ]. A Games-Howell post-hoc analyses indicated that White girls carried significantly more diagnoses than did both their Black and Latina peers ( $p$ 's  $< .05$ ; please see Table 4 for group means). Significant racial/ethnic differences were also found with respect to a history of psychiatric hospitalization(s) [ $F_{(3, 241)} = 2.91, p = 0.35, \eta^2 = .035$ ]. Although post-hoc analyses did not reveal significant differences among the various racial/ethnic groups, more White girls ( $n = 48$  or 48%) acknowledged a history of hospitalizations than Black ( $n = 21$  or 30%) or Latina ( $n = 17$  or 36%) girls. No significant differences were found for rates of comorbidity [ $F_{(3, 241)} = 1.74, p > .05$ ] or current psychotropic medication [ $F_{(3, 241)} = 2.49, p > .05$ ] among different racial/ethnic groups .

Analyses were also conducted to determine if there were racial/ethnic differences in the prevalence of the specific psychological disorders included in this study (i.e., Bipolar Disorder, Major Depression, Post Traumatic Stress Disorder, Schizophrenia, Schizoaffective Disorder, Psychotic Disorder, Anxiety Disorders, Conduct Disorders,

Attention Deficit Hyperactivity Disorder, and Borderline Personality Disorder). A univariate ANOVA revealed significant racial/ethnic differences for both Major Depression [ $F_{(3, 241)} = 3.52, p = .016, \eta^2 = .04$ ] and Borderline Personality Disorder [ $F_{(3, 241)} = 3.31, p = .21, \eta^2 = .04$ ]. Games-Howell post-hoc analyses indicated that White girls were significantly more likely than Black girls to demonstrate symptoms consistent with the disorders ( $p$ 's  $< .05$ ). Approximately 35% and 10% of White girls carried a diagnosis of Major Depression and Borderline Personality Disorder (respectively). On the other hand, 13% of Black girls were diagnosed as depressed and none were diagnosed as Borderline (please see Tables 5 and 6 for group means).

Univariate ANOVAs were then conducted to determine if there were significant racial/ethnic differences with respect to substance use and abuse. It was hypothesized that girls of color would demonstrate significantly less substance abuse than their White counterparts, as well as significantly less polysubstance abuse. No significant differences were found in general substance use and abuse [ $F_{(3, 241)} = 1.25, p > .05$ ]; however, consistent with the hypothesis, there were differences between racial/ethnic groups in polysubstance abuse [ $F_{(3, 182)} = 8.40, p < .001, \eta^2 = .12$ ], and abuse of substances other than alcohol and/or marijuana, such as prescription drugs, heroin, and cocaine [ $F_{(3, 183)} = 16.79, p < .001, \eta^2 = .22$ ]. Games-Howell post-hoc analyses revealed that Black girls engaged in less polysubstance abuse than White girls (46% versus 85%, respectively), and abused significantly fewer "other" drugs than both White and Latina girls (all  $p$ 's  $< .001$ ). Only 4% of Black girls acknowledged abusing substances other than marijuana and/or alcohol in comparison to 49% of Latina girls and 60% of White girls (please see Tables 7 and 8 for group means).

Next, the hypothesis that more girls of color would acknowledge gang membership than White girls was tested. While the findings were not significant, results indicated a trend [ $F_{(3, 241)} = 2.42, p = .067$ ], which is at least partially accounted for by heavier gang involvement among Latina girls ( $n = 12$  or 26%) in comparison to White ( $n = 11$  or 11%) and Black ( $n = 8$  or 12%) girls. When negative peer group was used as a proxy for gang membership, results were significant; more girls who identified as Black, Latina, and/or “Other” were considered to have negative peer groups than White girls [ $F_{(1, 238)} = 4.17, p = .042, \eta^2 = .01$ ]. Approximately 87% ( $n = 121$ ) of girls from a racial/ethnic minority were identified as having a negative peer circle compared to 77% ( $n = 77$ ) of White girls.

Finally, univariate ANOVAs were used to test the hypothesis that girls of color would be significantly less likely to acknowledge a history of trauma than White girls. Initially, this analysis focused on the experience of any form of abuse. Results were not significant [ $F_{(3, 241)} = 2.21, p = .088$ ]; however, there was a trend in the predicted direction. More specifically, White girls reported a more pervasive history of abuse ( $n = 80$  or 80%) than girls from a racial/ethnic minority group ( $n = 96$  or 69%). Furthermore, analyses revealed a significant difference in the number of types of abuse (i.e., sexual, emotional, physical, and neglect) experienced by participants based on race/ethnicity [ $F_{(3, 241)} = 5.33, p = .001, \eta^2 = .06$ ]. Post-hoc analyses using the Games-Howell test indicated that Black girls experienced significantly fewer different forms of abuse ( $M = .93, SD = .97$ ) than White girls ( $M = 1.60, SD = 1.23, p = .001$ ); no other significant difference was found among girls from various racial/ethnic groups.



Analyses were also conducted to find possible racial/ethnic differences in the rates of experiencing specific types of abuse. Univariate ANOVAs indicated that there were no significant differences for rates of either physical abuse [ $F_{(3, 241)} = .987, p > .05$ ] or neglect [ $F_{(3, 241)} = 1.25, p > .05$ ]; however, significant racial/ethnic differences were found for rates of sexual abuse [ $F_{(3, 241)} = 5.11, p = .002, \eta^2 = .06$ ] and emotional abuse [ $F_{(3, 241)} = 3.68, p = .013, \eta^2 = .04$ ]. Games-Howell post-hoc analyses revealed that for both types of abuse, White girls experienced significantly more abuse than Black girls. Among White girls, 54% experienced sexual abuse and 26% experienced emotional abuse in comparison to 25% and 7% of Black girls, respectively (all  $p$ 's  $< .01$ ; please see Tables 9 and 10 for group means). Despite statistically nonsignificant results, this pattern was also found for physical abuse and neglect.

#### Between Group Testing

The current study also focused on identifying possible differences between girls adjudicated for violent offenses and girls adjudicated for nonviolent offenses. As such, participants for whom specific offense data were available ( $N = 235$ ) were divided into two groups, violent and nonviolent, based on their offense histories. Girls with a history of any type of violent prior or commitment offense (i.e., homicide, assault with a dangerous weapon, robbery, sexual offenses, kidnapping, and arson) were categorized as “violent” ( $N = 147$ ), while girls with a history of only nonviolent offenses (e.g., drug offenses, violation of parole, simple assault, larceny, etc.) were categorized as “nonviolent” ( $N = 88$ ). In addition, a second variable was created to indicate girls considered “purely violent” or “purely nonviolent” as indicated by their prior and commitment offenses. More specifically, girls consistently adjudicated for violent



offenses (i.e., those who were adjudicated for violent prior *and* commitment offenses) were categorized as “purely violent” (N = 30) and girls who had never been adjudicated for a violent offense at any point in time were categorized as “purely nonviolent” (N = 88).

To test the hypothesis that girls adjudicated for violent offenses would demonstrate more known risk factors for juvenile delinquency than would those adjudicated for nonviolent offenses, each participant was assigned a score based on her total number of present known risk factors which included: having a psychological disorder; a history of substance abuse; gang membership; a history of abuse (physical, sexual, emotional, and/or neglect); family dysfunction (i.e., lack of parental support and/or control, parental mental illness, parental substance abuse, witnessing domestic violence, antisocial role models, and a history of poor attachment); and belonging to a racial/ethnic minority group. Scores on this measure of risk ranged from one to 12, with a mean score of 7.27 ( $SD = 2.51$ ). A *t*-test was conducted to determine if violent girls reported significantly more risk factors than nonviolent girls. Results were nonsignificant [ $t_{(230)} = -.332, p > .05$ ]. A *t*-test was also conducted for the “purely violent” and “purely nonviolent” subset of girls and again, results were nonsignificant [ $t_{(114)} = .415, p > .05$ ].

To further investigate possible differences between girls classified as violent versus those classified as nonviolent, Chi-Square analyses and *t*-tests were conducted using individual risk factors as dependent variables. Testing indicated that there were no significant differences between violent and nonviolent girls with respect to carrying a psychiatric diagnosis [ $\chi^2_{(1, N = 235)} = 1.77, p > .05$ ], comorbid diagnoses [ $\chi^2_{(1, N = 235)} = .291, p > .05$ ], or number of psychological diagnoses [ $t_{(233)} = .676, p > .05$ ]. In addition, no

significant differences were found for any of the psychological risk factors for the “purely violent” and “purely nonviolent” subset of girls (all  $p$ 's > .05).

Chi-Square analyses were also conducted to investigate the hypothesis that significantly fewer violent girls would engage in suicidal gestures and/or self-injurious behaviors given their use of overt aggression for releasing emotional distress. Results revealed that there were no significant differences in suicide attempts between violent and nonviolent girls [ $\chi^2_{(1, N = 235)} = .573, p > .05$ ] or between “purely violent” and “purely nonviolent” girls [ $\chi^2_{(1, N = 118)} = 1.16, p > .05$ ]. Significant results were obtained, however, for rates of engaging in self-injurious behaviors. A Chi-Square analysis confirmed the hypothesis that significantly fewer violent girls would harm themselves in comparison to nonviolent girls [ $\chi^2_{(1, N = 235)} = 5.17, p = .023$ ]. Of the violent girls, 17 out of 147 (or 12%) engaged in self-harming behaviors while 20 out of 88 (or 23%) of the nonviolent girls acknowledged purposefully harming themselves (OR = 1.97; 95% CI = 1.11 – 4.58). These results were largely accounted for by White girls, as very few girls of color acknowledged a history of self-injury. Results for “purely violent” and “purely nonviolent” girls were not significant ( $p > .05$ ); however, results were in the expected direction. Approximately 13% of the “purely violent” girls harmed themselves in comparison to 23% of “purely nonviolent” girls.

Next, Chi-Square analyses were performed to test the hypothesis that significantly more violent girls would acknowledge a history of abuse than nonviolent girls. Results were significant [ $\chi^2_{(1, N = 235)} = 5.81, p = .016$ ]; however, findings were not in the expected direction, as violent girls were *less* likely to acknowledge a history of abuse than nonviolent girls. While 69% of the girls classified as violent had experienced at least one

form of abuse, 83% of the nonviolent girls acknowledged an abuse history. This finding was largely accounted for by sexual abuse. Unlike previous studies, the current study found that violent girls were significantly *less* likely to have experienced sexual abuse than nonviolent girls [ $\chi^2_{(1, N=235)} = 11.31, p = .001$ ]. Approximately 34% of violent girls survived sexual abuse compared to 55% of the nonviolent girls. Statistically significant results were not obtained for tests among girls categorized as “purely violent” and “purely nonviolent” (all  $p$ ’s  $> .05$ ); however, the general trends followed the previously reported results (i.e., purely violent girls reported less abuse).

In addition to the expectation that more violent girls would demonstrate a history of abuse than nonviolent girls, it was also hypothesized that violent girls would experience more forms of abuse. A  $t$ -test was conducted to test this hypothesis. No significant differences were found for violent and nonviolent girls in their experiences of multiple forms of abuse [ $t_{(233)} = 1.413, p > .05$ ]. In fact, the average number of forms of abuse experienced by nonviolent girls was slightly (although not significantly) higher than the average number for violent girls ( $M = 1.14, SD = 1.14$  and  $M = 1.22, SD = 1.15$ , respectively). Results were also nonsignificant among girls classified as “purely violent” and “purely nonviolent” ( $p > .05$ ); however, patterns were consistent with previously reported results.

Broadly speaking, findings from the current sample did not support the findings of previous studies that have reported a more pervasive history of abuse among violently aggressive girls. Exploratory analyses did, however, yield two findings more consistent with past research. First, a univariate ANOVA revealed that race/ethnicity moderated the effect of a history of neglect on being charged with at least one violent offense [ $F_{(3, 234)} =$

3.39,  $p = .019$ ,  $\eta^2 = .05$ ]. A Games-Howell post-hoc analysis indicated that this difference was significant only for Black and White girls ( $p < .001$ ). More specifically, Black girls with a history of neglect were more likely to be charged with a violent offense, while White girls with a history of neglect were less likely to be charged with a violent offense.

Second, a significant negative correlation was found between the presence of parental support and/or nurturance and being charged with a violent offense ( $r = -.142$ ,  $p = .048$ ). The correlation was even stronger among girls classified as “purely violent” and “purely nonviolent” ( $r = -.278$ ,  $p = .006$ ). Interestingly, as with a history of neglect, the relationship between parental support and violence within this sample appeared to be closely linked to racial/ethnic background. Significant negative correlations were obtained for girls of color ( $r = -.233$ ,  $p = .015$ ) but not for White girls ( $r = .004$ ,  $p > .05$ ). A univariate ANOVA revealed that among Black and White girls, race moderated the effect of poor parental support/nurturance on being classified as “purely violent” [ $F_{(1, 86)} = 4.950$ ,  $p = .029$ ,  $\eta^2 = .30$ ]. Thus, lack of parental support and/or nurturance was associated with an increased likelihood of being charged with violent offenses for Black girls but a decreased likelihood for White girls, which suggests that parental support and nurturance may be more important in the lives of girls who belong to a racial/ethnic minority group.

In addition to a history of abuse, it was also hypothesized that violently aggressive girls would demonstrate more dysfunction in their families. To test for differences in rates of family dysfunction, each girl received a score from zero to seven (one point for each of the following: lack of parental support or nurturance, lack of parental control,



parental mental illness, parental substance abuse, witnessing domestic violence, antisocial role modeling, and history of poor attachment) with higher scores indicating a higher level of dysfunction; the mean score was 3.43 ( $SD = 1.9$ ). A  $t$ -test revealed no significant difference between the mean score of family dysfunction for violent and nonviolent girls [ $t_{(233)} = -.980, p > .05$ ]; however, means were in the expected direction. The mean family dysfunction score for violent girls was 3.52 ( $SD = 2.02$ ) and for nonviolent girls it was 3.26 ( $SD = 1.93$ ). Difference between the “purely violent” and “purely nonviolent” girls were also nonsignificant ( $p > .05$ ).

Next, it was hypothesized that significantly more girls who were charged with violent crimes would acknowledge a history of polydrug use than those who charged with nonviolent offenses. A Chi-Square analysis indicated that there was no statistically significant difference in polysubstance use between violent and nonviolent girls [ $\chi^2_{(1, N = 178)} = 1.694, p > .05$ ] nor between “purely violent” and “purely nonviolent” girls [ $\chi^2_{(1, N = 93)} = 2.685, p = .101$ ].

Finally, it was hypothesized that significantly more violent girls would acknowledge gang membership than nonviolent girls. A Chi-Square analysis indicated that there was not a statistically significant difference between the two groups [ $\chi^2_{(1, N = 235)} = .032, p > .05$ ], nor between girls classified in the “pure” categories [ $\chi^2_{(1, N = 118)} = .435, p > .05$ ]. It is important to note, however, that only 37 girls acknowledged being affiliated with a gang. Given this low number, a Chi-Square analysis was performed using “negative peer group” as a proxy for gang membership. Results revealed no significant difference between violent and nonviolent girls [ $\chi^2_{(1, N = 235)} = .134, p > .05$ ].



### Within Group Testing

The primary focus of the current study was on gaining a better understanding of physically aggressive adolescent girls. As such, a number of hypotheses were formulated that specifically targeted the subset of violent girls in the sample. First, it was hypothesized that significantly more girls of color would be adjudicated for violent offenses than White girls. A univariate ANOVA revealed significant racial/ethnic differences among girls charged with at least one violent offense [ $F_{(3, 234)} = 5.230, p = .002, \eta^2 = .06$ ]. A Games-Howell post-hoc analysis indicated that the statistical significance was accounted for by a large discrepancy between Black and White adolescent girls ( $p < .001$ ). Specifically, Black girls were charged with violent crimes significantly more than White girls. In the current sample, approximately 81% of Black girls were charged with at least one violent offense compared to 62% of Latina girls, and 51% of White girls. Racial/ethnic differences were even more pronounced when focusing on “purely violent” and “purely nonviolent” girls [ $F_{(3, 117)} = 13.00, p < .001, \eta^2 = .26$ ]. Among these “pure” groups, Black girls were significantly more likely to be classified as “purely violent” based on being charged with violent prior and commitment offenses than were all other racial/ethnic groups (all  $p$ 's  $< .01$ ) as indicated by a Games-Howell post-hoc analysis. Approximately 60% of Black girls in this sample were classified as “purely violent” in comparison to 15% of Latinas, 11% of White, and 9% of girls who fell into the “Other” racial/ethnic minority category. Stated differently, Black girls were *over five times more likely* to fall into the “purely violent” category than girls from other racial/ethnic backgrounds (OR = 5.03; 95% CI = 4.29 – 29.37).

Next, it was hypothesized that girls would perpetrate acts of violence within the context of intimate relationships significantly more than they would offend against strangers or acquaintances (e.g., peers, school staff, rivals). A Chi-square analysis did not support this hypothesis and revealed that, in fact, girls were significantly more likely to offend against acquaintances than within intimate relationships and/or against strangers [ $\chi^2_{(2, N = 129)} = 11.49, p = .003$ ]. Approximately 44% of the offenses were against acquaintances, while 36% and 20% were against strangers and family/significant others, respectively. These patterns were also seen among girls classified as “purely violent” [ $\chi^2_{(2, N = 28)} = 6.50, p = .039$ ]. Fifty-four percent of the purely violent girls were charged with offending against acquaintances, 32% were charged with offending against strangers, and 14% were charged with offending against family and/or significant others. A univariate ANOVA revealed that girls who were charged with at least one violent offense were significantly more likely to offend against strangers when acting in groups [ $F_{(1, 127)} = 27.40, p < .001, \eta^2 = .18$ ]. When girls were alone, approximately 17% of violent crimes were committed against strangers; however, when peers were present, 58% were committed against strangers. The same pattern was observed for those classified as “purely violent” [ $F_{(1, 26)} = 13.38, p = .001, \eta^2 = .35$ ], such that 6% of violent crimes were committed against strangers when the girls were alone, whereas 80% of crimes were against strangers when girls were with peers.

Based on traditional gender role expectations, it was hypothesized that violent girls would be reactive, that is would commit offenses in reaction to a perceived threat, rather than proactive, that is to gain something such as money or material goods. A Chi-square analysis indicated that, contrary to what was expected, girls in the current sample

were more likely to be classified as proactive than reactive [ $\chi^2_{(1, N = 93)} = 4.74, p = .029$ ]. No significant differences were found among girls from different racial/ethnic backgrounds [ $F_{(3, 92)} = .112, p > .05$ ]. Among “purely violent” girls, a chi-square analysis yielded no significant differences between numbers of reactive and proactive offenses ( $p > .05$ ).

In line with the above hypothesis, it was also believed that girls would be more likely to commit proactive acts of aggression when with peers than when alone. First, a Chi-square analysis was conducted to determine if girls were more or less likely to commit offenses in groups. Results indicated that girls in this sample who were charged with at least one violent offense were equally as likely to commit offenses alone or within groups [ $\chi^2_{(1, N = 130)} = .77, p > .05$ ]. The same held true for girls classified as “purely violent” ( $p > .05$ ). Next, a Chi-Square analysis was conducted to determine if girls who use proactive violence were more likely to act in groups. Results confirmed the hypothesis: girls who engaged in violence as a means to an end were significantly more likely to commit offenses with codefendants [ $\chi^2_{(1, N = 89)} = 8.45, p = .004$ ]. Approximately 63% of proactive acts of aggression by girls were committed in groups, while 37% were committed alone. Significant results were not obtained for the subgroup of “purely violent” girls ( $p > .05$ ).

Finally, it was hypothesized that girls would be more likely to commit aggressive offenses using personal weapons (e.g., hands and feet) rather than guns, knives, etc. A Chi-square analysis did not support this hypothesis. Contrary to the expected relationship, results indicated that violent girls were significantly more likely to use knives and blunt objects during their offenses rather than personal weapons and/or guns

$[\chi^2_{(2, N = 76)} = 98.24, p < .001]$ . The same held true for “purely violent” girls  $[\chi^2_{(1, N = 21)} = 17.19, p < .001]$ .

### Exploratory Analyses

The final aspect of data analysis was focused on creating a model that predicts and accounts for a significant percentage girls’ involvement in violent crime, as evidenced by criminal charges filed against them within the juvenile justice system. Based on past research in combination with hypothesis testing in the current study, it was believed that the following factors would predict violent behavior among girls: identifying as Black versus White, lack of parental support, history of neglect, history of self-injury (negative predictor), general family dysfunction, and abuse of hard substances. To begin, an initial model for the entire sample was developed using binary logistic regression to predict a pervasive history of violent offenses (i.e., those girls classified as “purely violent” based on a history of both prior and commitment offenses that were violent). In this model, four of the variables (history of neglect, history of self-injury, general family dysfunction, and abuse of hard substances) were not significant predictors of violence and were dropped from the model. Two predictors, including identifying as Black ( $B = 3.96, S.E. = 1.44, p = .006$ ) and lack of parental support ( $B = -2.53, S.E. = 1.16, p = .029$ ), were retained in the model. For a summary of this model please see Table 11.

The final logistic regression model for predicting a history of violence was comprised of identifying as Black ( $B = 2.89, S.E. = .79, p < .001$ ) and lack of parental support ( $B = -1.84, S.E. = .94, p = .049$ ). This two-predictor model accounted for 44% of



the variance in violence (Nagelkerke  $R^2 = .44$ ), and correctly classified 83.3% of the participants as violent or nonviolent. For a summary of this model please see Table 12.

Next, in an effort to acknowledge diversity among the girls in the current sample, separate binary logistic regression models were created to predict violence among girls who identified as Black or White. Given the low number of participants classified as “purely violent” within each racial group, models were used to predict a history of *at least one* violent offense. For Black girls, it was hypothesized that five variables (parental support, history of neglect, history of self-injury, negative peer group, and general family dysfunction) would predict whether girls were classified as violent. Four variables (parental support, history of self-injury, negative peer group, and general family dysfunction) were not significant predictors and were dropped from the model. The remaining predictor, history of neglect ( $B = 2.25$ ,  $S.E. = 1.33$ ,  $p = .090$ ), was retained in the model. For a summary of the initial model please see Table 13.

Ultimately, only one variable came close to predicting violence among Black girls: a history of neglect. As there was only one variable left in the model, a Chi-Square analysis was conducted to determine the strength of the relationship between a history of neglect and violent behavior. The results supported the hypothesis that Black girls who experienced neglect were more likely to be charged with violent offenses [ $\chi^2_{(1, N = 69)} = 3.78$ ,  $p = .052$ ]. Nineteen out of the 20 Black girls (86%) who were neglected were charged with at least one violent offense.

Finally, the same five variables used to predict violent offenses among Black girls were used to predict violence among White girls. A binary logistic regression was used to determine if parental support, history of neglect, history of self-injury, negative peer



group, and general family dysfunction would predict violence in this subgroup. Four of the variables (parental support, history of neglect, negative peer group, and family dysfunction) were not significant predictors and were dropped from the model. The remaining predictor, history of self-injury ( $B = -1.01$ ,  $S.E. = .56$ ,  $p = .073$ ), was retained in the model. For a summary of the initial model please see Table 14. A Chi-Square analysis confirmed this finding; White girls who had history of engaging in self-injurious behavior were less likely to be charged with violent offenses [ $\chi^2_{(1, N = 100)} = 4.19$ ,  $p = .041$ ]. Of the girls who acknowledged self-injury, approximately 68% had never been charged with a violent offense.

## CHAPTER 4

### DISCUSSION

Historically, aggression among girls has not been regarded as a problem worth studying due to the formulation of aggression as a male phenomenon, a position that has been rationalized by arrest records indicating that females commit fewer and less serious crimes than males. While it is certainly true that women and girls are vastly underrepresented within the criminal justice system (e.g., girls comprised only 18% of juvenile arrests for violent crimes in 2001; Snyder, 2003), girls' involvement in the juvenile justice system has been increasing dramatically over the last few decades. For example, in the United States, charges for serious violent crimes increased 28% between 1991 and 2002 among girls, while charges for serious violent crimes decreased 23% among boys (OJJDP Statistical Briefing Book, 2002). This trend is inarguably problematic; adult outcome studies indicate that delinquent girls have increased mortality rates, high rates of comorbid psychological diagnoses, dysfunctional, and often violent, relationships with their partners and children, an increased risk for dropping out of school, and higher rates of polysubstance abuse and unemployment (Fergusson & Woodward, 2000; Lewis, et al., 1991; Pajer, 1998).

The increasing number of girls in the juvenile justice system and a better understanding of the risks associated with their delinquency has corresponded to an increase in research designed to address the role of gender in delinquency. Unfortunately, despite the fact that girls are now being understood as capable of overt aggression, the bulk of research in this area has been plagued by two major conceptual limitations. First, the experience of aggression among boys has been the standard by

which we have assessed and understood the experience of aggression among girls. In other words, girls' aggression is typically only understood in the context of boys' aggression. This conceptualization has limited our ability to understand the complexities and depth of girls' experiences with aggression. It has also led to more "real world" concerns; the juvenile justice system has been created (and maintained) to meet the needs of boys, which has led to discrimination in girls' arrests and sentencing, systematic maltreatment in residential facilities, and a lack of attention to the specific emotional and physical needs of girls (Acoca, 1998). Furthermore, despite the fact that girls now represent one out of every four juvenile arrests, only 5% of federal, local, and private funds are allocated for girls' programming in the juvenile justice system (Chesney-Lind & Pasko, 2004).

The second conceptual limitation that has compromised the vast majority of studies on aggression among girls is an assumption of homogeneity. When we study gender without taking into account the impact of other social constructs (e.g., race/ethnicity, SES, etc.), we run a tremendous risk of missing important differences among girls. Gender is embedded within culturally bound patterns of behavior and as such, girls should be understood as "active agents" who seek out experiences that will confirm their membership to socially constructed gender roles (e.g., Eagly & Wood, 1997). Clearly there will be similarities and differences in the way girls set out to "do gender" within various cultures, races, and ethnic backgrounds; therefore, it is argued that research, including that focused on girls' aggression, does not have meaning unless firmly grounded in the appropriate cultural context (e.g., Schweder, Goodnow, Hatano, Levine, Markus, & Miller, 1998). Put into practice, this perspective requires researchers

to examine and acknowledge their own biases so as not to overlook meaningful differences. For example, a White woman may identify most with being female and assume that other women feel similarly; however, a Black woman may first identify as Black and see her gender as less influential in her daily life. Whether explicitly recognized or not, there is typically a complex interplay between race and gender, which may be easy to ignore when part of the dominant group. As Harris (1990) notes, “only white people have been able to imagine that sexism and racism are separate experiences” (p. 604). By essentializing gender and ignoring its intersections and interactions with other social categories, within-group differences will likely be overlooked and/or minimized.

The current study sought to address the aforementioned gaps in both the conceptualization of and research on the experience of aggression among girls. The broad goal was to identify factors that differentiate girls in the juvenile justice system adjudicated on violent versus nonviolent offenses while “culturally grounding” the results by attending to racial and ethnic differences. As such, this study contributes a number of findings to extant literature.

### Race/Ethnicity

Results from the current study are similar to those found by Holsinger and Holsinger (2005) and indicate that race/ethnicity is a hugely important, if not essential, factor to consider in any discussion of girls in the juvenile justice system. In comparison to girls of color, White girls in this study demonstrated significantly more psychopathology, as measured by carrying more psychological diagnoses and acknowledging more psychiatric hospitalizations. White girls also reported significantly



higher rates of suicidal and parasuicidal behaviors. Differences were particularly pronounced when White and Black girls were compared; White girls were nearly three times more likely to have at least one suicide attempt and 2.5 times more likely to have engaged in self-injurious behaviors than Black girls. White girls also acknowledged significantly more polysubstance abuse and harder drug use than girls of color. Finally, of all of the girls in the current sample, White girls reported the highest rates sexual and emotional abuse. It is important to note, however, that despite significant racial/ethnic differences in risk factors, the entire sample acknowledged multiple risk factors suggesting that overall, the vast majority of girls suffered chaotic childhoods characterized by trauma and abuse in largely dysfunctional families.

Interestingly, despite the finding that White girls acknowledged significantly more known risk factors for juvenile delinquency, Black girls were significantly more likely to be charged with violent offenses. In fact, Black girls were *five times more likely* than White girls to be classified as “purely violent” (i.e., charged with violent prior and commitment offenses). This finding is in line with previous research that suggests girls of color, particularly Black girls, are disproportionately involved with the juvenile justice system. These results could easily be interpreted to mean that Black girls are simply more aggressive, more dangerous, and more violent than White girls. In fact, based on images in the media, this is precisely what popular culture would have us believe. Again, however, this finding must be grounded in contemporary culture. The juvenile justice system has long been affected by racial/ethnic stereotypes, prejudice, and discrimination (e.g., Leiber & Mack, 2003). Among boys, it has been demonstrated that the probability of being arrested, but not of committing a violent offense, varies with race/ethnicity (e.g.,

Synder & Sickmund, 1999); there is no reason to believe that this form of racial discrimination does not extend to girls in the juvenile justice system. In other words, caution should be used in interpreting this finding; it may be a reflection of actual differences in aggressive behavior between Black and White girls, it may be a reflection of differences in the policing of girls' aggression based on their race, or it may be a combination of both.

### Pathways to Violent Behavior

The current study also sought to identify risk factors associated with being charged with violent and nonviolent offenses among adolescent girls in the juvenile justice system. Contrary to what was expected, very few significant differences were found between girls classified as violent and nonviolent within a wide range of identified risk factors. There were no differences between violent and nonviolent offenders in level of psychopathology (i.e., presence of psychological disorder, comorbid disorders, number of psychological diagnoses), affiliation(s) with gangs and/or negative peer groups, family dysfunction, history of abuse/trauma, polysubstance abuse, history of suicidality, and total number of risk factors. These findings held for the entire sample, as well as for girls grouped according to their racial/ethnic background.

Although the majority of hypothesized differences between violent and nonviolent offenders were not supported, a binary logistic regression model indicated that two variables were significant predictors of violence among the sample of girls in this study. More specifically, girls who identified as Black and had a lack of positive parental support were significantly more likely to be classified as "violent" based on their criminal

offense histories. These two predictors in combination accurately classified over 83% of the girls as either violent or nonviolent and accounted for 44% of the variance.

In addition to the model described above, three significant differences were found between violent versus nonviolent girls in the current study. First, girls who were classified as violent were significantly less likely to have engaged in self-injurious behavior. Girls who were classified as nonviolent based on their offense records were twice as likely to hurt themselves on purpose than those who were classified as violent. This finding, which is consistent with past research (e.g., Liu, 2004), is not surprising. The vast majority of the girls in this study suffered significant trauma/abuse and lived in chaotic, dysfunctional families, in which they learned poor coping skills to deal with intense emotion. It is likely that the nonviolent girls coped with negative emotions by inflicting injury upon themselves, while the violent girls dealt with difficult emotions by inflicting injury upon others.

Interestingly, the current study found that a history of self-injury appears to be more important in predicting violent behavior among White girls than Black girls. While girls from both racial backgrounds who engaged in self-injurious behaviors were less likely to demonstrate violent behaviors toward others, the binary logistic regression indicated that it was only a significant predictor for White girls. This finding is similar to the results of a study by Holsinger and Holsinger (2005), who found that suicide and self-injury were negatively (and significantly) correlated with overall delinquency among White girls, but not among Black girls. While it is possible that these results are a reflection of the low percentage of self-injury among Black girls in the current sample (7% versus 22% among White girls), the fact that it is consistent with the findings of at

least one other study suggests that self-injury may truly function differently among girls of different racial backgrounds.

Second, violent girls in the current study were significantly less likely to have experienced sexual abuse than nonviolent girls. This finding is not consistent with existing research. A number of researchers have highlighted the role of sexual abuse on the pathway to female delinquency (e.g., Acoca, 1999; Chamberlain & Moore, 2002; Herrera & McCloskey, 2003, etc.). These studies have not, however, differentiated between violent and nonviolent girls. Thus, while sexual abuse is clearly associated with delinquency among girls, the relationship between abuse and level of violence is unknown.

The finding that sexual abuse is associated with less violence is somewhat puzzling given the plethora of research linking childhood abuse to delinquency and aggressive behaviors. Past research has shown that girls who are victims of sexual abuse often engage in violent behavior that is internally focused including suicidal behaviors (Ullman, 2004) and self-injurious behaviors (Ellis, Gormley, Ellis, & Showers, 2002). As seen in the current study (and in past research), girls who tend towards self-injurious and suicidal behavior often do not engage in violent behavior towards others. Perhaps girls in the current study with a history of sexual abuse demonstrated a type of learned helplessness, making them less likely to act out in overtly aggressive ways and more likely to engage in self-injury. Regardless, it is important to note that the majority of girls in this study (nearly 60%) experienced sexual abuse. Thus, while a history of sexual abuse may not be associated with violent aggression, the current study supports the finding that it is linked to involvement in the juvenile justice system.



Third, within the current population, race moderated the effect of neglectful and/or unsupportive parenting practices on the nature of girls' aggression, which again points to the importance of accounting for differences among girls in the system. For White girls, living with neglectful and/or unsupportive primary caregivers had little impact on whether they engaged in violent acts. Interestingly, White girls who were neglected and/or who had emotionally unavailable parents were slightly more likely to be classified as nonviolent offenders. On the other hand, Black girls who lived with neglectful and/or unsupportive parents were significantly more likely to be charged with violent offenses. In fact, as demonstrated in the exploratory analysis, the only variable determined to be a significant predictor of violent behavior among Black girls involved in the present study was a history of neglect. As noted, the relationship between neglectful parenting and violence was reversed and not significant for White girls in this study.

The vastly different reactions to abuse found among the Black and White girls in this study is similar to results from past research. Holsinger and Holsinger (2005) suggest that family dysfunction may have "a more damaging effect for African American girls, considering the increased importance of the family network" traditionally found within Black communities (p. 237). The findings of the current study lend support to this formulation; Black girls with uninvolved parents were more violent while those who received attention, even if it was in the form of abuse, were less violent.

### Violent Girls

In addition to examining racial/ethnic differences and between-group differences, the current study also sought to conduct an in-depth analysis of violent girls within the juvenile justice system. A number of significant findings were obtained. First, as noted

earlier, there were significantly more Black girls charged with violent offenses than girls from any other racial/ethnic group. The largest discrepancy was between White and Black girls, where Black girls were found to be five times more likely to be charged with violent prior and commitment offenses. Again, these results should be interpreted with caution; the findings do not speak to the likelihood of committing violent acts, rather they speak to the likelihood of being charged with violent offenses within the juvenile justice system.

Second, contrary to what was expected, girls in the current study were significantly more likely to offend against acquaintances and strangers than within intimate relationships (i.e., family, friends, romantic partners), significantly more likely to use proactive versus reactive aggression, and significantly more likely to use knives and blunt objects than personal weapons. In addition (and consistent with the hypothesis), girls were significantly more likely to commit proactive acts of violence when they were with peers than when they were alone.

Taken individually, the above results are perplexing, as they appear to contradict much of what is thought to be true about girls from existing research (e.g., that they offend within intimate relationships, that they typically do not plan acts of violence or use weapons, etc.). Taken as a whole, however, the results do offer a cohesive snapshot of more seriously violent girls. More specifically, violent girls within the current sample often acted with friends to commit offenses against acquaintances and strangers in an effort to gain something (e.g., respect, material goods, etc.), which likely required some planning ahead and the use of more serious weapons. While these findings may not represent typical acts of aggression among girls living in the community, it is certainly

likely that they characterize violent girls incarcerated in the juvenile justice system (i.e., the “worst of the worst”).

### Limitations of the Current Study

The current study is not without limitations. First and foremost, caution should be used in applying the findings in this study to the general population. The participants in this study were girls incarcerated within the juvenile justice system and may be considered at the extreme end in the spectrum of aggressive girls. In addition, these were girls in the system who were referred for a psychological evaluation. Thus, while many of the findings may be applicable to girls in general (e.g., the finding that girls who engaged in externalized violence did not engage in internalized violence), some may be more unique to this specific population (e.g., the finding that girls in this study used weapons and offended against strangers).

The second limitation of the current study concerns the source of the data, which was obtained through a psychological evaluation. The psychologists who conducted the evaluations were highly trained; however, evaluations are, by nature, subjective and therefore, highly susceptible to personal biases. While much of the data included in the evaluations was factual (e.g., history of abuse, commitment charges, etc.), some of the variables were considerably more subjective (e.g., level of parental support, whether peer group was “negative”). Past research has demonstrated that there is considerable racism within the justice system and therefore, it is possible (perhaps even likely) that some of the data used for this study was skewed by stereotypes and prejudices held by the evaluators. For example, a girl might have been viewed as a victim or a perpetrator depending on her racial background.

In addition to being susceptible to the biases of evaluators, the data in the current study was also susceptible to the integrity of the people participating in the interviews. Even the best psychologist may not be able to convince a highly resistant or defended person to engage in an interview and/or provide honest responses. In the current study, data was obtained from multiple sources (e.g., the incarcerated girl, her family, her treatment providers, her teachers, police record reviews, etc.); however, the possibility exists that some of the information was inaccurate and/or important facts were omitted.

The third and final limitation of the current study concerns two aspects of the demographic makeup of the sample. First, the sample size of Black and White girls was reasonable; however, the sample of Latina girls was quite small, making comparisons difficult and significant differences not easy to find. Thus, the vast majority of hypotheses tested only spoke to differences between Black and White girls, which clearly limits the depth of the findings. Second, there was no information available for the socioeconomic status (SES) of the participants. This is an unfortunate limitation because race and SES are highly correlated in our society. Without this data, it is impossible to know whether some of the racial/ethnic differences obtained are valid, or if they are more attributable to SES differences.

### Future Directions

The current study provides some preliminary answers to important questions about the pathways to physical violence among girls. Above all, current findings point to the importance of a more explicit focus on identifying racial/ethnic differences in risk factors for delinquency and violence among adolescent girls. Given the limited funds available for prevention and treatment of girls' violence, it is imperative that researchers



and treatment providers begin to move away from essentializing gender and toward identifying specific needs of girls from diverse backgrounds.

Preliminary research highlighting racial/ethnic differences suggests that research and treatment of girls' violence can no longer be thoughtlessly conducted using a blanket approach. As Holsinger and Holsinger (2005) note, "it is all too easy to use inclusive language regarding 'all girls' when, in reality, the experiences between African American and White girls seem to be very different" (pp. 235-236). Differences among girls must be acknowledged, understood, and respected to make the most efficient use of funding and make prevention and treatment efforts more effective. As such, it appears that one of the most important implications of the current study concerns a potential intervention target for girls of color. More specifically, results of the current study suggest that it is imperative to involve the parents and families of girls of color in prevention and treatment efforts. One of the strongest predictors of violence in this study was race; specifically identifying as Black. Furthermore, the strongest predictor of violence among Black girls was lack of parental support and a history of neglect. Therefore, involving parents and families in the treatment of girls in the juvenile justice system (particularly those who identify as Black) seems to be one of the most logical and efficient places to put our time and resources.

Despite the fact that results support the importance of involving families of Black girls in the juvenile justice system, evaluators were reluctant to suggest family therapy as a method of treatment for the Black girls in this population. In fact, evaluators were slightly less likely to recommend family therapy for Black families compared to White families, even though it appears that family may play a larger role in the lives of Black

girls in the system. Approximately 61% of White girls were referred to family therapy compared to 49% of Black girls. Given this, future research must be conducted to determine the nature of this discrepancy (e.g., if it is attributable to racial biases among “objective” evaluators/psychologists).

In addition to involving families, the current study also points to the importance of monitoring mental health issues among girls in the juvenile justice system. Broadly speaking, significant associations between psychopathology and violence were not obtained in this study; however, mental health issues were extremely common among the girls, all of whom were involved with the juvenile justice system. Additionally, the girls in this study who did not demonstrate aggression towards others often directed their aggressive tendencies inward. Therefore, it seems that one of the most important avenues to pursue in the treatment of female juvenile offenders is a careful assessment of her proclivity to direct anger either inwardly or outwardly.

Future research should also, of course, attempt to address some of the limitations of the current study. Perhaps the most notable limitation was the current study’s inability to tease apart the role of SES in the development of girls’ violence. Yet ultimately, what is most important is that past and current findings are not ignored in the implementation of primary, secondary, and tertiary treatments designed to alleviate the personal and societal implications of female juvenile delinquency. As Prilleltensky (1997) writes, “discourse without action is dangerous because it creates the impression that progress is taking place when in fact, only the words have changed” (p. 530).

## APPENDIX

### FORENSIC EVALUATION DATASHEET

#### *I. Demographic Information*

**Name:**

**Age:**

**DOB:**

**Date of Commitment:**

**Mid#:**

**Area:**

**Committing Court:**

**DYS Program:**

**Dates of Interview:**

**Name of Evaluator:**

**Race/Ethnicity:**

**Gender:**

**Legal Status:** Commit to 18      Youthful Offender      Extension of Commit  
Detained

**Type of Evaluation:** Class      Extension      68(a)      Assess      Testing

**Number of Commitments:**

**Referral Number:**

#### *II. Delinquency History Information*

**List of Prior Delinquency Adjudication and Legal Findings:**

Name of the Offense	Date of Arraignment	Legal
---------------------	---------------------	-------

**Outcome and Date**

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**Commitment offense(s):**

Name of the Offense	Date of Arraignment
---------------------	---------------------

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### ***III. Mental Health History and Data***

**Prior psychiatric hospitalization:** Yes or No

**Number of psychiatric hospitalizations:** \_\_\_\_\_

**Current Medication:** Yes or No

**Name of *current* medications:**

**Name of *prior* medication:**

**History of suicide attempts:** Yes or No

**Number of suicide attempts:** \_\_\_\_\_

**Methods Used and #:** Overdose ( # ) Cutting ( # ) Hanging ( # )  
Other: \_\_\_\_\_

**History of suicide threats: (only if there is no hx of attempts):** Yes or No

**Self Injurious Behavior:** Yes or No  
Scratching Inserting Foreign Objects Ingesting Foreign Objects Head  
Banging Burning Other:

**Prior Diagnoses:**

### ***IV. Clinical Data/Risk Factors***

**Positive Parental Support or Nurturance:** Yes No Not Clear

**Parental Control and Accountability for Juvenile:** Yes No Not Clear

**Hx of attachment problems early childhood:** Yes No Not Clear

**History of abuse:** Yes or No

**Type of abuse:** Physical Sexual Emotional Neglect

**Prior History of DSS Services:** Yes or No

**Prior History of CHINS:** Yes or No



**Academic Achievement:**    High                      Average                      Poor                      No data

**History of Truancy:** Yes    or    No

**Fighting in School:** Yes    or    No

**Disruptive Behavior at School:** Yes    or    No

**Weapons at School:** Yes    or    No

**Retained a Grade:** Yes    or    No    If yes, how many: \_\_\_\_\_

**IQ Level:** Superior/Above    Average    Below Average    Borderline    MR    Unknown

**Hx of special education services:** Yes    or    No

**Behavior Problems:** \_\_\_\_\_

**Learning Disability:** \_\_\_\_\_

**Both:** \_\_\_\_\_

**Substance abuse problems:** Yes    or    No

**Type of Substances Abused:**

**Negative peer relationships:**                      Yes    or    No

**Gang Affiliation:**    Yes    or    No

**Pro-social or positive interests or hobbies:**    Yes                      No                      Unknown

**What are they?** \_\_\_\_\_

**Admits to Commitment Offense:**    Yes    Partial    No

**Blames the Victim:**    Yes    Partial    No

**Blames external factors:**    Yes    Partial    No

**Minimizes harm:**    Yes    Partial    No

**Mode of violence:**    Reactive                      Proactive                      Mixed                      Unknown                      N/A

***V. Sexual Offense (If commitment offense is not a sexual offense, skip to next section)***

**Type of victim:** Child (5 yrs. Younger) Peer Adult Disabled Mixed

**Age of victim:** \_\_\_\_\_

**Gender of victim:** \_\_\_\_\_

**Relationship to victim:** stranger acquaintance girlfriend bio sib step/foster sib

**Location:** residence outdoors motor vehicle other: \_\_\_\_\_

**Time:** \_\_\_\_\_

**Type of offense:** Solitary or Group

**Number of co-defendants:** \_\_\_\_\_

**History of prior sexual offenses:** Yes or No

**Number of prior sexual offenses:** \_\_\_\_\_

**History of violent delinquency:** Yes or No

**History of non-violent delinquency:** Yes or No

**Method of victim compliance:** Grooming Threat Force Violence Other:

**Type of sexual assault:** Touching Oral sex Vaginal Intercourse Anal Intercourse

**Weapon present:** Yes or No

**Type of weapon:** \_\_\_\_\_

**Violence Used:** Yes or No

**Level of victim injury:** Mild Moderate Severe

**Deviant arousal pattern:** Pedophilic Violent other: \_\_\_\_\_ unknown

**Substance abuse at time of offense:** Yes or No

► *Violent Offense (if commitment offense is a sexual offense, do not complete this section)*

Type of offense: Solitary or Group

Number of co-defendants: \_\_\_\_\_

Weapon present: Yes or No

Type of weapon: Handgun Shotgun/Rifle Knife Blunt Object Other: \_\_\_\_\_

Victim injury: Yes or No

Level of victim injury: Mild Moderate Severe

Verbal threat: Yes or No

Substance abuse at time of offense: Yes or No

► *Victim Characteristics*

Number of victims: \_\_\_\_\_

Gender:

Age:

Race:

Relationship: Friend Girl/boyfriend Family member Stranger  
Acquaintance Rival

Location: Residence School Outdoors MBTA Public  
building

Time: \_\_\_\_\_

## ***VI. Conclusions***

### ***1. Diagnostic Impressions***

**Diagnoses, including substance abuse:**

**Recommendation of DMH services:** Yes or No

**Type of service recommended:** Inpatient          IRTP          Residential  
Case management

### ***2. Risk Assessment***

**Risk factors identified: (Highlight all that apply)**

- |   |  |
|---|--|
| 1. Early childhood abuse                  | 30. Perceives malevolent threat or challenge |
| 2. Witnessed domestic violence            | 31. Violence as means to an end              |
| 3. Anti-social role modeling              | 32. Anger                                    |
| 4. Poor attachment history                | 33. Retaliation                              |
| 5. Parental mental illness                | 34. Other: _____                             |
| 6. Parental substance abuse               |  |
| 7. Early developmental/emot. problems     |  |
| 8. Early pattern of undercontrolled behv. |  |
| 9. Early aggression/destructiveness       |  |
| 10. Poor early peer socialization         |  |
| 11. Poor school functioning               |  |
| 12. Substance abuse                       |  |
| 13. Negative peer group                   |  |
| 14. Poor parental control                 |  |
| 15. Poor parental support/nurturance      |  |
| 16. Weapon possession                     |  |
| 17. Violence history                      |  |
| 18. Impulsivity/low self-control          |  |
| 19. No pro-social interests               |  |
| 20. Grandiose/self-inflated:              |  |
| 21. Externalizes blame                    |  |
| 22. Justifies behavior                    |  |
| 23. Minimizes harm                        |  |
| 24. Low empathy                           |  |
| 25. Thrill seeking                        |  |
| 26. Dominance/power needs                 |  |
| 27. Depression                            |  |
| 28. High harm vigilance                   |  |
| 29. Psychotic paranoia                    |  |



**Risk level:**    High       Moderate    Low

**3.    *Placement and Treatment Needs***

**a.    Placement recommendation:**  
          Secure       Residential       Day reporting with clinical services       DMH

**b.    Treatment needs: (highlight all that apply)**

- 1. Anger control
- 2. Substance abuse
- 3. Mental health
- 4. Sex offender (cog)
- 5. Sex offender (recondition)
- 6. Social skill
- 7. Violence relapse prevention
- 8. Family therapy
- 9. Dynamic psychotherapy for trauma/loss
- 10. Behavioral management
- 11. Other: \_\_\_\_\_

Table 1

## Mean Scores for Presence of Suicide Attempt(s) by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.20 <sub>a</sub>	.41	69
White	.43 <sub>b</sub>	.50	100
Latina	.40 <sub>ab</sub>	.50	47
Other	.30 <sub>ab</sub>	.47	26
Total	.35	.48	242

*Note.* Participants were assigned a value based on history of suicide attempt (0 = no history of attempt, 1 = history of at least one attempt). Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.

Table 2

## Mean Scores for Presence of Self-Injurious Behavior(s) by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.07 <sub>a</sub>	.26	69
White	.22 <sub>b</sub>	.42	100
Latina	.17 <sub>ab</sub>	.38	47
Other	.08 <sub>ab</sub>	.27	26
Total	.15	.36	242

*Note.* Participants were assigned a value based on history of self-injurious behaviors (0 = no history of self-injury, 1 = history of self-injury). Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.

Table 3

Mean Scores for Presence of a Psychological Disorder by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.49 <sub>a</sub>	.50	69
White	.72 <sub>b</sub>	.45	100
Latina	.55 <sub>ab</sub>	.50	47
Other	.54 <sub>ab</sub>	.51	26
Total	.60	.49	242

*Note.* Participants were assigned a value based on the presence of a diagnosed psychological disorder (0 = no psychological diagnosis, 1 = at least one psychological diagnosis). Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.

Table 4

Mean Scores for Number of Diagnosed Psychological Disorders by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.70 <sub>a</sub>	.83	69
White	1.08 <sub>b</sub>	.92	100
Latina	.70 <sub>a</sub>	.75	47
Other	.73 <sub>ab</sub>	.83	26
Total	.86	.87	242

*Note.* Participants were assigned a value based on the number of psychological disorders diagnosed. Higher numbers indicate more diagnoses. Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.

Table 5

Mean Scores for Presence of Major Depression by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.13 <sub>a</sub>	.34	69
White	.35 <sub>b</sub>	.48	100
Latina	.30 <sub>ab</sub>	.46	47
Other	.27 <sub>ab</sub>	.45	26
Total	.27	.44	242

*Note.* Participants were assigned a value based on the presence of Major Depression (0 = no diagnosis, 1 = positive diagnosis). Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.

Table 6

Mean Scores for Presence of Borderline Personality Disorder by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.00 <sub>a</sub>	.00	69
White	.10 <sub>b</sub>	.30	100
Latina	.06 <sub>ab</sub>	.25	47
Other	.00 <sub>a</sub>	.00	26
Total	.05	.23	242

*Note.* Participants were assigned a value based on the presence of Borderline Personality Disorder (0 = no diagnosis, 1 = positive diagnosis). Means that do not share subscripts differ significantly at  $p < .05$  in the Games-Howell post hoc comparison.



Table 7

## Mean Scores for Polysubstance Abuse by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.46 <sub>a</sub>	.50	46
White	.85 <sub>b</sub>	.36	80
Latina	.62 <sub>ab</sub>	.49	37
Other	.75 <sub>ab</sub>	.44	20
Total	.67	.46	183

*Note.* Participants were assigned a value based on the presence of polysubstance abuse (0 = no polysubstance abuse, 1 = polysubstance abuse). Means that do not share subscripts differ significantly at  $p < .01$  in the Games-Howell post hoc comparison.

Table 8

## Mean Scores for "Other" Substance Abuse by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.04 <sub>a</sub>	.21	46
White	.61 <sub>b</sub>	.49	81
Latina	.49 <sub>b</sub>	.51	37
Other	.30 <sub>ab</sub>	.47	20
Total	.41	.49	184

*Note.* Participants were assigned a value based on the presence of "other" substance abuse (0 = no "other" substance abuse, 1 = "other" substance abuse). Means that do not share subscripts differ significantly at  $p < .01$  in the Games-Howell post hoc comparison.

Table 9

## Mean Scores for History of Sexual Abuse by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.25 <sub>a</sub>	.43	69
White	.54 <sub>b</sub>	.50	100
Latina	.40 <sub>ab</sub>	.50	47
Other	.38 <sub>ab</sub>	.50	26
Total	.41	.49	242

*Note.* Participants were assigned a value based on a history of sexual abuse (0 = no history of sexual abuse, 1 = history of sexual abuse). Means that do not share subscripts differ significantly at  $p < .01$  in the Games-Howell post hoc comparison.

Table 10

## Mean Scores for History of Emotional Abuse by Race/Ethnicity

Race/Ethnicity	Mean	Standard Deviation	Sample Size
Black	.07 <sub>a</sub>	.26	69
White	.26 <sub>b</sub>	.44	100
Latina	.21 <sub>ab</sub>	.41	47
Other	.12 <sub>ab</sub>	.33	26
Total	.18	.39	242

*Note.* Participants were assigned a value based on a history of emotional abuse (0 = no history of emotional abuse, 1 = history of emotional abuse). Means that do not share subscripts differ significantly at  $p < .01$  in the Games-Howell post hoc comparison.

Table 11

Initial Binary Logistic Regression Model to Predict Violence Among All Girls

Predictor	Beta	S.E.	<i>p</i> -value
Black	3.96	1.44	.006
Parental Support	-2.53	1.16	.029
Self-Injury	-1.98	1.32	.133
Drug Use	.59	1.31	.651
History of Neglect	1.60	1.13	.155
Family Dysfunction	-.46	.27	.085

Value -2 Log likelihood = 40.58

$\chi^2_{(6, N = 60)} = 26.90, p < .001$

Nagelkerke  $R^2 = .54$

Table 12

Final Binary Logistic Regression Model to Predict Violence Among All Girls

Predictor	Beta	S.E.	<i>p</i> -value
Black	2.58	.66	<.001
Parental Support	-1.84	.78	.018

Value -2 Log likelihood = 63.04

$\chi^2_{(2, N = 60)} = 25.24, p < .001$

Nagelkerke  $R^2 = .42$

Table 13

## Initial Binary Logistic Regression Model to Predict Violence Among Black Girls

Predictor	Beta	S.E.	<i>p</i> -value
Parental Support	-1.20	.95	.219
Self-Injury	- 1.58	1.50	.293
History of Neglect	2.24	1.31	.088
Family Dysfunction	-.13	.26	.623
Negative Peer Group	-.67	1.20	.577

Value -2 Log likelihood = 52.12

 $\chi^2_{(5, N=58)} = 7.02, p > .05$ Nagelkerke  $R^2 = .18$ 

Table 14

## Initial Binary Logistic Regression Model to Predict Violence Among White Girls

Predictor	Beta	S.E.	<i>p</i> -value
Parental Support	-.34	.64	.590
Self-Injury	-1.01	.56	.073
History of Neglect	-.89	.52	.087
Family Dysfunction	-.01	.14	.961
Negative Peer Group	.01	.53	.988

Value -2 Log likelihood = 108.53

 $\chi^2_{(5, N=84)} = 7.87, p > .05$ Nagelkerke  $R^2 = .12$



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