SUBTYPES OF FEMALE ADOLESCENTS INVOLVED IN THE JUVENILE JUSTICE

SYSTEM: A CLUSTER ANALYSIS OF THE MILLON ADOLESCENT CLINICAL

INVENTORY

by

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(Under the direction of Georgia B. Calhoun)

ABSTRACT

The current study sought to explore subtypes of adolescents within a sample of female

juvenile offenders. The Millon Adolescent Clinical Inventory was administered to 101 female

juvenile offenders as part of a screening battery for a court mandated group therapy intervention.

A two-step cluster analysis was performed beginning with a Ward's method hierarchical cluster

analysis followed by a K-Means iterative partitioning cluster analysis. The results suggest an

optimal three-cluster solution, with cluster profiles leading to the following group labels:

Externalizing Problems, *Depressed/Interpersonally Ambivalent*, and *Anxious Prosocial*. Analysis

along the factors of age, race, offense typology and offense chronicity were conducted to further

understand the nature of found clusters. Only the effect for race was significant with the *Anxious

Prosocial* and *Depressed/Interpersonally Ambivalent* clusters appearing disproportionately

comprised of African American girls. Results were interpreted in the context of Theodore

Millon's (1992) theory of personality as well as feminist theoretical critiques of the existing

juvenile offending literature (Chesney-Lind, & Shelden, 1989). The *Depressed/Interpersonally

Ambivalent* cluster was observed to represent the segment of girls highlighted by feminist

researchers in which girls enter the justice system via status offenses and have significant

histories of victimization. The *Anxious Prosocial* cluster was observed to appear similar to

Moffit's (1993) conception of adolescent-limited offenders, in that few antisocial beliefs, emotional pathology or victimization history appeared prevalent for this cluster. Further, the *Anxious Prosocial* cluster had evidence of concerns about sexuality and problems with anxiety, both of which may be normative pressures for females during adolescence.

INDEX WORDS: Female Juvenile Offenders, Millon Adolescent Clinical Inventory (MACI), Cluster Analysis, Relational/Cultural Theory

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B.A., The University of Georgia, 1996

M.Ed., The University of Georgia, 2000

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial

Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2004

SUBTYPES OF FEMALE ADOLESCENTS INVOLVED IN THE JUVENILE

JUSTICE SYSTEM: A CLUSTER ANALYSIS OF THE MILLON ADOLESCENT CLINICAL

INVENTORY

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August 2004

DEDICATION

I would like to dedicate this paper to my wife, Robin, and daughter, Lane. Robin began my graduate study by my side and has never strayed despite considerable sacrifice and my often having to spend more time with my colleagues and clients than with her. Throughout this process, Robin has been my strongest supporter, my friend, my lover and my inspiration. To my daughter, Lane, I have stopped many a late night at the altar of the computer and slipped into your room. Taking a quick glance at your sleeping face, I have always felt renewed and ready to face the tasks that lie ahead. Your existence is an affirmation that the work I undertake and the interests I pursue are inherently worthy and matter.

I would also like to dedicate this dissertation to my mother. Without her will to survive, I would quite literally not be here in this position today. When I have read about, written about or tried to help women in need, I think of you. I think of your strength, your resources, but most of all your faith. These qualities have sustained me from birth until now, and they will continue to do so. Additionally, I would like to thank my father, Lou, and my brother, Eddie. Thank you for your curiosity and support for my graduate study. Dad, thank you for imparting the importance of discipline in mind and body, as well as work ethic. The present document owes much to these lessons. To my brother, I hope this endeavor serves as inspiration to you and your future work, so when your dissertation time comes you will know it can be done.

I would like to thank my graduate cohort. I learned the definition of interdependence from you all, and found that I had much I could give and much that I could learn.
Last but not least I would like to thank Georgia Calhoun and Brian Glaser. You are the models for my professional identity, and will continue to be for the rest of my career. Thank you.

ACKNOWLEDGEMENTS

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CHAPTER 1

INTRODUCTION

Psychology's relationship to women has been both inquisitive and patriarchal.

Historically psychologists have either completely omitted women from their scope of inquiry and

practice, or when women were the target of research and theory, an androcentric point of view

was utilized to explain their behavior and lives (Crawford & Unger, 2000). When women have

been noted to behave differently from this masculine preconception, the etiology of such

behaviors was usually ascribed to fixed, innate, biological factors, particularly sexuality

(Crawford, & Unger, 2000; Chesney-Lind & Shelden, 1998). Psychology has historically

struggled with studying women as complex, unique and all together human entities, whose

behavior exists in a particular context. Psychology, as any science, is influenced by the culture

that nurtures it. With the onset of the feminist movement, recent trends have seen the social

sciences, and psychology in particular apply increasing focus upon correcting the androcentrism

and cultural myopia of prior exploration into the lives of females. This scholarly trend is

intricately linked to the seminal work of Carol Gilligan, whose *In a Different Voice* (1982) began

a shift towards describing women on their own terms, and delineating the unique ways in which

they make sense of their lives and relationships. By explicating how men and women construct

morality differently, this work set the stage for a whole new branch of inquiry in which

psychological gender differences became a primary target. Additionally, it challenged previous

conceptions that separation from others is a universal developmental experience (Miller, 1991).

This new brand of feminist scholarship stressed above all that psychology listen to what women

had to say about themselves and their worlds; the new emphasis was upon studying women on

their own terms (Chesney-Lind, & Shelden, 1998; Crawford, & Unger, 2000).

As has been the case in psychology at-large, the field of delinquency research has been criticized for both lacking sufficient focus upon females and for utilizing an androcentirc interpretive bias when female delinquency was directly addressed (Chesney-Lind, & Shelden, 1998; Barnett, & Simmons, 2001). While psychologists have at times treated females who violated laws and social norms with fascination (Lombroso, & Ferraro, 1895; Thomas, 1928), the conclusions drawn from such curiosity found female acting-out to be linked to biological and sexual dysfunction. Girls who act out were portrayed as biological anomalies, usually in the area of their sexual drives and behaviors. Female offenders have not, historically, been studied with a passion for understanding their phenomenological worlds, and as a result psychology still knows little about their development and the contexts that surround their behaviors (MacDonald & Chesney-Lind, 2001). Instead, the study of the female offender and the policies that ensued have been largely a story of protecting girls from themselves (Reese & Curtis, 1991). Instead of understanding the very human motivations behind the behaviors which under gird female delinquency, or the unique experience of being female, or the social mechanisms by which female become defined as delinquent; researchers have typically only offered explanations that spoke to society's expectations of girls rather than a true exploration into the girls themselves. Intertwined with the gender bias found in delinquency research and policy-making, is an equally longstanding bias in regards to girls of ethnic minority group membership and lower socio-economic-status. Future research must seek to address female juvenile offenders with an eye towards limiting these biases (Chesney-Lind, & Shelden, 1998).

It is within the context of these lapses by previous generations of researchers, that a more recent set of research efforts has been applied towards understanding all of the factors involved in female delinquency. These efforts are the logical progeny of the feminist movement, and

particularly the push towards examining women in their own terms (Crawford, & Unger, 2000). As defined by the feminist criminologist Meda Chesney-Lind, feminism is a view "in which women's experiences and ways of knowing are brought to the fore, not suppressed" (Chesney-Lind, & Shelden, 1998). In terms of female delinquency, the fruits of this newfound inquiry has yielded new insights into the societal gender biases that girls face within communities and the juvenile justice system (Barnett & Simmons, 2001), and the unique set of risk factors that female juvenile offenders face (Acoca, & Dedel, 1998). Among these factors found to be related to female offending were the high frequency of sexual victimization among female offenders, the high incidence of emotional problems, the female-specific developmental pressures that arise during the onset of menarche, puberty and early adolescence, as well as the manner in which relationships are integral to understanding female delinquency (Barnett & Simmons, 2000; Chesney-Lind, & Shelden 1998; Miller, et al., 1995; Calhoun, Jurgens, & Fengling, 1993).

In addition to increased attention to the girls themselves, the field has seen an increased drive to understand the, families, communities, institutions and systems that interact with and by-and-large are ultimately responsible for ascribing the label of "juvenile offender " to a girl. The juvenile justice system has its own unique sociological history, and through the legislation that governs its powers plays an active role in defining who is and who is not "delinquent" (Bartollas, 2003). The history of such institutions must be taken into account before any examination of the female delinquent can be fully interpreted. The tradition of sex bias in case handling by the juvenile justice system is well documented (Barnett & Simmons, 2001; Reese, & Curtis, 1991). Particularly this bias is evident in regards to the overrepresentation of females in the status offense category, which includes such offenses as runaway, sexual behavior, and defiance.

The interest in exploring the unique facets of female development and female delinquency in particular is relatively new. Studies on male delinquency have explored multiple factors and cover a broad range of target variables. While feminist criminologists in particular have applied sharp focus towards describing female delinquency in socio-cultural terms, little research into the within-group variance in female juvenile offenders has been conducted. The first step of establishing a science of gender has been to establish that women are both equal to, and distinct from men, warranting their own rich psychological descriptions and voices. The present study represents an attempt to build upon this work by examining psychological diversity within females. The study will utilize a theoretically based personality instrument, the Millon Adolescent Clinical Inventory (Millon, 1993) to establish the existence of subtypes and psychological heterogeneity within a sample of female juvenile offenders. Similar research has been conducted with male juvenile offenders, as well classification and typology studies have been a historical cornerstone of psychological science (Aldenderfer & Blashfield, 1984). In concordance with the urgings of feminist scholars, this present study will attempt to explore typologies that will specifically generalize to female juvenile offenders, and to interpret findings in light of current theories specific to female development.

History of Females in the Juvenile Justice System

Throughout the history of the American juvenile justice system, girls have seldom been perceived to pose a significant threat to the safety of the communities they lived in; rather girls were seen to threaten the moral fabric woven into the prevailing gender roles (MacDonald & Chesney-Lind, 2001). The juvenile justice system was created essentially in 1899, with the first functioning court located in Chicago. The genesis of the juvenile court occurred in the larger context of the *Progressive Era* (1890-1920), which saw massive shifts in the level of

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involvement that government and justice entities had in the lives of families and children. The "child-saving" movement that eventually brought about the establishment of a separate juvenile justice system both championed the sanctity of family as the primary socializer of children, while also instituting a precedent for governmental intrusion and control over family life, particularly adolescent life. The early juvenile courts were given the mandate of intervening in three areas of adolescent life (a) criminal violation of laws derived from the adult criminal system (murder, burglary), (b) status offenses that were related to "incorrigibility", "indecent behavior" and other ambiguous, often moralistic, categories, and (c) neglect, abuse or abandonment of children by caregivers. Status offenses eventually became the primary means through which the behavior of young women was impacted by the juvenile justice system (Chesney-Lind, & Shelden, 1998).

The early female activists and supporters of the juvenile court were noted to be typically of an economically privileged status, and to have viewed their role as that of moral standard bearers for the behavior of young women in particular (Feinman, 1980; Freedman, 1981). The primary thrust of the juvenile justice movement was to impinge upon the behavior of young boys, ostensibly to protect these youth from the ravages of the adult criminal system. However, as time progressed, this system became increasingly concerned and active in seeking to protect girls from the perceived negative moral and physical effects of sexual intercourse (Chesney-Lind, & Shelden, 1998). With the passage of the Uniform Juvenile Crime Act in 1925 intended to establish uniformity in the treatment of juveniles by the court, and ensure protection of juveniles' constitutional rights (Bartollas, 2003), the distinction between "delinquent" child and an "unruly" child became codified. The latter became those who are presently labeled status offenders, namely youth who commit crimes that are not violations of local, state or federal criminal codes. These youth usually entered the juvenile justice system because they cannot be

controlled by their parents, schools or communities, and were seen as in need of treatment (Mann, 1984). Status offenses have been criticized for being too vague, and being applied in an inequitable manner, particularly in relation to females.

During the 1970's a movement began to prevent juvenile courts from criminalizing status offenses and to reduce the instance of incarceration, and institutionalization of juvenile status offenders. The result of this movement was the Juvenile Justice and Delinquency Prevention Act (JJDPA) in 1974. This law directed states to cease institutionalization of status offenders and divert these youth to rehabilitative, community-based interventions. Though not intending to improve the treatment of female delinquents *per se*, this law had the effect of reducing the rate of referral for girls to reformatories and training schools (Chesney-Lind, & Shelden, 1998; Mann, 1984). Formal studies in later years found actual decreases in the level of gender bias within the court system after the laws passage (Teilmann, & Landry, 1981). However, sustained opposition to deinstitutionalization of status offenses, particularly youth charged with runaway, has tempered the long standing implication s of JJDPA (Chesney-Lind, & Shelden, 1998).

The tensions surrounding this law illustrate, in part, the historical tensions surrounding female delinquents. On the one hand the juvenile justice system has sought to protect young women from risky decision-making i.e. sexual behavior and running away from home, and on the other hand it is imposing a deeply gendered set of values upon them. In imposing these values, the system has historically rationalized institutionalization and removal from family and community as acceptable methods of protecting girls who are engaging in formally defined delinquent behavior. Before attempting to describe female juvenile offenders in terms of personality and psychological factors, this understanding of how the juvenile justice system has historically constructed the label of "female delinquent" must be accounted for. Interpreting the

results of the present study is a process framed by and intrinsically connected to the way in which the population of "female offenders" has historically and presently defined by the institution serving as the gatekeeper of these youth.

Present Status of Females in the Juvenile Justice System

The tendency to try and protect the morality of young women is still evidenced in current court statistics. Self-report studies have shown that males and females commit status offenses, such as running away from home, at equal rates; in contrast, official arrest statistics show that females are arrested for such offenses at a higher rate than males. (Teilmann, & Landry, 1981). In fact, in recent years 58% of those arrested for running away have been girls (Chesney-Lind, & Shelden 1998). Due to the court's tendency to focus upon the moral standing of young women, needed attention to the subjective experiences and very real personal and environmental problems of the girls seen in the court system has not been provided. The system continues to receive criticism for criminalizing too wide a spectrum of female behavior, and for failing to provide gender sensitive interventions that are developmentally sound interventions (Barnett & Simmons, 2001; Chesney-Lind, & Shelden, 1998).

Here to fore the seminal theories of delinquency have defined the phenomenon as a problem specific to males (Chesney-Lind & Shelden, 1998). Due to the history of academics and policy-makers viewing delinquency through a male-only lens, the resulting empirical inquiries into this social problem focused nearly exclusively upon male populations of juvenile offenders (MacDonald & Chesney-Lind, 2001). Increasingly, voices from multiple fields have called for research to establish a more substantive knowledge base regarding the psychology and the unique needs of female juvenile offenders (Barnett & Simmons, 2001; MacDonald & Chesney-Lind, 2001). This movement has also included a congressional mandate for states to explore and

fund gender-specific treatment programs for juvenile offenders (Juvenile Justice and Delinquency Amendments, 1992).

Female delinquency referrals to the juvenile courts of America have outpaced the growth of male delinquency between 1987 and 1996 (76% vs. 42%). This pattern of growth in was true for all offense categories except drug violations (Snyder, & Sickmund, 1999). In 1996 females accounted for only 26% of all juvenile charges, but were involved in 41% of all status offense charges (FBI, 2001). Compared to formal delinquency cases, status offenses are less often referred to the juvenile court system by police, and more often by family members. Status offenses cases have also increased in terms of the overall referral rate by 101% from 1987 to 1996 (Snyder, & Sickmund, 1999). From this data it is evident that status offenses are disproportionately the charge levied against female adolescents, and these charges are quite likely to be generated by family members. An as of yet unanswered question, is whether the increases in juvenile justice referrals among young women is due to shifts in the practices of the juvenile justice system as opposed to actual increases in delinquent behavior (Barnett & Simmons, 2001).

In addition to the present trend in regard to status offenses, females also represent a unique and underserved population of detained and incarcerated adolescents. According to juvenile justice data from 1996 (Snyder, & Sickmund, 1999), females account for 1 in 17 adolescents in residential placement settings. Additionally, females who were in a residential placement, were substantially younger than their male counterparts. Between 1988 and 1997 the use of detention for girls increased 65% as compared to a 30% increase for boys. Girls also appear more likely to be detained for more minor offenses than are boys, and too often for minor probation violations (Barnett & Simmons, 2001). The female proportion of youth in custody

placements was smaller for minorities than Whites. However, the population of minority females in placement contained a higher proportion of person offenders than their White female counterparts (Snyder & Sickmund, 1999). Providing appropriate care and guidance to this subgroup of female offenders is yet another underdeveloped practice.

A longstanding trend in criminal justice at-large in America is the disproportional representation of ethnic minority group members. This trend has traditionally held true for the juvenile justice population as well. In 1996, African American juveniles were referred to the juvenile justice system at a rate twice that of White youth, and the population of African American youth referred exhibited a larger proportion of crimes against person charges than did youth in other racial categories (Snyder, & Sickmund, 1999). African American youth have been shown to be six times more likely to be incarcerated in public facilities than White youth, even when charged with the same offense (Barnett & Simmons, 2001). For female delinquents there is mixed evidence of differences between the actual offense patterns of White and black girls. Black girls appear to engage in more personal crimes than Whites, but this gap is also narrowing (Chesney-Lind, & Shelden, 1998). To summarize, the population of female offenders encompasses a disproportionately non-White group of youth residing both with their families in community settings as well as in secure custody, and is a group whose ranks are growing.

Typologies and Female Juvenile Offenders

A large amount of research regarding trajectories, typologies and heterogeneity of male offenders has been undertaken. Generally speaking, what has been found suggests that earlier onset of criminal behavior leads to more prolonged involvement in criminal behavior throughout life (Blumstein, Farrington, & Moitra, 1985; Loeber, et al., 1993; Moffitt, 1993), and adolescent antisocial behavior separates into overt and covert behaviors (Loeber et al., 1993). In general this

research places a dividing line between early onset-serious delinquency and adolescent limited delinquency. Largely, the research behind early/late onset offender distinction has focused on boys, and has emphasized the cumulative risk associated with cognitive/neuropsychological deficits, hyperactivity/impulsivity, and disruptive family interactions (Moffitt, 1993). There have also been significant studies with males using instruments like the MMPI-A to establish typologies and offending trajectories (Sorenson & Johnson, 1996; Henderson, 1983). The results of these developmental and typological studies done largely with males suggest that juvenile offenders are comprised of a diverse group of youngsters with different developmental trajectories and psychological traits. By and large, this research has been directly generalized to an understanding of female juvenile offenders. Currently the literature does not contain attempts to focus upon typologies of female offenders using standardized psychological instrumentation.

Justification and Significance of Study

Research exploring unique factors involved in the etiology and development of female juvenile offending is needed to establish more gender-specific treatment programs for these youth (Barnett & Simmons, 2001; MacDonald & Chesney-Lind, 2001). As part of such efforts, it may be beneficial to explore what heterogeneity exists within the population of female juvenile offenders. In particular, an exploration into personality typologies, as well as variances in psychological symptomatology may be a rich addition to an understanding of female juvenile offenders. Such research has been conducted with male offenders in regards to typologies. For example Glaser, Calhoun, and Petrocelli (2001) explored how males who commit violent, property and drug offenses may differ from one another. Additionally, there are other studies examining typologies among youth that have enriched both theoretical knowledge and clinical practice (Huberty, DiStefano, & Kamphaus, 1997; Sorenson, & Johnson, 1996; Henderson,

1983). Research exploring delinquency in general has consistently found that criminal and at-risk behaviors are likely caused by multiple etiological factors among which are interpersonal relationships, intrapsychic psychological experiences, and socio-cultural factors (Calhoun, Glaser, & Bartolomucci, 2001; Mash, & Barkley, 1996 p.114). However, very little of the research into the etiological risk factors of delinquency have been conducted with female delinquents in mind. The purpose of this study is to establish the existence of subtypes within a sample of female juvenile offenders, based upon a comprehensive self-report personality inventory. The secondary goal is to establish validity of any resulting subtypes and add to the knowledge of female juvenile offender by analyzing the relationships between subtypes and the youth's offense history, frequency of arrest, age, and race.

Statement of the Problem

The purpose of this study is to identify subtypes or typologies of female juvenile offenders based on a comprehensive self-report personality inventory. There has been too little research focusing specifically on females involved in the juvenile justice system. Additionally, assessment of juvenile offenders has become an increasingly high-stakes endeavor with the pressure increasing to apply interventions more efficiently within the context of a thorough clinical assessment. Therefore, the results of the present study could be useful to both psychologists involved in the assessment of female juvenile offenders, as well as researchers attempting to build gender specific theories and intervention programs for female offenders. Specifically, the present study seeks to isolate female juvenile offenders and explore the existence of subtypes in terms of personality, phenomenological concerns and clinical psychological symptoms utilizing the Millon Adolescent Clinical Inventory (Millon, 1993).

General Hypotheses

Can subtypes of female juvenile offenders be identified via cluster analysis of responses to a comprehensive self-report personality inventory? Additionally, will any resulting set of subtypes significantly relate with participant's most frequently occurring offense category, their frequency of arrest, their age, or their race?

Null Hypothesis 1: No cluster subtypes of female juvenile offenders will be indicated by analysis of scale scores of a comprehensive self-report personality inventory, the Millon Adolescent Clinical Inventory in a two-stage hierarchical and iterative cluster analysis.

Null Hypothesis 2: No significant relationship will exist between any resulting subtypes and the participants' offense category (as measured by tabulating each girls most frequently occurring category of offense).

Null Hypothesis 3: No significant relationship will exist between any resulting subtypes and a measure of chronicity of offending.

Null Hypothesis 4: No significant relationship will exist between any resulting subtypes and racial group categorization of the participant's.

Null Hypothesis 5: No significant relationship will exist between any resulting subtypes and the participant's age.

Delimitations

This study will examine subtypes of female juvenile offenders via cluster analysis and utilizing a comprehensive self-report personality inventory - the MACI. The study is cross-sectional in design, assessing a snapshot of a group of juvenile offenders within a particular juvenile justice system. The study is intended to examine the self-perception of adolescents and delineate diversity within this population along such dimensions. The study utilizes the MACI

because the instrument is based in a comprehensive theory of psychosocial personality development, and provides age and gender specific norms. Additionally, the MACI is designed to clarify the problematic personality, phenomenological and clinical factors at work in an adolescent's life. The design of this instrument is congruent with the goals of the present study to identify subtypes of female juvenile offenders. The MACI affords the researcher an opportunity to examine heterogeneity in terms of three dimensions - developing personality style, phenomenological adolescent concerns, and psychodiagnostic clinical symptoms. Finally, the offense histories of all participants were available to the researcher and integrated into the study's research questions.

The theoretical positions that will frame interpretations of the data from this study will come from two primary sources. First, assumptions about the females in the study will be drawn from a feminist orientation and particularly from Relational/Cultural Theory. This theoretical perspective is drawn from numerous writers and researchers on the psychology of women (Brown & Gilligan, 1992; Miller, 1976; Surrey, 1991). These scholars have argued for a gender specific theory of women's psychological development. Relational/Cultural theory postulates that a woman's self is nurtured and organized in the context of intimate, responsive relationships. This perspective also emphasizes the role of poverty, race and cultural values as important factors in structuring the experiences of young women. Relational/cultural theory is particularly useful for understanding female juvenile offenders, because it offers a means to reconceive acting-out and behaviors, commonly seen as pathological, alternatively, as reactions to disruptions in their relationships. The high incidence of physical and sexual abuse in the population of female juvenile offenders, then, becomes a factor highlighted by a Relational/Cultural perspective (Covington, 1998). Many of the aforementioned authors have

also highlighted the unique ways in which the entry into adolescence is particularly difficult for girls, primarily because of the increased pressure to appear sexually attractive to males, and to suppress their own perspectives to maintain connection to others, particularly males, during this period (Brown & Gilligan, 1992). In essence this perspective sees women's self as defined by their sense of being connected in a caring and responsive manner to others.

In addition to using Relational/Cultural theory, the instrument utilized in the present study is itself, based upon a comprehensive theory of personality development. Theodore Millon (1990) has been at the forefront of theory building in regards to how interpersonal and need gratification styles are formed during development and function within an individual's personality. The MACI's Personality Pattern scales are a direct outgrowth of his theory. Specifically, Millon views personality as an idiosyncratic evolutionary process. Individuals are born with tendencies and temperament, and into specific environmental and cultural conditions. From here, they experience specific interpersonal relationships that shape the eventual baseline interaction style they will utilize to get needs met in future relationships. The personality outcome is the result of an evolutionary process, in which behaviors and cognitive sets that are adaptive in childhood become entrenched and utilized later in life, including adolescence. For individuals who are nurtured under stressed environmental conditions, experience racial discrimination, and endure rigid and invalidating relational environments, the resulting personality style is often maladaptive relative to new circumstances and life demands that the individual may face. In essence individuals who grow in such environments develop rigid personality styles of their own that may have fostered survival and resistance earlier in life, but which close doors to positive interpersonal outcomes later in life (McCann, 1990; Millon, 1990).

<u>Definition of Terms</u>

<u>Juvenile Offender</u> - An adolescent under the age of 18, involved in the Department of Juvenile Justice for committing an act deemed illegal according to local, state or federal statutes, including those laws constructed specifically to impinge upon the behavior of youth i.e., status offenses. All of the participants included in this study meet the above criteria.

<u>Status Offenses</u> - Those illegal acts for which adolescents may be judged delinquent, but which are not behaviors that would be illegal for an adult. Examples of such behaviors include truancy, curfew violations, runaway, fornication, incorrigibility, minor possession of alcohol and unruly child.

<u>Public Order Offenses</u> - Those illegal acts for which adolescents may be judged delinquent, and which correspond to adult offense, but which involved disruption of the public order, or public safety. These acts do not directly involve harming other people, or damaging/stealing property; rather they include behaviors such as DUI, public intoxication, driving without a license, and possession of a weapon.

<u>Property Offenses</u> - Those illegal acts which involve stealing, damaging property not belonging to an adolescent, or acts which involve defrauding another of property, i.e. fraud, embezzlement etc.

<u>Drug Offenses</u> - Those illegal acts, which involve possession of, intoxication from or selling of substances that are defined as narcotics (illicit drugs).

CHAPTER 2

REVIEW OF RELATED RESEARCH

The Juvenile Offending Literature

Before delving into the existing knowledge base about female adolescents and their development towards juvenile justice involvement and antisocial behavior, it is helpful to note what general knowledge has been constructed about juvenile offending. Admittedly, this knowledge base is almost exclusively based upon research with males. However, pieces of this literature form a starting point for understanding female delinquency. The primary lapse in most previous research is that it does not include gender as a focus of analysis, nor do most studies attempt to conceptually factor in what is known of gendered development and sexist societal phenomenon in interpretation of data (Chesney-Lind, & Sheldon, 1998). Reviewing the general juvenile offending literature exposes both the existing knowledge of this range of behavior, and also highlights what has not yet been addressed in regards to female offending.

Much research has been devoted to noting the specific etiological correlates of juvenile delinquency. For example, biological factors and sexuality variances have been used in a sexist manner to explain female delinquency in the past (Lombroso & Ferraro, 1895; Pollack, 1950). However, in more recent inquiries into delinquency's etiology, biological and neurological, not sexual, variations have arisen as a consistent correlate to later antisocial behavior, particularly serious and violent behavior (Moffitt, 1993). In particular, the development of antisocial behavior has been repeatedly correlated to verbal processing and executive functioning deficits. However, this relationship is strongest for antisocial behaviors that persist into adulthood. Such examples of neurological impairment include hyperactivity, impulsivity, and learning disorders. All of these conditions can pose significant limitations on a youth's ability to benefit from

socialization experiences. Biological contributors to delinquency are best viewed as factors, which interact with other toxic environmental attributes to foster antisocial behavior. In the case of female offending, neurological impairment may play the most prominent role in cases of severe antisocial behavior that extend from childhood into adulthood. However, neurological factors may not play as great a role in the large number of females who become involved in the juvenile justice system and largely commit status offenses. Separate factors such as institutional bias, a history of victimization and relationship disruptions may be needed to explain this set of youth's behavior.

A second factor that has become a consistent correlate of delinquent behavior is coercive family processes (Patterson, DeBaryshe, & Ramsey, 1989). Such interactions are composed of antisocial behavior modeled by caregivers and extended towards children in interactions between the two. The coercive behavior practices documented in the male juvenile delinquency literature have been shown to lead towards two distinct experiences in youth's social environments. First is rejection by members of normal peer groups, and secondly pervasive academic failure. Eventually, delinquent youth attach to deviant antisocial peer groups, which are thought to then supply, reinforce and maintain the attitudes, worldview and rationalizations necessary for sustained antisocial behavior (Patterson, DeBaryshe, & Ramsey, 1989). For girls, the experience of non-nurturing, exploitive, and abusive relationships can serve as a precursor to involvement in delinquent acts, though little is known about the exact developmental course these experiences take, or if the model offered by the above depiction holds true for girls (Chesney-Lind, & Shelden, 1998).

Generally speaking, the literature has identified two primary developmental trajectories when large samples of juvenile offenders have been examined. Moffit's (1993) research has

illustrated that one group of adolescents begins behaving in a disruptive and antisocial manner early in life. This group is thought to be much more affected by neurological, and psychological factors within the child that cumulatively interact with toxic, criminogenic environmental conditions. The result for this group is a stable life-course pattern of antisocial behavior. The second group is adolescent-limited antisocial behavior. This group is viewed as having a temporary lag in social maturity and decision-making (Moffitt, 1993; Eme, & Kavanaugh, 1995). For boys the research suggests that those who begin offending in late childhood or early adolescence have the greatest chance of going onto post-adolescent antisocial behavior. This trend is thought to be closely connected to the prevalence of antisocial "training" in the family. Additionally, the well-documented correlation between low socio-economic-status, minority race and delinquency is thought to be mediated by these disruptive family processes (Farrington, Barysche, & Ramsey, 1989).

Research has also delineated that delinquent youth engage in either overt or covert antisocial behaviors (Loeber et al., 1993). Some youth engage in mostly one or the other type, other youth engage in both equally. For the latter group, aggressiveness and impulsivity have been found to be a major aspect of their difficulties. Additionally, some youth have been found to continue onto more serious forms of their antisocial behaviors in both overt and covert forms, while other youth appeared to cease antisocial behaviors as adolescence ends. The perspectives outlined by both Loeber and Moffit have been largely formulated from studies on boys, but attempts have been made to generalize the overt/covert and life-course persistent/adolescent limited dichotomies with samples of females.

What binds much of the current juvenile offending literature together, is an emphasis not upon solely neuro-cognitive, societal or familial processes, but rather a developmental

interactionist perspective (Mash & Barkley, 1996). From this point of view delinquency and antisocial behavior are viewed as resulting from the reciprocal interaction of biologically mediated vulnerabilities, toxic familial processes, and in the last stages social experiences that validate an antisocial point of view, and de-emphasize the legitimacy or accessibility of prosocial points of view. As feminists have argued (Chesney-Lind & Sheldon, 1998: Crawford & Unger, 2000), what is missing from the mainstream empirical approaches to dissecting female behavior is an integration of the unique experiences of being female. Chief among these being the ways in which girls are differentially guided towards invalidating modes of being and interacting and how adopting such psychological stances may result in negative and maladaptive behaviors through a process that is specific for girls.

A Feminist Response to the Juvenile Offending Literature

In response to literature that is broad and substantive, but lacking a focus upon gender, feminist perspectives have become increasingly utilized to understand the nature of female offending. The most prolific feminist scholar in this area, Chesney-Lind (1989), points out that a patriarchal context has overly influenced the mainstream view of female offenders in all of the societal domains that interact with these youth. Consequentially, a perspective that works from a feminist standpoint is needed. She further specifies that those setting policy and researching females in the juvenile justice system have ignored the connection between girls' physical and sexual victimization and its relationship to their delinquent behaviors. In a broader sense, she argues that female offenders endure "multiple marginality" due to the fact that gender, class, and race place them at the socio-economic margins of American society. She states that to be labeled a delinquent occurs in a society "where gender still shapes the lives of young people in very powerful ways. Gender, then, matters in girls' lives and the way gender works varies by the

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community and the culture into which the girl is born" (Chesney-Lind, 1989). From this perspective female delinquency is reconceived as a reaction to oppressive victimization, and has not been responded to in this light by authorities.

Though efforts have not been widespread, a small but substantive body of literature has been formed which explores the specific risk factors, which may contribute significantly to female delinquent behavior. Bartollas (2003) observed that feminist criminologists agree on several existing empirical findings related to female delinquency. First, females have generally been found to be less impulsive than males, as well as experience more social support than males, and are in general less likely to be involved in crime, particularly serious and violent crime, than males. Additionally, due to female's socialization and societal positions, they are likely to have less opportunity to conduct certain types of crimes than do males (Mazerolle, 1998). There is also agreement on the dynamics between self-esteem and delinquency across gender. For males high self-esteem is strongly related to increased risky behaviors, but for females high self-esteem appears to discourage risk-taking during adolescence (Heimer, 1994). Additionally, latent structural analysis has shown that female delinquency tends to operate through some of the same factors as male delinquency. As with many dichotomous demographic variables, much more variation has been found within the population of female offenders than has been found between male and female offenders (Figueira-McDonough, & Selo, 1980; Smith, & Paternoster, 1987). For example, Rowe and Vazsonyi (1995) found similar correlates for both between sex and within gender group variance in delinquency rates. The study points toward the existence of etiological factors that transcend gender, and males offend at higher rates because of differential exposure to these factors rather than some vast differences in etiology between male and female juvenile offenders, adding to the idea that actual differences between male and

female delinquent etiologies may be exaggerated. In fact, some research suggests that males and females do not actually differ in the actual degree of delinquent behavior in which they engage. Self-report surveys suggest that girls are also involved in much more serious activities and their actual offending rates may parallel the serious delinquent activity of males (Chesney-Lind and Sheldon, 1998). Conversely, self-reports also suggest that males commit status offenses comparable to that of female adolescents. This illustrates that the official statistics of the juvenile court is a naturalistic but biased way in which to establish the nature of female delinquency.

The Extent and Nature of Female Delinquency

One of the most difficult constructs to tease apart in studying female delinquency is the exact nature of what constitutes "delinquency". In effect, the juvenile justice system defines what the term "delinquency" means (Bartollas, 2003). Psychologists and psychiatrists utilize DSM-IV (American Psychological Association, 1994) descriptions such as Oppositional Defiant Disorder and Conduct Disorder, yet these labels do not overlap completely with judicial decisions to apply the label of delinquent. Therefore, in conducting the present analysis, it is important to examine what is behind the label female offender.

Traditionally male juveniles offend at a higher rate than female juveniles. The 2001 FBI Uniform Crime Reports (FBI, 2001) provides continued verification of this trend with female offenders accounting for a minority (29%) of all juvenile offenders. From age four onward through the end of elementary school, reports of behavior problems have shown steady increases for boys, whereas there are documented decreases for girls (Keenan & Shaw, 1997). In a large-scale epidemiological study researchers found the rate of diagnosed Conduct Disorder in males to be significantly higher than that for females (6.5% vs. 1.8%). However, as youth were followed through adolescence, the increase in rates for females occurred at a higher rate than for

males (Offord et al., 1991). This is consistent with empirical studies that have shown female

delinquency to occur later in life with a better prognosis and less violent behaviors than males

(Mash & Barkley, 1996).

An analysis of the 2001 FBI Uniform Crime Report (FBI, 2001) reaffirms previous

research findings in regard to disparities between the genders based upon official offense

statistics. According to the statistics, boys committed violent offenses at about four times the

rate of female offenders and property offenses at about twice the rate of females. Such offenses

and their corresponding rates between males and females include:

> murder (8.6:1)
> aggravated assault (3.3:1)
> robbery (10.5:1)
> burglary (7.2:1)
> larceny-theft (1.6:1)
> motor vehicle theft (4.5:1)
> arson (7.3:1)
> rape (69.8:1)
> buying/receiving/possessing
> stolen property (5:1)
> vandalism (6.6:1)
> weapons possession (9.5:1).

The aggregate rate of offending along the *Violent Crime Index* (murder, forcible rape,

robbery and aggravated assault) between males and females was approximately 4.5:1, with the

aggregate rate along the Property Crime Index (burglary, larceny-theft, motor vehicle theft, and

arson) being 2.2:1. Rates for crimes such as larceny-theft, forgery and counterfeiting, fraud,

embezzlement were more equivalent between genders, averaging a rate of about 1.5:1. In

addition males offended at much higher rates in the areas of drug abuse violations (5:1), and

driving while under the influence charges (4.6:1) (FBI, 2001). From this, the trend for girls to be

significantly less likely to commit violent acts is clear. However, the rate of increase for such

acts for girls has been increasing at a higher rate than that for boys over the past ten years

(Snyder, & Sickmund, 1999). This trend could either be due to actual increases in the prevalence rate for female violent behavior, or changes in how the juvenile justice treats violent behavior on the part of females (Barnett, & Simmons, 2001).

Traditionally, females have offended at equivalent or higher rates when compared to males in the area of status offenses, and status offenses have accounted for a substantial percentage of all female juvenile offending. The 2001 FBI Uniform Crime Reports has provided continued evidence of this trend. Female juvenile offenders were shown to offend at higher rates when it came to runaway (1.5:1), and prostitution (2.4:1), with curfew violations still occurring more for males at slightly higher rate (2:1). Not only did females offend at higher rates for runaway charges, but also runaway charges accounted for 13% of all female charges, and only 4% of male charges. While male and female may reach more equivalent rates of offending in some areas, girls are still more likely than boys to enter the system under the auspices of a runaway or other status offense. This fact will be important in understanding the contemporary theories of female delinquency.

Female Adolescent Development

Adolescence has historically been viewed as a time of great change for all youths. Perhaps the most famous theorist to pose a description of the exact dynamics of adolescent development was Erik Erikson (1978). He postulated that adolescents need a "moratorium", in order to integrate the aspects of self-constructed during childhood into a cohesive self-concept, and to accomplish the task of moving into functioning within a society as a whole. Erikson referred to the struggle of adolescence as "identity vs. role confusion". He characterized this period as a struggle for youth to find things in society in which they can place faith, and which seem to provide avenues for them to achieve and master specific pursuits. Teenagers, to Erikson,

were both waiting for something to buy into, but also full of imagination as to whom they might be and what practices in the world may lead them to this identity. The at-risk zone of Erikson's theory includes young people who cannot grab hold of a life that is satisfying and congruent with the aspects of self that already exist. For young women, blockages to integration and identity formation are a unique set of constructs that have been explored in their own right since Erikson first posed his theory. Additionally, Erikson's conception of separation from others as a universal aspect of development may not fully apply to aspects of female development.

Early adolescence contains challenges that can make this period more stressful for girls than boys. Primarily this is because girls, on average, physically mature faster than boys, and experience a greater proportion of changes from juvenile to adult physicality (Crawford & Unger, 2000). The beginning of physical maturation has been connected to many disruptive and potentially risky events for girls. The onset of menarche serves as both a sign of reproductive maturity, but is also related to the onset of disruptive, anti-normative behavior for females. For example, the onset of menarche has been found to have a significant relationship with the appearance of antisocial and offending behaviors. Caspi and her colleagues (1993) found in a study of New Zealand schools that early maturing girls have been found to be at greatest risk of delinquency when attending mixed-sex schools. The onset of menarche's relationship to delinquency was found to be mediated by the presence of social contact with delinquent peers for youth with no childhood history of behavior problems, and to have an independent contribution to delinquency for girls with a childhood onset of disruptive behavior. Aside from menstruation onset's relationship to delinquency, this event marks the culmination of a host of physical changes girls progress through during adolescence. The responses of many young women to these changes consists of anxiety, fear and alienation; and ultimately may usher in a whole set of

other concerns about sexual attractiveness, physical appearance, and congruence between one's own appearance and icons offered up by popular culture (Crawford & Unger, 2000).

Research supports such increases in stress and body image problems for young adolescent girls. Simmons & Blyth (1987) found a significantly higher prevalence of body image disturbances, poor educational achievement, and conduct problems in girls who had early onset of menarche and pubertal physical maturation. Additionally, these authors found that the problems arising from pubertal maturation in girls were exacerbated as exposure to older male peer groups in schools increased. This may be due to the sexualization of girls by male peers as their bodies mature, and their social interactions gain more and more emphasis upon their appearance and sexual attractiveness to males (Chesney-Lind, & Sheldon, 1998). Additionally, this increased social pressures and adjustment that come with pubertal changes are not met with appropriate familial and institutional supports (Caspi et al., 1993). Early physically maturing girls have been shown to date more, and become involved in "adult" behaviors (smoking, drinking, sexual intercourse) earlier than girls who mature later (Crawford & Unger, 2000). An additional change that occurs with physical maturation is a girl's increased concern about body image, weight and often problematic efforts to over-control eating habits. Though the increased concern with physical appearance and weight gain, are nearly universal for teenage women in American society, there are racial differences in this phenomenon. White girls appear more likely to be impacted by societal depictions of thinness as ideal, and more likely to be diagnosed with an eating disorder (Crawford & Unger, 2000).

In addition to concerns over physical maturation and body image, early adolescence carries the risk of significant damage to a girl's self-esteem and sense of worth. Females experience more episodes of depression throughout adolescent than do males, and attempt

suicide more frequently than males (Miller, & Trapani, 1995). An often-cited study undertaken by the American Association of University Women (1992) found that though self-esteem decreases for both sexes during adolescence, the drop for girls is of a greater degree than that for boys. These findings are examples of a trend found in the literature indicating that females are at greater risk for internalizing problems than are males. The work of feminist scholars has suggested that the genesis of such problems can be tied directly to gender socialization, disconnection in girls' relationships and to the intersection between such experiences and the changes that occur during adolescence (Jenkins, 1999; Brown & Gilligan, 1992).

Brown and Gilligan (1992) refer to adolescence as a crossroads for young women during which girls must negotiate the tension between listening to their own inner self, and the social pressure to live up to gender role expectations. Relational/Cultural theory stresses the importance of experiences of disconnection and connection in relationships as a critical factor during the transition into adolescence. The basic assumption of RCT model is that "connection" and "differentiation" are universal needs, though connection is the more prominent need in female development (Jenkins, 1999). Relationships that are mutual, empathic and empowering promote psychological growth for women, whereas a relational history that is characterized by a series of breaches or disconnections may result in a progressively increasing set of internalizing problems (Miller, 1976). RCT provides a theoretical explanation for the increased risk of internalizing problems in young women, which can also be used to explain aspects of gender differences in the etiology and treatment of juvenile offending. During adolescence, with the onset of physical maturity and the shift in the way girls are treated; a girl's sense of self becomes increasingly contingent upon maintaining connection to others. However, their ability to do so is hampered by the manner in which their social systems begin to require girls to adhere to expectations about

attractiveness and femininity, which often involve suppression of authentic, subjective perspectives that a girl holds.

In their study of popularity among even elementary age boys and girls, Adler, Kless and Adler (1992) found that the avenues towards acceptance for males are typically tied to athletic ability, "coolness", toughness, and social skills, as well as success in cross-gender relationships. Conversely, girls' popularity tended to hinge upon their parents' SES, physical appearance, social skills, and academic success. Girls appeared to be guided towards a general stance of conformity, passivity and compliance, whereas boys are absorbed into a culture that celebrates the masculine ideal of self-reliance and independence. Thorne's (1994) qualitative study of gender in elementary school echoes these findings in that it found girls to be funneled towards meeting social expectations surrounding personal variables that are largely external and not under a girl's control. Even during this early period the socialization process tends to guide girls towards the goal of being attractive to boys, which Thorne linked towards the later adolescent tendency for young women to subjugate their own desires for the good of a romantic relationship. Both of these studies point towards the tendency for factors outside of girls' control to serve as the keys to social acceptance and relational success, which is seen to ultimately impact girls' mental health and developmental outcomes. This same process of gender socialization and eventually developmental double-binds occurs for females involved in the juvenile justice system, and offers a prediction regarding which psychological constructs separate males and females in the system. The degree to which young women feel connected to close others in a way that does not require them to "silence" their own perspective is likely an important aspect of female delinquency etiology. Related to the issue of connection is the issue of empowerment and locus of control. The degree to which young women perceive themselves

as able to exert influence and control over their life outcomes, particularly in relationships, is also likely a strong etiological factor in female delinquency.

African American Female Adolescent Development

While the above description of the challenges facing adolescent females paints a complex picture of interactions between the girl's own point of view, the relationships in her life and social expectations of femininity, the situation is even more complex and demanding for African American girls. In Signithia Fordham's (1997) study, "Those Loud Black Girls," the authors illustrates how young African American women resisted accepting the White norms of femininity by being loud or asserting themselves through their voices. Unfortunately, this behavior led to negative school experiences, and the fact remains that compliant, submissive, quiet students, particularly female ones are more likely to achieve academic success in American schools. The study also shows how some African American girls decided to "pass for White" and adopt behaviors more in line with the mainstream norms of femininity in order to be successful in the school experience. However, others refused to adopt this survival strategy, with the consequences all too often being isolation from social connections and ultimately disenfranchisement from educational achievement.

African American girls are confronted with a decision of how to cope with and resist both gender and racial discrimination, and may learn over time that more assertive and culturally relevant methods are required to survive, than are needed for their White counterparts (Stevens, 1997). In particular, a sense of connection to their heritage in both ethno-cultural terms as well as familial terms offers a significant protective factor for African American girls. In African American culture this often means a well developed sense of spirituality internalized from adults in their family, a community-oriented, collectivist orientation to living, and positive

representations within their family and community of African American women to utilize as models (Jenkins, 1999). When these survival strategies are absent either due to racial discrimination in their communities, or differences among African American families, these girls may develop an internalized racist conception of self as incompetent, or of less value than the White ideal. Ultimately this may lead to a belief that the opportunities available in society are not attainable for them. If African American girls are not provided the tools to resist appraising their worth against a majoritarian set of standards, negative consequences become more likely (Jenkins, 1999). It is important to note that African American girls, while facing the additional challenge of forming a positive cultural identity in what are often hostile environments, they also share many of the developmental tasks with girls of all ethnic backgrounds. For example, forming a positive sense of self is related to, but not completely overlapping with cultural and racial identity development. In addition, African American and White girls proceed through specific cognitive developmental milestones leading up to adolescence in which developmental tasks are traversed. Integration of these shared developmental tasks is needed in order to avoid viewing African American girls as only dealing with racial identity development issues; in fact these youth are dealing with all of the developmental tasks plus the task of racial identity development (Whaley, 1993).

Previous Theories of Female Offending

One of the earliest attempts to explain female criminality was by Caesar Lombroso (1895). Lombroso's perspective emphasized the genetic and evolutionary theories of human development, and explained female offending as primarily related to individuals being less evolved than "normal" human beings. However, the theory included the caveat that women were constitutionally less inclined towards criminality than men, and therefore women who engage in

criminalized behavior must be a biological anomaly. Lombroso described female offenders as exhibiting the worst traits of femininity and the worst qualities of masculinity. He viewed female offenders as aggressive and antisocial, as well as deceitful and manipulative. Finally, in addition to beginning the focus of female criminality on biological factors, Lombroso's work cited a preoccupation with sex as a unique causative factor in female offending. Each of these emphases probably derived from the societal views of women at the time, but also set the stage for sexism to be translated into the field of criminology and attach a specific set of assumption to the question of the female offender.

W.I. Thomas's *The Unadjusted Girl* (1928) elaborated upon the idea that sexuality was the unique causative factor behind female offending. However, his perspective began to illustrate a shift away from outright denigration of female offenders, towards a more hopeful and sympathetic attitude. From this perspective, female offenders were seen as survivors, who were largely from lower class background and used sex as a bartering mechanism to acquire resources for living. This view was indicative of the social movements of the 1920's that focused on saving girls from their own wayward morality, particular that which related to sexual mores. A reliance upon government and the use of the newly formed juvenile court was part and parcel of Thomas's recommended course of intervention, rather than a reliance upon the girl, herself, or her family (Chesney-Lind, & Sheldon, 1998).

Otto Pollack's work (1950) maintained an emphasis upon biological causes, particularly premature biological/sexual development in young women. Additionally, Pollack concluded that female offenders were more deceitful than male offenders, linking this observation to the passive role of women during sexual intercourse, and the lower rates of female offending as compared to men. He believed female criminals must hide their offending better than men. These ideas, again,

reflected a unique wariness and denigration of female offenders as opposed to male offenders, in addition to a continued reliance upon fixed biological factors to account for female crime.

A more recent set of theoretical writings by Gisela Konopka (1966, 1983) using interviews with female delinquents posits a theory built to account for the unique processes at work in young women who violate social norms including laws. Her work was based on a large number of direct interviews with female adolescent offenders. The resulting theory, again, concluded that the majority of girls involved in delinquency had experienced some disturbance in the area of sexuality. Konopka also identified the unique challenges faced by girls as they enter puberty, and the powerful role that identity development exerts upon behavior, particularly in the area of the mother daughter relationship. Of particular note, Konopka's recognized that the shifting cultural landscape in relation to gender was another unique etiological consideration with female offenders.

Aside from Konopka's work, little or no theoretical work has been directly applied to female adolescent offenders, despite the substantive efforts directed at both female adult offenders and female development in general. Generally speaking, male theories of offending have been applied to adolescent girls, rather than developing efforts to build gender specific theories (Chesney-Lind, & Sheldon, 1998). The theory building relevant to female adolescent offenders lacks any serious inquiry into the nature and types of girls involved in delinquency, and suffers from a chronic entrenchment within societal constructions of gender.

Unique Trajectories to Female Offender Status

In a study funded by the National Council on Crime and Delinquency Acoca and Dedel (1998) conducted a systematic analysis of girls in the California Juvenile Justice System. From this research specific pathways towards female delinquency were introduced. The first step along

a female offenders developmental trajectory was more often than not their experience of victimization. In this study the age at which girls were most likely to have first been victimized were thirteen and fourteen. Additionally, the study found that a large proportion of girls first entered the system as runaways, who were attempting to escape abuse at home. Even when more serious offenses were analyzed, such as assault, these were found to usually be the result of mutual violence with parents, often initiated by the parents. Secondly, the study found that upon entry into the juvenile justice system victimization continued either in the form of assault by other youths, assault by staff or emotional verbal abuse by those within the system. Thirdly, the study found race to be a major component of the trajectory towards delinquent status. Two-thirds of the girls in the California system were African American or Hispanic. Finally, the study identified the significant dearth of programs within the system that were specifically intended to address the needs and unique causes of female delinquency. The study points out how both the individual girl; social forces and institutional practice come together to create female delinquency.

Silverhorn and Frick (1999) have hypothesized a delayed-onset trajectory for female offenders, based upon the existing epidemiological evidence of sex differences in offense patterns. These authors believe that more severely antisocial female offenders are a relatively homogenous group than are their male counterparts in regards to when their antisocial behavior begins and the ultimate continuation of these behaviors into adulthood. Severely antisocial females have been shown to exhibit a profile of marked family discord, and neuropsychological deficits that is similar to Moffitt's (1993) description of life-course persistent offenders. These family and cognitive deficits interact in childhood to predispose these girls to offending, but unlike their male counterparts with similar risk factors their antisocial behavior does not

intensify until mid to late adolescence. The reason for this trend is believed to be due to the socialization pressures in early adolescence for girls to maintain stereotypical gender-roles, e.g. passivity, submissiveness. The onset of puberty bring such strain and pressure for girls that these girls who have been accumulating these risk factors for antisocial behaviors begin to manifest them at a high rate, but later than their male counterparts. Silverhorn and Frick's (1999) perspective points out that female delinquency may be more due to the removal of childhood protective factors as the unique stressors of female adolescence onset, than it is the product of pathogenic factors that existed in childhood.

From these two sets of findings, the need to delineate specific developmental trajectories for female juvenile offenders becomes clear. Girls are treated differently than boys, experience different developmental demands, and as has been shown, develop antisocial, and risky behaviors through a different set of processes than boys. However, the research is still disproportionably generous with theories of male offense trajectories, and lacking gender specific theories of female delinquency trajectories.

<u>Psychological Factors Involved in Female Juvenile Offending</u>

Calhoun (2001) found that significant differences existed in self-reported behaviors and emotional symptoms of male and female offenders. This study found female offenders to report more external locus of control, higher levels of perceived social stress, anxiety, and depression. Additionally, females reported poorer relations with parents than male offenders, and lower self-esteem. The author linked the results to the importance of relationships and internalizing problems in understanding female offending.

Stephen Funk (1999) has studied risk assessment of male and female delinquents and found specific ways in which relationships are a unique risk factor for female juvenile offenders.

First, family, community and school relational disruptions affect females more negatively than males. Therefore both potential and actual relational disruptions put females at risk for delinquency. Also, the great importance that relationship connection plays for girls creates a greater risk when those with whom the girls are in relationships with are engaging in criminal behaviors.

Fejes-Mendoza, Miller, and Eppler (1995) examined data from multiple domains in a sample of incarcerated female juvenile offenders. From their analysis they identified specific obstacles to positive, prosocial developmental outcomes for these girls. Chief among these were academic underachievement, substance abuse, highly dysfunctional, invalidating and abusive interpersonal relationships, histories of neuro-cognitive deficits and special education needs, siblings involved in antisocial behavior, and extremely limited personal resources to cope with and adapt to environmental demands.

Widom (1983) and colleagues explored the personality and motivational characteristics that mitigate the contribution of family dysfunction to female delinquency. This study of 41 detained female adolescents and a matched sample of 41control group female adolescents, found the delinquent group to be significantly more anxious, extraverted, hostile, depressed, tense, impulsive, and aggressive than control groups girls, and also found delinquent girls to have been more likely to come from single-parent homes than control group girls. This study is compelling, in part, due to the matched nature of experimental and control groups along age, socio-economic and geographic variables. The results suggest an etiological contribution beyond simply demographic factors, and points more towards individual level and family level factors.

<u>Victimization and the Female Juvenile Offender</u>

Beginning with Sharfman and Clark (1967) who found 15% of girls in a reform school experienced sexual victimization; the literature has consistently found that female juvenile offenders experience an alarmingly high rate of physical and sexual victimization, and the experience of abuse has been hypothesized as the single most important variable in explaining female delinquency (Calhoun et al., 1993; Chesney-Lind, & Shelden, 1998). Different studies and surveys have found rates of physical and sexual abuse between 40 and 73 percent in samples of female juvenile offenders (Chesney-Lind, & Sheldon, 1998). Related to the prevalence of victimization is the tendency for females to be more charged with status offense such as runaway, at a higher rate than males. Girls may be leaving their homes to escape abusive situations in some circumstances (Barnett & Simmons, 2001). In a study by McCormack, Janus and Burgess (1986) sexually abused females were more likely to be involved in delinquency than non-abused women, while no such effect was found for men. Women's experience of victimization has been directly linked to increased likelihood of problems with anxiety, depression, academic underachievement, risky sexual behaviors and teenage pregnancy (Browne & Finkelhor, 1986). Mouzakitis (1981) found that the long-term effect of abuse was dependent upon whether girls experienced physical vs. sexual abuse. Those girls who experienced physically abuse were more likely to engage in violence in their later life, whereas those girls who experienced sexual abuse were more likely to engage in behaviors such as running away from home, and status violations.

Feminist thinkers have promoted a view of female delinquency that reconceives the behaviors that lead to involvement in juvenile justice as an act of disclosure by young women in regards to the overt and insidious forms of victimization and oppression they experience

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(Bowers, 1990: Chesney-Lind, & Shelden, 1998). Particularly, delinquency status may be more likely in environments where adaptive and open ways of coping with abuse are prohibited or impossible. This is evident when the large number of women who experience abuse, but do not develop maladaptive responses is taken into account. The experience of abuse is not in and of itself a prescriptive sentence for psychological symptoms or antisocial behavior (Bowers, 1990). The exact pathway from victimization to delinquency for girls may lie in the developmental events that occur when a girl tries to disclose the abuse. The juvenile justice system, schools and families may too often respond with indifference, disbelief an invalidation of such disclosure. When a girl experiences this chronic negative response from her environment the consequences can become the girl attempting to leave home, become involved in antisocial activities, or develop depression and suicidal behavior (American Correctional Association, 1990; Bowers, 1990; Chesney-Lind & Shelden, 1998).

<u>Family Relations of Female Juvenile Offenders</u>

If relationships are the primary means by which girls organize their conception of self, and the quality of these relationships can serve as a powerful protective and vulnerability factor, then families would appear to be the most powerful long-lasting relationship a girl will experience. Traditionally, the importance of "broken homes" to explain delinquency has been considered a pervasive truth, however the empirical relationship between family dysfunction and delinquency is not entirely clear (Bartollas, 2003). In the case of female offenders the connection between family discord and delinquency has been substantiated by research, but this may be due to the tendency for girls to be more often referred to the juvenile justice by parents, and the relationship that has been found is exaggerated (Shover, Norland & Thornton, 1979). In a large study, Canter (1981) found only modest correlation between poor family attachment and

delinquency. Another study found no relationship between single parent homes and general delinquency, but instead found a significant relationship between single-parent homes and status offenses. The same study then found significant correlations between quality of family life and multiple offense domains (Voorhis et al., 1987). In general there does not appear to be significant evidence for a strong relationship between single parent homes and female delinquency, and its contribution to delinquency is better understood as contributing to a cumulative set of risk factors (Rosen, 1985). An archival study of female delinquents in the 1960's found virtual homogeneity among these youth in regards to the pervasive family dysfunction they experienced (Rosenbaum, 1989). And still yet other studies comparing the genders along relationships between family and delinquency has found the direct effects of family dysfunction on delinquency to be greater for males. However, the indirect effects of family conflict, such as increased identification with antisocial peers caused by alienation from parents, was stronger for females (Norland, Shover, Thornton & James, 1979). The conclusion from a look at studies on family and female delinquency is that more research must be done. Across research, status offenses appear more impacted by family conflict than other offenses (Bartollas, 2003), but the question of whether girls are impacted by family conflict differently from males on the road to delinquency does not appear to have a clear answer.

Peer Relations of Female Juvenile Offenders

Traditionally, male offenders were thought to be more influenced by antisocial peer groups than females (Segraves & Hustad, 1979). Morash (1986) conducted interviews with 588 male and female youths in the Boston area involved in the juvenile justice system. The study found that girls' delinquency was best explained by the antisocial orientation of their peers, not the degree to which the girls felt attached and bonded to their peer group. The lower offending

rates of female in this study, was therefore attributed to a lower frequency of contact with peer groups that espoused antisocial values. Giordano, Cernkovich and Pugh (1986) have studied peer group influence differences between male and female offenders. These researchers have argued that peer influences hold central importance in female delinquency. These researchers found that females were most likely to engage in delinquent behaviors when in mixed-peer groups. Overall they concluded females are most likely to learn delinquent behaviors from males. They found females to have more intimacy in their peer connections than boys, and spend more time in groups than do boys. However, girls do not appear to be as influenced by peer groups as boys, and engage in more mutual support, empathy and disclosure than do boys. The consequence of this difference may be to inhibit the development of serious delinquency in girls. Additionally, research has also shown that female delinquent peer groups employ a higher number of moral evaluations of behavior thereby reducing the incidence of antisocial behavior in females in general. The moral evaluations of behavior in male peer groups allows for increased rationalization of antisocial behavior (Mears, Ploeger, & Warr, 1998). As can be seen from this brief review information about the peer groups of female delinquents is not entirely clear.

School Experiences of Female Juvenile Offenders

Girls have been found to receive less than optimal support for the threats that academic environments pose to their self-esteem and aspirations (AAUW, 1992). Schools carry with them the societal gender role expectations, and are in effect a microcosm of the larger world girls will face in adulthood. Research has shown girls' experience in school to have significant relationships to the development of juvenile justice involvement and antisocial behavior. Rankin (1980) found gender differences in the relationship between educational achievement and delinquency. Poor attitudes towards the school setting and educational achievement were

predictive of delinquency for both sexes, but to a greater degree for female delinquents. Farnworth (1984) in researching African American female delinquency found that poor attitudes towards school were associated with mild delinquency and status offenses, beyond the effect of poor family relationships. In contrast for boys family factors were a better predictor of mild delinquency than were school factors. This study also found evidence of gender differences in mild delinquency that could not be accounted for by the disparity of effects between school and family factors. Figueira-Mcdonough (1984) found that girls attending schools with a high emphasis upon academic achievement and competition were more likely to be delinquent. However, in school environments with more philosophical diversity in regards to educational achievement were less likely to be delinquent. She concluded that this disparity was due to the sexism inherent in schools. Girls in the competitive environment were funneled towards illegitimate opportunities for competency because the conceptions of achievement put forth in this environment are seen as stereotypically male, and therefore closed off to females.

Classification Studies of Delinquent Youth

The utility of establishing typologies of populations of individuals served by or researched by social scientists is a longstanding tradition in the field of psychology. Understanding what subtypes exist within a clinical population leads directly to more refined research into etiology as well as interventions that are likely to be effective (Aldenderfer & Blashfield, 1984). Several historical attempts to create typologies of female delinquents exist, and the literature also contains many contemporary efforts at establishing delinquent subtypes in male or mixed gender samples.

An early study in 1965 in Los Angeles (Felice & Offord, 1971) used a broad psychological inventory to establish subtypes of delinquent girls. Three types of youth were

established. One group, labeled, Disturbed-Neurotic was characterized by anxiety, self-loathing, and a preoccupation with conformity. These youths had only recently committed delinquent acts, and had engaged in delinquent behaviors that were of a short duration. The second type were labeled Immature-Impulsive and were characterized by impulsivity, difficulty delaying gratification, authority problems, interpersonally manipulative and sociopathic. The third and last group were labeled Covert Manipulators were a group that appeared to "fake good", but were described by staff as bright, manipulative youth who behaved aggressively when provoked. A review of studies published by Felice and Offord in 1971 noted three strains of classification studies with female delinquents. First there were studies, which found no differences between delinquent and non-delinquent along intelligence measures when socioeconomic status was controlled for. A second group of studies were identified that found significantly more indicators of psychopathology in female delinquents, but when appeared to be explained more as resulting from learning problems rather than antisocial personality traits. These authors identified a second group of studies that found an increased prevalence of psychopathology, though in the reviewers' minds these symptoms appeared more related to learning disorders than to antisocial personality traits. Lastly, this review identified studies utilizing personality tests such as the MMPI, which generally illustrated more affective dysfunction in female delinquents than non-delinquents. However, the authors of the review found this last set of studies uncompelling (Felice & Offord, 1971).

Felice and Offord then proceeded to publish their own study in 1972 based upon analysis of case records. They found three divergent pathways leading to female delinquency, which they labeled: community delinquency, psychiatric delinquency, and an unnamed third type. The community group consisted of entirely African American girls, exhibited the lowest measured

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average IQ, largely from rural areas, came from poor families, had mostly intact families, had siblings with behavioral problems, and a higher rate of parental alcoholism. The authors concluded that this group had more of a genetic basis to their delinquency than the other groups. The psychiatric group was entirely composed of White girls. These youth came from lower class families, whose parents had a high incidence of divorce and discord, and whose parents exhibited the highest level of their own psychopathology, and had the highest IQ of any group. The authors believed their IQ to be largely genetic, and concluded this group reflected youth with an internalized set of psychiatric disturbances behind their delinquency. The unnamed group was undifferentiated on any of the measuring indices. The authors also found that across groups, girls who experienced onset of menarche earlier exhibited higher rates of delinquency. In their conclusions the authors attributed the community delinquency to factors specific to the urban ghetto, where they asserted that antisocial behaviors met with less prohibitions (Felice & Offord, 1972).

One final early study on female delinquent psychological types conducted in Canada (Butt, 1972), utilized factor analysis to describe three factors, which accounted for the differences between samples of delinquent and non-delinquent girls. The three factors were: Behavioral Control vs. Irresponsible Behavior, Eugenic Family Milieu vs. Negative Social Identity, and Optimism versus Self-Defeatism. The first factor related to the degree to which girls had adopted a set of irresponsible, impulsive behavior. The second factor corresponded to the negative self-concept that delinquent girls developed during exposure to negative, oppressive home environments and thus is rebelling against these forces in the family and has difficulty taking responsibility for her behavior. Lastly, the Optimism vs. Self-Defeatism related to low ego strength, poor self-competence and pessimism found in delinquent girls (Butt, 1972). These early

studies lay the foundation for exploring subtypes of female juvenile offenders, but were typical of past research in that socio-cultural and feminist perspectives were not utilized in designing the studies, or perhaps more importantly in interpreting the results of the studies.

There are other more contemporary studies that suggest the kinds of psychological diversity that exists in juvenile offenders, including female offenders. Aalsma and Lapsley (2001) conducted a study of sex differences in offender trajectories that has important implications for the present study. In this study the researchers utilized cluster analysis to create three groups of offender types based on a mixed gender sample of 174 adolescent offenders. Examining several different variables including SES, MMPI-A profiles, substance abuse, school performance, sexual history, victimization history, and history of suicidality; the researchers identified three groups – well adjusted offenders, internalizing offenders, and externalizing offenders. The internalizing group was composed of mostly females and the externalizing group was mostly males. African American youth were the most represented group in the well-adjusted cluster. The study found that well-adjusted offenders appeared very similar to Moffitt's (1993) conception of adolescent-limited delinquents. In contrast the externalizing group appeared to be antisocial and violent, with little evidence of intrapyschic emotional pathology, and offending in multiple contexts (school, home, risky sexual behavior, substance abuse). This group appeared most similar to Moffitt's (1993) conception of life-course persistent offenders. Finally, the internalizing cluster, composed mostly of females, appeared to have significant disruptions in attachment to family, histories of abuse and suicide attempts, and evidenced significant emotional pathology on the MMPI-A. The authors noted the need to further explore the nature of this group of female offenders who were characterized by emotional pathology and familial/interpersonal disruptions.

Several other efforts exist in the literature in which attempts were made to construct typologies of offenders. These studies utilize samples of youth that are either exclusively or majority male. However, they provide information about the different types of diversity found in juvenile offender populations. Sorenson and Johnson (1996) used cluster analytic techniques with the MMPI and Jesness Inventory in a sample of mostly male juvenile offenders to identify five subtypes: (a) alienated unsocialized, (b) insecure-anxious, (c) a group with few reported difficulties with peers but reporting alienation from adults, (d) a group without emotional pathology, and (e) a group with multiple domains of problems. Mezzich, Mezzich and Coffman (1991) identified typologies of violent youthful offenders based on evaluation by a team of clinicians. They identified four types: (a) stable behaviorally handicapped, (b) brighter and reactive late starter, (c) early, frequent and serious offender, and (d) physically ill. Luengo, Carrillo-de-la-Pena, Miron, and Otero (1994) related the personality variables of *sensation seeking, impulsivity, empathy,* and *self-esteem* to specific types of offense patterns. They found *impulsivity* to be the most relevant variable for the more serious, violent offenses; *sensation seeking* to be closely related to less serious offenses such as drug charges and status offenses; and *affective empathy* as the variable most closely related to crimes such as vandalism.

Millon's Theory of Personality

Millon's theory of personality (Millon, 1990) is a biopsychosocial attempt to describe in a comprehensive manner how human personality develops across the lifespan. His theory began with an emphasis upon social learning principles and was then refined to be an evolutionary model of personality. Personality traits are conceived along a continuum between normal or balanced styles and maladaptive, pathological stances. The basic structure used to describe personality development is Millon's three polarities - self-other, pleasure-pain, and active-

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passive. Human existence is assumed to be oriented towards seeking pleasurable and life-enhancing experiences and minimizing painful and life-threatening experiences. Also, the active-passive dimension refers to the modal manner in which individuals seek out pleasure or pain. The third polarity, self-other, represents the source of pleasurable/painful experiences. The theory postulates that healthy personality development involves balance, that is the healthy person is able to maximize their experience of pleasure and cope effectively with their experiencing of pain, and is able to go about this using a balance of assertive and passive tactics, and find enrichment from contact with others, as well as tolerate solitude when appropriate. The theory couches pathology as rigidity; individuals who utilize rigid, fixed and singular modes of interaction are the hallmark of maladaptive personalities. What develops with rigid personality styles is self-reinforcing intrapsychic and interpersonal cycles, wherein the individual cannot engage in new behaviors. Acute symptoms such as anxiety and depression are seen as extensions of the individual's personality. From the three polarities, Millon conceived of ten basic personality types that can become maladaptive, and three severe variants (McCann, 1990; Millon, 1990).

Table 1

Millon's Personality Styles

Instrumental Style	Polarity Disruption				
	Independent	Dependent	Discordant	Ambivalent	Detached
Active	Antisocial/ Unruly	Dramatizing/ Histrionic	Forceful/Sadistic	Oppositional/ Negativistic	Inhibited/ Avoidant
Passive	Egotistic/ Narcissistic	Submissive/ Dependent	Self-Demeaning	Conforming/ Compulsive	Introversive/ Schizoid
Severe Forms	Paranoid	Borderline	Borderline/ Paranoid	Borderline/ Paranoid	Schizotypal

Adapted from McCann, 1999

Millon's theory also separates personality into four dimension divided further into eight domains: behavioral, phenomenological, intrapsychic, and biophysical. The behavioral level represents an individual's actions, which are readily observable by others. The phenomenological level is broken down into cognitive style, object representations and self-image. Cognitive style refers to how people perceive events, apply attention, process information and organize their thoughts. Object representations refer to the "inner imprint" composed of memories, affect and attitudes based on prior relational figures and which guides reactions to others in one's current life. Finally, self-image refers to how individuals perceive themselves in a consistent manner; this is the ongoing conception individuals utilize of who they believe they are and all of the evaluations that accompany such a construct. The intrapsychic level of functioning is composed of regulatory mechanisms and morphologic organization. Regulatory mechanisms are internal processes that provide self-protection, need gratification, and conflict resolution when the individual encounters internal or external threats. These can be analogized somewhat to the psychodynamic conception of defense mechanisms. Morphological organization refers to the cohesiveness, balance, and internal conflict/tension that exist within the psyche. The fourth dimension of personality is the biophysical which encompasses one's mood or temperament, a construct that is believed to be relatively genetic (McCann, 1990; Millon, 1990).

<u>Research with the MACI</u>

A relatively small group of empirical studies have investigated the specific abilities of the MACI to classify adolescents. The existing studies have found evidence to support the construct validity of the comprised scales. Hiatt and Cornell (1999) found moderate support for the ability of the *Doleful* and *Depressive* Affect scales to concur with the clinical diagnoses of depression, and Grilo, Sonislow, Fehon, Martino, and McGlashan (1999) found that the Childhood Abuse

scale of the MACI was significantly predictive of borderline personality traits in psychiatric in-patients when the effects of depression were controlled. Also in examining adolescents with substance abuse histories, Grilo, Fehon, Walker and Martino (1996) found higher scores on the *Unruly*, *Social Insensitivity, Substance Abuse Proneness,* and *Delinquent Predisposition* scales, and lower on the *Submissive, Sexual Discomfort,* and *Anxious Feelings* scales when compared to non substance abusers. A third study, by Velting (2000) administered the MACI to depressed adolescents referred from clinical settings with and without prior suicide attempts. Results showed more overall personality pathology in the suicide attempter group, and this group scored higher on the *Forceful,* and *Borderline* scales, and lower on the *Submissive* and *Conforming* scales.

Murrie (2000) attempted to construct a measure of psychopathy through culling specific items from the MACI. The *Substance Abuse Proneness,* and *Unruly* scales of the MACI were found to be significantly positively correlated with scores on measurements of psychopathy in a sample of inpatient psychiatric patients, while the *Submissive* scale was negatively correlated with these measurements of psychopathy. Also, the *Substance Abuse Proneness* scale was found to distinguish between high and low psychopathy scorers in 79% of the cases. The author proceeded to rationally derive a psychopathy scale from items of the MACI. This scale was able to distinguish high and low psychopathy scorers in 83% of the cases (Murrie, 2000).

In a similar study, Romm, Bockian, & Harvey (1999) used factor analysis to examine MACI profiles of a sample of mixed gender youths placed in residential treatment facilities. The researchers identified five factors explaining 77.4% of the variance and described as (a) *Defiant Externalizers*, (b) *Intrapunitive Ambivalent Types*, (c) *Inadequate Avoidants*, and (d) *Self-Deprecating Depressives* and (e) *Reactive Abused*. The study relies upon high scores on scales

for *Unruly*, *Social Insensitivity*, *Delinquent Predisposition*, and *Impulsive Propensity* to characterize their *defiant externalizing factor*. As well, high scores on *Doleful*, and *Depressive Affect* scales were used to characterize the *internalizing intrapunitive* ambivalent factor. The *inadequate avoidant* factors was characterized by high scores on *Inhibited*, *Peer Insecurity*, *Self-Devaluation*, *Depressive Affect* and the *self-deprecating depressive* factor was highest on the *Eating Disorders*, *Self-Demeaning*, and *Self-Devaluation* scales. Finally the *reactive abused* factor was highest on the *Dramatizing, Child Abuse, Sexual Discomfort* and *Depressive Affect* scales. A major conclusion of the authors of this study was that their results brought considerable support to the existing distinction between internalizing and externalizing problems.

Conclusion

The literature supporting the present study is based on general knowledge of juvenile offending, female psychological development, the literature on female juvenile offending, and the existing research and theory behind the MACI. From this the literature on delinquency is informative and extensive, but has addressed female very little, and when doing so does not integrate a feminist perspective, or gender specific theoretical consideration in a consistent manner. Feminist scholars have contributed much to a study of female delinquency, including the integration of socio-political, racial and cultural factors to the understanding of this phenomenon. The MACI and Millon's theory of personality are also based on a wide body of literature into the general development of human personality factors, and the instrument has been utilized in research that verifies its validity well. However, this area of the literature has additionally failed to consistently address female psychology in specific terms. The present study is in keeping with the tradition in psychology of exploring typologies within specific populations in order to inform theory and practice. Additionally, though the present study seeks to focus

specifically upon female juvenile offenders, and to bring to bear the knowledge of gendered

development and unique risk factors female delinquent face.

CHAPTER 3

METHOD

The research question of the present study seeks to ascertain whether subtypes exist within a sample of female juvenile offenders, and if so to establish further validity of these subtypes by analysis of age, race and offense type differences between any resulting subtypes. Specifically, this study will apply cluster analytic methods to the scores on the Millon Adolescent Clinical Inventory (Millon, 1993) from a sample of female juvenile offenders serving probation sentences. The study will add to the burgeoning set of knowledge about female juvenile offenders, and particularly the identification of subtypes within this population. The basic design of the analysis used in this study is based upon recommendations from scholars specializing in cluster analysis (Aldenderfer, & Blashfield, 1984; Huberty, DiStefano, & Kampbaus, 1997). Specifically the study will be a two-step procedure beginning with a Ward's Method Hierarchical Cluster Analysis followed by an iterative cluster partitioning via K-means cluster analysis. The validation stage of the procedure will involve a set of MANOVA's using any resulting clusters as independent variables and the MACI scales as dependent variables, and age. Secondly, the resulting clusters will be analyzed in their relationship to offense type, chronicity of offending, age and race.

Participants

Participants in the present study consisted of 101 female adolescents sampled from a juvenile justice system located in northeastern Georgia. The data used in the study was gathered as part of the screening procedure for the G.I.R.L.S. Project, a psychoeducational group program for female juvenile offender. These girls ranged in age from 12 to 17, with a mean age of 14.82 (SD=1.126). In terms of racial group membership, the sample consisted of 31% White, and 69%

African American. Each participant completed the MACI as well as a demographic information sheet. This demographic information consisted of age and race/ethnicity. Additionally, information regarding each participant's juvenile justice history was gathered from the computer database system belonging to the juvenile justice system with which the researchers were collaborating. The participants' juvenile court history was entered along with the scored results of the instrument into an SPSS version 11 database.

Selection of the participants was undertaken through juvenile court probation officers. Probation officers instructed the participants and their families to appear for a screening session that was part of entry into the G.I.R.L.S. group program. Graduate level clinicians met with the girls and their parents at the appointed time and administered the instruments and demographic sheet. Participants were not required to take part in research, though completion of the instruments was required for participation in the group. None of the girls' parents declined to allow results of the screening to be used in research. These screening sessions consisted of between five and ten girls and their parents with two clinicians administering instruments during each session. These clinicians were trained in appropriate informed consent procedures and administration guidelines for all screening instruments. The ways in which the data would be used was explained to each participant and her parent, and consent signatures for use of the child's responses in research was received from the parents. During the period in which this data was gathered a large majority of the females involved in the juvenile justice system were being mandated to the G.I.R.L.S. group, however, this number was not exhaustive and did not include every female involved in the juvenile justice system. Serious and prolonged efforts were made to include every girl being served by this system into the G.I.R.L.S. project.

The current study's data is part of a larger set of data gathered during the screening process of the G.I.R.L.S. Project. As mentioned, this project was designed to deliver gender specific counseling groups to female involved in the juvenile justice system. The nature of the instruments, research questions, and methodology in the current study are strongly related to the overall emphasis and goals of the G.I.R.L.S. project. The project aims to impact the development of female juvenile offenders in positive ways, and secondly to increase academic understanding of the lives, risk factors and unique needs of this group of young people.

The G.I.R.L.S. project was initially approved by the Institutional Review Board of the University of Georgia. A separate IRB approval was received for the specific use of the subset of data necessary for the present study. After the data needed for the present study was pulled from the larger set of G.I.R.L.S. data, the new database was completely de-identified. During the collection of the original set of G.I.R.L.S. data, every effort was made to ensure confidentiality, with only one graduate student and two faculty members having access to the database and physical research files, which were stored in a secure room.

Research Instruments

The Millon Adolescent Clinical Inventory (Millon, 1993) is a 160-item, 31-scale, true-false, self-report inventory for male and female adolescents between the ages of 13 and 18. The Personality Patterns Scales are designed to be quantified measurements of personality styles derived from Millon's own theory of personality and psychopathology. The instrument contains an additional set of scales for *Expressed Concerns* addressing the perspective adolescents have regarding significant developmental problems. Finally, the MACI contains a section of

completely empirically derived scales measuring *Clinical Syndromes* and point towards acute and serious psychological problems that are correlated with DSM-IV diagnostic categories.

The MACI derives its norms from a sample of adolescents in clinical settings. The normative sample consisted of more than 1,017 adolescents and their clinicians from 28 U.S. states. The normative sample is representative in terms of race/ethnicity of the larger United States population. The normative sample was majority White, but contained significant representation of African American and Hispanic youth. However, the demographic breakdown of the MACI's normative sample is significantly disproportionate to the demographic breakdown of the sample utilized in the present study. Also, the instruments yields gender specific norms, which are then stratified further into norms for ages 13-15 and for ages 16-18.

The construction of the MACI followed the three-step construction and validation procedure recommended by Loevinger (1957). The first stage, theoretical-substantive, began with the existing Millon Adolescent Personality Inventory (Millon, Green, & Meagher, 1982), which served as the base items for the MACI Personality Patterns and Expressed Concerns scales. Researchers then generated 181 new items for the purpose of representing the clinical areas represented in what would become the Clinical Syndrome scales. These scales correspond to Axis I, DSM-IV diagnostic categories, and were an area not measured by the original MAPI, therefore new items were required. The result of this process was a 331-item research form (Strack, 1999; Millon, 1993).

The second stage of test construction, internal-structural stage, the research form was administered two the normative sample in two phases. During this process, participants completed separate instruments for the purpose of cross validation, and each participant's clinician provided diagnostic judgments. The first phase of administration was used to construct

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the scales of the MACI, and then a second administration was used to validate these scales. Also, reliability statistics were established during the internal-structural stage. Alpha coefficients for individual MACI scales ranged from .73 (Desirability and Body Disapproval) and .74 (Submissive) to .90 (Self-Demeaning) and .91 (Self-Devaluation). Test-retest reliability coefficients (two administration 3 to 7 days apart) ranged from .57 (Peer Insecurity) to .92 (Borderline Tendency) with a median stability coefficient of .82. Scale inter-correlations were also generated and the relationships here tended to mirror the theoretical structure under girding the instrument (Strack, 1999; Millon, 1993).

During the final test construction stage, external-criterion, comparisons were made between the new MACI and other existing instruments that were validated to measure specific psychological and personality constructs. The MACI scales measuring pessimistic outlook, depressive feelings, self-esteem problems, suicidality all strongly correlated with established measurements of depression and hopelessness. Similar strong relationships with existing instruments were found for Eating Dysfunction and Substance-Abuse Proneness. However, the Anxious Feelings MACI scale did not significantly correlate to established measures of anxiety (Strack, 1999; Millon, 1993).

Actuarial Base Rate standardization was utilized to generate the standardized scale scores of the MACI. The use of base rates is important because they account for the fact that clinical disorders have different prevalence rates in the general population. Base rate scores were generated by first establishing target prevalence rates for each of the clinical areas each scale intended to measure. This was done by soliciting clinician's ratings of which areas were the two most prominent ones for each participant in the normative administrations. The percentage of times that a scale was judged to be the most prominent clinical feature determined the prevalence

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rate for each scale. The instrument has four separate normative groups, divided by age (13-15, and 16-18) and gender. Prevalence rates for each scale construct were set separately for each strata of the normative sample. Next the frequency distribution of the raw scores was determined for each scale, and separately for each normative strata. Base rate scores of 75 and 85 were then assigned to the raw scores that corresponded to the percentile points represented by the target prevalence rates. Therefore, scales which score at 85 or higher are considered to represent clinically prominent features, and scores between 75 and 85 represent phenomenon that are clinically present, but may not be the central focus of clinical attention. The result is to insure that high scale scores on responses to the MACI are limited to a frequency commensurate with that found in clinical populations.

An additional adjustment prior to determining the final scale scores for the MACI consists of base rate transformations based on specific response patterns, acute states and personality styles. Prior research (Millon, 1987) had identified that particular response patterns exerted effects on the overall profile. Based on this knowledge, four base rate transformation rules were generated to "correct" for these tendencies.

The first of these transformations is the Disclosure adjustment. The Disclosure scale assesses how frank and honest a youth has responded to the instrument. This adjustment increases scores on the Personality Pattern scales when the Disclosure score reaches or goes below a particular floor, and decreases scores on the Personality Pattern scales when Disclosure reaches or exceeds a particular ceiling. The second base rate adjustment is meant to account for the detrimental effects of an acute depressed or anxious state. The Anxiety/Depression adjustment decreases scores on the Inhibited, Doleful, Self-Demeaning and Borderline Tendency Personality Pattern scales when Anxious Feelings and Depressive Affect scale scores exceed 85

base rate points. The third adjustment is based upon the Desirability and Debasement scores, which are meant to measure the degree to which a respondent attempt to appear socially desirable or overly devalued and dysfunctional respectively. If a respondent's base rate score for Desirability is 4 or more points greater than the score for Debasement the base rate scores on the Identity Diffusion, Childhood Abuse History, Eating Dysfunctions, Anxious Feelings, Depressive Affect and Suicidal Tendencies are all increased. These scales' scores are decreased if the Debasement is 4 or more points higher than Desirability. The final score adjustment performed in the MACI is the Denial/Complaint adjustment. In this adjustment if a respondent's highest base rate score on the Personality Patterns scales is for Dramatizing, Egotistic or Conforming then the scale scores Identity Diffusion, Self Devaluation, Family Discord, Anxious Feelings and Depressive Affect are increased by 4 points. The scores for the same target scales are decreased by 4 points if the respondent's highest Personality Pattern scale score is for Inhibited, Doleful or Self-Demeaning.

Table 2

A Description of the MACI Scales

MACI Scales	Scale Description
Personality Pattern Scales	
1 - Introversive	(passive-detached pattern) These adolescents remain socially and emotionally distant from others. Typically quiet and listless they live on the periphery and have few friends. They seem to lack the capacity to experience their emotions in any depth.
2A - Inhibited	(active-detached pattern) These adolescents are shy and uncomfortable in social situations. They fear rejection and humiliation and will often "test" whether others can be trusted. They are prone to anxiety and depression and often have poor self-esteem.
2B - Doleful	(passive-pain pattern) These adolescents exhibit persistent dejection, cheerlessness and gloominess. Their moods are depressed, dysphoric, and morose. Their pessimistic outlook translates into low self-esteem and guilt regarding their perceived inadequacies.
3 - Submissive	(passive-dependent pattern) Sentimental and kind in relationships to others. Extremely reluctant to assert themselves, avoid taking initiative in relationships. May fear separation and cling to attachments. May play down their own aptitudes or achievements.
4 - Dramatizing	(active-dependent pattern) Charming and sociable, these adolescents are active solicitors of the attention and affection they need. They become bored with routines and form many attachments; however, these are often superficial in nature. Impulsive decision making and exaggerated emotions lead to problems.
5 - Egotistic	(passive-independent pattern) Often perceived as self-centered and conceited, these adolescents usually have positive self-esteem and view themselves as special. They have a strong need for admiration and may fantasize about future success and power. They often take others for granted and seldom concern themselves with others' problems.
6A - Unruly	(active-independent pattern) These adolescents desire autonomy out of a distrust of others. They are typically restless and impulsive with low frustration tolerance and thrill-seeking tendencies. Their actions are often shortsighted with a disregard for social rules or the impact of their behavior on others.
6B - Forceful	(active-discordant pattern) These adolescents are strong willed, tough-minded, hostile and combative. They strive to dominate humiliate, and abuse others. They lack empathy, compassion, or remorse. Typically, their relationships are marked by power and control issues.

7 - Conforming	(passive-ambivalent pattern) Responsible and conscientious these adolescents tend to be serious-minded and emotionally constricted. They act respectfully toward peers and adults. They keep their emotions inside and their self-restraint conceals denied anger. They are rule conscious and try to do what is right.
8A - Oppositional	(active-ambivalent pattern) Often feeling misunderstood and unappreciated, these adolescents tend to be discontented, sullen, and passive-aggressive. Their behaviors, thoughts, and feelings are erratic and unpredictable. They are generally confused about their emotions and tend to harbor considerable anger and resentment toward others.
8B - Self-Demeaning	(passive-discordant pattern)_These adolescents allow others to exploit and take advantage of them. They tend to have poor self-esteem and focus on their worst features. They appear to undermine others' efforts to help them and often sabotage their own chances for success.
9 - Borderline Tendency	These adolescents have a more severe level of pathology. They exhibit erratic behavior, experience unstable moods, and have vacillating thoughts. Their sense of self and their identity is uncertain. Object constancy and self-constancy are lacking. Repeated failures and inner conflicts can lead to self-destructive ideation and behaviors.
Expressed Concern Scales	
A - Identity Diffusion	High scores on this scale suggest that the adolescent experiences confusion about who they are and what they want and what makes negative comparisons between themselves and their peers.
B - Self-Devaluation	Adolescents who earn high scores on this scale tend to have low self-esteem and to be very dissatisfied with their self-image.
C - Body Disapproval	High scores on this scale suggest that the adolescent is dissatisfied with their physical appearance and development.
D - Sexual Discomfort	Adolescents who earn high scores on this scale tend to find sexual thoughts and feelings confusing and often unwelcome.
E - Peer Insecurity	Adolescents who earn high scores on this scale tend to have few friends and do not feel that they "fit in" with or are accepted by their peers.
F - Social Insensitivity	High scores on this scale suggest that the adolescent lacks empathy for others and shows limited concern for the welfare of others.
G - Family Discord	Adolescents who earn high scores on this scale report significant conflict and tension within their families, which can reflect either parental rejection or adolescent rebellion.
H - Child Abuse History	High scores on this scale suggests that the adolescent harbors shame, disgust or resentment about having been subjected to verbal physical or sexual abuse.
Clinical Syndrome Scales	
AA - Eating Dysfunctions	High scores on this scale suggest that the adolescent exhibits distinct attitudes, behaviors, and self-perceptions that are consistent with an eating disorder.

BB - Substance Abuse Proneness	High endorsement rates on the items that make up this scale suggest a maladaptive pattern of alcohol or drug abuse as well as attitudes and behaviors often found with substance abusers.
CC - Delinquent Predisposition	Adolescents who earn high scores on this scale often have had run-ins with the law and have conduct-disordered attitudes and behavior patterns.
DD - Impulsive Propensity	High endorsement rates on the items that make up this scale suggest a strong inclination to act without thinking, to have poor frustration tolerance, and to seek immediate gratification.
EE - Anxious Feelings	High scores on this scale may be suggestive of an anxiety disorder, although timid and inhibited adolescents may also earn high scores.
FF - Depressive Affect	Adolescents who earn high scores on this scale often present symptoms suggestive of a depressive disorder with cognitive mood and self-image components
GG - Suicidal Tendencies	Adolescents who earn high scores on this scale admit having self-destructive thoughts and plans, which must be carefully monitored and addressed.

Adapted from Strack (1999).

Statistical Analysis

The first step in the analysis will be an agglomerative hierarchical Ward's method cluster analysis. This method is designed to produce homogenous clusters while minimizing within clusters variance. Ward's method tends to find/create clusters of relatively equal sizes and has been widely used in the social sciences. However, one problem with this method is that clusters found are heavily influenced by overall profile elevation. In the present study the participants' scores on all of the MACI scales (Personality Patterns, Expressed Concerns, and Clinical Syndromes) were entered into the initial cluster analysis (Aldenderfer, & Blashfield, 1984; Milligan & Cooper, 1987).

The second stage of the analysis will consist of an iterative partitioning K-means cluster analysis. Initial seed-points for the K-Means cluster analysis were derived from the cluster variable means generated by the initial Ward's method results. The K-means method involves

several "passes" through the data reassigning cases to the cluster centroid to which they are nearest. K-means methods have been found to be relatively effective in uncovering the structure of known data sets (Aldenderfer & Blashfield, 1984) The combining of hierarchical cluster analysis followed by a K-Means cluster analysis is meant to minimize the weaknesses of each approach, while maximizing the strengths of each. This combination of approaches is also important because it allows for movement of cluster membership from the initial solution derived from the Ward's method analysis. Finally, Ward's method analysis has been shown to yield solutions that are overly sensitive to overall profile elevations and may produce results that divide the sample into groups based mostly on their general elevation across all variables/scales. The addition of the K-means procedure serves to balance the potentially detrimental effects of this tendency on the part of the Ward's method (Aldenderfer & Blashfield, 1984).

In order to establish internal validity of the clusters, a MANOVA will be conducted with the clusters as independent variables and the MACI scales as dependent variables. In using a MANOVA, corrections are made to reduce the chance of inflated significance values given this high number of comparisons. Where significant F-values occur, Tukey *post hoc* comparisons will be conducted to determine the simple effects between clusters.

In order to establish external validity of the resulting clusters and explore their relationship to other variables of interest, a chi square cross tabs analysis will be conducted between the clusters and the offense classification of each youth. Offenses will be classified as either: *public order, status, property, drug* or *person* offenses. These categories are derived from the Office of Juvenile Justice and Delinquency Prevention. These are the classification of offenses used in official government reports and juvenile justice data. Table 2 presents a brief description of each offense type. The offense histories of each participant were analyzed and

classified, then the most frequently occurring offense category was used to place the participant

in one of the four offense categories. For girls whose offense history contained no modal

category, the most recent offense was used to classify these participants. This participant

categorization was then entered along with cluster membership into the chi square cross tabs

analysis.

Table 3

Offense Type Descriptions

Offense Type	Description
Crimes Against Persons	Homicide, forcible rape, robbery, aggravated assault, simple assault, and other person offenses such as kidnapping, violent sex acts, reckless endangerment, terroristic threats, harassment etc.
Crimes Against Property	Burglary, larceny, motor vehicle theft, arson, vandalism, stolen property, trespassing, fraud, forgery etc.
Drug Law Violations	Unlawful sale, purchase, distribution, manufacture, cultivation, transport, possession or use of a controlled or illicit substance.
Offenses Against Public Order	Weapons offenses, nonviolent sex offenses (fornication), liquor law violations (non-status), disorderly conduct, obstruction of justice, escape from confinement, bribery, gambling, hitchhiking, immigration violations etc.
Status Offenses	These are offenses which if committed as an adult there would be no crime committed, i.e. runaway, unruly child, ungovernable child. These offenses are not considered delinquent but youth committing them are handled within the juvenile justice system in an effort to provide protection and care to the youth.

Adapted from OJJDP website: http://ojjdp.ncjrs.org/ojstatbb/ezajcs/html/glossary.html

As a second manner of analyzing the cluster membership's relationship to offense history,

the present study also sought to compare the resulting clusters with a measure of the chronicity

with which participants were adjudicated for offenses within the juvenile justice system. To

operationalize this construct, the total number of convictions for each participant was tabulated.

Delinquent charges such as *violation of probation* were not included, because these are not overt

offenses for which a legal proceeding is used to determine the need to adjudicate youth as

delinquent. The floor in terms of age for the present sample of youth was 12 years old, therefore

to determine average number of offenses per year of adolescence the following formula was employed: ***Total Number of Offenses ÷ (Age of Participant – 11) = Offense Chronicity***. This will yield the average number of offenses per year of adolescence since age 11. This figure will represent the chronicity of a girl's involvement in contact with the juvenile justice system resulting in offenses for which the are adjudicated delinquent.

For the purpose of exploratory analysis, the racial group membership of each participant will be entered into a chi-square cross tabs analysis with cluster group membership. This analysis is useful because it allows conclusions of the data to account for the degree to which resulting cluster membership may be related to cultural factors that are closely tied to race/ethnicity. Finally age will be entered as a dependent variable in a One Way ANOVA with cluster group memberships as an independent variable. This is meant to determine whether the resulting groups are significantly related to developmentally factors in the lives of the participants.

Research Question

Can subtypes of female juvenile offenders be identified by means of cluster analysis of scores on a theoretically based, well-normed, personality instrument – the Millon Adolescent Clinical Inventory. Secondly, do any resulting subtypes significantly relate to offense specialization of the participant, chronicity of offending, age, or race.

Null Hypothesis 1: No cluster subtypes of juvenile offenders will be indicated by a cluster analysis of scores from a theoretically based, well-normed, personality inventory.

Null Hypothesis 2: Resulting cluster groupings will not significantly relate to the participant's offense specialization category in a chi-square cross tabs analysis.

Null Hypothesis 3: Resulting cluster groupings will exhibit no significant relationship with a measure of offense chronicity.

Null Hypothesis 4: Resulting cluster groupings will exhibit no significant relationship with race.

Null Hypothesis 5: Resulting cluster groupings will exhibit no significant relationship to the age of the participants.

Limitations of the Study

This study sampled a population of females serving probation sentences in a juvenile justice system in northeastern Georgia between August 2000 and May of 2003. All of the juveniles that completed the MACI did so as part of a screening process for the G.I.R.L.S. group intervention for female juvenile offenders. There was no randomization of the sample, due to the referral nature of the instrument administration. Though every effort was made in the collaborative work between the G.I.R.L.S. Project staff and the juvenile justice staff to refer every girl possible to the program and the screening assessment, not every girl involved in this particular juvenile justice system was, in fact, referred for this program or administered the MACI. There were no controls implemented for medical history, psychiatric/psychodiagnostic history, offense history or demographic background factors. The MACI data is of a self-report nature; the only effort to corroborate this data with behavioral observations consisted of gathering offense histories of each participant. Inherent in using official judicial data is the rough nature of such data, and the likely logical distance that exists between categorization and chronicity measurements from such data and the frequency and intensity of actual behaviors in the lives of the participants. The graduate clinicians involved in the G.I.R.L.S. Project screening were unaware of the specific research questions contained in the present study.

<u>Assumptions</u>

Because the sample of girls in this study were all serving probation sentences in the community, the study does not include youth who are detained or in residential rehabilitative settings. Therefore, the results may not generalize fully the complete spectrum of female juvenile offenders. Rather, the results are most applicable to girls who are committing offenses of a moderate nature, and who are not placed in long-term mandated settings away from their homes and communities. Some of the girls used in the present study have experienced detention in the past, therefore the sample is not totally distinct from a sample of detained female juvenile offenders. For the purposes of interpreting the results of this study, it is assumed that the youth in the sample are representative of a larger national group of female juvenile offenders serving probation sentences in their communities. Additionally it is assumed that all of the youth understood the administration instructions provided and responded in an accurate and truthful manner. The MACI contains two reliability items and three validity indices. Following procedures outlined by the instrument's manual (Millon, 1993) completed instruments that contained "true" endorsements to either or both of the reliability items were not used. Additionally, completed profiles that contained scores in the "invalid" range for the three validity indices were also not utilized in the present study.

CHAPTER 4

RESULTS

The present study examined subtypes of female juvenile offenders as derived by a cluster analysis of Millon Adolescent Clinical Inventory profiles. Cluster analysis is an algorithmic statistical method that seeks to find inherent groupings within a given data set. The present study utilized a two-step cluster analysis, using first a hierarchical cluster analysis followed by an iterative partitioning cluster analysis. The resulting groups were then compared against participants' age and offending chronicity via two separate One-Way Analysis of Variance, and offense type and race via chi square analysis. The intent of the study is to identify and describe subtypes of female offenders based upon the personality, phenomenological concerns and clinical symptoms captured by the MACI, as well as explore relationships between subtypes and these other demographic and judicial variables.

Two-Step Cluster Analysis

An initial hierarchical Ward's method cluster analysis was conducted entering all scales of the MACI. In conducting a hierarchical cluster analysis, a hierarchical structure examining all possibly clusters and observed difference in within group variance must be generated as a first step. SPSS Version 11 was used in the present study for all analyses, and when asked to generate a cluster solution for all possible Ward's method cluster groupings, an agglomeration schedule is provided. This consists of a table with a measurement of within group variance at each successive level of clustering. With all cases included in one large single cluster, the within group variance is at its highest level. As this initial cluster pass divides the sample into successively larger number of clusters the within group variance drops because cases included in each cluster vary less and less in terms of their MACI profile. Examination of the agglomeration

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schedule resulting from this initial step is then plotted and the "jump" in within group variance is used to indicate where the optimal number of groups exists (Borgen & Barnett, 1987). Figure 1 illustrates the levels of within group variance, which is measured in a Ward's method cluster analysis by calculation of the squared Euclidean distance between cases, and the jump in variance can be observed between the clustering pass at 3 and 2 clusters. This indicates that a three-cluster solution offers the optimal balance between within group variance and between cluster variance. The plotted line levels as larger number of cluster solutions are calculated, illustrating that choosing a solution larger than three clusters will not yield additional information about sample subtypes. Subjective inspection of variance shifts at different grouping levels is a commonly used means to determine whether distinct subtypes exist in a set of data. This heuristic method for determining number of clusters has been widely used in the social sciences (Aldenderfer, & Blashfield, 1984).

Figure 1

Within Group Variance and Number of Clusters
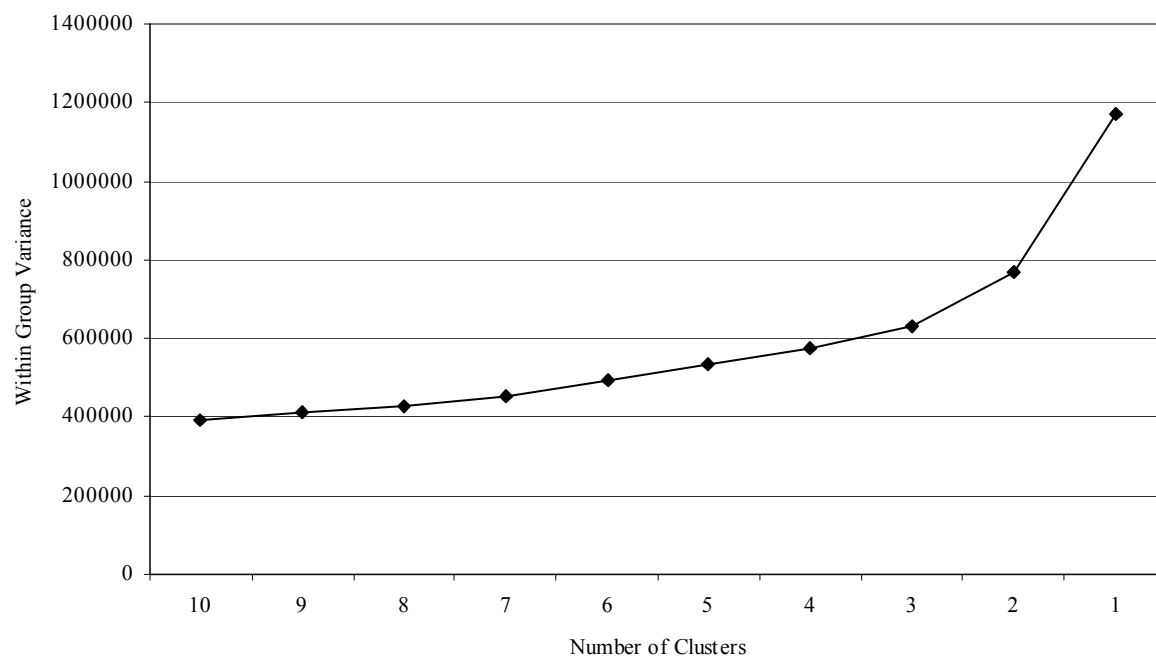
A Ward's method hierarchical cluster analysis relies upon calculating the squared Euclidean distance between cases and then makes a single pass through the data applying the logarithm seeking to join cases while holding the distance measure between cluster members as low as possible. Ward's method has also been shown to find clusters of relatively equal sizes, and has been widely used in the social sciences (Aldenderfer, & Blashfield, 1984). Several downsides to Ward's method and hierarchical cluster analysis in general have been noted. Ward's method has been shown to produce clusters that are often ordered in terms of their overall profile elevation or results, which are overly influenced by profile elevation. To compensate for the shortcomings of hierarchical clustering methods, some researchers have suggested following a hierarchical clustering with an iterative method such as K-means iterative partitioning cluster analysis (Huberty, DiStefano, & Kamphaus, 1997). Iterative partitioning method makes multiple passes through the data, which can compensate for an inaccurate single-pass that may occur in hierarchical methods. K-means iterative partitioning allows researchers to supply initial cluster centroids and is utilized in the present study as a second step in the clustering process, and serves to balance between the relatively strengths and weaknesses in each method.

After the initial Ward's method hierarchical clustering to identify all possible solutions, a three cluster solution was identified as optimal via subjective inspection of the resulting plot of within group variance. A second Ward's method cluster analysis was performed, now with a 3-cluster solution specified. The results of this were that each member was then placed in one of three cluster groups. Based on these groupings, descriptive statistics were generated supplying the mean base rate scores for each of the three clusters along each of the MACI scales. These cluster means were then used as initial cluster centroids for the K-means cluster analysis that followed. The results of the K-means cluster analysis assigned each participant to one of three

clusters. To allow exploration of the nature of clusters along the scales used to comprise them, a MANOVA was conducted with cluster membership as the independent variable and the MACI scales as dependent variables. Tukey *post hoc* tests of significance were conducted to determine relative differences between the three clusters along each MACI scale. Results of this analysis revealed significant F-values at each level of mean score comparisons along MACI scales. The cluster means and standard deviations are provided in Table 3. Subscripts are provided to denote where cluster means were significantly different. Also, visual graphs of cluster profiles are provided in Figures 2, 3, and 4.

In summary, the two-step cluster analysis revealed an optimal three cluster solution when the within group variance levels were examined at each potential level of clustering. Additionally, MANOVA with the MACI scales reveal distinct and consistent differences between the resulting clusters. Therefore, the first null hypothesis posed for the study: *No cluster subtypes of juvenile offenders will be indicated by a cluster analysis of scores from a theoretically based, well-normed personality inventory*; should be rejected. It should be noted, however, that in cluster analysis no statistical significance testing actually occurs. The chosen clustering algorithm is applied and afterwards several means of significance testing can serve to test internal and external validity of the found clusters. Therefore, rejecting the first null hypothesis simply indicates that the cluster algorithms employed were able to identify discrete subtypes. The MANOVA conducted between the cluster groups and MACI scales verifies that these subtypes do have statistically significant differences between them. However, because the MANOVA test examined only the scales used to create the clusters, it does not serve as an indicator of external validity for the resulting cluster solution.

Figure 2

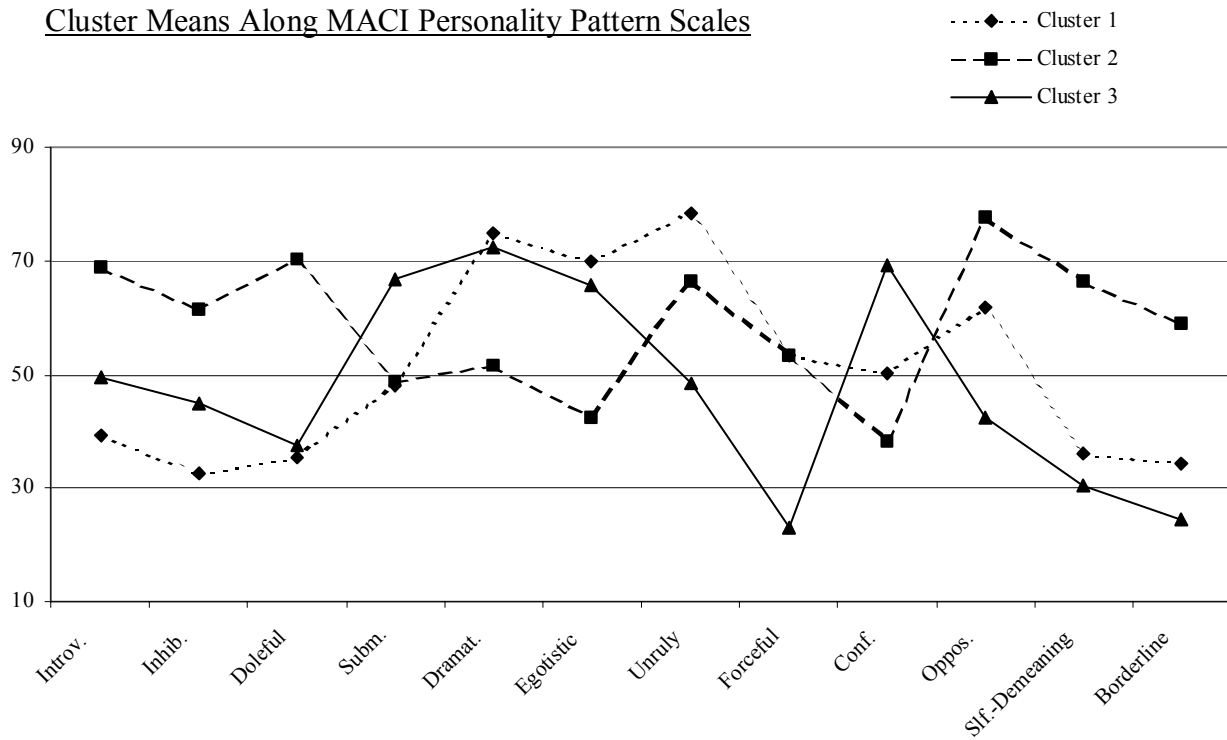Cluster Means Along MACI Personality Pattern Scales

Figure 3

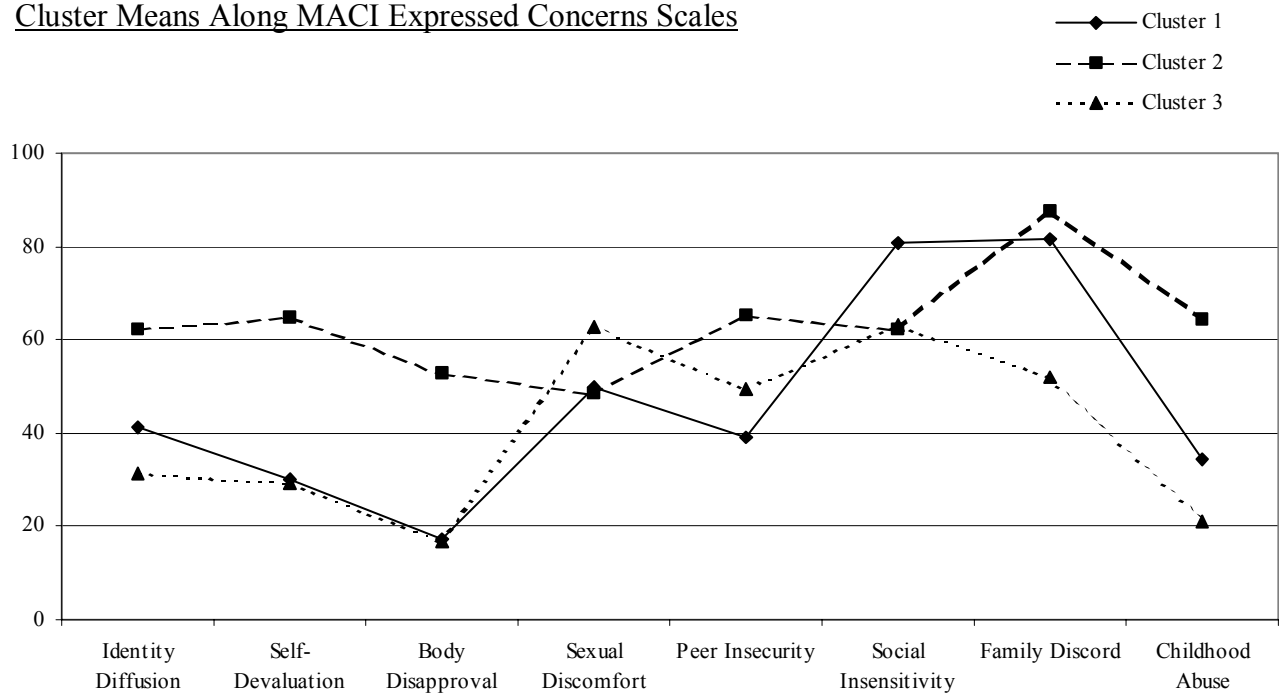Cluster Means Along MACI Expressed Concerns Scales

Figure 4

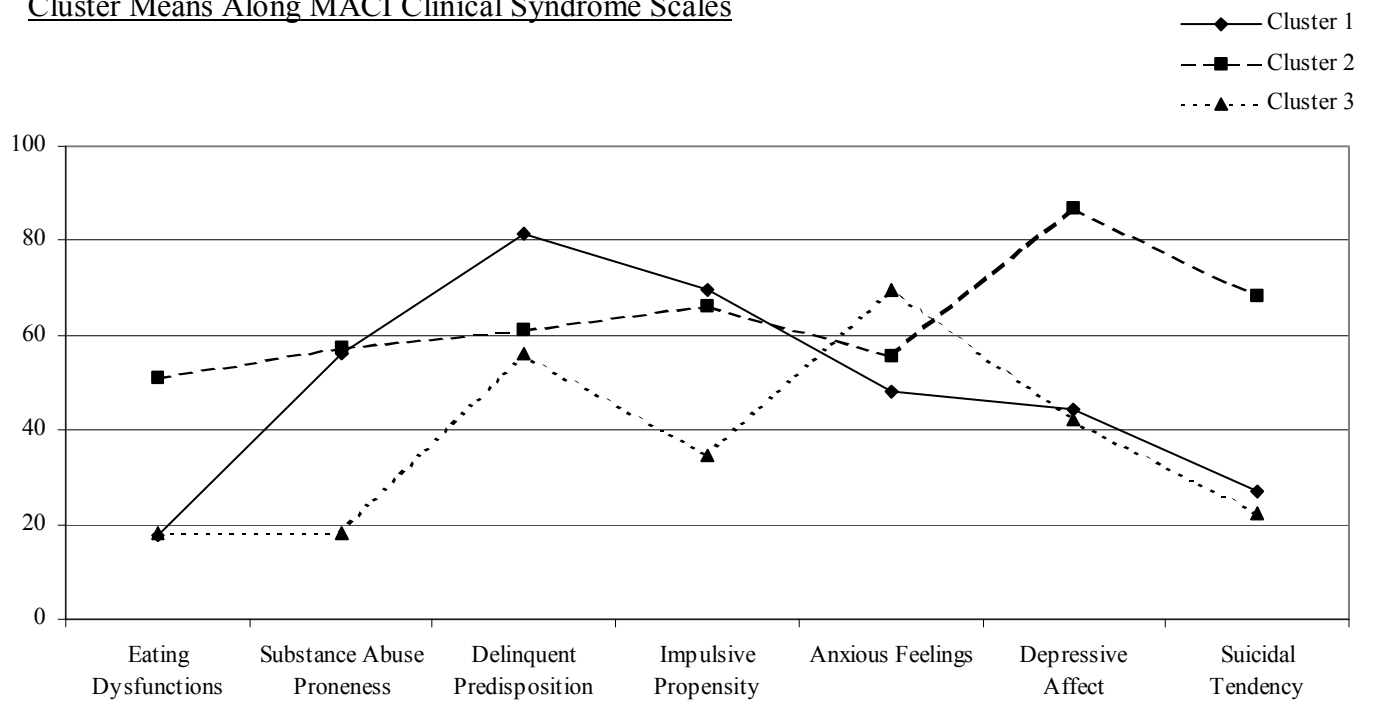Cluster Means Along MACI Clinical Syndrome Scales

Table 4

Mean Base Rate MACI Scale Scores and Standard Deviations for Three Cluster Solution

	Cluster 1 (N = 31)		Cluster 2 (N = 31)		Cluster 3 (N = 39)	
MACI Scale Name	M	SD	M	SD	M	SD
Introversive	38.58$_a$	17.98	68.48$_b$	9.62	50.33$_c$	14.78
Inhibited	33.71$_a$	13.14	59.29$_b$	11.89	45.64$_c$	13.97
Doleful	34.61$_a$	18.32	71.29$_b$	17.98	37.51$_a$	18.52
Submissive	49.29$_a$	9.39	47.52$_a$	14.89	66.64b	8.99
Dramatizing	75.19$_a$	14.42	52.16$_b$	14.55	71.82$_a$	12.99
Egotistic	69.81$_a$	17.65	42.71$_b$	13.71	65.51$_a$	15.43
Unruly	76.81$_a$	11.94	67.90$_b$	16.19	48.28$_c$	10.10
Forceful	51.10$_a$	20.03	54.32$_a$	26.62	24.26$_b$	15.26
Conforming	51.61$_a$	12.79	37.03$_b$	15.42	68.95$_c$	12.16
Oppositional	61.74$_a$	13.95	77.03$_b$	9.22	42.90$_c$	15.55
Self-Demeaning	35.48$_a$	19.08	65.55$_b$	8.42	31.44$_a$	19.33
Borderline Tendency	33.35$_a$	13.15	59.58$_b$	15.18	24.85$_c$	13.10
Identity Diffusion	39.29$_a$	11.84	63.39$_b$	19.68	31.95$_c$	13.84
Self-Devaluation	29.94$_a$	13.59	64.55$_b$	14.06	29.28$_a$	13.84
Body Disapproval	17.81$_a$	12.97	52.26$_b$	26.94	16.82$_a$	8.95
Sexual Discomfort	50.71$_a$	13.39	48.23$_a$	14.70	62.46$_b$	9.89
Peer Insecurity	38.97$_a$	23.22	63.45$_b$	19.82	50.69$_a$	16.71
Social Insensitivity	79.45$_a$	6.32	63.81$_b$	20.41	62.82$_b$	13.84
Family Discord	80.68$_a$	12.58	88.90$_a$	14.17	51.74$_b$	18.63
Childhood Abuse	32.65$_a$	18.23	65.74$_b$	22.84	21.28$_c$	12.37
Eating Dysfunction	18.65$_a$	13.67	50.39$_b$	21.47	17.77$_a$	12.08
Substance Abuse Proneness	54.19$_a$	18.46	58.81$_a$	25.97	18.77$_b$	11.41
Delinquent Predisposition	79.39$_a$	14.92	63.35$_b$	19.17	56.10$_b$	7.28
Impulsive Propensity	67.81$_a$	14.16	68.61$_a$	18.88	34.33$_b$	11.56
Anxious Feelings	49.39$_a$	12.39	54.81$_b$	14.63	69.36$_c$	9.17
Depressive Affect	44.16$_a$	20.14	86.65$_b$	13.98	42.59$_a$	18.56
Suicidal Tendency	25.45$_a$	11.35	70.29$_b$	19.46	22.10$_a$	11.42

Note. Mean cluster scores that share a common subscript in each row were not significantly different at the $p<.05$ level on Tukey *Post Hoc* tests. MANOVA revealed significant F-values at every comparison level on each scale.

In order to evaluate the second null hypothesis posed for the present study: *Resulting cluster groupings will not significantly relate to the participants' offense specialization category*; a chi square analysis was conducted between the three cluster groupings and offense type classification. Offense typing was operationalized in the present study by utilizing categories identified by the Department of Juvenile Justice and Delinquency Prevention. They are as follows: (a) crimes against persons, (b) property crimes, (c) status offense, (d) public order offenses, and (e) drug offenses. Participants were classified into one of these three groups according to the most frequently occurring offense type found within their history. Participants for whom there was no offense type that occurred at a modal rate, the most recent offense committed was categorized and this was used for the purpose of coding this participants overall offense type. Only 10 participants were ultimately coded in the public order or drug offense category. Due to the low count for these offenses these categories were not included in the final chi square analysis. The analysis then consisted of the three cluster groups and person, property and status offenders, and a modified total sample size of 91 participants. The resulting Chi Square test was not significant, indicating no statistically significant support for a relationship existing between cluster membership and offense type categorization.

Anecdotally, some interesting trends can be seen in a subjective evaluation of the Cross Tab data. A preponderance of the sample (n = 48) totaling 53% of the 91 participants was classified as status offenders. This statistic fits with the national trends in regards to female juvenile offenders having a high degree of involvements in the justice system that are status offense. Also, relatively large residual discrepancies between expected and observed counts can be seen for Cluster 1. Here person offenders appear over-represented (Residual = 4.7), and status

offenders are somewhat underrepresented in the cluster (Residual = -2.7). Less severe

discrepancies can be observed for Clusters 2 and 3, in which, for both groups, person offenders

are present to a number below what would be expected (Cluster 2: Residual = -2.3; Cluster 3:

Residual = -2.4). Therefore though the results were not significant below the $p<.05$ level, a trend

can be noted in which Cluster 1 may contain a disproportional number of girls who have a

preponderance of crimes against persons in their history than do Clusters 2 and 3. Overall,

however, the results of this chi square analysis do not allow for the second null hypothesis to be

rejected. There is no statistically significant relationship between offense type and cluster

membership.

Table 5

Observed Counts, Expected Counts and Residuals for Cross Tab for Offense Type and Cluster

Membership

		Offense Type			
		Person	Property	Status	Total
Cluster 1	Count	9	7	12	28
	Expected Count	4.3	8.9	14.7	28
	Residual	4.7	-1.9	-2.7	
Cluster 2	Count	2	9	16	27
	Expected Count	4.3	8.9	14.7	27
	Residual	-2.3	.1	1.3	
Cluster 3	Count	3	13	20	36
	Expected Count	5.4	11.2	18.5	36
	Residual	-2.4	1.8	1.5	
Total	Count	14	29	48	91
	Expected Count	14.0	29.0	48.0	91

<u>Offending Chronicity</u>

In order to evaluate the third null hypothesis posed for the present study: *Resulting cluster groupings will exhibit no significant relationship with a measure of offending chronicity*; a One Way ANOVA was conducted. Offense chronicity was operationalized by dividing the number of offenses committed by each girl by the difference between the girl's age and the floor of the sample's age range (12 years old). This yielded a number that represented the average number of offenses committed per year of adolescence. This number was then converted into a T-score for the sample, and was then entered as the dependent variable in a One Way ANOVA with cluster membership as the independent variable. The results for this test were non-significant; the mean scores for each cluster along the measurement of offense chronicity are displayed in Table 5.

Table 6

<u>Means and Standard Deviations for Offense Chronicity Across Cluster Groups</u>

	Mean	Std. Deviation
Cluster 1	49.1622	10.8531
Cluster 2	52.6928	11.4092
Cluster 3	48.4861	7.5822
Total	49.9997	9.9998

<u>Race</u>

To evaluate the fourth null hypothesis posed for the present study: *Resulting cluster groupings will exhibit no significant relationship with race*, a chi square analysis was conducted. The resulting clusters were compared against racial group membership for each participant. A chi square analysis was again conducted to determine the degree to which a significant relationship exists between the resulting clusters and race. The resulting Chi Square was significant (Pearson Chi Square = 7.352, df = 2, $p < .05$). Descriptive statistics can be seen in

Table 4. Therefore, a significant relationship exists between the clusters and racial group membership. Examination of the cell counts, and residual statistics reveals the more specific nature of this relationship.

To check for interaction between racial membership and offense type classification, a secondary Chi Square analysis was conducted between these two variables. The resulting Pearson Chi Square statistic was non-significant, indicating there was not a statistically meaningful interaction between race and offense type. Examination of Table 6 reveals the nature of the race/cluster relationship. White girls were present in Cluster 1 at a rate higher than expected (Residual = 5.9), and were present at a rate lower than would be expected in Clusters 2 and 3. Conversely, African American girls were present at a rate lower than would be expected in Cluster 1 (Residual = -5.9), and present at a rate higher than would be expected in Clusters 2. For Cluster 3, African American girls were present beyond expectations beyond even that found in Cluster 2 (Residual = 3.7 – Cluster 3, versus Residual = 2.1 – Cluster 2). In summary, the chi square analysis for the relationship between race and cluster membership was significant and indicates the fourth null hypothesis should be rejected.

Table 7

Observed Counts, Expected Counts and Residuals for Cross Tab for Race and Cluster Membership

		Race		
		Caucasian	African American	Total
Cluster 1	Count	16	15	31
	Expected Count	10.1	20.9	31.0
	Residual	5.9	-5.9	
Cluster 2	Count	8	23	31
	Expected Count	10.1	20.9	31.0

	Residual	-2.1	2.1	
Cluster 3	Count	9	30	39
	Expected Count	12.7	26.3	39.0
	Residual	-3.7	3.7	
Total	Count	33	68	101
	Expected Count	33.0	68.0	101.0

Age

The resulting cluster were entered into a One-Way ANOVA with age as the dependent variable to determine whether there was a developmental or age effect found within differences between clusters. There was no statistically significant difference between the mean ages of each cluster. Means and standard deviations for this analysis are presented in Table 2. Therefore the fifth null hypothesis: *Resulting cluster groupings will exhibit no significant relationship to the age of the participants*; should not be rejected. No age or developmentally effect appears present in how the sample was divided by the cluster analysis.

Table 8

Means and Standard Deviations for Participants' Age Across Clusters

	N	Mean	Std. Deviation
Cluster 1	27	15.0000	1.35873
Cluster 2	29	14.6552	1.17339
Cluster 3	31	14.8065	1.27591
Total	87	14.8161	1.26241

Cluster 1: *Externalizing Problems*

Cluster one consisted of 31 girls and represented 31% of the sample. The mean age for girls in this cluster was 15.61 years, with 16 girls identified as White and 15 identified as African

American. Cluster 1 can be examined first along the Personality Pattern Scales of the MACI. Here the cluster was lowest among the three along the Introversive and Inhibited scales. This cluster was similar to Cluster 3 in that the two were lower on the Doleful, Self-Demeaning and Borderline Propensity scales. Conversely, Cluster 1 was highest among the three groups on the Unruly scale. Similarly, Cluster 1 was grouped with Cluster 3 as higher along the Dramatizing, and Egotistic scales, and similar to Cluster 2 being relatively elevated on the Forceful scale. Cluster 1 fell in a middle range between the other two clusters along the Conforming and Oppositional scales. Viewing Cluster 1's profile in isolation, these girls have clinically relevant "spikes" (Mean Base Rate scores above 65) for personality scales that indicate (a) an over-reliance upon superficial but emotionally charged interpersonal attachments (Dramatizing); (b) a tendency to behave interpersonally in an egocentric manner with highly idealized views of themselves (Egotistic); and (c) a tendency to avoid trusting others, display a low tolerance for frustration, and frequently choose interpersonal behaviors that do not account for the concerns or rights of others (Unruly). Overall, Cluster 1's profile indicates youth who are more prone to an active stance towards interpersonal life, but one that may include "acting out" and more disruptive interpersonal behaviors.

Along the Expressed Concern scales Cluster 1 was highest among the three groups along the Social Insensitivity scale, which measures the degree to which a youth lacks empathy for others with little concern for others' welfare. Cluster 1 was also highly elevated along the Family Discord scale, though Cluster 2 was even higher. Compared to the other clusters, Cluster 1 was significantly lower on the Peer Insecurity scale, as well as being quite low on the Child Abuse History scale, though Cluster 3 was the lowest here. Generally, youths in Cluster 1 appear to have difficulty accounting for the needs and perspectives of others, see their families are

uncaring and conflictual, but perceive less anxiety and insecurity related to peers than other girls in the other clusters.

Along the third set of MACI scales, Clinical Syndromes, Cluster 1 had an elevation higher than other groups on the Delinquent Predisposition scale, which purports to measure acknowledgment of involvement in the legal system as well as attitudes consistent with Conduct Disorder. Cluster 1 also exhibited elevations similar to Cluster 2 on the Impulsive Propensity , and Substance Abuse Proneness scales. The Impulsive Propensity elevation was also, along with the elevation on Delinquent Predisposition, the only other clinical relevant mean score elevation for Cluster 1. Relative to the other clusters, Cluster 1 scored lowest on Anxious Feelings. Also, Cluster 1 was grouped with Cluster 3 as being lower on the Eating Dysfunction, Depressive Affect and Suicidal Tendencies. Overall, Cluster 1 appeared to experiencing problems of a significant nature with impulsivity, antisocial behavior, and possibly substance abuse, and to have reported little mood disturbances.

Taking Cluster 1's attributes across all three MACI sections into account a picture emerges of this group. These girls appear to have significant tendencies towards an active and disruptive stance towards relationships and need gratification. They may tend to express themselves more than others in an attempt to get attention and interpersonal need gratification. Additionally, they appear to have difficulty with perspective taking, empathy and understanding social norms and the rights of others. They report significant problems with inhibiting impulses and see themselves as having had problems with violating laws including substance abuse. Generally, these girls do not appear to report emotional instability on any area of the MACI, but do acknowledge seeing their family relationships as problematic and conflictual, though the same cannot be said for their view of peer relationships. Generally, their profile appears to

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suggest a preponderance of *externalizing problems*. These girls tend to act out internal dissonance, and in ways that may be disruptive and off-putting to those around them.

Cluster 2: *Depressed/Interpersonally Ambivalent*

Cluster 2 consisted of 31 girls representing 31% of the sample, and was comprised of 8 girls identified as White and 23 identified as African American. The mean age for this cluster was 14.74 years. Along the Personality Pattern scales of the MACI, Cluster 2 exhibited clinically relevant mean elevations on the Introversive, Doleful, Unruly, Oppositional, and Self-Demeaning scales. Relative to other clusters, Cluster 2 had the highest scores on the Introversive, Inhibited, Doleful, Oppositional, Self-Demeaning and Borderline Propensity scales. Relative to other clusters, Cluster 2 had the lowest scores for the Dramatizing, Egotistic, and Conforming scales. Additionally, Cluster 2 was in a lower grouping with another cluster for the Submissive scale, and grouped with Cluster 1 in a higher fashion on the Forceful scale. Finally, Cluster 2 was in the middle between other clusters on the Unruly scale. Overall, this clusters personality profile indicates a combination of both avoidant and repressive stances towards emotions and interpersonal attachment, as well as evidence of tendencies towards antisocial attitudes, and oppositional stances interpersonally. The most telling elevation relative to other clusters was on the Borderline Tendencies scale. Cluster 2 had a mean score here that was approximately 25 Base Rate points higher than the nearest cluster's mean score. Cluster 2 contains girls that likely appear both detached interpersonally, but also in emotional distress. Their need for connection with others may be expressed more indirectly through passive aggressive behavior that vacillates between seeking out relatedness with others while also having difficulty expressing their needs in a straightforward manner.

Cluster 2 appears elevated on multiple fronts when its Expressed Concern scale means are viewed. The cluster has clinically relevant elevations that were also the highest among all groups on the Family Discord scale. Cluster 2 also had elevations, though not of a clinically relevant nature, that were highest among all clusters on the Identity Diffusion, Self-Devaluation, Body Disapproval, Peer Insecurity and Child Abuse History scales. Cluster 2 was grouped with Cluster 1 in a lower fashion on the Sexual Discomfort scale, and grouped with Cluster 3 in a lower fashion on the Social Insensitivity scale. Overall, the girls in Cluster 2 appear to be distressed about a number of experiences. Primary among these are questions about their own identity, low self-esteem and body image, insecurity relating to peers, and perhaps most notably conflict with their families and a sense of having been verbally, physically or sexually abused in their past.

In terms of overt symptoms as measured by the Clinical Syndrome scales, Cluster 2 had clinically relevant mean scores for both the Depressive Affect and Suicidal Tendencies scales. Also, Cluster 2 had the highest mean score, though not clinically relevant, among the three clusters on the Eating Dysfunction scale. Also of note, is that all of the mean scores for Cluster 2 on the Clinical Syndrome scales were above 50, and compared to the profiles for other clusters had a generally higher set of mean scores.

Overall, Cluster 2 has a MACI profile of mean Base Rate scores that indicate significant problems with family relations and possibly abusive experiences. These girls are reporting significant symptoms related to depression and self-injurious behavior including suicide. They have conflicted feelings about their own worth, appearance and identity, as well as concerns about their belonging with peers. Their personality patterns suggest a group of girls who, though not overtly antisocial or aggressive, exhibit a shifting and contradictory set of interpersonal

behaviors that vacillate between passivity and detachment or active attachment seeking

behaviors that are difficult to understand by those around them. These appear to be girls who

have a poor sense of their own worth and alternate between pulling others close and keeping

others at a distance. The label of *Depressed/Interpersonally Ambivalent* was generated to capture

the salient aspects of this group's MACI profile.

Cluster 3: *Anxious Prosocials*

Cluster 3 consisted of 39 girls and represented 39% of the total sample, and was

comprised of 9 girls identified as White and 30 girls identified as African American. The mean

age for Cluster 3 was 15 years old. Along the Personality Pattern scales Cluster 3 was highest

among the three clusters on the Submissive and Conforming scales, and lowest among clusters

on the Unruly, Forceful, Oppositional and Borderline Propensity scales. In addition to these

elevations, which were in the clinically relevant range, Cluster 3 also had scores in the clinically

relevant range on the Dramatizing and Egotistic scales. Cluster 3 was grouped with Cluster 1 in a

lower fashion on the Doleful, and Self-Demeaning Scales. The personality profile of Cluster 3

indicates problems with engaging in superficial displays of emotion for interpersonal need

gratification, as well as problems with an inflated sense of self-esteem. However, as

differentiated from Cluster 1's apparent tendency to engage in disruptive and acting out

behaviors, Cluster 3's girls appear to have difficulty with begin overly concerned with rules and

expectations and to fall into patterns of passive reliance on others to attend to their needs. They

appear to spend little time actively placing blocks towards attachment with others, and have

appear to be more pro-social in their means of interacting.

Cluster 3 had no clinically relevant elevations on the Expressed Concern scales.

However, Cluster 3 had the highest elevation among all clusters on the Sexual Discomfort scale,

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which measures the degree to which an adolescent finds sexual thoughts and feelings overwhelming and confusing. Cluster 3 had the lowest scores among all clusters on the Family Discord and Child Abuse History scales. In fact, Cluster 3's score on Family Discord was approximately 30 points lower than the nearest cluster elevation. Cluster 3 also was grouped in a lower fashion with Cluster 1 along the Identity Diffusion, Self-Devaluation, Body Disapproval, and with Cluster 2 on the Social Insensitivity scale. Cluster 3 fell in a middle range between other clusters on the Peer Insecurity scale.

On the Clinical Syndrome scales Cluster 3 had only one clinically relevant elevation, which was also highest among clusters. This occurred on the Anxious Feelings scale. Otherwise, Cluster 3 had the lowest score among clusters on the Substance Abuse Proneness and Impulsive Propensity scales, and was grouped in a lower fashion with Cluster 1 on the Eating Dysfunction, Depressive Affect and Suicidal Tendencies scales, and grouped with Cluster 2 in a lower fashion on the Delinquent Predisposition scale.

Overall, the mean score MACI profile for Cluster 3 suggests an interpersonal style characterized by highly emotionalized interpersonal behavior, as well as an inflated sense of self-esteem, but also with significant tendencies towards submissive and dependent interpersonal stances and a undue concern with rules, expectations and norms. These youth appear more insecure regarding sexuality than their counterparts in the other clusters, but have fewer concerns about family conflict and abuse than youth in the other clusters. They appear to have clinically significant difficulties with anxiety, but relatively free of overt antisocial behaviors, or depressive symptoms. These girls have a more pro-social stance towards interpersonal relationships, and appear to have problems with appropriate independence and autonomy rather

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than problems with empathy and taking others' needs into account. Taking their overall profile

into account the cluster label of *Anxious Pro-socials* was generated to describe this group.

CHAPTER 5

DISCUSSION AND SUMMARY

Summary

Female juvenile offenders have become an increasing population of the juvenile justice caseload nationwide, and both policy-makers and scholars have begun calling for more research into this population (Barnett & Simmons, 2001; Chesney-Lind, 1989). Additionally, the young women involved in the juvenile justice system have seldom been studied in their own right. Typically, research and theoretical perspectives on delinquency derived from clinical work and research with boys, which were extended to girls. Focused investigation of girls' motivations and precursors for delinquent behavior has been a rarity (MacDonald & Chesney-Lind, 2001). Evidence exists that female juvenile offenders enter the system often in a unique manner that is strongly related to being female. First, there is a longstanding trend found in official juvenile court statistics in which girls have been shown to be disproportionately processed for status offenses (e.g. runaway, ungovernable) in the juvenile justice system (Snyder & Sickmund, 1999). Additionally, studies have found that a large percentage of girls involved in the juvenile justice system have been victimized physically or sexually (Acoca & Dedel, 1998). These two facts have led to speculation that girls may need unique interventions given that the experience of victimization and commission of status offenses is strongly linked (Chesney-Lind & Shelden, 1998). Feminist scholarship in the area of female offending has begun to offer a gender specific framework with which to view the etiology and unique needs of these girls that views gender role demands, victimization and unique relational needs of girls as salient delinquency precursors for girls (Barnett & Simmons, 2001; Chesney-Lind & Shelden, 1998; Acoca, & Dedel, 1998).

Feminist scholars suggest that the prevalence of victimization and family conflict in the lives of girls combined with a loss of esteem and a subjective perspective during adolescence are responsible for involvement in juvenile justice (Chesney-Lind & Shelden, 1998). Despite this postulate, little research in the area has analyzed this population in order to understand what subtypes and heterogeneity exists within female juvenile offenders and whether any or all subtypes fit within the trajectory set forth by a feminist critique. Some research has examined differential pathways towards delinquency for males and females (Silverhorn and Frick, 1999) and found female delinquency to be characterized by differences in the developmental point at which involvement in delinquent behavior becomes prevalent across the genders. However, such perspectives are still comparing male and female delinquency, rather than examining the nature of female delinquency, particularly the heterogeneity that may exist within female offenders. While official statistics and a feminist formulation postulate a strong trend for females involved in the juvenile justice system to have experienced significant victimization and requiring a unique set of interventions, very little research has examined samples of female offenders in an attempt to identify differences within this group and the extent to which victimization and status offenses account for the nature of female juvenile offending.

The present study utilizes the Millon Adolescent Clinical Inventory and a two-step cluster analysis to determine the existence and nature of personality subtypes within a sample of 101 female juvenile offenders. This instrument is a comprehensive measure of personality, phenomenological concerns and diagnostic symptoms (McCann, 1990). Resulting clusters were then analyzed in relation to age, race, offense typology and offense chronicity of each girl in the sample. The results of the study will be interpreted from both the feminist influenced Relational/Cultural Theory (Brown & Gilligan, 1992; Miller, 1976; Surrey, 1991) and Theodore

Millon's (1990) theory of personality development, upon which the MACI is based. The purpose of the study is to identify the nature of heterogeneity and differences between girls in terms of the constructs measured by the MACI. Additionally, comparisons between resulting subtypes and offense data, age and race are meant to test the extent to which status offenses, ethnic minority status and developmental factors are related to the distinct personality styles, phenomenological concerns and clinical symptoms measured by the MACI and expressed in the groupings derived from the cluster analysis.

Discussion of Findings

Heterogeneity of the Sample

The results of the cluster analysis suggest that three inherent groups exist within the MACI profiles of the participants. Subsequent MANOVA's with cluster groups and MACI scores further illustrated the nature of differences along Personality Patterns, Expressed Concerns and Clinical Syndrome scales between the three groups (Figures 2, 3, & 4; & Table 3). Previous research in the juvenile offending literature has found that females are likely to experience more internalizing problems and a negative self-identity during adolescence (Aalsma & Lapsley, 2001; Calhoun, 2001). The groups that were identified in the present study: (a) *Externalizing Problems*, (b) *Depressed/Interpersonally Ambivalent*, and (c) *Anxious Prosocial,* appear to indicate that not all girls involved in the system report or display internalizing problems such as depression and anxiety.

The *Depressed/Interpersonally Ambivalent* cluster appears to most embody the prototype female juvenile offender as outlined by feminist criminologists (e.g. Chesney-Lind and Shelden, 1998) as found in studies where female offenders appear to have significant histories of victimization and emotional problems (Acoca, & Dedel, 1998). This group appears to have

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experienced some significant relational disruptions in their families and experienced some sort of victimization as evidenced by their higher scores on the Family Discord and Childhood Abuse scales. They appear to experience significantly more depression and thoughts of suicide and death than the other two groups, and have more concerns about their identities, self-worth, physicality, and peer relations than the other two groups. On the personality scales they appear as brooding, introverted but also reactive and ambivalent about relationships. Within Millon's theory, these girls would be seen to have adapted to conflictual and abusive early relationships by withdrawing inward and making themselves very difficult for others to connect with. They, however, are struggling to find connection and meaningful relationships in adolescence and, according to feminist thought, may find themselves involved in the justice system because of behaviors related to either resisting oppressive relations or engaging in risky behaviors meant to salvage relations they perceive as satisfying such as romantic attachments. In effect, the delinquent behavior of girls who present as do the participants in the *Depressed/Interpersonally Ambivalent* cluster may be an "act of disclosure" regarding conflict and victimization they are experiencing their own lives (Bowers, 1990).

The two other clusters: *Anxious Prosocial* and *Externalizing Problems* appear distinct from the victimized cluster. For the *Externalizing Problems* group, family conflict but not victimization appears prevalent, but neither appears present in the *Anxious Prosocial* group. Even measurement of antisocial beliefs and social insensitivity were not homogenous when compared across cluster groups. The *Externalizing Problems* cluster scored highest on scales measuring such constructs, whereas the other clusters were significantly lower on these scales. Therefore, while one cluster, *Depressed/Interpersonally Ambivalent*, appear similar to the girls

identified by feminist scholars examining delinquency, the other cluster exhibit specific profile facets that diverge from this prototype.

Clusters and Offense Data

Status offenses have been proposed as the route by which victimized girls become involved in the juvenile justice system and adjudicated delinquent (Chesney-Lind, & Shelden, 1998). Despite the fact that the *Depressed/Interpersonally Ambivalent* cluster appears to match closely the prototypical victimized female offender, who may be more likely to engage in status offenses, the Chi Square analysis with offense type was non-significant. These girls were not statistically more likely to have been status offenders. Though an anecdotal analysis of the cross tabs table does indicate a trend at work for the *Depressed/Interpersonally Ambivalent* cluster and the *Anxious Prosocial* cluster to be less likely to fall in the person offense category, the relationship was not statistically significant. Similar to recent national juvenile court statistics, 53% of the current sample fell in the status offense category. A qualitative inspection of offense histories revealed that typically the status offender participants in the present sample had committed the offenses of runaway, and unruly or ungovernable child. The two latter charges representing a parent's petitioning of the court because they are unable to monitor or provide appropriate discipline. Though no one cluster appeared to be more likely to be processed for status offenses, the sample as a whole mirrors a problem noted in previous research for girls to be disproportionately adjudicated for status offenses. Additionally the ANOVA conducted with offense chronicity was also non-significant. Therefore, though the *Depressed/ Interpersonally Ambivalent* cluster appears to fit the description offered by previous feminist researchers of a victimized, emotionally distraught group of girls who are disproportionately prosecuted for status offenses, that prototype was not fully revealed in the present study. Additionally, though the

Externalizing Problem group appears likely to engage in more aggressive behaviors that overtly violate the rights of others, they were not more prevalent in the person or property offense category versus status offenses.

Race and Cluster Membership

Despite the lack of a significant effect for offense typology and chronicity, the Chi Square analysis for cluster group and race was significant and did offer some support for viewing the girls in this sample with more internalizing problems as part of a more marginalized and oppressed set of youngster. In this analysis, the *Depressed/Interpersonally Ambivalent* and *Anxious Prosocial* clusters appeared disproportionately African American, whereas the *Externalizing Problems* cluster appeared disproportionately White. Similar to the *Depressed/Interpersonally Ambivalent* cluster, the *Anxious Proso*cial cluster exhibits a MACI profile that indicates only one area of clinical dysfunction – anxiety. However, this group appears quite adaptive across other measures of the MACI. They have the lowest overall instrument elevation of any cluster, and appear to have insecurities about sexual behavior and low awareness of the rights of others as their sole measured phenomenological concerns. On the personality scales they appear overly compliant and conforming as well as having problems with overly dramatized interpersonally stances and egocentrism. Compared to other clusters, this group appears to have a healthier personality structure with less tendencies that are clearly related to antisocial behavior or acting out. That these two clusters were disproportionately African American can be interpreted in multiple fashions, raising more questions than concrete conclusions. First, does this finding reflect the fact that law enforcement "casts a wider net" in African American communities and therefore this leads to girls with either no clear antisocial tendencies or overt emotional pathology being pulled into the system in addition to girls with a

more concretely antisocial personality style. Put another way, do the findings reflect that the juvenile justice system is more likely to encounter a set of African American girls with a broader range of personality styles, environmental concerns and clinical psychopathology. Alternatively, the findings may indicate a fundamental difference between White and African American female juvenile offenders.

Age and Cluster Membership

The test for age as a factor in the cluster groups was also non-significant. Therefore, there is no evidence that the three groups identified reflect merely developmental differences between girls, and lends support to the idea that these groups differ on the basis of past experiences, symptoms, adolescent concerns and personality styles rather than the differences between cluster relating only to age differences. The test for age is, however, only one measure that could detect development effects in the resulting cluster solution. To verify this fully, the girls in the sample would need to be followed over time and further assessment conducted to determine whether the distinctions found in this study are truly fundamental differences in the lives of the girls within each cluster.

Anxious Prosocials as Adolescence Limited Offenders

While the *Depressed/Interpersonally Ambivalent* and *Anxious Prosocial* clusters appear similar in terms of race composition, they are quite different in terms of their MACI profile. As mentioned the former appears acutely dysfunctional in terms of both their ambivalent personality style, as well as significant emotional problems in the area of depression likely related to their reported experience of some form of abuse and family conflict. The latter cluster is free of many elevations save those already mentioned on anxiety and sexual discomfort. What is very notable is that the *Anxious Prosocial* cluster had a mean score for Family Discord that was

approximately 30 points lower than either of the other clusters. Other large difference along MACI profiles could be found on the Impulsive Propensity, Substance Abuse Proneness, and Forceful scales in which the *Anxious Prosocial* cluster was typically 30 points below other clusters. These distinct differences may point towards fundamental heterogeneity in female juvenile offender samples. As mentioned the *Anxious Prosocial* cluster appeared statistically more African American than other clusters, though this trend was also shared with the *Depressed/Interpersonally Ambivalent* cluster, and anecdotally the *Anxious Prosocial* girls appeared less prevalent in the person offense category, and more prevalent in the property and status offense categories. Pulling these factors together, these may be girls who are similar to Moffitt's (1993) proposed adolescent-limited offenders. The girls in this cluster appear to be free of acute antisocial beliefs or aggressive and exploitive interpersonal tendencies. They appear to have relatively satisfying family interactions with no evidence of victimization. These are girls who may find themselves involved in juvenile justice due to etiological factors related to normative female adolescent development or specific factors related to African American female psychological development as opposed to involvement due to an underlying antisocial worldview or due to emotional pathology. Though the present study implicates this, there is no evidence to pinpoint what the more specific factors are that lead to their delinquent status might be.

If the *Anxious Pro*social cluster fits the description of the adolescent limited offender, and the *Depressed/Interpersonally Am*bivalent cluster appears to somewhat fit the description set forth by feminist authors of the victimized, minority girl engaging in largely status offenses, then the *Externalizing Problems* cluster fits the more traditional description of a juvenile offender as antisocial, impulsive and aggressive. This cluster appears overly dramatic, egocentric, and

strongly antisocial on the Personality Pattern Scales. Their profile here depicts youth who are active in seeking need gratification, but may do so in a way that utilizes little if any empathy, and that can be quite disruptive and caustic. They may have a difficult time engaging in the normal give and take of relationships, and instead assert their needs in a provocative and energetic manner with little thought of consequences or others' feelings. The Personality Patterns profile of the *Externalizing Problems* cluster is similar to that of the *Anxious Prosocial* groups in that they appear to both engage highly emotionalized and egocentric interpersonal styles. The crucial difference between these two groups along this set of scales can be seen on the Unruly and Forceful scales. On the Unruly scale which measures antisocial personality traits, only the *Externalizing Pr*oblems group has a mean score in the clinically relevant range, with the *Anxious Prosocial* group's mean falling well below clinical levels. Additionally, on the Forceful scale, the *Anxious Prosocials'* scored considerably lower than the other clusters. The structure of these two clusters' profiles here suggests that these youth may behave similarly interpersonally e.g. their shared Dramatizing and Egotistic elevations, but have fundamentally divergent stances when the rights of others and the social norms surrounding respect and reciprocity in relationships become relevant. The *Externalizing Problems* cluster did report a significant level of family conflict, but interestingly did not report a significant level of abuse within their past. This group also diverged from other clusters on the Clinical Syndrome scales by reporting significantly more problems with delinquent behavior and impulsivity, with no elevations on scales measuring depression or anxiety symptoms.

Relational/Cultural Theory & Millon's Theory of Personality with Female Juvenile Offenders

The present study was couched in terms of both Relational/Cultural theory and feminist critiques of the juvenile offending literature as well as in the theory of personality development

embodied by the MACI and expressed in the work of Theodore Millon (1990).

Relational/Cultural theory is fundamentally based upon a view of psychological development for women that is greatly mitigated by concerns of connection/disconnection interpersonally (Jenkins, 1999). Heavily influenced by the work of Carol Gilligan (1984), this perspective highlights the unique way in which women construct their identities through connection and close relation with others. Traditional theories of psychological development have focused upon the necessity of separation from family and close others during late adolescence (Erickson, 1968). Additionally, the juvenile delinquency has consistently identified disruptive family processes as a primary etiological factor in studies largely done with male offenders (Patterson, Debaryshe, & Ramsey, 1989). Relational/Cultural theory offers some explanation for the specific nature of how family relationships uniquely affect girls in their trajectory towards delinquency. Millon's theory highlights the evolutionary nature of human personality development. The theory has its roots in social learning theory, and emphasizes how individuals are both shaped by their interpersonal environments to respond in certain manners in order to receive attention and need gratification, as well as how the creative and agentic processes within an individual lead to the development of personality style. In Millon's theory the hallmark of pathology is inflexibility, particularly in terms of one's ability to experience both pleasure and pain, engage interpersonally in both active and passive ways and to be psychologically centered on both self and other. The initial section of the MACI, Personality Patterns scales, is intended to directly measure the degree to which a youth is currently entrenched in or more ways of relating that could serve a obstacles to satisfying interpersonal life (Millon, 1990).

What are the implications from the point of view of these two theories of the current studies results? From the perspective of Millon's theory, the resulting clusters illustrate a set of

distinct personality subtypes within this sample of female juvenile offenders. When examining the distinctions between clusters across the whole of the MACI each cluster is well distinguished across the personality dimensions, but also along the Expressed Concern, and Clinical Syndrome Scales. Clearly, the girls who completed the instrument have had distinct experiences that appear to cleave into three basic groups. In light of Millon's theory, the results are suggestive of multiple personality types included within female involved in the juvenile justice system. No singular interpersonal style of learned set of need gratification tendencies appears to capture the sample as a whole. In particular the *Anxious Prosocial* group is interesting because the personality dimensions that are of a clinically significant level are ones associated with compliance, concern with rules, and pleasing others; these are not easy to intuitively connect with manifestation of delinquent behavior. Yet this same group is disproportionately comprised of African American girls, and does not appear to be significantly involved in any particular type of offense. Within Millon's theory, the Anxious Prosocial group has a relatively active interpersonal stance, is overly focused on external rules and the expectations of other people, and in general is seeking to avoid pain and maximize pleasure. A question to which the present study does not provide answers is how youth with such a personality style with no report of other antisocial or serious family disruptions become involved in the juvenile justice system and possibly in antisocial behaviors. The other clusters, from Millon's theoretical perspective can be viewed as having had significant relationship disruptions in their lives and having adopted either an overtly antisocial and aggressive stance towards future relationships or having been victimized in some way have developed an ambivalent style towards relationships. The progression towards delinquent status could be conceptualized as movement towards increasing norm violation as a means to garner interpersonal affiliation, and attention.

From the Relational/Cultural theoretical perspective the heterogeneity found in this sample of girls may reflect the different ways in which relationships, connections and socio-cultural factors lead to involvement in the justice system. While the *Externalizing Problems* and *Depressed/Interpersonally Am*bivalent clusters exhibit MACI profile characteristics that suggest family relationships are seriously impaired and may contribute to these girls' delinquency, the *Anxious Prosocial* cluster does not exhibit evidence of either serious subjective relationship concerns, personality styles or symptoms. From a relational point of view, how can the offending of this group be explained? Two facets of the Anxious Prosocial profile may shed some light upon the nature of these girls' progression towards involvement in the justice system. They had clinically relevant elevations on the Sexual Discomfort and Anxious Feelings scales; both of these elevations were significantly higher than the two other clusters' elevations on the same scales. *Anxious Prosocials* also had a clinically relevant elevation on the Social Insensitivity scale, but this was the lowest among all three clusters. As noted by feminist authors (Brown & Gilligan, 1992), as girls enter adolescence the social pressures related to becoming sexualized beings and pressures to live up to gender role expectations increase greatly. This period is one in which girls are seen to either form a positive sense of self in the face of these pressures, or feel inadequate and frustrated. For the latter group, suppression of the girl's subjective experience and "voice" in the consequence of meeting gender role expectations. Given that the *Anxious Prosocials* exhibit the aforementioned elevations, this group may be comprised of girls with relatively few family risk factors, relatively little experience of victimization, but are in the throws of adjusting to gender role demands and social pressures of adolescence. This struggle, though not directly indicated by the present study, may be strong linked to the reasons behind their involvement in the juvenile justice system.

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<u>Limitations to Internal Validity</u>

There are several limitations to internal validity of the analyses within the present study. First, in regards to cluster analytic techniques, ideally a sample size should be large enough to randomly split in half and determine whether identical cluster analysis performed on each half yield similar qualitative cluster groups based upon the variables entered. The present study utilized a marginal sample size of 101 participants, which was not sufficient to perform the sample splitting procedure. Lacking this procedure, the results of the study are based upon a single sample analysis of group structure. Despite this, the present study did utilize a two-step analysis that sought to take advantage of both hierarchical and iterative cluster algorithms' strengths and therefore limit errors in how the inherent structure of the data was detected. The MANOVA conducted with final clusters and MACI scales, while providing a strong depiction of differences between found clusters, does not reflect upon the internal validity of the clusters (Aldenderer, & Blashfield, 1984).

In addition to limits of the present study's ability to establish internal validity of the resulting clusters, there are also limitations inherent in the use of self-report instrumental methodology. The MACI, though designed to be a comprehensive personality, phenomenological and clinical symptom index, is only one measure of the factors affecting the girls in the juvenile justice system. If other data, particularly observer data, were gathered the nature of the cluster groupings found could change greatly. Self-report measures rely upon the ability of participants to accurately portray their behaviors and inner mental worlds, and therefore are inherently subject to error.

<u>Limitations to External Validity</u>

The sampling procedure used in the present study was not randomized and involved culling a sample from a group of girls who had already been referred for a structured group therapy intervention. While, during the time data was gathered the juvenile justice authorities involved were making every effort to refer all girls on their caseload to the G.I.R.L.S. group, by no means can this be verified completely. Therefore, there could be an effect related to the participants' status as youth being referred for treatment that confounded the final results, as well as an effect related to the sampling having not been random in nature. There could be a separate subtype of girls involved in the juvenile justice system that was not represented in the present results. Also, related to verifying the external validity of found clusters, no separate measure of similar constructs was utilized to compare the results against. The lack of such a procedure limits the ability to state that the found clusters truly reflect objective differences among girls in the juvenile justice system.

<u>Implications for Future Research</u>

The groups found may reflect different routes towards female delinquency in terms of interpersonal history and adolescent personality style, phenomenological concerns and psychological symptoms. However, the present study did not include data that allows for verification that the subtypes identified truly reflect different kinds of delinquency. In particular the use of official offense statistics poses a major limitation to this kind of verification. Future research could benefit from utilizing (a.) official offense statistics, (b.) self-reported behavior and most importantly (c) collateral reports from multiple settings of youth's personality, delinquent behaviors and expressed concerns. The inclusion of this third type of data allows for verification that differences in such variables measured by instruments like the MACI reflect real differences

in outward behavioral presentations. A converse view would be that the lack of significant findings between cluster groups and offense data in the present study reflects an objective reality in which divergent personality styles, interpersonal histories and clinical symptoms can result in convergent sets of behaviors that lead to involvement in the juvenile justice system.

Separately, the issue of socio-cultural factor like race and economic empowerment are variables that are difficult to quantify, but theoretically have enormous influence upon interpretation of findings in the current study. The significant finding for race in the present study poses an important question about the intersection of law enforcement and juvenile justice practice and minority youth that is a potential confound to interpretation of research results. What is not known is why the *Depressed/Interpersonally Ambivalent*, and *Anxious Prosocial* clusters are disproportionately comprised of African American girls. Future research, by integrating direct measurement of institutional bias while simultaneously examining personality and behaviors of female juvenile offenders, may shed light on this confound.

Implications for Practice

Primarily, the present study suggests to policy makers and interventionists with female juvenile offenders, that there is considerable heterogeneity within this group of youths. Those working in this area may face the struggle of whether to view female offenders as either victimized, from disruptive families, antisocial or as engaging in some adolescence specific set of anti-normative behaviors. The present results point towards the basic need to utilize assessment methodologies, such as personality instrumentation, to determine the specific nature of an individual girl's delinquent behavior. The framework of subtypes found in the current study then offers a basic template for classifying girls, while still engaging in the practice of understanding more idiosyncratic elements of each girl's life. The present results offer an

argument against developing a singular theory for female delinquency, and suggest that while the predominant findings from male delinquency research are not sufficient for understanding female delinquency, they may also not be entirely irrelevant either. Disruptions in family processes appear both in two groups of the present study (Externalizers, and Depressed/Interpersonally Ambivalent) as well as having been identified consistently in male sample delinquency studies. The challenge for practitioners is to seek to understand for girls how these disruptions are uniquely involved in their current behavior that has brought them into contact with the legal system. In particular, the *Depressed/Interpersonally Ambivalent* in the present study offers a depiction of girls who have experienced serious interpersonal disruptions including abuse, the consequences of which may be uniquely feminine. Practitioners may need to more often recognize that gender is a highly socialized aspect of adolescent development, and though similarities can be found in etiology across gender in delinquency; in practice, there needs to be room to understand how similar life experiences affect boys and girls differently.

In addition to being suggestive of both common and differential processes at work in male and female juvenile offenders, the present results also suggest basic templates for clinical work with girls in each of the three clusters. The Externalizing group of girls appears to have internal deficits in their ability to engage in relationships appropriately, and to violate the rights of others at a high rate in the course of relationships. These youth may have experienced neglect and indifference from close others as well as have experienced consistent exposure to coercive interpersonal practices and modeling of antisocial lifestyles and attitudes. This culminates in these girls having a view of the world ruled by issues of dominance and control and where ideas of academic achievement and the prospect of prosocial, reciprocal relationships have been foreclosed. The role of family conflict was also highlighted in this group. Consequently,

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interventions with these girls might be best aimed initially at improving social skills. Programs that teach and perhaps more importantly model interdependent and reciprocal social relationships for this group of girls might have a high impact value. This said, the primary arbiter of social skills in the lives of adolescents may be found within their own families. Structured family therapy also appears indicated for the Externalizing group. Applying Patterson's (1982) coercive family process theory may prove to be a relevant paradigm to use with this group of girls, given the presence of aggressive, antisocial symptoms and comorbid family conflict in their self-report. Interventions from this perspective would focus on assessing, teaching and reinforcing more clearly structured and boundaried parent-child relations through a combination of separate individual therapy for parent and child, family therapy and ongoing case management and follow up guidance.

For the Depressed/Interpersonally Ambivalent group, a lability of affect, an inconsistent sense of self, and a highly ambivalent interpersonal style appear present with a backdrop of family conflict, abusive experiences and significant depressive symptoms. Much of this symptom profile may fit well with intervention often used with individuals having experienced trauma and for whom regulating affect is a difficulty and has deleterious consequences across most of their relationships. These girls might most benefit from interventions that directly confront the self-negating consequences of abuse and relational disruptions these girls appear to have grown up with. Individual and group therapy that serves a vehicle for a girl to discover and express her subjectivity, particularly anger and negative self-beliefs may be the appropriate first stages of intervention for this group. The approaches that seem most appropriate to these goals may be those from the interpersonal, dynamic and relational therapeutic perspectives. These approaches would allow for the fostering of authentic

and meaningful therapeutic relationships with girls in this cluster, and for exploration of the aforementioned underlying feelings and beliefs that are vestigial of the negative relationship history. As a secondary goal, improving overt social skills and self-efficacy may be the ultimate target of interventions with this group, and may be areas of treatment where more focused cognitive and behavioral interventions become necessary.

The Anxious/Prosocial group displays self-reported personality and symptoms that appear highly treatable and which could be signs of a positive prognosis in the long run. As mentioned earlier, this group may represent and adolescent-limited set of female offenders, though more data is needed to verify this hypothesis. A relevant perspective that may frame interventions with this group is to view the delinquent behavior of this group of girls as relating to developmental strains specific to adolescence as well as those stresses particular to young women entering adolescence. Interventions flowing from this perspective might focus on accessing existing internal and familial strengths that my have become psychologically lost or ruptured in the stress of adolescence. The parenting practices as well as a girl's sense of her own identity and values may need supportive therapeutic interventions to be reasserted and applied within the girl's social and educational spheres.

Conclusion

The present study sought to identify subtypes of female juvenile offenders utilizing a comprehensive, theoretically based psychological instrument, the MACI. Results suggest that three inherent groups existed within the present sample: (a.) *Externalizing Problems*, (b.) *Depressed/Interpersonally Ambivalent*, and (c.) *Anxious Prosocial*. Important differences between these groups were identified in regards to past history of victimization, and family conflict, degree of negative self-identity and depression, and degree of sexual concerns and

experiences of anxiety. In addition, along the Personality Patterns scales of the MACI the three

groups also appeared distinct particularly in terms of antisocial interpersonal practices,

aggressive interpersonal tendencies, oppositional tendencies and traits associated with borderline

personality syndrome. The results were interpreted to both reflect differences in past learning and

resulting personality styles, as well as reflecting the degree to which relational disconnections

have had an impact upon female offenders. More specifically the three groups were thought to

correlate roughly to proposed prototypes within the juvenile offending literature, namely:

(a.)   clearly antisocial youths with little abuse history but significant family
disconnection, and whose delinquent behavior derives from an entrenched set of
antisocial beliefs, egocentric interpersonal stances and impulsive behavioral
problems

(b.)   female adolescents who are struggling with the pressures specific for girls during
the entry to adolescence and whose delinquent involvement is related to behaviors
meant to preserve belonging and status within adolescent peer groups and larger
social systems that have certain gender role expectations.

(c.)   girls who have experienced significant abuse, victimization and family
disconnection and whose delinquent behavior is a "disclosure" of this experience.

Age and offense typology and chronicity were not significant factors related to the found

clusters in the present study. However, race was significant with the *Depressed/Interpersonally*

Ambivalent and *Anxious Prosocial* groups having a statistically significant over-representation of

African American girls. The reasons for this finding are unclear, but could be related to the

juvenile justice system institutionally serving a wider range of African American girls than

White girls. As mentioned in this study's introduction, the need for gender specific research and

theoretical work is, in general, greatly needed; but particularly so in the male-dominated field of

delinquency research. The present study has identified three groupings with female juvenile

offenders. However, future research must go further in determining the extent to which such

subtypes represent universal aspects of delinquent behavior, gender specific aspects of

delinquent behavior or institutional bias in regards to gender and race within the juvenile justice system. Regardless of which factor best explains the existence of these subtypes, there appears to be significant heterogeneity within female juvenile offenders in regards to personality styles, phenomenological concerns and clinical symptoms, which do not necessarily correlate to differences in age and offense history.

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