ABSTRACT

Title of Dissertation: TYPOLOGIES OF JUVENILE* FEMALE OFFENDERS:

CONSISTENCIES WITH A FEMINIST DEVELOPMENTAL

MODEL

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In recognition of the growing concern over juvenile female offending, federal, state, and local juvenile justice systems are increasingly called upon to address the needs of this population of females through theory, research, and programming. In the last decade, creation of programming for this population has been based on the feminist developmental model. The major weakness of this approach to programming for juvenile female offenders, however, is that the model is based solely on *typically* developed females when, in fact, research suggests that juvenile female offenders likely deviate from typical development in significant ways. The aim of this study was to move forward

in assessing the adequacy of the feminist developmental model for use with juvenile female offenders by identifying typologies of juvenile female offenders based on their response patterns to various open-ended questions about their lives and offending history. The typologies were then assessed for consistency with the Traditional Feminist Developmental Model. Further, the risk factors established in "pathways to offending" research, as well as demographic characteristics of race/ethnicity and class, were examined for association with the resulting typologies. Using secondary data of juvenile female offenders in California published by National Archive of Criminal Justice Data (NACJD), cluster analysis was used to identify offender typologies. Results provided evidence for a 2-cluster solution with weaker evidence for a 5-cluster solution. Both solutions were examined for their association with risk factors. Because the 5-cluster was the weaker of the cluster solutions and showed no statistically significant relations with risk factors, it was used solely as a means to further inform the 2-cluster solution. Results from the 2-cluster solution provided evidence for two distinct typologies of females – those females consistent with the Traditional Feminist Developmental Model and those females for whom the model did not apply. Analyses of the association between risk factor variables and cluster membership indicated differences between the two clusters with regard to substance use, family structure, and the incarceration status of family members. Neither race/ethnicity nor class was statistically significantly different between the two typologies of females. Implications for gender-specific programming are discussed.

^{*}Note, the term juvenile refers to all females detained in juvenile detention facilities regardless of age. Age range in the current study is 13-24.

TYPOLOGIES OF JUVENILE FEMALE OFFENDERS: CONSISTENCIES WITH A FEMINIST DEVELOPMENTAL MODEL

by

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CHAPTER I: INTRODUCTION

Female involvement in the juvenile justice system has increased steadily in recent decades. Females are entering the juvenile justice system more frequently and at a younger age than ever before (Budnick & Shields-Fletcher, 1998). National juvenile court data reveal that almost one-fourth (23.4%) of the 1,755,100 delinquency cases processed in 1997 involved a female offender, compared to 19% of the 1,185,211 cases processed in 1988 (OJJDP, 2000a). Between 1988 and 1997, the number of delinquency cases involving females increased 83% - jumping from 225,190 to 412,100 (OJJDP, 2000a). Although males still greatly exceed females in delinquency by sheer number, female delinquency is increasing at rates higher than those of their male counterparts. Between 1989 and 1998 overall arrests of girls increased 50.3% (from 284,408 to 427,581) compared to only 16.5% for boys (1,014,028 to 1,180,983) (FBI, 1999). Furthermore, arrests of juvenile females increased more than male arrests in most offense categories, and notably violent crime offenses. For example, between 1989 and 1998, the number of juvenile females arrested for Violent Crime Index offenses increased 64.3% (from 7,270 to 11,941) in contrast to an 8.3% increase (54,591 to 59,112) in arrests of male juveniles for the same offenses (FBI, 1999). Nonetheless, the majority of juvenile female arrests remain for property crimes such as burglary and larceny-theft. In 1999, 157,035 females were arrested for property crimes. Additionally, juvenile females are represented in greater numbers in "non-index" crimes such as status offenses than in violent crimes. For example, in 1999, 89,913 females were arrested for running away and 51,000 females were arrested for curfew and loitering violations (OJJDP, 2000b).

A cautionary note in interpreting these crime data should be mentioned. These data come from the Federal Bureau of Investigation's (FBI) Uniform Crime Reporting (UCR) system – one of the two main data sources used to measure crime in the United States (the other being the National Crime Victimization Survey (NCVS)). UCR data come from FBI compilations of crime reports provided by over 18,000 policing jurisdictions (Maltz, 1999). Policing jurisdictions supply monthly summary reports of crimes known to the police and arrests made by the police. There are two main limitations to UCR data; both deal with reporting. First, the UCR measures only those crimes known to the police. Since some crimes are not known to the police, the measure is not a completely accurate account of actual crime frequencies (Maltz, 1999). The second limitation of UCR data pertains to the number of jurisdictions that report. Although many states now mandate that agencies report crime and arrest data, reporting to the FBI remains, for many jurisdictions, a voluntary activity. Additionally, even states that are mandated do not always comply (Maltz, 1999). The FBI response to late or missing data is estimation, thus limiting the accuracy. That being said, however, Maltz (1999) noted that "despite these problems with the data, adjustments for missing data have not been of major consequence in the past, since the primary purpose of the data was to present national and state trends, and the adjustments were adequate for this purpose" (p. 5).

In addition to increasing rates of juvenile female offenders, researchers have recently called attention to the over-representation of minority females in detention facilities and jails. For example, in 1997 minorities were 34% of the total juvenile population, but 51% of juvenile females in residential placement (OJJDP, 1998a).

Similarly, in 1997 the custody rate for non-Hispanic black females was higher than for other racial/ethnic groups— in most states three times the rate for non -Hispanic white females (OJJDP, 1998a).

In recognition of the growing concern over juvenile female offending, state and local juvenile justice systems have been increasingly called upon to address the needs of this population of females through research, policy, and program development. One major development toward this end occurred in the early 1990s. Acknowledging the special needs of juvenile female offenders, in 1992 the Juvenile Justice Delinquency Prevention Act (JJDP) of 1974 was amended to include funding for research and discretionary programs that would focus on female juvenile offenders, as well as for the development of gender-specific programs for this population – programs geared exclusively toward the unique needs of juvenile female offenders. Specifically, the amendments required that states prepare the following: (1) an analysis of gender-specific services for the prevention and treatment of juvenile delinquency, and (2) a plan for providing needed gender-specific services for the prevention and treatment of this population (JJDP Act of 1974, Section 223(a)(8)(B)).

In response to the JJDP legislation requiring states to provide gender-specific services to juvenile female offenders, states first had to understand the unique issues and developmental pathways to delinquency associated with this population. The last decade of research on juvenile female offending, and specifically program development for this population, has focused predominantly on such issues. The result of this work is that two main bodies of literature currently inform the development of gender-specific

programming: (1) Empirical research on risk factors and "pathways to offending" (Belknap & Holsinger, 1998), and (2) Traditional Feminist Developmental theory.

The first body of literature informing gender-specific programming addresses risk factors associated with juvenile female offenders. Researchers in the field (e.g., Acoca, Belknap, Chesney-Lind, and Holsinger) argue that the development and implementation of effective prevention and treatment programs for juvenile female offenders requires attention to the factors that place these females at risk of involvement in the juvenile justice system. For example, because a majority of female offenders have experienced sexual, emotional, and/or physical abuse during childhood (Chesney-Lind, 1995), gender-specific programming within the juvenile justice system prioritizes treating the issues related to abuse in all aspects of care (OJJDP, 1998b). Specifically, programs help girls to address feelings of anger and frustration that might have contributed to their involvement in criminal activity, as well as help girls to learn how to develop and maintain appropriate, healthy boundaries in relationships (OJJDP, 1998b).

The second main body of literature currently informing gender-specific program development is Traditional Feminist Developmental theory. Feminist theorists have argued that adolescence is qualitatively different for females than it is for males. Whereas males develop their identity through independence, initiative and industry (Erikson, 1968), females develop a sense of identity through a culturally fostered process of psychological growth occurring within emotional connections (Gilligan, 1982; Miller, 1986). Thus, theorists argue that policies and programs to address juvenile female offenders must take into account the significance of interpersonal relationships for such

girls. It is this Traditional Feminist Developmental framework that has served as the theoretical base for gender-specific program development for juvenile female offenders.

The focus of gender-specific programming is on positive female development (OJJDP, 1998b). Through education and skill development, gender-specific programming assists females in forming a positive identity and empowering them to "use their voice, to speak for themselves, and to recognize that they have choices" (OJJDP, 1998b, p. 3). Comprehensive gender-specific programs target protective factors to help girls change their negative behavior. Targeted protective factors are geared, in large part, toward the notion of positive female development as seen in the following goals: (1) positive gender identification, (2) healthy interpersonal relations, (3) positive self-esteem, (4) individualism based on balancing self-importance with connection to others, (5) future orientation, (6) understanding and managing physical development, and (7) strengthening family, school, and community support (OJJDP, 1998b).

Recent reports have begun to profile local, state, and national efforts to develop gender-specific programming guidelines for juvenile female offenders. As of 1997, 25 states had established programs or developed plans to address the needs of juvenile female offenders. The remaining 25 states and the District of Columbia were in the process of examining the issue of gender-specific programming, or debating the need for it (OJJDP, 1998c). Unfortunately, two 1998 national surveys of promising effective gender-specific programs revealed disappointing results (Acoca, 1999). Uncovered weaknesses included a failure to reach populations in need, a lack of evaluation research, vagueness of program goals, program fragmentation, and lack of a research base (Acoca,

1999; Hsia & Beyer, 2000; OJJDP, 1998c). It is this lack of research base that drives the current study.

STATEMENT OF PURPOSE

As noted previously, researchers have gradually been accumulating knowledge on the subject of juvenile female offending. In the last decade specifically, the empirical focus has been on risk factors and pathways to offending. Little is known, however, about the development of female adolescents involved in delinquent behavior. While a traditional feminist theoretical model of development is used as the foundation of genderspecific treatment and prevention programs, there is little empirical research that examines the adequacy of this model for use with this population. One key component to the model that begs the question of applicability to all females is its foundation in white, middle-class females. Thus, a drawback to the use of the Traditional Feminist Developmental Model in its current form is its basis not only in typical development, but a white, middle-class development as well. Essentially, the question to answer is whether all girls' experiences are represented within this model – namely the diverse group of juvenile female offenders. If this population of females deviates from typical and white, middle-class development in significant ways, then treatment programs based on this model will likely not be as effective as they could be if they were tailored more directly to fit the developmental needs of the juvenile female offender population.

In acknowledging the lack of empirical data on the Traditional Feminist

Developmental Model and juvenile female offenders, the current study was an

exploratory endeavor designed to assess the applicability of the model to this population.

While interviewing juvenile female offenders about their development would have been a

more direct approach to this assessment, accessibility issues discussed later precluded such an approach. The alternative strategy adopted in the current investigation involves secondary analysis of 1996 data from juvenile female offenders in the California Youth Authority's incarcerated population. Specifically, this investigation explored data-derived typologies of juvenile female offenders as they related to the Traditional Feminist Developmental Model. It was the hope that by examining such typologies, gender-specific programming for this population could be more precisely implemented in the future.

CHAPTER II: LITERATURE REVIEW

It should be noted that historically and currently literature in the field of juvenile female offending has reflected a diverse use of terminology to refer to offending by underage females (e.g., female delinquency, female crime, female deviance, juvenile female offending). The current study primarily uses the term "juvenile female offending;" the occasional use of other terms in the current proposal reflects the original language of authors. The concepts, however, are the same.

Historical Perspective on Juvenile Female Offending

Prior to the late 1970s and early 1980s, theoretical work on juvenile female offending took one of two paths: a classic theory perspective emphasizing biological determinism (e.g., Cowie, Cowie, & Slater, 1968; Glueck & Glueck, 1934; Lombroso & Ferrero, 1895; Pollak, 1950), or a broader sociological perspective using traditional male theories of offending such as social control, power-control, strain, and subcultural theories (e.g., Cernkovich & Giordano, 1987; Hagan, Gillis, & Simpson, 1985; Simons, Miller, & Aigner, 1980; Smith, 1979; Steffensmeier & Allan, 1988).

Although research on female delinquency has been generally supportive of social control, power-control, strain and subcultural theories to explain juvenile female offending, it has been the work of feminist scholars that has had the most profound influence in the field of juvenile female offending in the last decade, particularly with regard to program development. Feminist scholars argued that androcentric bias inherent in traditional male delinquency theories made them inadequate for application to female delinquency. Further, male-oriented ideology on criminality overlooked the critical notion that qualitative differences between males and females exist as a result of

culturally-determined factors (Chesney-Lind, 1997) – an argument voiced in earlier decades (e.g., Chesney-Lind, 1989; Smart, 1977). Thus, feminist theorists argued a need for a feminist model of delinquency that accounted for gender and power differences in a male-dominated society. Additionally, feminist theorists called for an examination of protective factors to prevent juvenile female offending, as well as to reduce recidivism within juvenile female offender populations.

Shift to Gender-Specific Programming

Spurred in part by feminist theorists' call for a feminist model of delinquency, and in part by legislation in 1992 (Juvenile Justice Delinquency Prevention Act
Reauthorization) requiring states to acknowledge the special developmental needs of juvenile female offenders through "gender-specific programming," theoretical and empirical research on juvenile female offenders has shifted significantly in the last decade. The result of this shift is a more applied focus for research on juvenile female offenders – and specifically, on program development for this population. Thus, two main bodies of literature currently inform the field of program development for juvenile female offending: (1) Empirical research on risk factors, protective factors, and "pathways to offending" (Belknap & Holsinger, 1998), and (2) Traditional Feminist Developmental theory as the predominant framework in the field.

Empirical Research on Risk Factors

Empirical research presently informing juvenile female offending addresses risk factors associated with female delinquency. Although this body of research resembles some earlier work on sociocultural variables associated with female delinquency, current

research is now specifically framed in terms of females' pathways to offending and often utilizes a Traditional Feminist Developmental framework as a guide.

Researchers argue that just as girls' and boys' development proceed differently during adolescence, their pathways to delinquency are often gender-specific as well (Belknap & Holsinger, 1998). Whereas for males the predominant pathway risk factors for delinquency center on difficult temperament, poor impulse control, hyperactivity, social withdrawal, aggression, and poor peer relationships (Kelley, Loeber, Keenan, & DeLamatre, 1997), the pathway risk factors for females are quite different. Specifically, they center on abuse/victimization, substance abuse, mental health, school failure, and family. Because of such gendered pathways to delinquency, researchers suggest that the development and implementation of effective prevention and treatment programs for atrisk girls and juvenile female offenders requires attention to these factors that place females at risk of involvement in the juvenile justice system.

It is important to note, however, that the current focus on gender-specific programming has resulted in a virtual absence of research specifically comparing juvenile females to juvenile males, thereby potentially serving to obscure some similarities that might exist. In fact, studies of adult offenders indicate some overlap between males and females. For example, Loucks and Zamble (2000) found gender similarities in the factors that help to predict recidivism in serious offenders, whereas Steffensmeier and Allan (1996) found few gender differences among adult males and females engaging in minor acts of crime. Despite some similarities between males and females, however, studies of adult crime continue to support the notion that there are, indeed, gendered pathways to

crime and, as such, create the need for treatment that is gendered (i.e., gender-specific) (Bloom, 2003).

Abuse/Victimization

One of the most consistently recognized risk factors for juvenile female offenders is a history of victimization, touched on earlier in the 1990s as well (Chesney-Lind, 1995). Researchers have found that a history of child abuse increases the later risk of delinquency for females (Dembo, Williams, Wothke, Schmeidler, & Brown, 1992; Hubbard & Pratt, 2002; McCabe, Lansing, Garland & Hough, 2002; Widom, 1989, 2000). For example, Widom (1989) found that child abuse and neglect increased the likelihood of a juvenile arrest by 53%, the likelihood of an adult arrest by 38%, and the likelihood of committing a violent crime by 38%. According to Widom (1989), female delinquents who had been abused had a higher likelihood of arrest for delinquency, a significantly larger mean number of offenses, an earlier mean age at first offense, and a greater disposition to chronic offending than their matched controls. For many researchers, these and similar data have highlighted the notion that childhood victimization (i.e., physical, sexual, and emotional abuse) is the first step along the pathway to juvenile and criminal justice involvement for young girls.

While rates vary, self-reported histories of childhood physical abuse, sexual abuse, and neglect are common among girls in the juvenile justice system. In one recent California study, for example, 92% of the juvenile female offenders interviewed reported that they had been subjected to some form of emotional, physical, and/or sexual abuse (Acoca & Dedel, 1998). The most common category of abuse reported by the girls was emotional abuse (88%), followed by physical and/or sexual abuse (81%). Additionally,

researchers found correlations between the physical, sexual, and emotional victimization and specific high-risk behaviors such as polydrug use, engaging in sex with multiple partners, gang membership, school failure, physical health problems, and early pregnancy.

Taking a different approach to the examination of abuse and female delinquency, Siegel and Williams (2003) conducted a longitudinal study comparing the criminal records of 206 females who were treated in a hospital emergency room for reported sexual abuse between 1973 and 1975, and 205 matched controls. Results suggested victimization as an important factor correlating with criminal justice involvement. Siegel and Williams (2003) found that a larger proportion of victims of sexual abuse than matches were arrested in every category. Of note, however, were the findings related to violence. "Arrests for violent offenses" was the only category where the differences were statistically significant for both juvenile and adult arrests. Child sexual abuse victims were more commonly arrested for violent offenses than for property offenses. Nearly twice as many victims (20.4%) as matched controls (10.7%) were arrested as adults, and the rate for violent offenses was more than two times greater. In reflecting on the data, the authors hypothesized that the aggressiveness inherent in the violent offenses may have been an attempt to reassert a sense of power believed to have been lost as a result of victimization.

Using another explanation of the correlation of abuse with later offending,

Chesney-Lind and Shelden (1992) noted that a history of child abuse is strongly

associated with running away from home – a status offense that is often a girl's first

contact with the juvenile justice system. Supporting this notion in a qualitative study of

40 juvenile female offenders in three states, Fejes-Mendoza and Miller (1995) found that the most frequently occurring past offense was running away, with primary reasons for running away attributed to "extremely difficult family situations (including sexual, physical and emotional abuse)" (p. 12).

Mental Health Needs and Substance Abuse

Abuse often results in significant and chronic mental health problems including self-injurious behaviors (Veysey, 2003). Given rates of victimization among juvenile female offenders it should come as no surprise that mental health needs are associated with female delinquency. In Acoca and Dedel's (1998) study of girls in the California juvenile justice system, more than half of the girls interviewed stated that they needed psychological services. Twenty-one percent had been hospitalized in a psychiatric facility on a least one occasion, and 24% stated that they had seriously considered suicide. Similarly, Bergsmann (1994) noted that more than half of young women in detention type facilities (e.g., detention centers and training schools) reported attempting suicide. Of those girls, 64% attempted suicide on multiple occasions.

In a study of psychiatric illness among youth in detention, Teplin, Abram, McClelland, Dulcan, and Mericle (2002) found that 74% of girls (as compared to 66% of boys) met the criteria for a current mental disorder. Affective disorders were especially prevalent among females. In particular, more than 25 percent of females (n=656) met the criteria for a major depressive episode. Similarly, in an assessment of mental health needs among juvenile female offenders, Kataoka (2001) found that 80% of the females exhibited symptoms consistent with a mental or substance use disorder. Finally, in comparing the mental health needs of incarcerated adolescent females and their male

counterparts in Ohio, Timmons-Mitchell, Brown, Schulz, Webster, Underwood, and Semple (1997) indicated that 84% of girls had evidence of serious mental health disorders, significantly greater than the 27% in boys.

With regard to types of disorders, Veysey (2003) pointed out that justice-involved girls tend to have high rates of major depression; anxiety disorders, including post-traumatic stress disorder, somatization disorders, and borderline personality disorders. Furthermore, justice-involved girls have been reported to have high rates of psychiatric co-morbidity, oftentimes the presence of a mental disorder with a substance abuse disorder (Veysey, 2003). For example, Randall and colleagues (1999) found that 99% of all juvenile female offenders studied made the criterion for co-morbidity of substance abuse/dependence and another disorder (Randall, Henggeler, Pickrel, & Brondino, 1999). Similarly, in a study involving incarcerated adolescent males and females, Ulzen, Psych, and Hamilton (1998) found that 82% of girls met the criteria for two or more psychiatric disorders. Finally, Kataoka (2001) noted that 79% of a population of incarcerated adolescent females with clinically significant depressive or anxiety symptoms had a co-occurring substance abuse problem.

Clearly illustrated by research on rates of co-morbidity of mental disorders and substance dependency/abuse among juvenile female offenders, substance abuse appears to be a significant issue for such girls. In Virginia between 1997 and 1998, over half (53%) of the female youth admitted to the detention facility evidenced substance abuse histories (Loper, 2000). Similarly, in a study of 656 detained juvenile females, Teplin, Abram, McClelland, Dulcan, and Mericle (2002) found substance use disorders in close to half of them. Using qualitative data from incarcerated adolescent females in Iowa,

Boddy and Skold (1997) reported that "nearly all of these girls express moderate to heavy use of illegal drugs, with many saying their first exposure to drugs came through a parent or step parent" (p. 5). Furthermore, early substance initiation related to offense status for females (Prinz & Kerns, 2003).

In examining the interaction between substance use and criminal activity,

Sommers and Baskin (1994) noted that a majority of girls reported being intoxicated or

under the influence of illegal substances while committing criminal acts. Fejes-Mendoza

and Miller (1995) reported a similar finding in their interviews with juvenile female

offenders in three states. The authors noted patterns of consistent drug use, both as a part

of criminal activity as well as a part of daily routine for the girls.

Academic Failure/School Dropout

The link between school failure and externalizing behaviors (i.e., acting out behaviors) has been well documented (Maguin & Loeber, 1996). Individuals who fail at school are more likely to engage in high risk behaviors and rule-breaking activities, for example, aggression toward others (Hinshaw, 1992; Knight, 1997; Malmgren, Abbott, & Hawkins, 1999). Further, researchers have indicated that the correlation between school performance and high risk behaviors, including delinquency, appears to be stronger for females than males. For example, Mak, Heaven, and Rummery (2000) found that although self-rated school performance was significantly correlated with delinquency for boys and girls, regression analyses revealed school performance to be a salient factor for girls only. Apart from the gender differences that may exist with regard to school and delinquency, researchers have clearly pointed to academic failure and school dropout as significant risk factors for delinquency among females. Additionally, such factors have

an influence on recidivism. According to a recently released Florida study, the most significant risk factor for young females' recidivism and person offending (e.g., assault) was middle school failure (American Bar Association, 2001).

Large scale studies of incarcerated adolescent females have highlighted the presence of these school-related issues. For example, Fejes-Mendoza and Miller's (1995) examination of juvenile female offenders across three states uncovered educational histories that reflected repeated failure, unrealistic ideations about how well academic skills were being performed, a high percentage of students needing special education, and unsatisfactory past relationships with teachers. Furthermore, the authors found that the majority of female students in correctional facilities were performing at least one year below the current grade placement. In a like manner, findings from the U.S. Department of Justice indicated that a disproportionate number of female juvenile offenders have learning disabilities, and many have been expelled from school (U.S. Department of Justice, 1994). By the time these girls enter the juvenile system, they are likely to be at least a grade level behind their peers (OJJDP, 1998b).

Acoca and Dedel (1998) likened failing in school to the universality of victimization for girls in California's juvenile justice system. Eighty-five percent of girls had been expelled or suspended, and the median age for the first of these experiences was 13. Moreover, a full 91% of the girls reported that they had experienced one or more of the following: being suspended or expelled, repeating one or more grades, and/or being placed in a special classroom (Acoca & Dedel, 1998).

Whereas the primary focus on juvenile female offenders and academics centers on the risk factors associated with failure and dropout, some evidence suggests that school plays an important protective role for these females as well – in essence, potentially guarding against the occurrence of delinquent behavior. In a longitudinal study to assess the extent to which family- and school-related factors protect adolescent males and females from engaging in delinquent behavior, Crosnnoe, Erickson, and Dornbusch (2002) found that academic achievement and school orientation had main protective effects on females' delinquency.

Family

In addition to issues of victimization within families (i.e., physical, sexual, and emotional abuse and neglect), researchers have pointed to other family factors that correlate with juvenile female offending. For example, family fragmentation and dysfunctional patterns of interaction, as identified in earlier decades and previously discussed, continue to be recognized as risk factors associated with juvenile female offending. Data from Fejes-Mendoza and Miller's 1995 research highlighted family relationships characterized by mother-daughter friction, criminal role modeling by siblings, and multiple sources of abuse. With regard to family dynamics, 57% of interviewees cited mother-daughter relationships as a source of family conflict. Other sources of family discord were mothers' problems with men (specifically with regard to involvement in abusive relationships), parental drug and alcohol problems, physical, sexual and emotional victimization, and a sense of detachment from family members (Fejes-Mendoza & Miller, 1995). Similarly, data from Laidler and Hunt's 2001 study of adolescent female gang members in San Francisco revealed multiple sources of family conflict including issues of parental control and parent-child relationships. Specifically, girls felt either a sense of over-control by parents, or that there was a complete absence of parental expectations or control. Relationships with fathers were poor, with a majority of girls lacking respect for fathers who were rarely around, who had drug and alcohol problems, or who were violent toward them or their mothers. Relationships with mothers were equally conflictual. Laidler and Hunt (2001) reported that girls were angry with their mothers' drug use and associated problems, as well as their inability to fulfill their roles and duties as parents.

Reiterating the theme of parental control and poor role modeling, research from a study of incarcerated adolescent females in Iowa revealed that the girls felt that their parents lost control and disciplinary authority over them (Boddy & Skold, 1997). Other participants in the study implicated their parents in their own delinquent behavior. For example, girls recalled initiation into drug use by their parents who would smoke marijuana with them.

In addition to issues of control and relationship, researchers have pointed to the influence of family structure on juvenile female offending. For example, Acoca and Dedel (1998) found that more than 95% of the juvenile offending females in their study were assessed as lacking a stable home environment. Many of the interviewed girls recalled multiple home placements as children – moving back and forth between relatives, foster homes, and group homes. More than half (54%) of the girls interviewed reported having mothers who had been arrested or incarcerated. Similarly, 46% of the girls' fathers were reported to have been incarcerated at some point, and 15% of the fathers were incarcerated at the time of the study. Acoca and Dedel (1998) further noted that this figure was likely to be a low estimate of incarcerated fathers since many of the girls had little or no contact with their fathers over their growing up period. Finally, 11%

of the interviewees had experienced or witnessed the death of one or both parents or siblings. In entirety, these and similar data are consistent with findings from earlier research emphasizing the significance of family variables in the delinquent behavior of young females.

It is important to note, however, that the research examining characteristics and risk factors associated with young girls who commit crimes, while informative, does not imply causation (Sondheimer, 2001). A significant weakness in the current research is that the studies are correlational rather than causal. As such, it is known only that these risk factors are merely associated with delinquency. For example, although there is no evidence that teenage parenting causes delinquency, several of the high-risk behaviors associated with teenage pregnancy are also associated with delinquency (Loper, 2000).

Traditional Feminist Developmental Theory

The second main body of literature currently informing gender-specific program development is Traditional Feminist Developmental theory. Emphasizing the notion that adolescence is qualitatively different for females than for males, the field of programming for juvenile female offending has focused solely on Traditional Feminist Developmental theory as a way to address the unique and significant needs of juvenile female offenders.

According to Miller (1984), much of developmental theory has focused on the notion of the "self" and on development as a process of separating oneself from others.

The goal of separated individuation was seen as the precondition for mental health.

Erikson's (1968) stage theory of emotional development, for example, suggested that beginning at 18 months of age, a toddler's task was to develop autonomy while avoiding

stages of Erikson's developmental theory continued to emphasize independence through initiative, industry, and identity. It was not until an individual's entrance into young adulthood that the psychosocial task of development involved relating to others through "intimacy." Even the stage of intimacy versus isolation incorporated the notion of separation. In this stage, the goal was to develop relationships with others in which individuals were strong enough to make sacrifices for another's welfare without losing themselves in another's identity – essentially maintaining separateness in relationships.

Miller (1984) argued that the notion of "self" as a process of separated individuation did not fit women's experience. Instead, Miller suggested that from the beginning stages of life all individuals, and especially females, developed internal representations of themselves as beings in relation to others. An infant, for example, developed an awareness of interaction and feelings between people, thus forming an internal sense of self as one who affected relationships and was in active interchange with others. The infant thus became an emotional and interrelational being (Miller, 1984). This interacting sense of self was present for both boys and girls, but cultural influences on males and females acted to encourage females to maintain an interrelated self – to nourish and consider others, whereas males were systematically diverted from maintaining an interrelated self in favor of separation. According to Miller (1984), the developmental literature had largely ignored the notion that for women, the early self was built on a culturally fostered process of psychological growth occurring within emotional connections.

According to Traditional Feminist Developmental theory, the implications for females of a relational focus to individual development are numerous, and both positive and negative. As females are relationally focused, their self-esteem, power, and effectiveness evolve from, and are dependent on, relationships with others. Females derive their positive feelings of worth and control from relationships (Miller, 1984). Essentially, adolescent females' sense of self becomes organized around being able to make and maintain their relationships. Problems arise, however, when there is no separate sense of having one's own individual needs and goals. The potential exists for adolescent females to see the goals and needs of others as their own. Moreover, the disruption of connections is not perceived as just a loss of the relationship, but a total loss of self. Chodorow (1989) affirmed this concept by stating that a female's socialization to value relationships is a strength as well as a pitfall. Although relationships allow for nurturance, intimacy, and empathy, they have the potential to threaten the autonomy, selfhood, and agency for young girls (Chodorow, 1989). Further, Slater, Guthrie, and Boyd (2001) suggested that the lack of self-definition may result in negative health outcomes. Given the developmental pathways believed to be unique to females, as reflected in the Traditional Feminist Developmental Model and summarized herein, there are important implications for gender-specific programming.

The State of Gender-Specific Programming

Gender-specific programming takes a comprehensive approach to reduce the overall number of female delinquents, as well as to serve those girls already in the juvenile justice system. In order to accomplish these goals, gender-specific programming incorporates primary prevention for all girls, early intervention for at-risk girls, as well as

treatment and aftercare for girls who have already entered the juvenile justice system (OJJDP, 1998b).

Whereas the focus of delinquency programming for males is on behavior management (e.g., anger management to reduce aggression and violence) (Eisenbuch & Freeman, 1992), the focus of gender-specific programming for females is on positive female development. Through education and skill development, gender-specific programming assists females in forming a positive identity and empowering them to "use their voice, to speak for themselves, and to recognize that they have choices (OJJDP, 1998b)." Additionally, gender-specific programming acknowledges the risk factors girls face at adolescence including sexism, victimization, poverty, and racism, as well as the multiple risk factors associated with delinquent behavior, for example, physical and sexual abuse.

In addition to addressing risk factors, comprehensive gender-specific programs target protective factors to help girls change their negative behavior. Such protective factors are geared, in large part, toward the notion of positive female development as derived from Traditional Feminist Developmental theory and as seen in the following: 1) positive gender identification, 2) healthy interpersonal relations, 3) positive self-esteem, 4) individualism based on balancing self-importance with connection to others, 5) future orientation, 6) understanding and managing physical development, and 7) strengthening family, school, and community support (OJJDPa, 1998a).

Strategies utilized within gender-specific programs include providing information to the girls to help them understand the consequences of high-risk behavior and make healthier life choices, educating the girls in life skills as well as academic skills,

providing opportunities for positive alternative behaviors, mobilizing community and professional support for the girls, and providing group and individual activities to address behavior in context. Lastly, gender-specific programs incorporate a positive cultural component that acknowledges unique developmental issues confronting racial/ethnic minority girls and their overrepresentation in the juvenile justice system. Programming draws on girls' cultural strengths, as well as builds specific cultural resources available in ethnic communities.

As mentioned earlier, recent reports have begun to profile local, state, and national efforts to develop gender-specific programming guidelines for juvenile female offenders and at-risk girls. As of 1997, 25 states had developed plans or established programs to address the needs of female juvenile offenders. The remaining 25 states and the District of Columbia were in the process of examining the issue of gender-specific programming, or debating the need for it (OJJDP, 1998c).

In an effort to identify promising programs serving female delinquents or girls at risk of delinquency, OJJDP hired Greene, Peters and Associates (GPA) to conduct an evaluation of existing programs using a multiple-step process (OJJDP, 1998b). First, nomination forms were mailed to more than 500 persons who had demonstrated an interest in juvenile justice issues. Additionally, GPA met with representatives of the National Juvenile Justice Coalition and contacted organizations across the country. Nominations were received from 212 programs. GPA then followed up with requests for information from those programs regarding program design and implementation. Of the 212 contacted programs, 87 responded. From those 87 programs, 14 were eliminated for not meeting minimum criteria for gender-specific programming. The remaining 73

programs (approximately 34% of the original 212) were reviewed by GPA staff and evaluated on the following criteria: (1) Appropriate intake assessment, (2) Use of intake assessment as basis for service/treatment plan or case management, (3) Family intervention/involvement, (4) Preparation for transition/reentry, (5) Cultural competency, (6) Follow-ups with agencies to which referrals are made to ensure accountability, (7) Formal, institutional interagency linkages, (8) Gender-specific program criteria, (9) Relevant to female development, (10) Issues of gender specific programming are implicit in program goals, objectives, and/or mission, (11) Provide empowerment strategies (i.e., skill training, academic development, career/vocational training), and (12) Assessment and treatment of sexual abuse and related issues. Post-review, 25 programs were identified as potential finalists. After independent consultants reviewed these 25 programs, 16 programs (approximately 7% of the original 212) were selected as "promising" programs in gender-specific services for at-risk and juvenile offender females (OJJDPa, 1998a).

Although no one common model exists, there are a number of key elements extracted from promising juvenile programs for girls (Acoca, 1998; Greene, Peters, & Associates, 1998). Components specifically associated with female development are grouped into two categories: (1) promotion of positive development, and (2) relationship building. The former includes problem solving skills, positive relationship skills, development of self-esteem, and development of self-image. The latter includes the promotion of interpersonal relationships and the fostering of positive gender identity. Unfortunately, despite such attempts to label and replicate "key elements" of promising

gender-specific programs, gender-specific programming as a whole suffers from a number of serious weaknesses.

Prior to discussing the problems associated with gender-specific programming, perhaps an important question to ask is whether gender-specific programming should exist at all. Should programming differentiate between males and females, or should all juvenile offenders receive the same treatment? Research supports two important points: (1) males and females develop differently (Erikson, 1969; Gilligan, 1982) and (2) males and females have different risk factors and pathways to crime. With regard to the latter, the predominant pathway risk factors for males are difficult temperament, poor impulse control, hyperactivity, social withdrawal, aggression, and poor peer relationships; as such, treatment centers on behavior management (Eisenbuch & Freeman, 1992). For females, the pathway risk factors include abuse/victimization, substance abuse, mental health, school failure, and family. Given the distinct differences between males and females – both in development as well as risk factors – gender-specific programming seems warranted so as to optimize treatment effectiveness for males and females. That said, an examination of the problems with gender-specific programming seems essential.

Problems with Gender-Specific Programming

Prior to the passage of the JJDP Act in 1974 little attention was given to juvenile female offenders. With the passage of the Act and subsequent reauthorizations, the needs of juvenile female offenders have become a priority. OJJDP has spearheaded the majority of efforts to promote gender-specific policy and programming within state systems.

Although gender-specific programming appears widely-supported, perhaps in part due to

the political correctness of focusing on gender issues, the gender-specific component of the JJDP Act is severely constrained for a number of reasons.

Minimal Research Base

The empirical research serving as the foundation for gender-specific program development is limited to the characteristics and risk factors associated with girls who commit crimes. For example, substance abuse has been identified as a risk factor for juvenile female offenders, thus a substance abuse curriculum component is built into gender-specific programming. Beyond this minimal research base, there are no data to inform program development (e.g., how to tailor a program component to the varying needs of the population of females). Furthermore, no research has actually tested whether or not this Traditional Feminist Developmental Model is appropriate for use with this population of females, yet programming is built on the assumption that it is.

Lack of Evaluation Research

To date there is little, if any, evaluation research on existing programs to inform the development of new gender-specific programs (Acoca, 1999). In general, programs are characteristically small and thus lack the organizational capacity and funding to collect, manage, and analyze client-related data. The result is that the effectiveness of programming is not adequately measured. Furthermore, the programs that were earmarked as promising/best-practices were based on a process of nomination and review of program content, not based on any process or outcomes data. Therefore, it cannot be said conclusively that the "promising" gender-specific programs are actually effective in preventing and/or treating juvenile female offenders.

Vagueness of Program Goals

The broad purpose of gender-specific program legislation is two-fold: 1) to reduce the overall numbers of female delinquents and 2) to serve those girls already in the juvenile justice system. While these overarching goals seem relatively clear, the subsets of goals lack clarity and operationalization. For example, gender-specific programming focuses on "positive female development" and aims to assist females in forming a positive identity and empowering them to "use their voice, to speak for themselves, and to recognize that they have choices" (OJJDP, 1998b). These goals are inherently vague. They are not specific, measurable, or attainable in their given form.

Program Fragmentation

Due in large part to the lack of specific program goals, as well as the absence of concept operationalization, approaches used for gender-specific programming are largely inconsistent and vary greatly by program and state (Acoca, 1998; OJJDP, 1998c).

Because no one model for gender-specific programming exists, states and localities are left to devise prevention and treatment approaches that meet the loosely defined program goals. As noted previously, because evaluations are rarely, if ever conducted, it is unknown whether such programs are even effective.

While it is clear that the continued development of effective gender-specific programming requires a great deal of attention to program goals, operationalization of concepts, and program evaluation, more fundamental is the need for examination of the theoretical model that currently serves as the foundation for program development. To put it plainly, research is needed that empirically tests the adequacy of the theoretical model for use with juvenile female offenders.

Appropriateness of Traditional Feminist Developmental Model as a Theoretical Base:

Cautions of Application

Two potentially significant weaknesses of the Traditional Feminist Developmental Model are evident when examining its use with juvenile female offenders. First, the Traditional Feminist Developmental Model is based entirely on typical female development. The model posits that girls develop their sense of self, selfesteem, power, and control through relationships with others – primarily and predominantly through their family relationships (Gilligan, 1982; Miller, 1984, 1986). Given what is known about the families of juvenile female offenders, one might logically question whether or not the Traditional Feminist Developmental Model accurately depicts the developmental realities of such girls. Whereas adolescent females from stable, nurturing families are able to develop positive and healthy connections which foster self-esteem, adolescent females from families where violence, conflict, and chaos are present, and parent-child communication and attachment are weak, are likely to develop poor connections and unhealthy relationships. Poor relationships may facilitate a negative internal sense of self and low self-esteem, as well as fuel feelings of powerlessness and lack of control. One might hypothesize further that connection, selfesteem, power, and control manifest differently for these girls.

A second significant weakness of the Traditional Feminist Developmental Model is its failure to acknowledge different developmental experiences for girls by virtue of race/ethnicity/culture and class. Simpson and Elis (1995), among others, pointed out that such an assumption of universal female experience – most typically that of middle-class whites – effectively eliminates the realities for many females. This lack of incorporation

of the intersectionality of gender with race and class potentially limits the applicability of the traditional feminist model for juvenile female offenders of color, as well as varying socioeconomic statuses.

In an initial attempt to assess the appropriateness of the Traditional Feminist

Developmental Model with juvenile female offenders, Morton (2000) conducted a
qualitative study of clinicians who worked with incarcerated adolescent females.

Examining interview data from the clinicians, the researcher used phenomenology-based
data analysis to procure a better understanding of the developmental themes of the
females. Morton's (2000) analysis of the data identified four feminist relevant themes: (1)

Connection, (2) Self-Esteem/Identity, (3) Power, and (4) Control. In examining the
themes, she found both consistencies and inconsistencies in the principles of the

Traditional Feminist Developmental Model as applied to the population of incarcerated
females. Specifically, themes of need for connection and self-esteem/identity of the
females demonstrated a relevance to the theory, whereas the theme of power/control
challenged the model.

Connection

Morton's (2000) data suggested that the population of incarcerated adolescent females appeared to be no different in their need for connections than typical adolescent females, except for the extreme degree of their need for connection. Clinicians in the study had described the incarcerated girls as being extremely needy for connection, wanting love, nurturing, and support from whomever would give it to them. Initially, the girls had sought out relationships from parents, but had been abandoned by their fathers, and then emotionally abandoned by their mothers. Girls had turned to their boyfriends

and peers to achieve a sense of connection. It appeared from clinician data that oftentimes the relationships the girls had found were no better than those they had previously lost. Relationships had been dysfunctional, occasionally abusive, and had contributed to the girls' delinquent behavior. The author noted that given the girls' apparent foundation of poor relationships and dysfunctional family environments, a relational mode had set them up for repeated failure in connecting to others. This pattern appeared to have resulted in great cost to the girls themselves and their developing identity. The author concluded that clinician reports indicated that these girls' need for connection was not only consistent with traditional feminist theory, but was, in fact, an extreme example of need for connection.

Self-esteem/Identity

Morton's (2000) clinician data also suggested that the girls had some difficulty developing a positive sense of self and self-esteem. The lack of positive relationships, and the sense these girls had that they were not valued, loved, or supported by anyone, had resulted in a general sense of low self-esteem and worthlessness. Clinicians described the girls as engaging in behaviors an attempt to get validation and love from others. For example, girls who had bought or sold drugs for their boyfriends had been attempting to get love from them.

Moreover, clinicians indicated that the girls' sense of self and developing identity had been affected by their relationships as well. Clinicians reported that the girls had been unable to form and maintain relationships to their mothers or fathers, and had often been without other positive relationships in their lives. This lack of positive relationships had contributed to their having had difficulty developing a solid sense of self. According

to clinicians, for some of the girls, association with delinquent peers or boyfriends had provided their only source of close relationships. These negative affiliations had contributed to poor self-esteem. Moreover, these ties had failed to support the development of a solid identity. Morton (2000) noted that the exception to this finding regarding poor self-esteem and lack of sense of self had been girls who were teenage mothers. She found that the teenage mothers had been able to develop a more positive sense of self in their role as mother.

Thus, according to the author and based on clinician data, the Traditional Feminist Developmental Model was applicable to experiences of the incarcerated girls in the study in two important ways. First, the girls' need for connections illustrated the consequences of a relational mode of being for females in an environment which was lacking in stable and positive relationships. Second, the poor self-esteem and poor sense of self among the population of girls was the result of fractured and negative relationships which left the girls in a vulnerable position with few tools and resources to cope with the stresses of life.

In exploring the congruity between data collected on the incarcerated adolescent females and the Traditional Feminist Developmental Model, Morton (2000) also found themes of the traditional feminist model that were not corroborated. Specifically, Traditional Feminist Developmental Model tenets concerning the growth of power and control in young women's lives had not been supported.

Power

Morton (2000) found deviations from the Traditional Feminist Developmental Model with regard to clinician reports of the girls and their sense of power. The author

noted that the Traditional Feminist Developmental Model identified females as defining power out of relationships. Power was the strength to care for, and to give to others in a nurturing way (Miller, 1986, as cited by Morton, 2000). Clinician data indicated the girls in the study, however, were much different than the model would have suggested in that they had defined and attempted to gain power in negative ways. As clinicians had described, many girls had defined power as anger. Power had been derived from having manipulated others, having assaulted others, having put others down, having controlled others, or having used others to their benefit.

Control

Whereas the Traditional Feminist Developmental Model stated that connections with others did not threaten the female psyche, but instead enhanced sense of well-being, pleasure, and effectiveness for girls (Miller, 1986, as cited in Morton, 2000), Morton's clinician data indicated otherwise. Rather than having embraced connection and having derived pleasure from relationships, clinicians reported the girls as having been threatened by connections with others. Essentially, as a consequence of their past negative relationship experiences, the girls had become very distrustful of connecting to others. They had kept a sense of control through their reluctance to make themselves vulnerable to individuals in their lives. As a result, the girls had had few meaningful or positive relationships. Thus, with respect to how females acquired a sense of control, the principles of the Traditional Feminist Developmental Model had not been consistent with data from clinicians on the life experiences of the delinquent girls.

In sum, Morton's (2000) data revealed a picture of incarcerated girls with some patterns consistent with Traditional Feminist Developmental Model, but some patterns

that appeared to deviate from the model. Rather than having embraced connection with others, the girls had felt threatened by connection with others. Rather than having felt effective, powerful, and in control through having cared for others, the girls had derived their effectiveness, power, and control in aggressive, antagonistic, and manipulative ways.

While Morton (2000) suggested that the data the clinicians had to offer regarding the environmental, interpersonal, and individual issues of the juvenile female offenders were valuable in informing the fit of the Traditional Feminist Developmental Model for that population, these data are only a first step in the investigational process. Whereas clinicians were able to provide overarching generalizations of juvenile female offenders from their perspective, the study lacked both data specific to individual juvenile female offenders as well as data from a first person perspective (i.e., from the females themselves). Additionally, because Morton's study involved clinicians' perspectives on the girls rather than those of the girls themselves, there was no accounting for race/ethnicity and class differences. It is not until these data components are incorporated into research that a more complete understanding of juvenile female offenders, their development, and the appropriateness of a Traditional Feminist Developmental Model for use with the population can be achieved.

Purpose of the Current Study

It seems clear from delinquency research that adolescent females' delinquency is intertwined with the most personal aspects of their lives – their development as females, their family, and their relationships with others. Therefore, the Traditional Feminist Developmental Model which addresses notions of identity, relationships, and

interpersonal needs seems an appropriate model for use with this population. The weakness of its current application to gender-specific programming, however, lies in the almost complete lack of empirical investigation regarding model fit – that is, do juvenile female offenders deviate from the Traditional Feminist Developmental Model as it is constructed based on typical adolescent females, as well as a white, middle-class perspective?

What Morton's (2000) study suggested is that the Traditional Feminist Developmental Model is not a "one size fits all" model. There appear to be areas of deviation as it is applied to juvenile female offenders. But because the Morton study lacked data specific to individual females, as well as data given by the females themselves, questions about model fit and application remain. For example, does the model as it exists fit the development of some juvenile female offenders but not others? Do race/ethnicity and class play a role in the differential applicability of the model to females? What prior experiences or situations might relate to model consistency or lack of consistency? Answering questions such as these appeared to be the next logical and necessary steps to assessing the applicability of the Traditional Feminist Developmental Model to juvenile female offenders. Thus, the purpose of the current study was to assess the fit and applicability of the Traditional Feminist Developmental Model to juvenile female offenders through a typology-based approach. The goal was that in examining data-derived typologies of juvenile female offenders based on consistencies and/or inconsistencies with the feminist developmental framework, as well as the variables that associate with those typologies, that gender specific programming for this population could be more precisely implemented.

The current study used secondary data collected from juvenile female offenders in the California Youth Authority (CYA) in 1996 to both test the adequacy of the Traditional Feminist Developmental Model as well as its relevancy to the risk factors for juvenile female offending identified in previous research – namely abuse/victimization, mental health needs and substance abuse, academic failure/school dropout, and family. A cluster analysis was conducted using girls' open-ended response data coded for feminist developmental themes. In the end there existed typologies of juvenile female offenders (clusters) that were examined for consistencies with, as well as deviations from, the Traditional Feminist Developmental Model. Once typologies were established, they were analyzed for association with the identified risk factors for juvenile female offending. Then, the typologies were assessed for association with race/ethnicity and class. Finally, a qualitative analysis of response statements was conducted to better understand the themes relevant to the different typologies of females. After all analyses were completed, a summary and elaboration of the model where data warrant were given, as were applications to gender-specific program development.

The overarching question guiding this study was thus, "Is the Traditional Feminist Developmental Model appropriate for use with juvenile female offenders?" In an effort to answer this overarching question, the following specific questions were investigated:

(1) Are the themes of connection, self-esteem/identity, and power/control as presented in the Traditional Feminist Developmental Model relevant for understanding juvenile female offending as judged by their association with data-derived typologies? (Note, while power and control appeared as separate

- variables in Morton (2000), their conceptual overlap warranted collapse into one for the purposes of the current study).
- (2) Are the risk factors established in recent "pathways to offending" research associated with the data-derived typologies and the salient feminist developmental themes therein (e.g., connection, self-esteem/identity, and power/control)?
- (3) Are the demographic characteristics of race/ethnicity and class associated with the data-derived typologies and the salient feminist developmental themes therein (e.g., connection, self-esteem/identity, and power/control)?

CHAPTER III: METHODS

Introduction

The overarching question guiding the current study was: "Is the Traditional Feminist Developmental Model appropriate for use with juvenile female offenders?" If gender-specific programming for juvenile female offenders was conceptualized on the foundation of the Traditional Feminist Developmental Model, it was important to know if, and to what extent, the model applied to these females who may have varied from typical development. It was also important to know if, and to what extent, the model was associated with previous research on risk factors for juvenile female offending, as well as whether or not the model could account for variations associated with race/ethnicity and/or class.

One way to approach these questions would have been to conduct face-to-face interviews with juvenile female offenders about themselves and their lives. Data could then have been examined for themes that were consistent or inconsistent with the feminist developmental framework, as well as any variations based on race/ethnicity and/or class. While this was the initial desired goal of the current research, due to structural barriers in accessing juvenile female offenders in the State of Maryland (e.g., transition from Democrat to Republican Governor resulting in Department of Juvenile Justice overhaul and dissolution of research approval committee), as well as in surrounding states, a less direct approach toward the same end had to be taken. Specifically, using secondary data from Owen and Bloom's 1996 research project with juvenile female offenders in the California Youth Authority (CYA), cluster analysis was conducted in an attempt to identify typologies of juvenile female offenders based on their responses to open-ended

interview questions. Responses were coded for Traditional Feminist Developmental themes so that in the end, the data might indicate consistencies and/or inconsistencies between the Traditional Feminist Developmental Model and data-derived typologies of juvenile female offenders. After clusters were determined, the association between previously identified risk factors for offending and cluster membership was examined. For example, was victimization (as assessed through abuse history data) associated with a particular cluster (i.e., typology)? If so, was that typology consistent with the Traditional Feminist Developmental Model? Finally, variables of race/ethnicity and class were assessed for association with cluster membership. Specifically, was race/ethnicity and/or class associated with a particular typology, and if so, was that typology consistent with the Traditional Feminist Developmental Model?

Data Source

The current study used data collected by Owen and Bloom (1996) from 162 randomly selected juvenile female offenders in the CYA's Ventura School Youth Correctional Facility for Girls (hereafter, the Ventura School). The CYA is a department in California's Youth and Adult Correctional Agency, receiving its offender population from both juvenile and criminal court referrals. There are three ways offenders may be sent to CYA: (1) if they are committed by a juvenile court, (2) if they are tried as adults and committed by a criminal court, or (3) if they are tried as adults and committed to the California Department of Corrections but are ordered to be housed in a CYA facility. The Ventura School, specifically, is one of the CYA institutions housing female offenders ages 13 through 25, and having a wide variety of treatment, educational and vocational programs, as well as a variety of work programs.

The study by Owen and Bloom (1996) involved face-to-face interviews with 162 females at the Ventura School during the summer of 1996. The sample of females was randomly selected from a May 1996 census of female wards by the CYA research staff. Thirteen young women were unavailable for interviews for a variety of reasons, and five young women declined to be interviewed. The overall refusal rate was approximately three percent, leading the authors to report that the interview sample was representative of the entire population. Owen and Bloom's data from this sample are currently archived at the National Archive of Criminal Justice Data (NACJD) through The Inter-university Consortium for Political and Social Research (ICPSR) at the University of Michigan in Ann Arbor and are accessible to researchers for the purpose of statistical reporting and analysis.

With regard to subject confidentiality,

The National Archive of Criminal Justice Data performs a number of procedures to ensure that the identity of research subjects cannot be disclosed. All direct identifiers are omitted from datasets as part of the process of preparing the data for public release. Sometimes, combinations of characteristics can be used to identify individuals. In that event, some of those characteristics are also recoded or masked to prevent identity disclosure (NACJD, 2003).

Sample Characteristics

In order to provide a more complete picture of the population of juvenile female offenders to be examined herein demographic data on the sample are provided.

Specifically, the sample being studied may be characterized in terms of the following

variables: age, ethnicity, parenthood status, schooling, offending history, education, substance use, and family structure including family economic status, and abuse.

Age/Ethnicity/Parenthood Status

One-hundred-sixty-two females were studied. The females ranged in age from 13 to 24 with a mean age of 17.59 years. With regard to ethnicity, the majority of females were Hispanic (34.6%), White (22.8%), or Black (16.7%). Asians and Pacific Islanders followed at 4.3% and 3.7%, respectively. With the exception of Puerto Rican (1.2%) and Native American (2.5%), the remaining seven categories consisted of "mixes" (e.g., Puerto Rican/Black Mixed) and accounted for a total of 14.2% of females. Slightly more than a quarter of the females (27.2%) had children.

Offending History

Offending history of the females indicated an early entry into criminal behavior. Specifically, the mean age at first "trouble" was 12.04 years (range 5-19 years), with the mean age at first sentencing 13.31 years (range 8-19 years). Females were serving their California Youth Authority sentences for a variety of offenses ranging from homicide (8.0%) to running away (0.6%) (see Appendix A). Additionally, Owen and Bloom (1996) created offense categories (e.g., violent, violent with weapons, property, drugs/alcohol) so as to better identify a breakdown in the types of offenses committed by the girls (see Appendix B). Results indicated that 65.9% of the females had violently offended. *Education*

With regard to educational status, most of the females (76.6%) were at the high school level (10.5% having completed 4 years of high school, and 65.1% having had 1-3 years) whereas 9.3% had only completed elementary level schooling and 8.6% had 1-3

years of college. Nearly half (47.0%) reported having quit high school prior to their current incarceration.

Substance Use

Substance use was widespread among the females. Alcohol and marijuana use were the most common. In particular, 95.6% of the females reported using alcohol and 90.7% using marijuana. Amphetamines/speed/crank followed with more than half (56.5%) of females having used. Cocaine was not far behind with reported use at 42.4%. Finally, 23.6% of the females reported using crack and 13.7% reported using heroin.

Family

Family structure was varied for these girls, with a minority of the females (24.7%) having had married parents. More commonly, 33.3% of the females had divorced parents, 11.1% had separated parents, 22.8% had parents who were never married, 6.8% had a parent who was widowed, and the remaining females (1.2%) had parents with "Other" status.

With regard to family economic status, 64.2% of the females reported that their family had received public assistance at some point in their lifetime. Almost half of the females (43.9%) estimated their family's prior year earnings at less than \$25,000, with nearly 20% of the females (19.8%) reporting less than \$10,000. Thirteen percent of the females estimated their family's earnings in the prior year at above \$40,000. More than one-fourth of the females (27.2%) were unable to estimate the income figure.

In terms of childhood experiences, incarceration of a family member was common. Specifically, 88.9% of the females reported having had a family member arrested at some point, and 85.2% of the females stated that a member (or members) of

their family had been in jail or prison. The incarceration of a parent/guardian however, was less common, though present. More than a third (38.3%) of the females reported having had a parent/guardian in jail while they were growing up, whereas 38.3% did not experience this situation, and the remaining 23.5% of the females did not respond. Many of the females spent time in their childhood living somewhere other than their home. Particularly, 35.8% spent some time living in a foster home, and half (50.6%) lived in a group home.

Females had widespread diversity in their living arrangements prior to arrest. Sixteen percent were living with their mother alone, 12.3% were living with both parents, 12.3% were living with a spouse/partner, 9.9% with friends/roommates, 6.2% were living with other relatives, and 6.2% were homeless. The remaining females were divided up among nine other living situations (e.g., "other community program") with no more than 5.6% in any category.

Abuse

Abuse was common as well. More than two-thirds (69.8%) of the females reported having been physically abused "as a child" (age not specified in original question). Nearly half (45.7%) reported having been sexually abused as a child, and 67.9% reported emotional abuse/neglect in their childhood.

Measures

Owen and Bloom's 1996 study was designed to assess the needs and characteristics of the female juvenile offender population in California, as well as to evaluate the existing Ventura School program structure. The authors' instrument contained 200 questions, in both closed- and open-ended formats. Targeted areas of

investigation included demographic information, social and economic background, criminal history, and correctional experiences.

As noted earlier, the current study is guided by the overarching question of whether or not the Traditional Feminist Developmental Model is appropriate for use with juvenile female offenders. Answering this question requires attention to three specific questions. Measures for the three questions are addressed below.

Question 1: Testing for Typologies

The first question is: Are the themes of connection, self-esteem/identity, and power/control as presented in the Traditional Feminist Developmental Model relevant for understanding juvenile female offending as judged by their association with data-derived typologies? To answer this question qualitative data from open-ended questions in Owen and Bloom's 1996 study were used. Specifically, a total of 89 response statements made by the females to four open-ended qualitative questions were coded for Traditional Feminist Developmental themes. These four questions from the original data set were selected for use in the current study due to their focus on the motivation, thoughts, and beliefs influencing the females' involvement in delinquent behavior. The questions are:

- (1) How did your family's involvement with the criminal justice system affect your life?
- (2) Could you describe some of the reasons that you ran away [from home]?
- (3) Can you describe for me some of the reasons that you think you started getting involved in these things that you have just told me about? (Refers to questions about offense history and gang involvement)
- (4) What were your reasons for committing the offense that got you here?

The remaining qualitative questions pertained to employment and demographic information and were thus not of interest to the current analysis (e.g., Where did you learn how to do these jobs?).

Question 2: Relevance of Risk Factors

The second question is: Are the risk factors established in recent "pathways to offending" research associated with the data-derived typologies and the salient Traditional Feminist Developmental themes therein (e.g., connection, selfesteem/identity, and power/control)? To answer this question the current study used quantitative data from Owen and Bloom's 1996 study that corresponded to the identified risk factor in "pathways to offending" research. Specifically, such research identified the following risk factors for juvenile female offending: (1) abuse/victimization, (2) mental health needs and substance abuse, (3) academic failure/school dropout, and (4) family. Following each category heading below are the measures from Owen and Bloom's study that were used for analysis. It is important to note, however, that the data, and thus results, were limited by the narrow indicators available for each variable. For example, the data set did not allow for adequate assessment of mental health needs, rather the indicator more accurately represents awareness of mental health needs and desire for/evaluation of treatment. Additionally, there are single item indicators for constructs. For example, the assessment of academic failure is limited to a single question about school drop-out.

Abuse/Victimization

These data include questions of physical and sexual abuse.

| Question 132 | Have you ever been physically abused/harmed/hitas a child? | | | | | |
|--------------|--|--|--|--|--|--|
| Question 138 | Have you ever been sexually abusedas a child? | | | | | |

Awareness of Mental Health Needs and Substance Use

These data include questions about mental health counseling, as well as substance use with alcohol and illicit drugs. For the purposes of the current study substance use for alcohol was assessed with the question "Is alcohol a problem." Conversely, other drug use was assessed with questions about whether such substances were *ever* used. Since marijuana, heroin, powdered cocaine, amphetamines, speed, crank, and crack are illegal drugs, *any* use of the substances was considered by the researcher to be problematic and therefore was not assessed specifically with questions about whether or not it was problematic.

| Question 158 | Would you like to receive counseling or participate in a program dealing | | | | | |
|--------------|--|--|--|--|--|--|
| | with surviving abuse? (asked of those abused) | | | | | |
| Question 159 | [For those that have received any counseling], do you feel that any | | | | | |
| | counseling you have received has helped? | | | | | |
| Question 161 | Is alcohol a problem? | | | | | |
| Question 162 | Have you ever used marijuana? | | | | | |
| Question 163 | Have you ever used heroin? | | | | | |
| Question 164 | Have you ever used powdered cocaine? | | | | | |
| Question 165 | Have you ever used amphetamines/speed/crank? | | | | | |
| Question 169 | Have you ever used crack? | | | | | |

Academic Failure

These data consist of a single question about school drop-out.

| Question 11 | [For those not finishing high school], what were your reasons for |
|-------------|---|
| | quitting? |

Family

These data include questions of parent marital status, parent level of education, family structure, economic strain, and incarceration status of family members.

| Question 5 | What is your parents' marital status? | | | | | |
|------------------|---|--|--|--|--|--|
| Question 8 a & b | What is the highest level of school, including any | | | | | |
| | vocational/technical school that your mother has completed? Father? | | | | | |
| Question 46 | Right before you were arrested for this term, where and with whom | | | | | |
| | did you live? | | | | | |
| Question 35 | Has your family ever received public assistance/welfare? | | | | | |
| Question 58 | Have any members of your family ever been in jail/prison or any | | | | | |
| | kind of detention? | | | | | |
| Question 60 | [If yes to question 58] Was this while growing up in their care? | | | | | |
| Question 71 | Did you ever live in a foster home? | | | | | |
| Question 72 | Did you ever live in a group home? | | | | | |

Question 3: Relevance of Race/Ethnicity and Class

The third question is: Are the demographic characteristics of race/ethnicity and class associated with the data-derived typologies and the salient Traditional Feminist Developmental themes therein (e.g., connection, self-esteem/identity, and power/control)? To answer this question the current study used quantitative data from Owen and Bloom's 1996 study that corresponded to race/ethnicity and class. Specifically, the following measures were used:

| Question 1 | How do you describe your race and ethnic origin? | | | | | |
|--------------|---|--|--|--|--|--|
| Question 33b | Please estimate/guess the amount of money your family earned the last | | | | | |
| | year (prior to arrest). | | | | | |

It should be noted that the data for class are limited by each subject's ability to accurately assess the amount of money earned by her family during the year prior to her arrest.

Procedures

Response statements to the four-open ended questions were coded for Traditional Feminist Developmental themes as will be explained further. It should be noted that because the original study's questions were open-ended, subjects had the opportunity to give as few or as many responses as they desired. Thus, the number of responses varied by subject.

Coding was conducted by six female scholars (5 Caucasian, 1 African American) from varied disciplines within the social sciences, specifically Family Studies, Women's Studies, and Counseling Psychology. All women hold faculty positions at institutions with a Doctoral/Research University (Extensive or Intensive) Carnegie classification. Further, all women are recognized contributors to the feminist literature within their respective fields. As an appreciation for coding, Coders were given the opportunity to list a charity/organization for which a \$20.00 donation would be made in their name by the Investigator. Four of the six coders accepted the opportunity whereas two declined the opportunity. Donations were paid by the Investigator to the specified charities upon receipt of all coding materials.

The coding was done in a two part process. First, coders were asked to code each of the 89 response statements given to the four open-ended questions. Specifically, coders were mailed response statements on 3x5 note cards (1 statement per card) and instructions for coding statements according to one of the following three major Traditional Feminist Developmental themes: (1) connection, (2) self-esteem/identity, (3) power/control, or (4) N/A – not indicative of any of the three designated Traditional Feminist Developmental themes. For example, the statement "Looking for emotional

fulfillment" would be rated as connection. "To feel powerful" would be rated as power/control. "I didn't care what happened to me" would be rated as self-esteem/identity, and a statement such as "Ignorance of the law" would be rated as N/A. Coders were asked to place each 3x5 response statement card into the corresponding ziplock bag with the theme code. For example, when a coder designated a statement as N/A, that response statement card was placed into the corresponding N/A ziplock bag. Once all response statements were coded, they were placed in the designated return envelope and mailed back to the investigator.

Statements were then grouped by the investigator based on 2/3 interrater agreement (minimum of four out of six coders agreed on the developmental theme). If the 2/3 interrater agreement was not met for a given statement it was excluded from the analysis.

Once statements were grouped into general categories during the first coding segment, coders were mailed three separate sheets of paper containing statements – one sheet of statements for each theme (connection, self-esteem/identity, and power/control). Coders were asked to code each statement within each designated group, whether or not they had originally coded it as such, according to the following codes: (1) C^+ – connection that is consistent with the Traditional Feminist Developmental Model (i.e., emphasis on connection with others), (2) C^- – connection that is inconsistent with the model (i.e., not wanting to connect with others), (3) C^2 – connection unspecified (i.e., with too little information to diagnose model consistency), (4) S^+ – self-esteem/identity that is consistent with the model (i.e., self-esteem/identity based on/tied to others), (5) S^- – self-esteem/identity that is inconsistent with the model (i.e., self-esteem/identity based

on something other than others, such as achievement), (6) S^2 – self-esteem/identity unspecified, (7) P^+ – power/control that is consistent with the model (i.e., power/control derived from *doing for* others/connection with others), (8) P^- – power/control that is inconsistent with the model (i.e., power/control *over* others, or derived from something unrelated to other people), or (9) P^2 – power/control unspecified. Coders were asked to write the code next to each response statement on each sheet. Coders were also encouraged to provide written feedback on the process.

The second pass-through coding was also based on 2/3 interrater agreement. Statements that did not make the 2/3 interrater agreement mark in the second pass-through coding scheme were coded as "unspecified." Once data were coded they were entered into SPSS according to their codes. Additionally, each subject received a count for the number of her responses falling in each of the ten codes (C⁺, C⁻, C², S⁺, S⁻, S², P⁺, P⁻, P², and N/A). "N/A" codes were kept in the analysis for the purpose of assessing model deviance. For example, a cluster consisting primarily of "N/A" responses may indicate inapplicability of the Traditional Feminist Developmental Model tenets in the realities of juvenile female offenders. The counts within these ten categories served as each subject's response pattern, from which the following analyses were conducted.

Data Analysis

Data analyses were conducted for each of the three specified research questions. Following is each question along with the relevant data analysis procedures.

Question 1: Testing for Typologies

The current study used cluster analysis to test for the existence of typologies of juvenile female offenders based on their patterns of response statements coded for

Traditional Feminist Developmental themes. The purpose of cluster analysis is to identify "natural" structures in a data set by partitioning a set of objects (e.g., people) into groups so that objects within a group are similar and objects in different groups are dissimilar based on their data (Dimitriadou, Dolnicar, & Weingessel, 2002). Through this clustering process, researchers have the ability to examine classifications of groups: (1) based on previously developed hypotheses about the objects (i.e., confirmatory), or (2) as a way to develop hypotheses concerning the nature of the data (i.e., exploratory) (Hair, Anderson, Tatham, & Black, 1998). The current study is concerned with both. With respect to the confirmatory aspect of the study, clusters were examined for consistency with the Traditional Feminist Developmental Model and its basis in typical adolescent females. With respect to the exploratory aspect of the study, deviations from the model were analyzed and typologies unique to the juvenile female offending population were described.

Whereas cluster analysis is simple in concept, it is a complex procedure with many choice points made by the researcher along the way, particularly with regard to clustering method. Cluster analyses may be described in terms of five main procedural components: (1) similarity measure, (2) clustering method, (3) computer software program for analysis, (4) stopping rule, and (5) validation procedure(s). *Similarity Measure*

Similarity measure (also known as distance measure) refers to the quantitative method for determining similarity or dissimilarity between cases (Dimitriadou et al., 2002). The choice of similarity measure is determined primarily by the nature of the data being used for an analysis (e.g., interval, count, binary). In the current study, all

responses given for the four qualitative questions were coded into one of the 10 specified codes (e.g., C^+ , C^- , C^2 , S^+ , S^- , S^2 , etc.). The result was that each female had a count of the number of types of responses she gave across *all* stimulus questions. [For the purposes of the current study the emphasis was on the feminist relevant content of the statements *as a whole*, rather than the breakdown of content by question. Thus, in the current analysis, attention was not paid to which statements were in response to which questions]. So, for example, assume Female 1 (see below) gave a total of four responses to the four qualitative questions. Two of her responses were of the "connection inconsistent with model" (C^-) type, one response was of the "self-esteem/identity consistent with model" (S^+) type, and one response was of the "power consistent with model" (S^+) type, and one response pattern (a.k.a., "response pattern counts").

Female 1

| Code | C ⁺ | C. | \mathbf{C}_{s} | \mathbf{S}^{+} | S | $S^{?}$ | \mathbf{P}^{+} | P. | P? | N/A |
|--------|----------------|----|---------------------------|------------------|---|---------|------------------|----|----|-----|
| Counts | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 |

So, with respect to the current study, assessing similarity among females translated to assessing the similarity between response pattern counts for each female – essentially, how similar were the response patterns among girls.

In general, there are two similarity measures used for count data: (1) Chi-square and (2) Phi-square (Anderberg, 1973). These two measures are alike in that they are both based on the chi-square test of equality for two sets of frequencies. The difference between the two measures is that the Phi-square value is normalized by the square root of the combined frequency whereas the Chi-square depends on the total frequencies of the

two cases being compared at any given time (Anderberg, 1973). Therefore, because some females in the original Owen and Bloom study gave multiple responses to each question, it was necessary to use a similarity measure in the current study whose value did not depend on the total frequencies of the two cases being compared. Thus, the Phi-square similarity measure was used in the current study.

Clustering Method

Clustering method refers to the procedure used to group similar observations into clusters. There are seven major families of clustering methods; however, for the purposes of the current study, the discussion will focus on the two most relevant to conducting cluster analysis with categorical variables and a small dataset. The methods are: (1) hierarchical agglomerative and (2) iterative partitioning. The major difference between the two methods has to do with the way in which clusters are formed. In hierarchical agglomerative clustering the objects (or people) are merged sequentially beginning with one case and then adding cases based on distance (i.e., similarity). In iterative partitioning, the number of clusters is set by the researcher based on some a priori method and then objects are assigned to their closest cluster, either through distance from the closest centroid (i.e., cluster center point) or based on some statistical criterion. The current study used a method that combines the strength of both hierarchical agglomerative and iterative partitioning clustering. The following provides a more complete description of the two methods, a summary of the combined method used, as well as the rationale for the decision.

Hierarchical agglomerative clustering. In hierarchical agglomerative clustering, objects are sequentially merged based on similarity. In the first step each object starts out

as its own cluster. In subsequent stages, the two closest clusters (single- or multi-case) are merged into a new agglomerated cluster. This process continues hierarchically until there is one final cluster (Hair et al., 1998), however, most often the data are not best characterized by that cluster. Instead, researchers use a procedure to determine an optimally descriptive number of clusters, k. This procedure, referred to as a stopping rule, will be discussed further in the "stopping rule" section.

Within the hierarchical agglomerative family, a number of different methods exist. The primary difference among methods is based on the rules for cluster formation (also known as the "clustering algorithm"). The current study will use the average linkage method, which posits that a case or cluster is joined to an existing case or cluster when the computational average of their members' distances from each other is smaller than said average for any other pair of clusters (single- or multi-member) (Sokal & Michener, 1958). Popular in the biological sciences and increasingly common in the social sciences, average linkage is said to maintain the nature of the original space (i.e., the relation among data points in a multivariate space), and thus does not tend to impose an inappropriate structure on the data (Aldenderfer & Blashfield, 1985).

Iterative partitioning clustering. While many iterative partitioning methods exist, as with hierarchical agglomerative approaches, all generally follow the same format (Anderberg, 1973). First, a data set is partitioned (either arbitrarily or purposively) into some specified number of clusters, and the centroid (i.e., spatial center) of each cluster is computed. Each data point then gets allocated to the cluster that has the nearest centroid. Once all data points are clustered, the centroid of the new cluster is computed and the process repeats. Allocation of data points to the nearest centroid and computation of the

new centroids is then done iteratively until data points no longer change clusters (Anderberg, 1973). Essentially then, iterative partitioning ceases when the partition of points is at its optimum – defined as having a minimal sum of point-to-centroid distances, summed over all k clusters. Thus, a solution is at its optimum when the movement of any single point to a different cluster increases the total sum of distances (Seber, 1984).

Iterative partitioning methods are attractive for a number of reasons. First, because they work on raw data rather than dissimilarity data matrices (matrix of distance measures between all pairs of individuals), these methods are equipped to handle larger data sets than hierarchical agglomerative methods (Aldenderfer & Blashfield, 1984). Second, and more importantly, unlike hierarchical agglomerative methods which make only one pass through the data, iterative partitioning methods make multiple passes through the data and thus are able to make up for poor initial partitioning (Aldenderfer & Blashfield, 1984).

Partitioning methods are generally differentiated in three ways, the first of which is by their choice of initial partition. Second, they are differentiated by their type of pass through the data – specifically the way in which cases are assigned to clusters. Cases are generally assigned by either "*k*-means passes," with the reassignment of cases to the cluster with the nearest centroid (as in the current study), or "hill climbing passes" which move cases about on the basis of whether or not the proposed move optimizes the value of some statistical criterion. Third, partitioning methods are differentiated by the manner in which partitions are chosen. Partitions can be chosen randomly or by the researcher based on some a priori assumption (Aldenderfer & Blashfield, 1984).

Research and rationale. Two relevant clustering methods have been discussed for use in the current study: (1) hierarchical agglomerative and (2) iterative partitioning. The question for the current investigation was which of the two other clustering algorithms to use. The answer to this question was informed by research examining the practical applications of these methods. Hand and Everitt (1987) conducted a Monte Carlo investigation of the performance of five hierarchical agglomerative techniques using categorical data. They found that average linkage performed consistently well and was a sound strategy for use with these types of data. Given these findings, there was a solid argument for use of the hierarchical agglomerative method using average linkage in the current study. Although the argument could legitimately end here, the benefit of multiple passes through the data accomplished by iterative partitioning methodology warranted further examination of research.

A Monte Carlo study by Milligan (1980) comparing hierarchical agglomerative, iterative partitioning, as well as two alternative methods based on a combination of both proved insightful. Both alternative procedures consisted of a *k*-means pass - one with starting seeds (i.e., centroid values) obtained using average linkage, and one with starting seeds obtained from valid a priori information. Results indicated that although the sole hierarchical agglomerative strategy performed well, the *k*-means pass with initial starting seeds from average linkage (a combined method) placed in the superior performance group under all conditions examined and ranked best overall.

As noted earlier, although a sole hierarchical agglomerative strategy using average linkage appeared to be a sound method of choice for the current study, Milligan's (1980) work offered evidence to support a method which combined the strength of

average linkage with the added benefit of iterative partitioning to redress any poor initial partitioning of data. Thus, the *k*-means pass with initial starting seeds using average linkage seemed both a reasonable, and optimal, clustering algorithm for the current study. *Computer Program for Analysis*

SPSS version 11 was used for all cluster analyses in the current study. SPSS was selected as the program of choice based on its extensive cluster analysis capabilities, as well as with its facility for handling count data.

Stopping Rule

A primary use of cluster analysis in the social sciences is to identify distinct sub-populations within the larger population. Accomplishing this task requires determining which number of clusters, k, to accept as representative of true population differences (i.e., what is the "true" number of clusters). The criterion used to determine k is referred to as a "stopping rule" (Atlas & Overall, 1994).

In the social sciences, two approaches have been utilized to determine the number of clusters in a solution (i.e., the stopping rule): (1) heuristic procedures, and (2) formal tests (Aldenderfer & Blashfield, 1984). Although heuristic procedures (e.g., inspecting cluster structure in a chart known as a dendrogram) are by far the most commonly used methods, these procedures are "hardly satisfactory because [they are] generally biased by the needs and opinions of the researcher as to the 'correct' structure of the data" (Aldenderfer & Blashfield, p. 54). Therefore, more formal procedures for stopping rules are preferred for reliable and valid research outcomes.

The stopping rule procedure that was used in the current study belongs to a class of stopping rules that identify a cluster solution by measures of similarity or distance

between clusters at each successive step of the clustering process (Hair et al., 1998). The cluster solution is thus defined when the similarity measure exceeds some specified value, or when values between successive steps increase disproportionately. To elaborate briefly, at each stage of clustering increasingly distant entities are being joined. When there is a markedly disproportionate increase in that distance, one infers that truly distinct clusters are now mistakenly being merged. Hence, clustering should stop. Milligan and Cooper (1985) reported that such stopping rules provide fairly accurate decisions in empirical studies. Specifically, the current study used fusion coefficients (the distance between clusters being combined at given stages of clustering) to indicate when clusters that are unexpectedly distant, and thus dissimilar, have been joined together. The number of clusters prior to the significant jump in fusion coefficient value was thus considered the most probable solution (Aldenderfer & Blashfield, 1984).

Validation Procedures

Within cluster analysis, validation procedures are used as an attempt to determine whether a given cluster solution is representative of the general population, and thus is both generalizable and consistent over time (Hair et al., 1998). The most direct approach to validation is to compare the cluster solution of a given analysis to additional samples of the population and then assess the correspondence (Hair et al., 1998). Unfortunately, this process can be difficult if no additional samples exist with which to compare. If such a process is impractical for whatever reason, researchers may take a split sample approach. In this case, the research sample is split randomly into two groups and a cluster analysis is conducted in each. Cluster agreement across groups is then examined (Hair et al., 1998).

Unfortunately, neither of these procedures was feasible in the current study. First, there were no additional similar samples from the population with which to assess correspondence. Second, the sample size in the current study was not large enough to provide sufficient power for a split sample approach. Given these constraints, and because the current study was an exploratory endeavor, validation against an external standard was not possible; instead only internal validation procedures were used. Specifically, analyses of variance (ANOVAs) were conducted to validate which variables significantly associated with cluster membership (e.g., do clusters differ in terms of average number of C⁺ responses, etc.). Because only internal validation was examined, caution should be exercised in accepting the typologies inferred herein as representative of the true subpopulations.

In the end then, females with similar response patterns were clustered together, thus creating data-derived typologies of juvenile female offenders. These data served as the starting point to assess whether or not the Traditional Feminist Developmental Model was appropriate for juvenile female offenders. In essence, the typologies that were created from the data were examined for consistencies with the Traditional Feminist Developmental Model, as well as for any deviations from the model.

Question 2: Relevance of Risk Factors

To answer Question Two, the current study explored the association between the identified risk factors for juvenile female offending and cluster membership. For example, how does abuse/victimization relate to typologies of female offenders?

Analyses

The association between variables and cluster membership was analyzed using χ^2 tests of independence for variables of nominal scale, nonparametric Mann-Whitney U tests or nonparametric Tukey's tests for variables of ordinal scale (use dependent on number of clusters in solution), and t-tests or parametric Tukey's tests for variables of interval and ratio scale (use dependent on number of clusters in solution). [Note that no ANOVA omnibus F-test for the interval variables, or Kruskal-Wallis omnibus test for the ordinal variables, was necessary because Tukey's procedure already controlled familywise Type I error rate (Hancock & Klockars, 1996)].

The ultimate goal of these analyses, along with the general cluster analysis preceding them, was that examining typologies of juvenile female offenders based on consistencies and/or inconsistencies with the Traditional Feminist Developmental framework would lead to gender specific programming for this population that could be more precisely implemented. For example, if power/control variables *inconsistent* with the Traditional Feminist Developmental Model were dominant in the realities of abused females, but power/control variables *consistent* with the model were dominant in the realities of substance-abusing females, then an anger management curriculum would probably need to acknowledge and integrate those differences in order to be effective.

Question 3: Relevance of Race/Ethnicity and Class

To answer Question Three, the current study explored the association between race/ethnicity and class and cluster membership. Specifically, is the Traditional Feminist Developmental Model applicable in its current form to *all* females?

Analyses

The association between race/ethnicity and class variables and cluster membership was analyzed using a χ^2 test of independence as described previously. If race/ethnicity and/or class were significantly associated with typology (e.g., ethnic minority females tending to cluster on C^- , S^- , and/or P^- variables with Caucasian females tending to cluster on C^+ , S^+ , and/or P^+ variables), there would be support for the assertion that the Traditional Feminist Developmental Model does not capture the developmental realities for all juvenile females. Additionally, if there were variations in development of juvenile female offenders by race/ethnicity and/or class programming would need to be strengthened through attention to those differences.

Qualitative Analysis of Typologies

Finally, a qualitative analysis was conducted of the response statements dominant for each typology. More specifically, response statements were explored for underlying themes so as to better understand the females within each typology.

CHAPTER IV: RESULTS

Introduction

The goal of the current study was to assess whether the Traditional Feminist

Developmental Model was appropriate for use with juvenile female offenders.

Specifically, the following three questions were investigated:

- (1) Are the themes of connection, self-esteem/identity and power/control as presented in the Traditional Feminist Developmental Model relevant for understanding juvenile female offending as judged by their association with data-derived typologies?
- (2) Are the risk factors established in recent "pathways to offending" research associated with the data-derived typologies and the salient feminist developmental themes therein (e.g., connection, self-esteem/identity, and power/control)?
- (3) Are the demographic characteristics of race/ethnicity and class associated with the data-derived typologies and the salient feminist developmental themes therein (e.g., connection, self-esteem/identity, and power/control)?

Results will be presented below for each of these questions in turn. Prior to addressing the questions, however, results pertaining to the coding of the juvenile female offenders' statements will be presented.

Coding

In the first coding segment (i.e., statements categorized into the general themes) the two-thirds agreement criterion was met for all 89 statements. No statements were discarded. In the second coding segment (i.e., themed statements into *consistent*,

inconsistent, or unspecified groups) 85 of the 89 statements met the two-thirds agreement criterion and were coded accordingly. Within the *connection* theme 20 statements were coded as C⁺ (consistent), zero were coded as C⁻ (inconsistent), and one was coded as C² (unspecified). Within the *self-esteem/identity* theme six statements were coded as S⁺ (consistent), one was coded as S⁻ (inconsistent), and three were coded as S² (unspecified). Within the *power/control* theme three statements were coded as P⁺ (consistent), 11 were coded as P⁻ (inconsistent), and seven were coded as P² (unspecified). Finally, 37 statements were coded as N/A (unrelated to Traditional Feminist Developmental themes). Note that the four statements that did not meet the two-thirds agreement criterion were of the *powercontrol* theme and were thus coded as P² (power/control unspecified); these are included among the seven P² statements mentioned above (see Appendix C for statements and coding results).

Question 1: Testing for Typologies

Results from the hierarchical agglomerative cluster analysis using average linkage supported a 2-cluster solution as indicated by the disproportionate jump in fusion coefficients from a 2-cluster solution to a 1-cluster solution (approximately an 18% jump), thereby suggesting that truly distinct clusters were mistakenly being merged from two clusters to one (see Appendix D for agglomeration schedule and fusion coefficient values). Weaker evidence for a 5-cluster solution was also indicated from the fusion coefficients (approximately a 9% jump).

2-Cluster Solution

Following the hierarchical agglomerative clustering, iterative partitioning was conducted based on the 2-cluster solution. After six iterations convergence was achieved

(i.e., no, or insignificant, changes in cluster centers). Cluster 1 had 72 females whereas Cluster 2 had 90 females. ANOVA results indicated that the variables that significantly contributed to cluster membership differences between the two groups were as follows: (1) C^+ (p = .019), (2) S^+ (p = .016), (3) $S^?$ (p = .011), (4) P^+ (p = .052), and (5) N/A (p = .016), (2) S^+ (p = .016), (3) S^- (p = .011), (4) S^+ (p = .052), and (5) N/A (p = .016). <.001). More specifically, compared to Cluster 2, Cluster 1 was lower on C⁺ (connection consistent), lower on S⁺ (self-esteem/identity consistent), higher on S[?] (selfesteem/identity unspecified), lower on P⁺ (power consistent), and higher on N/A (unrelated) (see Appendix E for ANOVA results and means). S? responses, however, were minimal for both clusters (total S[?] responses=3, mean .07 and .00 for Cluster 1 and Cluster 2, respectively) and thus appear inconsequential. The biggest difference between groups occurred with respect to the N/A variable, with Cluster 1 averaging 2.78 N/A responses compared to Cluster 2 which averaged 0.68 N/A responses. Essentially, Cluster 1 was dominated by N/A responses (responses unrelated to Traditional Feminist Developmental themes), whereas Cluster 2 was dominated by a blend of C⁺, S⁺, and P⁺ responses (responses consistent with the Traditional Feminist Developmental Model). Thus, Cluster 1 may be classified as "Feminist Irrelevant" whereas Cluster 2 can be classified as "Feminist Consistent."

5-Cluster Solution

Following the hierarchical agglomerative clustering, iterative partitioning was also conducted based on the 5-cluster solution. After eight iterations convergence was achieved (i.e., no, or insignificant, changes in cluster centers). Clusters 1 and 4 each had 30 females, Cluster 2 had 33 females, Cluster 3 had 40 females, and Cluster 5 had 29 females. ANOVA results indicated that the variables that significantly contributed to

cluster membership differences among the five groups were as follows: (1) C^+ (p < .001). (2) S^+ (p < .001), (3) P^- (p < .001), and (4) N/A (p < .001) (see Appendix F for results). Additionally, Tukey's tests were used to compare the five clusters in terms of each of the 10 outcome variables (e.g., C⁺, C⁻, C², P⁺, P⁻...) to see what characteristic(s) distinguished each cluster, if any. Results indicated that each cluster had one dominant variable response that statistically significantly differentiated it from all other clusters. Specifically, Cluster 2 was highest on S⁺ (self-esteem/identity consistent) responses with a mean of 1.27 responses per person (nearly three times the next highest cluster). Cluster 3 was highest on N/A (unrelated) responses with a mean of 3.37 responses per person (over twice the nearest cluster). Cluster 4 was highest on C⁺ (connection consistent) responses with a mean of 2.53 (over twice the next highest cluster). Cluster 5 was highest on P (power inconsistent) responses with a mean of 1.68 (over twice the nearest cluster). Finally, Cluster 1, like Cluster 3, distinguished itself in terms of N/A responses. Its mean of 1.60 responses per person was statistically significantly higher than Clusters 2, 4, and 5 although statistically lower than Cluster 3.

Examination of the assignment of females from the 2-cluster membership to the 5-cluster membership (see Appendix G for results) showed the following. With respect to females in the Feminist Irrelevant cluster first, not surprisingly, the greatest number of females (n=40) were assigned to Cluster 3 (defined by high N/A), with next highest number of females (n=18) getting assigned to Cluster 1 (moderate N/A). A smaller number of Feminist Irrelevant females (n=8) were assigned to Cluster 5 which was defined by high P⁻ (power that is inconsistent with the Traditional Feminist Developmental Model). Finally, only a small number of Feminist Irrelevant females

(n=6) were assigned to clusters that were defined by feminist relevant variables. Specifically, five females were assigned to Cluster 2 (high S⁺, self-esteem/identity consistent) and only one female was assigned to Cluster 4 (high C⁺, connection consistent). Thus results from the 5-cluster solution confirmed that the vast majority of Feminist Irrelevant females (80.5%) consistently fell into response pattern groupings dominated by responses that were not relational.

With regard to Feminist Consistent females, examination of the assignment from the 2-cluster membership to the 5-cluster membership showed few surprises as well. First, no Feminist Consistent females moved to Cluster 3 (high N/A) and only 12 moved to Cluster 1 (moderate N/A). Not surprisingly, the greatest number of Feminist Consistent females (n=29) ended up in Cluster 4 (high C⁺) with the second highest number of such females (n=28) ending up in Cluster 2 (high S⁺). Finally, 21 Feminist Consistent females moved to Cluster 5 (high P⁻).

It is important to note what appears to be a discrepancy in the power variable in the 2-cluster solution versus the 5-cluster solution. Specifically, in the 2-cluster solution P^+ (power consistent) was statistically significantly different between the two clusters and P^- (power inconsistent) was not, whereas in the 5-cluster solution P^- was statistically significantly different among clusters and P^+ was not. Upon closer examination of the assignment of the P^- cluster of females to the feminist irrelevant and feminist consistent clusters, the P^+/P^- discrepancy was clarified. Specifically, a *t*-test of the differences between the 8 P^- females assigned to the feminist irrelevant cluster and the 21 females assigned to the feminist consistent cluster on all 10 variables revealed statistically significant differences with regard to P^+ (p=.021), P^- (p=.040), and N/A (p<.001). To

elaborate, the 8 females assigned to the Feminist Irrelevant cluster had more P⁻ (power inconsistent) and N/A (unrelated) responses, whereas the 21 females assigned to the Feminist Consistent cluster had more P⁺ (power consistent) responses. Thus, the P⁺ finding in the 2-cluster solution appears supported by the assignment of cluster 5 females (i.e., statistically significantly higher P⁺ in the Feminist Consistent cluster than in the Feminist Irrelevant cluster). Conversely, differences between females on P⁻ disappeared in the 2-cluster solution, likely as a result of being combined with greater numbers of females in other clusters from the 5-cluster solution. Essentially, the differences in the P⁻ responses were "washed out."

In sum, both cluster solutions appear to be addressing the same groupings of females (i.e., Feminist Irrelevant and Feminist Consistent). One could argue that the 5-cluster solution validates the initial findings in the 2-cluster solution that females appear divided along "relational" versus "irrelevant" lines, or one might simply argue that the 5-cluster solution elucidates the 2-cluster solution. In the end, however, the groupings are essentially the same: Feminist Irrelevant and Feminist Consistent.

Question 2: Relevance of Risk Factors

For the 2-cluster solution, the association between risk factor variables and cluster membership was analyzed using χ^2 tests of independence for variables of nominal scale, the nonparametric Mann-Whitney U test (a statistical procedure used to evaluate the observations of two independent samples on an ordinal level (Siegel, 1956)) for variables of ordinal scale, and a *t*-test for variables of interval and ratio scale. For the 5-cluster solution, the association between risk factor variables and cluster membership was analyzed using χ^2 tests of independence for variables of nominal scale, nonparametric

Tukey's tests for variables of ordinal scale, and parametric Tukey's tests for variables of interval scale. Results for the 2-cluster solution are presented first, followed by results for the 5-cluster solution.

2-Cluster Solution

Abuse/Victimization

Neither physical abuse (p=.339) nor sexual abuse (p=.323) was found to be statistically significantly different between the two clusters.

Awareness of Mental Health Needs and Substance Use

Awareness of mental health needs as seen through desire to receive counseling, as well as through perceived indicated effectiveness of counseling, was not found to be statistically significantly associated with the two-cluster membership (p=.146 and p=.337 respectively). Conversely, some indicators of substance abuse were statistically significantly associated with the two-cluster membership. Specifically, alcohol, marijuana, and cocaine use were statistically significantly associated with cluster membership (p=.040, .043, .034, respectively) whereas heroin, speed, and crack were not statistically significantly associated with cluster membership (p=.941, .090, .454 respectively). In particular, Cluster 1 had higher proportions of members reporting use of alcohol, marijuana, and cocaine than Cluster 2 members - specifically, 38.8% vs. 23.8% for alcohol, 95.8% vs. 86.5% for marijuana, and 51.3% vs. 34.8% for cocaine.

Academic Failure

Academic failure was not found to be statistically significantly different between the two clusters (p=.120).

Family

Parent marital status, mother level of education, father level of education, and family economic strain were not found to be statistically significantly different between the two clusters (p=.285, .319, .979, .409, respectively). Conversely, family structure and incarceration status of family members were statistically significantly associated with cluster membership. Specifically, with regard to family structure, living arrangement prior to arrest as well as having lived in a group home were statistically significantly associated with the clusters (p=.026, .034, respectively).

In terms of living arrangement prior to arrest, cluster comparison indicated the largest differences between clusters occurred in four arrangements: (1) A higher proportion of members of Cluster 2 than Cluster 1 lived with both parents (16.6% vs. 6.9%), (2) A higher proportion of members of Cluster 2 than Cluster 1 lived with a spouse/partner (15.5% vs. 8.3%), (3) A higher proportion of members of Cluster 2 than Cluster 1 lived with friends/roommates (13.3% vs. 5.5%), and (4) A higher proportion of members of Cluster 1 than Cluster 2 had no permanent residence (8.3% vs. 0.0%). Due to the relatively small number of cases in the sample, as well as the large number of living situation options (n=27 options) there was not sufficient power to infer the existence of all of these differences at a population level. Rather, follow-up hypothesis testing indicated that statistically significant proportional differences were detected for two of the four stated living situations, namely the "both parents" household situation (p=.049) and the "no permanent residence" situation (p=.011). While there was not sufficient power to infer the existence of cluster differences in the other two living situations at the population level, the evident proportional differences in the sample were suggestive of

such population differences and thus were worth examining. In terms of living in a group home, Cluster 1 females were more likely to have lived in a group home at least once while they were growing up than Cluster 2 females (55.5% vs. 46.6% respectively).

As pertaining to the incarceration status of family members, whereas "any family member ever in jail/prison" was not statistically significantly different between the two clusters, whether or not a parent/guardian was in jail while the subject was growing up was statistically significantly associated with cluster membership (p=.002). In particular, a higher proportion of members in Cluster 1 reported that a parent/guardian was in jail while they were growing up than Cluster 2 members (64.9% vs. 37.3%). Although Owen and Bloom (1996) grouped parent/guardian together, 94% percent of the "parent/guardian" arrests were specifically mothers or fathers. Cluster 1 members were significantly more likely than Cluster 2 to have had a mother incarcerated (23.6% vs. 5.5% respectively: p=.003), as well as significantly more likely than Cluster 1 to have both parents incarcerated (19.4% vs. 3.3%: p=.003). There was no significant difference between clusters with respect to father incarceration only (13.8% vs. 14.4%).

5-Cluster Solution

Results from analyses of the association of risk factor variables with the 5-cluster membership showed no statistically significant relations (see Appendix H). It is entirely possible that the initial small sample size of 162, when divided into five relatively small clusters, leaves little power to detect statistically significant associations between the clusters and risk factors. Thus, until additional research is done with larger samples the 5-cluster solution remains only speculative. This lack of statistically significant findings with respect to risk factors, in conjunction with the stronger evidence for the 2-cluster

solution as indicated by the fusion coefficients, led to the decision to focus primarily on the 2-cluster solution in this investigation. Therefore, the remainder of analyses and the discussion will concentrate on the 2-cluster solution's Feminist Irrelevant and Feminist Consistent clusters.

Question 3: Relevance of Race/Ethnicity and Class

The association between race/ethnicity and cluster membership was analyzed using a χ^2 test of independence, while the association between class and cluster membership was assessed using the nonparametric Mann-Whitney U test. Neither race/ethnicity nor class were found to be statistically significantly different between the two clusters (p=.517 and p=.302 respectively). Moreover, various recoding of the race/ethnicity variable from 16 codes (e.g., "white, not Hispanic," "white Hispanic," "black, not Hispanic"...) to fewer groupings (e.g., "white," "black," "Hispanic," and "other") produced no significant results.

Qualitative Analysis of Typologies

Toward a better understanding of the two cluster types and the content of the subjects' responses therein, the dominant variables for each cluster were examined in depth. Thus, for Cluster 2 (the Feminist Consistent cluster), an overview of C⁺, S⁺, and P⁺ responses is provided. For Cluster 1 (the Feminist Irrelevant cluster), an overview of N/A responses is provided. Further, and in contrast to the Feminist Consistent cluster, since it is unclear what the Feminist Irrelevant cluster is about, particular attention was paid toward deciphering themes in the N/A responses.

Cluster 2: Feminist Consistent

Connection

Feminist Consistent connection (C⁺) responses were the dominant response type of Cluster 2 females. Statements in this grouping revolved around connection with others and took a few forms. For example, involvement in delinquent behavior was for another person. Girls spoke of "[taking] the rap for others," "helping a friend," refusing to "inform on perpetrator," and protecting themselves and their family. Additionally, crime involvement appeared to be an indirect result of connections. For example, girls "went along with other people," had "family member[s] who [were] crime partner[s]" or were "pressured by a friend." Some spoke of delinquent activity as "gang related," and as the result of "hanging out with the wrong crowd." Further, females spoke of delinquent behavior as the result of wanting to connect with others. Specifically, girls talked about their motivations for criminal behavior as the result of wanting to be with parents, friends, boyfriends, family, and children. Some spoke of being in a gang as having a "second family." Finally, the loss of one or more parents to incarceration resulted in statements about connection - specifically, about feeling "unloved" and "abandoned," as well as not being "able to know them."

Self-Esteem/Identity

Feminist Consistent self-esteem/identity (S^+) response statements were significantly higher in Cluster 2 (Feminist Consistent) than in Cluster 1 (Feminist Irrelevant). It should be noted, however, that the mean number of S^+ responses was still small, with a mean less than 1 per person (mean=.5556).

Six types of responses made up the S⁺ category. In general, motivation for involvement in criminal activity revolved around self-concept in relation to others. Girls talked about wanting to be like others, for example "I admired them, wanted to be like them." Others spoke of "trying to fit in, to be accepted" and "peer pressure." Some females got involved in delinquent behavior as a way to "get attention" and for "emotional fulfillment." Finally, some specifically cited their parents as "bad role models" for them.

Power/Control

Similar to S^+ , P^+ (Feminist Consistent power/control) responses were significantly higher in Cluster 2 (Feminist Consistent) than in Cluster 1 (Feminist Irrelevant), however, the mean number of P^+ responses was small as well, with a mean less than 1 per person (mean=.3444).

Three types of responses made up the P^+ category. Two responses reflected power as a way for the subjects to protect themselves from abuse. Essentially, girls' motivation for engaging in criminal behavior was to "escape abuse" as they were "being abused." The final response in the P^+ category cited the motivation for engaging in delinquent behavior as anger in response to others with whom the females had a relationship.

Cluster 1: Feminist Irrelevant

N/A Statements

Unlike the previous cluster which highlighted the relational aspect of crime, the Feminist Irrelevant cluster's only identifying characteristic was that it was not relational. Toward a better understanding of Cluster 1, the content of "N/A" (unrelated) statements was explored for themes. Five themes emerged. In order of frequency of statements

(highest to lowest) they were: (1) Environment, (2) Self, (3) Others, (4) Drugs/Alcohol, and (5) Money/Resources (see Appendix I for statements by theme).

Environment. The majority of N/A statements were grouped together under "environment." These statements given by the females about their involvement in criminal behavior pointed to environmental circumstances that played a contributory role. For example, females cited being surrounded by crime ("surrounded by it" and "I was surrounded by crime, drugs, gangs"), or being influenced by "life on the streets." Some talked about their involvement in criminal activity as a "way of life." Others spoke of being "kicked out," or "running the streets." In more specific terms, some females mentioned having "school problems," or "being pregnant." Although the specific content varied, the girls' statements tended to point to environmental influences on their delinquent behavior.

Self. The "self" theme that emerged had to do with the girls themselves. Once again, however, the statements were not about connection, self-esteem/identity, or power/control. Rather, "self" statements took a few paths. In some cases "self" statements were about personal shortcomings with respect to involvement in delinquent behavior, for example "poor judgment," "fear," "greed," or "mentally unstable." In other cases, "self" statements were more circumstantial regarding delinquency involvement, for example, "I was bored," "It was fun," "ignorance of the law," or "religious conflicts." Finally, some females simply claimed their general innocence and/or said that they had been arrested by mistake ("Accident/wrong person").

Others. This category of statements was labeled "others" for its relation of other people to explanations of involvement in delinquent behavior by the female subjects.

Whereas for the majority of Cluster 2 (Feminist Consistent) females statements involving other people tended to relate to themes of connection, self-esteem/identity, and power/control, for the majority of Cluster 1 (Feminist Irrelevant) females these statements tended to focus on how others impacted, or contributed to, their delinquent behavior. For example, females spoke of getting into trouble after parents were arrested ("When they were arrested I started getting into trouble"). Some blamed absent parents for neglecting their parenting duties ("They should have been there to raise me right" and "Custodial parent had not control in home because of it"), as well as impacting their value system ("I learned different morals and values because of it"). Finally, some girls cited drug and alcohol use by parents as impacting their involvement in criminal behavior.

Drugs/alcohol. Statements in this category revolved around drugs and alcohol specifically related to the females themselves. In particular, response statements regarding the motivation, thoughts, and beliefs influencing the females' involvement in delinquent behavior were about using drugs ("smoking, using drugs, alcohol," "Intoxicated, high" and "Wanted to get high/drunk") or paying for drugs ("To pay for drugs"). Statements about alcohol/drug use by others were included in the "others" category.

Money/resources. With regard to money/resources, it appeared that economics contributed to delinquent behavior for some females. For example, engaging in delinquent behavior was motivated by money ("to make money"), and economic pressures, including wanting/needing a car. This category had the fewest number of statements.

CHAPTER V: DISCUSSION

According to the Traditional Feminist Developmental Model, females are relational (Miller, 1984). They develop their identity through psychological growth occurring within emotional connections. Among other things, this model posits that females develop their self-esteem, identity, power, and control through their connections with others (Miller, 1984; 1986). Given that this model serves as the theoretical base for gender-specific program development for juvenile female offenders, it is no surprise that the emphasis in programming has been relational. For example programs focus on positive female development and relationship building, including a concentration on "healthy interpersonal relations" and "individualism based on balancing self-importance with connection to others" (Acoca, 1998; Greene, Peters, & Associates, 1998).

Despite the Traditional Feminist Developmental Model's significant presence as the foundation for gender-specific programming, there are important weaknesses in the application of this model to juvenile female offenders. First, the model is based on *typically* developed adolescent females. Second, the model is based on white, middle-class females. Third, the model has little, to no, empirical testing on juvenile female offenders. Given what is known about the early lives of juvenile female offenders (e.g., significant histories of sexual abuse and fractured family relationships), as well as the ethnic and economic diversity of the population, there appeared to be good cause to question the appropriateness of the application of this model to this population of females. In fact, Morton's (2000) study of incarcerated adolescent females revealed a picture of girls that had both consistencies and inconsistencies with the model. Thus the

overarching question guiding the current study was, "Is the Traditional Feminist Developmental Model appropriate for use with juvenile female offenders?"

To answer the question of model appropriateness, incarcerated adolescent females' responses to questions about motivations, thoughts, and beliefs associated with their delinquent behavior were coded for feminist developmental themes and cluster analyzed. The resulting clusters were then analyzed for association with both risk factors, and race/ethnicity and class.

Similar to Morton's (2000) finding, the resulting two clusters of juvenile female offenders revealed both consistencies and inconsistencies with the Traditional Feminist Developmental Model. More specifically, Cluster 2 (the larger cluster, n=90) was consistent with the model. The majority of statements made by Cluster 2 females were about connection, self-esteem/identity, and power/control in a manner consistent with the developmental trajectory of females according to the Traditional Feminist Developmental Model. Conversely, Cluster 1 (the smaller cluster, n=72) was not consistent with the model. Unlike Morton's (2000) study, however, the inconsistencies were *not* about not wanting to connect with others. Rather, what was inconsistent was that the girls in Cluster 1 did not really talk about connection, self-esteem/identity, or power/control much at all as would be expected of "typical adolescent females." Instead, the females discussed their motivations, thoughts, and beliefs associated with their delinquent behavior in other ways. A more in-depth examination of each of the clusters follows below.

Cluster 2: Relational Females (Feminist Consistent)

It is clear from the data that Cluster 2 females are relationally-oriented. They see their involvement in crime as having been impacted by their relationships with others. Initial examination of Cluster 2 variables cited connection, self-esteem/identity, and power/control as relevant for these girls. Upon closer examination, however, what is striking is the predominance of the connection variable in the responses of these "relational" females, whereas self-esteem/identity and power/control responses are far less prevalent. What is the explanation for this emphasis on connection over selfesteem/identity and power/control? Is it that, theoretically speaking, connection is truly the pivotal variable for these females? Is it that, while self-esteem/identity and power/control have some relevance for juvenile female offenders, connection or desire for connection with others forms the basis of their motivation for engaging in criminal behavior? Perhaps a way to understand the dominance of connection is by looking at the methodology of the current study. Coders were asked to code each statement as one variable – specifically they were asked to choose the "most relevant" variable. As will be discussed further in the Study Limitations section, coders did not find this to be an easy task because the very definitions of feminist consistent self-esteem/identity and feminist consistent power/control are fundamentally related to connection. Self-esteem/identity is self-worth that is based on/tied to others, whereas power/control is derived from doing for others. Thus, when confronted with overlapping themes in statements, coders appeared to consistently select connection as the dominant theme. Thus, it is no surprise that connection appears dominant in the responses of these females (hereafter referred to as Relational). And in truth, connection is pivotal for these females – connection in relationships, connection in self-esteem/identity, and connection in power/control. For Cluster 1 (Feminist Irrelevant) females, however, connection appears to be absent in their discussion of motivations for engaging in delinquent behavior.

Cluster 1: Structural Females (Feminist Irrelevant)

Whereas connection was the dominant theme for Relational females, N/A was the dominant theme for Cluster 1 females. In examining the N/A category themes as a whole (e.g., environment, self, others, etc.) there seems to be a common thread. With the exception of the "self" category, all of the N/A themes and their statements appear to be structural in nature. That is to say, they reflect the influence of the external environment on the engagement of crime by the subjects – drugs/alcohol, economic pressure, lack of stable family life, community crime, etc. Thus, it appears that Cluster 1 and Cluster 2 females differ most in their orientation toward their involvement in delinquent behavior. Whereas Cluster 2 females are largely relationally-oriented (connection with others plays a significant role in how they viewed their involvement in criminal behavior), Cluster 1 females are largely structurally-oriented. Another way to frame this difference is that Relational females look to themselves and their relationships to explain their involvement in delinquent behavior. They look inward at themselves and how their thoughts and feelings about others have affected them. Conversely, Cluster 2 females (hereafter referred to as Structural females) look outward at the things in their life that have impacted them and affected their engagement in delinquent behavior. One could argue that an external locus of control (Simons, Drinin, & Irwin, 1987) is operating for "structural" females. That is to say that they believe their lives to be determined mainly by sources outside of themselves: fate, chance, luck, powerful others, and most prominent in this case - environment.

Risk Factors and Cluster Membership

Turning now to a discussion of the association of risk factors to cluster membership, two broad areas of risk factors - substance use and family structure - had significant associations with cluster membership. A comparison of clusters indicated the following risk factor profile: Structural females were more likely than Relational females to use alcohol, marijuana, and cocaine. In terms of living arrangements prior to arrest, two significant differences appeared. First, Structural females were significantly less likely than Relational females to live with both of their parents. Second, Structural females were significantly more likely than Relational females to have no permanent residence. Additionally, although only suggestive of population differences, Relational females were more likely to live with significant others, including spouse/partner and friends/roommates. Structural females were also more likely than Relational females to have lived in a group home at least once while they were growing up. Finally, Structural females were significantly more likely than Relational females to have had a parent in jail while they were growing up. More specifically, they were significantly more likely than Relational females to have had their mother in jail, as well as more likely to have had both parents in jail. Of Structural females who had a parent in jail, most often it was both parents. Of Relational females who had a parent in jail, most often it was the father only.

Examining the data in total, a picture of Structural females starts to emerge.

Taking a chronological perspective of life events, these females were likely to have lost a parent/guardian, and more significantly, both parents, to incarceration for some amount of time during the period they were growing up. As would be expected, the incarceration of their parents appeared to have a significant impact on the girls. N/A statements

revealed that females blamed their parents for neglecting their parenting duties and felt that their parents should have been around to raise them properly. The females spoke of their entry into delinquent behavior after the arrest of their parents. Whether in reaction to life events or as a precursor to delinquent activities, substance use was common. Additionally, evidence that the girls spent time in a group home, as well as their statements about being kicked out of their home, running the streets, and being surrounded by crime portray a less than ideal environment for healthy development for these girls. Finally, whereas Relational females appeared to have relationships with significant others (e.g., mother, father, partner/spouse, and friends) as seen through living situations prior to arrest, Structural females appeared more isolated and more likely to live alone, in a community program, on the streets ("homeless") or without a permanent residence.

Given the multiple risk factors examined for association with cluster membership it is somewhat surprising that so few risk factors appeared significant. According to the results, the two clusters of females are not all that different. For example, there appear to be no race/ethnicity differences, no socioeconomic differences, no educational differences, no differences in histories of abuse, and so forth. Potentially this lack of risk factor differences in clusters is the result of sample that is too small to attain sufficient power to detect differences. Or perhaps these truly are the only risk factor differences that exist in the population. For example, it may be hypothesized that the different orientations in the two clusters (relational vs. structural), and perhaps the resulting differences in substance use and living situations prior to arrest, emerged in part as the result of the differential early losses of parents to incarceration by the two groups.

Perhaps even more interesting is whether the difference in orientations, as well as later life experiences between the two clusters, emerged not simply because Structural females were more likely to have lost parents to incarceration than Relational females, but rather because they were more likely to have lost both parents. As such, one hypothesis for girls defining themselves and their delinquency more structurally than relationally relates to Bowlby's attachment theory (see, e.g., Atkinson & Zucker, 1997). By experiencing a physical loss of parents to incarceration, such females potentially lost their sense of security in being cared for, as well as experienced the disruption of their close parent-child relationships. Such a loss can create an "Insecure" attachment style in which a person has discomfort getting close to others, as well as a difficult time trusting or depending on them (Hazan & Shaver, 1994). As individuals with Insecure attachment avoid relationships it is logical that their orientation would not be relational. Perhaps the relatively high incidence of females with a structural orientation seen in the current study is due, at least in part, to this attachment loss and resulting "Insecure" attachment style.

While it is certainly possible that losing both parents to incarceration might result in girls defining themselves and their delinquency more structurally than relationally – perhaps as the result of missing opportunities for attachment/bonding – it may also be that the difference in orientation is the result of losing a mother to incarceration. Thus, a competing hypothesis about the difference in orientation of the two clusters is that by losing their mothers, the structural females lost significant female role models and thus lost their relational ability – the Traditional Feminist Developmental perspective.

According to Jordan (1991), "the special quality of the early attachment and identification between mother and daughter profoundly affects the way the self is defined in women as

well as the nature of their interpersonal relatedness" (p. 34). Additionally, as noted by Surrey (1991), through the mother-daughter relationship mothers are teaching "mothering, caring, relational practices" such that females learn that "all of life is carried on in a context of attentiveness and responsivity to the other as an intrinsic ongoing aspect of one's own experience, what we call self-in-relation" (p. 57).

Although both theories (Attachment and Feminist Developmental) have different emphases, they share a common theme: sustained relationships. Perhaps as a result of sustained relationships with a mother and/or both parents, Relational females are more likely to develop the ability to connect with others, and/or develop the ability to examine their behavior in relational ways. Conversely, as the result of parental absence, Structural females potentially lose sustained relationships, and with them the ability to connect with others, or at least identify their behavior in relational terms. Rather, instead of seeing themselves as having a role in their behavior, they are focused externally. It is important to note, however, that neither orientation is necessarily better than the other. Both types of females have engaged in delinquent behavior, and both types of females need treatment. The question is what type of treatment should be given, and should it be the same for all females. This question thus gets back to the focus of the current study.

The question at hand is whether or not the Traditional Feminist Developmental Model is appropriate in its current form for gender-specific programming for juvenile female offenders. The answer is a qualified yes. Yes, it appears as if the themes of connection, self-esteem/identity and power/control are relevant for understanding the thoughts, beliefs, and motivations for involvement in criminal behavior by some juvenile female offenders. The qualification, however, is that it doesn't appear relevant for all

females. More specifically, the model does not appear immediately relevant for the Structural cluster of females. Moreover, contrary to the hypothesis that the Traditional Feminist Developmental Model would not be relevant for all females based on race/ethnicity and/or class, the distinctions between clusters appear irrelevant to race/ethnicity and class. Rather the clusters were, at least in part, associated with parent incarceration, substance use, and living situation prior to arrest. Other examined risk factors were not found to be significantly associated with the different typologies.

Programmatic Implications

Given the findings on the relevance of the Traditional Feminist Developmental Model for juvenile female offenders it appears that a more comprehensive framework for gender-specific programming is necessary for the effective treatment of juvenile female offenders. Prior to discussing a more comprehensive approach, a brief review of current gender-specific programming is given.

To briefly recap gender-specific programming, the approach is relational with an emphasis on positive female development including: (1) positive gender identification, (2) healthy interpersonal relations, (3) positive self-esteem, (4) individualism based on balancing self-importance with connection to others, (5) future orientation, (6) understanding and managing physical support, and (7) strengthening family, school, and community support (OJJDP, 1998b). Additionally, gender-specific programming acknowledges risk factors that adolescent females face such as sexism, victimization, poverty, and racism, as well as those risk factors associated with delinquent behavior such as physical and sexual abuse (OJJDP, 1998b). It is important to note, however, that despite such seemingly clear emphases, research indicates that gender-specific programs

have failed to consistently operationalize these components (Greene, Peters, & Associates, 1998). Thus, the actual practice of gender-specific programming across states is not entirely consistent or clear.

Programming inconsistencies aside, in terms of program effectiveness for juvenile female offenders, the current relational approach with an emphasis on connection and self-esteem is likely effective for some girls. In particular, it is most likely effective for girls who fit into the Relational cluster. Such girls see and speak of their involvement in delinquent behavior in terms of connection, self-esteem/identity, and power/control. Thus, the current programming essentially targets change in offending behavior through the constructs that Relational females identify as contributing most to their criminal behavior: relationships and the self-esteem/identity and power/control issues that result from them. For example, one "Promising Program" for juvenile female offenders emphasizes programming where girls are encouraged to "learn about themselves in relation to others" (OJJDP, 1998b, para 15). One component in this program is a therapeutic group where girls explore their behavior as it relates to their roles as daughters, mothers, and sisters. Essentially, gender-specific programming gets to the heart of the matter for these girls and successful intervention in their offending behavior is maximized.

For girls in the Structural cluster, however, the current approach is likely not as effective. Structural females, regardless of whether or not they are indeed relational in other aspects of their lives, do not identify their involvement in criminal behavior in a relational way. Rather than speaking of connection, self-esteem/identity or power/control, their dominant focus is on "environmental" influences on their delinquency. Therefore, an

approach that emphasizes the relational aspects of criminal involvement has the significant potential to be dismissed as not applicable by Structural females. While it is possible that in the end Structural females could benefit from a discussion of healthy relationships, self-esteem/identity, and power/control, attempting relational programming as a first and only approach for all females is akin to fitting a square peg in a round hole. Furthermore, because such girls clearly identify structures in their environment as significantly contributing to their engagement in criminal activity, overlooking that aspect in programming, or even paying minimal attention to it, would likely compromise successful intervention with them. Thus, it appears that maintaining a sole emphasis on feminist developmental gender-specific programming would not optimize success in treatment for all juvenile female offenders. Instead a more comprehensive approach is needed – one that incorporates both feminist development as well as structure.

One potentially useful model with which the Traditional Feminist Developmental Model might be incorporated is the Ecological-Developmental model (Tolan, Kendall, & Guerra, 1995). The Ecological-Developmental model focuses specifically on antisocial behavior and suggests that multiple factors, experiences, and processes, both internal and external to youths, interact to present risk for the development of antisocial or aggressive behaviors. In this way, the Ecological-Developmental perspective emphasizes personenvironment interactions – essentially incorporating the way that the environment has impacted the girls' involvement in crime. Thus, not only are the individual youths and their development important, but so are their families, peer groups, cultural contexts, communities, and larger society. Therefore, an effective treatment program within this

framework is one that requires multiple intervention strategies at all levels of the individual's life.

Application of this model to gender-specific programming does three important things. First, because of its broad emphasis (i.e., individual to societal levels) it does not exclude Relational or Structural females. It offers an opportunity for all females to identify the multiple influences on their engagement in criminal activity – whether they are relationships or more structural influences. For example, if Relational females cite relationships as the major influence on their involvement in delinquent behavior then treatment should incorporate the relational components of the Feminist Developmental Model currently used in gender-specific programming. Conversely, if Structural females cite environmental structures as the major influence(s) on their behavior then treatment might incorporate a discussion of what the girls feel would need to change in their environment to promote success for them, as well as a plan for making those changes. For example, if females discussed being influenced by "life on the streets" and being surrounded by crime, it would be necessary to find out from the girls the specifics of how they feel they get pulled into criminal behavior. For example, do they get involved to maintain status in a group? Or, do they get involved because they feel forced or are threatened? Perhaps they get involved in crime as a result of needing some type of success in their lives, or even resources. Depending on the information given by the females treatment could then be tailored to helping females find ways to not get pulled in - whether it means avoiding certain areas or people in their neighborhood, finding other avenues for success, or developing skills to gain resources they need. Additionally, if at any point in their treatment such females feel as if relationships have been, or could be,

important to their behavior, they could be involved in the relational programming as well. For example, these females might be asked to think about who the important people are in their lives, whether they want relationships with others, and how they might connect with others or establish friendships/support networks – essentially learning to build and sustain relationships. In this way, the Feminist Developmental Model and its components are incorporated as one piece within a larger framework, and it is not mistakenly presumed applicable to all females.

The second important piece of the Ecological-Developmental model with respect to current gender-specific programming is its emphasis on intervention at multiple levels. Such multi-level intervention provides the opportunity for the risk factors for juvenile female offending to be addressed comprehensively and as a priority rather than as an afterthought. For example, one of the risk factors of juvenile female offending is academic failure/school dropout. Currently, gender-specific programming does not appear to emphasize treatment with respect to school issues. With an ecologicaldevelopmental approach, education would be a major component in treatment – not only individually (e.g., academic assistance, discussion of managing school), but at the school/community level. For example, treatment might include setting up support networks/resources in school systems so that re-entry into a school would be successful. The same would go for the other risk factors, including substance use treatment, as well as family level factors. So with respect to families, for example, treatment might include family therapy to build relationships, as well as education and support for females to be able to successfully form their own families when the time is right. Treatment might also include technical support with regard to money/resources. For example, females could be trained, or placed in training programs, so that upon re-entry into society they would have skills to get a job that would provide economic security. Additionally, females might learn other practical skills such as managing money. In essence, in a comprehensive approach to programming for Structural females would include helping girls learn how to successfully manage their external environment, while additionally having the opportunity to gain knowledge about, and build, sustainable relationships.

The third and final important piece of the model with respect to current genderspecific programming is that its ecological focus offers an important treatment opportunity for minority females who, as previously noted, are currently overrepresented in the juvenile justice system. Specifically, the Ecological-Developmental model emphasizes the identification of the multiple societal and contextual influences on offending behavior. According to Collins (1998), minority females are significantly and profoundly influenced by their marginalization as women and as minorities. Essentially, the intersections of race, gender, and class "shape any group's experience across specific social contexts" (p. 208). For example, in interviewing incarcerated black women about their childhoods Richie (1996) found that gender, race, and class played important roles in their lives and paths to offending. With regard to gender specifically, Richie stated that most of the women she interviewed felt that their lives would have been very different if they had been male and that "being female children in their households was a significant factor in creating negative experiences in their lives" (p. 59). Whereas their male siblings had more freedom, the women felt tied to roles in the household such as caring for younger children and maintaining the house.

With regard to race/ethnicity, Richie (1996) noted that the women felt that their race/ethnicity shaped community norms, family values, and their experiences in the social world. For example, the women stated that, on one hand, being black created "an almost universal connection to African American people and a deep sense of cultural pride" that was both empowering and which helped to create a cohesive family unit (p. 61). Conversely, the women stated that this racial solidarity limited their self-determination, independence, and autonomy and left them vulnerable, for example by being expected to participate in illegal activities with black males. Finally, Richie described how the women felt that their economic marginalization, in addition to the color of their skin, left them feeling both hopeless and discouraged about their futures. The women stated that they reacted to these feelings by "giving up" or "dropping out" (p. 136).

Richie's 1996 study clearly illustrates that intersections of race, gender, and class can profoundly shape the experiences of minority females. Thus, gender-specific programming that offers and opportunity for minority juvenile females to explore such issues such as their gendered family status, their social position as minority women in their community, as well as their economic marginalization and the influence that these issues have had on their offending behavior appears both necessary and powerful for treatment effectiveness. With the Ecological-Developmental model as the framework for gender-specific programming, the exploration of race/ethnicity, gender, and class as they impact minority females and their involvement in delinquent activity is practicable.

While the incorporation of this blended model would require significant planning and resources to implement, it appears comprehensive in its scope and applicability to

juvenile female offending. Potentially, such a model could provide great success in the treatment of juvenile female offenders. Caution must be exercised, however, in accepting this programmatic recommendation without further investigation due to the limitations of the current study.

Study Limitations

As noted previously, the current study was not the optimal way to assess the applicability of the Traditional Feminist Developmental Model to juvenile female offenders. Ideally, in-depth interviews with incarcerated adolescent females about their development and involvement in criminal activity would be conducted. Unfortunately, structural barriers in accessing juvenile female offenders in the State of Maryland, as well as surrounding states, precluded such an approach. Instead, cluster analysis and follow-up analyses were conducted using secondary data. As such, there are several important limitations of the study.

The sample size was small at 162, thus creating the opportunity for a Type II error. Specifically, because the power to detect difference between groups was small, there existed the possibility that there was a failure to reject null hypotheses (i.e., no difference between the populations) when in fact the null hypotheses were false (i.e., when a difference exists in the populations from which the samples were drawn). A case in point is the association of risk factors to clusters in the 5-cluster solution. While no associations between risk factors and clusters were found in the current investigation, potentially with a larger sample statistically significant associations might be detected. Additionally, a larger sample has the potential to illustrate other risk factors that may be differentially associated with the 2-cluster solution.

In addition to sample size, the data provided limited indicators of risk factor variables. For example, because the data contained no information about mental health diagnoses, mental health was assessed using questions about whether or not females wanted counseling, whether or not they had received any counseling, and if so, whether or not such counseling had been helpful. Thus, mental health status could only be tenuously inferred from these indicators. Similarly, poverty status was assessed using economic strain variables such as whether or not a female's family had ever received public assistance/welfare. Other data on the socioeconomic background of females were acquired from their estimations of their parents' incomes. It seems unlikely that teenage females would be capable of assessing this information accurately.

Finally, the process of coding statements into Traditional Feminist Developmental themes presented two specific limitations. First, coding the statements into the different themes (connection, self-esteem/identity, power/control, and N/A) as well as into subgroups (feminist consistent, feminist inconsistent, and feminist unspecified) created some challenges for coders. Specifically, coders cited difficulties associated with categorizing statements as belonging to one group only. Coders noted that there was a great deal of overlap among the themes. For example, one coder wrote "the power/control ones are really hard, because they are confounded by issues of connection with others - or struggle against connection with certain others, like gangs or people who are abusing you." Other coders noted that it was difficult to judge statements when they were taken out of context - that having a full transcript of interviewer and subject would help the matter. As such, the assumption that any one statement was a reflection of a single construct is somewhat artificial. Rather, coder comments suggest that there is some room

for differential interpretation. Despite such coding challenges, however, it should be noted that coders had no trouble categorizing statements as N/A versus one of the more relational themes. Additionally, in the end 85 of the 89 statements were coded with the 2/3 agreement, suggesting a strong consensus with regard to coding despite the challenges noted above.

The second coding limitation had to do with the coders themselves. All coders are female, and five of the six are white. Further, because all coders are tenured professors at various institutions, it is likely that they are similar in socioeconomic status and represent the middle class. Given the criticism of the Traditional Feminist Developmental Model as only accounting for white, middle-class females, it seems necessary to point out that the coders in the current investigation lacked racial/ethnic, gender, and socioeconomic diversity. That said, all coders have published in the field of feminism and, as such, were well aware of these potential biases prior to making their ratings. Additionally, there appeared to be no discrepancy between coders by virtue of race/ethnicity.

A final issue to note regarding the coders is that the coders are professors in the field of Family Studies, Women's Studies, and Psychology. It is possible that coders from the field of Criminology might code statements differently based on more experience or familiarity with the context of the lives and offending behavior of juvenile female offenders.

Future Research

Results from the current study challenge the assumption that the Traditional Feminist Developmental Model is applicable to all juvenile female offenders. Future research should expand to include an in-depth qualitative analysis of the development of

juvenile female offenders paying particular attention to Feminist Developmental themes, as well as structural influences on delinquent behavior. One potentially important theme to examine is power. Results from the 5-cluster analysis suggested that power inconsistent with the Traditional Feminist Developmental Model was relevant for a smaller sub-group of females as indicated by Cluster 5 which had a dominant response type of P'. Although the P' responses did not emerge as a significant variable in the 2-cluster solution, most likely as a result of being "washed out" by other dominant variables, gender-specific program developers could benefit from more information about such a power dimension and the role that it plays for females in their offending behavior. Potentially, this power dimension plays a role for more females than initially observed in the current investigation.

Additionally, there were no differences between clusters with respect to race/ethnicity or socioeconomic status, perhaps as a result of insufficient power to detect differences. Therefore, it is worthwhile to closely examine Traditional Feminist Developmental themes as they apply to racial/ethnic minority females, as well as to females from different socioeconomic groups.

Research should also include more comprehensive and accurate indicators of risk factors so as to better assess the association between risk factors and typologies. Where possible, background data should come from multiple sources including family members of the females. Data from multiple sources would provide a more comprehensive and more accurate picture of the lives of juvenile female offenders. For example, more comprehensive mental health information about the females might indicate that Structural females tend to resemble youths who are diagnosed as "antisocial." According to Levy

(1999), disruption of attachment during early childhood can create risk for the development of antisocial personality disorder.

In addition, there is a potentially significant untapped area of research on the impact that mother-incarceration has on the development of females, as well as on their entry into criminal activity. Preliminary data from the current study raise the possibility that the absence of a mother to incarceration significantly impacts the development of daughters. Along this line, researchers may examine whether or not mother incarceration affects the development of the relational self of females. Additionally, if it does affect such development, researchers may examine whether this is the result of an attachment-loss and the creation of an Insecure attachment style, or whether it is related to role identification.

Also of importance to future program effectiveness with juvenile female offenders, research needs to focus on ways to identify females as Relational or Structural. For example when juvenile female offenders are incarcerated a treatment plan is established. As noted previously, if Structural females were assigned to treatment programs based on a Relational model, they would not likely benefit from such treatment. The same could be said for Relational females streamlined into structurally-based treatment programs. Thus, it is only through the initial identification of the orientations of juvenile female offenders that treatment for these girls can be effectively implemented.

Finally, though not the emphasis of the current study, there is a desperate need for comprehensive evaluations of gender-specific programs. As noted previously, gender-specific programs are characteristically small. They lack the organizational capacity and funding to collect, manage, and analyze client-related data (OJJDP, 1998b). Thus, the

effectiveness of programming is not adequately measured. Furthermore, in order to increase effective gender-specific services to juvenile female offenders, local, state, and federal agencies would benefit from universal and clearly defined gender-specific services criteria, as well as implementation, and evaluation strategies. Program development should be informed by existing research, including process and outcomes data, as well as best practice's models. With such strategies in place, gender-specific programming for juvenile female offenders has the potential to meet its original goal of effective treatment and prevention of juvenile female offending.

Appendix A

Offense Convictions that Resulted in Current CYA Term

| PRIMARY OFFENSES | PERCENTAGE |
|------------------------------------|------------|
| Robbery | 18.5 |
| Assault | 15.4 |
| Homicide | 8.0 |
| Grand theft/auto | 7.4 |
| Car jacking | 7.4 |
| Burglary | 6.8 |
| Attempted murder | 4.3 |
| Probation violation | 3.1 |
| Assault on a peace officer | 3.1 |
| Kidnapping | 2.5 |
| Narcotics sales | 2.5 |
| Parole violation | 2.5 |
| Grand theft | 1.9 |
| Runaway from correctional facility | 1.9 |
| Voluntary manslaughter | 1.2 |
| Weapons offense | 1.2 |
| Child abuse or neglect | 1.2 |
| Possession | 1.2 |
| Drive-by shooting | 1.2 |
| Making terrorist threats | 1.2 |
| No response | 1.2 |
| Motor vehicle violation | 0.6 |
| DUI | 0.6 |
| Fraud/check fraud | 0.6 |
| Sexual assault | 0.6 |
| Other sexual | 0.6 |
| Influencing a minor | 0.6 |
| Torture | 0.6 |
| Arson | 0.6 |
| Runaway | 0.6 |
| Aggravated mayhem | 0.6 |
| TOTAL | 99.7 |

Appendix B

Offense by Offense Category Groupings

| OFFENSE CATEGORY | PERCENTAGE |
|---------------------------------|------------|
| Violent only | 33.3 |
| Property only | 11.1 |
| Drugs/alcohol only | 3.7 |
| Correctional only | 8.0 |
| Weapons only | 1.2 |
| Violent and weapons | 19.1 |
| Violent and property | 7.4 |
| Violent and correctional | 1.2 |
| Weapons and correctional | .6 |
| Property and drugs | .6 |
| Violent, property, correctional | .6 |
| Violent, weapons, correctional | 3.1 |
| Property and correctional | 4.3 |
| Drugs and weapons | .6 |
| Violent, property, weapons | 1.2 |
| Correctional, drugs, weapons | 1.2 |
| TOTAL | 97.2 |

Appendix C

Data Statements by Question

Legend

- C⁺ = connection consistent with the Traditional Feminist Developmental Model
- C = connection inconsistent with Traditional Feminist Developmental Model
- $C^{?}$ = connection unspecified
- S⁺ = self-esteem/identity consistent with the Traditional Feminist Developmental Model
- S = self-esteem/identity inconsistent with the Traditional Feminist Developmental Model
- $S^{?}$ = self-esteem/identity unspecified
- P⁺ = power/control consistent with the Traditional Feminist Developmental Model
- P = power/control inconsistent with the Traditional Feminist Developmental Model
- P' = power/control unspecified
- N/A = not indicative of any of the three Traditional Feminist Developmental themes

Question 61: How did your family's involvement with the Criminal Justice system affect your life?

- C^{+} Family member was crime partner
- C^{+} I wasn't able to know them
- C^{+} I felt unloved, abandoned
- C^{+} I was left on my own because of it
- \mathbf{C}^+ $\mathbf{C}^?$ I remember visiting them
- It made me sad, angry
- S^+ I admired them, wanted to be like them
- S^+ My parents are bad role models
- $S^{?}$ It made me the way I am
- N/A I was surrounded by crime, drugs, gangs
- N/A When they were arrested I started getting into trouble
- N/A It was a way of life
- N/A I learned different morals and values because of it
- N/A Put into placement home because of it
- N/A Other family members shoved it in my face
- N/A Custodial parent had no control in home because of it
- N/A They should have been there to raise me right
- N/A I turned to the gang because of it

Question 77: Could you describe some of the reasons that you ran away from home?

- C^{+} Wanted to be with other parent
- C^{+} Wanted to be with friends
- C^{+} Wanted to be with boyfriend
- Wanted to fit in with group
- Anger, felt unloed, ignored

- P⁺ Was being abused
- P I thought I could take care of myself
- P For fun/wanted to do what I wanted, freedom
- P? Didn't agree with rules/strict home/rebellion/didn't get along with parents
- P[?] Fighting/abuse in home (between parents, with sibling)
- P? Just wanted to/didn't want to be there
- P? Too much responsibility in home
- N/A Parents on drugs, alcohol
- N/A Religious conflicts
- N/A Kicked out
- N/A Drugs
- N/A Pregnant
- N/A Left a group or foster home

Q80: Can you describe for me some of the reasons that you think you started getting involved in these things that you have just told me about {In reference to offending and gangs}?

- C⁺ Second family
- C⁺ Followed in the footsteps of family member
- C⁺ Hanging out with the wrong crowd
- S⁺ Emotional problems, family problems, unfulfilled in home
- S⁺ Trying to fit in, to be accepted, peer pressure
- S? I didn't care what happened to me
- P Anger, rebellion
- P It was fun/ I wanted to
- P? Abuse/violence in the home
- N/A Surrounded by it, life on the streets
- N/A School problems
- N/A Smoking, using drugs, alcohol
- N/A Failed a group home placement
- N/A To make money
- N/A No response

Q93: What were your reasons for committing the offense that got you here?

- C⁺ Took rap for others
- C⁺ Wouldn't inform on perpetrator
- C⁺ To protect self/family
- C⁺ Pressured by friend
- C⁺ Helping a friend
- C⁺ Gang related
- C⁺ Didn't want to be in placement/ to be with friends, family, child
- C⁺ Went along with other people
- S⁺ Looking for emotional fulfillment

- S⁺ To get attention
- S⁻ To prove myself/get respect
- S? I didn't care what I did
- P⁺ To escape abuse
- P I felt like it
- P Rebellion
- P Challenge/didn't think I'd get caught
- P Revenge
- P Anger
- P Jealousy
- P To feel powerful
- P? Desperation
- P? To get away from the gang/the life
- N/A To pay for drugs
- N/A Economic pressures
- N/A Poor judgment
- N/A Intoxicated, high
- N/A Fear
- N/A Gambling
- N/A Greed
- N/A Claim innocence
- N/A Ignorance of the law
- N/A Drug deal gone bad
- N/A Running the streets
- N/A No response
- N/A I was bored
- N/A It was fun
- N/A Mentally unstable
- N/A Wanted to get high/drunk
- N/A Wanted/needed a car
- N/A Accident/wrong person

Data Statements by Code

- C⁺ Family member was crime partner
- C⁺ I wasn't able to know them
- C⁺ I felt unloved, abandoned
- C⁺ I was left on my own because of it
- C⁺ I remember visiting them
- C⁺ Wanted to be with other parent
- C⁺ Wanted to be with friends
- C⁺ Wanted to be with boyfriend
- C⁺ Wanted to fit in with group
- C⁺ Second family

| C^+ | Followed in the footsteps of family member |
|------------------|--|
| C^{+} | Hanging out with the wrong crowd |
| C^{+} | Took rap for others |
| \mathbf{C}^{+} | Wouldn't inform on perpetrator |
| C^{+} | To protect self/family |
| C^{+} | Pressured by friend |
| \mathbf{C}^{+} | Helping a friend |
| \mathbf{C}^{+} | Gang related |
| \mathbf{C}^{+} | Didn't want to be in placement/ to be with friends, family, child |
| \mathbf{C}^{+} | Went along with other people |
| C | Went along with other people |
| n=20 | |
| $\mathbf{C}^{?}$ | It made me sad, angry |
| n=1 | |
| S^{+} | I admired them, wanted to be like them |
| S^+ | |
| S^+ | My parents are bad role models Emotional problems, family problems, unfulfilled in home |
| | Emotional problems, family problems, unfulfilled in home |
| S^+ | Trying to fit in, to be accepted, peer pressure |
| S^+ | Looking for emotional fulfillment |
| S^+ | To get attention |
| <i>n</i> =6 | |
| S | To prove myself/get respect |
| n=1 | |
| 9 | |
| $S_2^?$ | I didn't care what I did |
| $S_{2}^{?}$ | It made me the way I am |
| $S^{?}$ | I didn't care what happened to me |
| n=3 | |
| D [‡] | A C1 1 1 1 1 |
| \mathbf{P}^{+} | Anger, felt unloved, ignored |
| \mathbf{P}^{+} | Was being abused |
| \mathbf{P}^{+} | To escape abuse |
| n=3 | |
| P ⁻ | Anger, rebellion |
| P ⁻ | It was fun/ I wanted to |
| P ⁻ | I felt like it |
| P ⁻ | Rebellion |
| 1 | ICOCIIIOII |

P Challenge/didn't think I'd get caught P⁻ Revenge P Anger P **Jealousy** P⁻ To feel powerful P I thought I could take care of myself P For fun/wanted to do what I wanted, freedom n = 11 $\mathbf{P}^{?}$ Didn't agree with rules/strict home/rebellion/didn't get along with parents* $P^{?}$ Fighting/abuse in home (between parents, with sibling)* $\mathbf{P}^{?}$ Just wanted to/didn't want to be there $\mathbf{P}^{?}$ Too much responsibility in home* $\mathbf{p}^{?}$ Abuse/violence in the home* $\mathbf{P}^{?}$ Desperation $\mathbf{p}^{?}$ To get away from the gang/the life n=7N/A I was surrounded by crime, drugs, gangs N/A When they were arrested I started getting into trouble N/A It was a way of life I learned different morals and values because of it N/A N/A Put into placement home because of it N/A Other family members shoved it in my face N/A Custodial parent had no control in home because of it N/A They should have been there to raise me right N/A I turned to the gang because of it N/A Parents on drugs, alcohol Religious conflicts N/A N/A Kicked out N/A Drugs N/A Pregnant N/A Left a group or foster home N/A Surrounded by it, life on the streets N/A School problems N/A Smoking, using drugs, alcohol N/A Failed a group home placement N/A To make money N/A To pay for drugs N/A Economic pressures N/A Poor judgment N/A Intoxicated, high N/A Fear N/A Gambling

N/A Greed

N/A Claim innocence

N/A Ignorance of the law

N/A Drug deal gone bad

N/A Running the streets

N/A I was bored

N/A It was fun

N/A Mentally unstable

N/A Wanted to get high/drunk

N/A Wanted/needed a car

N/A Accident/wrong person

n=37

N=89 STATEMENTS

* denotes statements in which the 2/3 agreement criterion was not met

Appendix D

Agglomeration Schedule and Fusion Coefficient Results

| Agglomera | | lule | Coefficients | Ctogo | | Novt |
|-----------|---------------------|------------|--------------|------------------|---------|---------------|
| | Cluster Combined | | Coefficients | Stage Cluter | | Next Stage |
| | | | | First Appears | | |
| Stage | Cluster 1 | Cluster 2 | | Cluster 1 | Cluster | |
| Olage | Oldotol 1 | Oldottol 2 | | Oldottol 1 | 2 | |
| 1 | 158 | 161 | .000 | 0 | 0 | 42 |
| 2 | 58 | 159 | .000 | 0 | 0 | 92 |
| 3 | 107 | 157 | .000 | 0 | 0 | 83 |
| 4 | 129 | 156 | .000 | 0 | 0 | 43 |
| 5 | 44 | 155 | .000 | 0 | 0 | 43 |
| 6 7 | 52 120 | 153 145 | .000 | 0 | 0 0 | 101 16 |
| 8 | 135 | 143 | .000 | 0 | 0 | 12 |
| 9 | 26 | 143 | .000 | 0 | 0 | 55 |
| 10 | 65 | 138 | .000 | 0 | Ö | 30 |
| 11 | 126 | 137 | .000 | 0 | 0 | 73 |
| 12 | 83 | 135 | .000 | 0 | 8 | 81 |
| 13 | 81 | 133 | .000 | 0 | 0 | 101 |
| 14 | 98 | 125 | .000 | 0 | 0 | 63 |
| 15 16 | 92 70 | 121 120 | .000 .000 | 0 | 0 7 | 112 84 |
| 17 | 102 | 108 | .000 | 0 | 0 | 20 |
| 18 | 63 | 105 | .000 | 0 | 0 | 51 |
| 19 | 99 | 103 | .000 | 0 | 0 | 74 |
| 20 | 53 | 102 | .000 | 0 | 17 | 25 |
| 21 | 96 | 100 | .000 | 0 | 0 | 23 |
| 22 | 93 | 97 | .000 | 0 | 0 | 25 |
| 23 | 11 | 96 | .000 | 0 | 21 | 31 |
| 24 25 | 4 53 | 94 93 | .000 | 0 20 | 0 22 | 72 89 |
| 26 | 59 | 91 | .000 | 0 | 0 | 31 |
| 27 | 78 | 89 | .000 | 0 | 0 | 61 |
| 28 | 40 | 85 | .000 | 0 | 0 | 66 |
| 29 | 13 | 66 | .000 | 0 | 0 | 107 |
| 30 | 60 | 65 | .000 | 0 | 10 | 48 |
| 31 | 11 | 59 | .000 | 23 | 26 | 41 |
| 32 33 | 34 39 | 55 48 | .000 | 0 | 0 0 | 38 91 |
| 34 | 12 | 46 | .000 | 0 | 0 | 78 |
| 35 | 6 | 45 | .000 | 0 | 0 | 52 |
| 36 | 7 | 43 | .000 | 0 | 0 | 49 |
| 37 | 17 | 41 | .000 | 0 | 0 | 41 |
| 38 | 3 | 34 | .000 | 0 | 32 | 40 |
| 39 | 21 | 25 | .000 | 0 | 0 | 40 |
| 40 | 3 | 21 | .000 | 38 | 39 | 139 |
| 41 42 | 11 150 | 17 158 | .000 .060 | 31 0 | 37 1 | 72 77 |
| 42 | 44 | 129 | .067 | 5 | 4 | 59 |
| 44 | 118 | 128 | .069 | 0 | 0 | 56 |
| | | | | | | |

| 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 | 36 110 87 60 1 114 42 6 111 37 26 118 82 30 44 109 78 112 14 36 29 5 61 8 80 84 19 4 126 99 | 72 152 122 151 7 140 63 24 130 79 64 127 90 116 75 111 118 146 98 82 113 40 74 71 147 95 69 11 148 | .069 .071 .071 .089 .090 .091 .091 .091 .094 .098 .100 .107 .118 .120 .133 .138 .143 .149 .154 .158 .158 .167 .167 .167 .167 .167 .167 | 0 0 0 30 0 0 0 35 0 0 9 44 0 0 43 0 27 0 0 45 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 0 0 0 36 0 18 0 0 0 0 0 0 0 0 0 53 56 0 0 14 57 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 64 105 80 87 85 124 79 117 60 78 82 61 64 99 77 76 89 88 94 108 83 112 82 115 100 121 106 85 116 95 |
|--|---|--|--|--|--|--|
| 74 75 76 | 73 77 | 106 141 109 | .169 .177 .182 | 0 | 0 60 | 96 114 |
| 77 | 44 | 150 | .191 | 59 | 42 | 123 |
| 78 70 | 12 | 37 | .194 | 34 | 54 | 120 |
| 79 80 | 42 62 | 101 87 | .194 .197 | 51 0 | 0 47 | 104 100 |
| 81 | 32 | 83 | .199 | 0 | 12 | 84 |
| 82 | 26 | 61 | .205 | 55 | 67 | 118 |
| 83 | 29 | 107 | .208 | 65 | 3 | 122 |
| 84 | 32 | 70 | .227 | 81 | 16 | 87 |
| 85 86 | 1 67 | 4 142 | .229 .231 | 49 0 | 72 0 | 98 124 |
| 87 | 32 | 60 | .235 | 84 | 48 | 108 |
| 88 | 16 | 112 | .235 | 0 | 62 | 113 |
| 89 | 53 | 78 | .239 | 25 | 61 | 109 |
| 90 | 86 | 123 | .250 | 0 | 0 | 114 |
| 91 | 2 | 39 | .250 | 0 | 33 | 103 |
| 92 93 | 49 22 | 58 115 | .258 | 0 | 2 0 | 116 |
| 93 94 | 22 14 | 57 | .258 .263 | 0 63 | 0 | 105 107 |
| 95 | 50 | 99 | .271 | 0 | 74 | 104 |
| 96 | 73 | 134 | .283 | 75 | 0 | 123 |
| 97 | 10 | 27 | .289 | 0 | 0 | 142 |
| 98 | 1 | 119 | .292 | 85 | 0 | 127 |
| 99 100 | 30 63 | 68 80 | .296 | 58 80 | 0 | 128 |
| 100 | 62 | 80 | .304 | 80 | 69 | 122 |

| 101 102 103 104 105 106 107 108 109 110 | 52 18 2 42 22 19 13 32 35 56 35 | 81 162 117 50 110 136 14 36 53 139 38 | .306 .312 .316 .319 .321 .321 .321 .326 .328 .333 | 6 0 91 79 93 71 29 87 0 0 | 13 0 95 46 0 94 64 89 0 | 137 142 130 136 131 133 135 126 111 146 118 |
|--|---|---|--|--|---|---|
| 112 | 5 | 92 | .347 | 66 | 15 | 152 |
| 113 | 16 | 124 | .354 | 88 | 0 | 134 |
| 114 | 77 | 86 | .358 | 76 | 90 | 129 |
| 115 | 8 | 31 | .359 | 68 | 0 | 148 |
| 116 | 49 | 126 | .360 | 92 | 73 | 144 |
| 117 118 119 120 121 122 | 6 26 54 12 84 29 | 88 35 149 160 132 62 | .361 .362 .365 .365 .376 .386 | 52 82 0 78 70 83 | 0 111 0 0 0 0 100 | 125 136 135 126 132 129 |
| 123 124 125 126 127 | 44 67 6 12 1 | 73 114 23 32 28 | .386 .388 .391 .395 .405 | 77 86 117 120 98 | 96 50 0 108 | 138 141 150 138 145 |
| 128 | 30 | 76 | .407 | 99 | 0 | 153 |
| 129 | 29 | 77 | .410 | 122 | 114 | 145 |
| 130 | 2 | 131 | .414 | 103 | 0 | 141 |
| 131 | 22 | 47 | .415 | 105 | 0 | 140 |
| 132 | 20 | 84 | .425 | 0 | 121 | 139 |
| 133 | 19 | 104 | .427 | 106 | 0 | 143 |
| 134 | 16 | 33 | .430 | 113 | 0 | 137 |
| 135 | 13 | 54 | .446 | 107 | 119 | 144 |
| 136 | 26 | 42 | .449 | 118 | 104 | 140 |
| 137 | 16 | 52 | .462 | 134 | 101 | 149 |
| 138 | 12 | 44 | .466 | 126 | 123 | 146 |
| 139 140 141 142 143 | 3 22 2 10 19 | 20 26 67 18 51 | .474 .475 .480 .483 | 40 131 130 97 133 | 132 136 124 102 0 | 157 153 150 152 148 |
| 144 | 13 | 49 | .486 | 135 | 116 | 149 |
| 145 | 1 | 29 | .492 | 127 | 129 | 147 |
| 146 | 12 | 56 | .499 | 138 | 110 | 151 |
| 147 | 1 | 15 | .532 | 145 | 0 | 151 |
| 148 | 8 | 19 | .543 | 115 | 143 | 155 |
| 149 | 13 | 16 | .552 | 144 | 137 | 156 |
| 150 | 2 | 6 | .553 | 141 | 125 | 155 |
| 151 | 1 | 12 | .554 | 147 | 146 | 154 |
| 152 | 5 | 10 | .567 | 112 | 142 | 158 |
| 153 | 22 | 30 | .576 | 140 | 128 | 154 |
| 154 | 1 | 22 | .603 | 151 | 153 | 156 |
| 155 | 2 | 8 | .637 | 150 | 148 | 159 |
| 156 | 1 | 13 | .644 | 154 | 149 | 157 |

| 157 | 1 | 3 | .673 | 156 | 139 | 159 |
|-----|---|-----|------|-----|-----|-----|
| 158 | 5 | 9 | .738 | 152 | 0 | 160 |
| 159 | 1 | 2 | .741 | 157 | 155 | 160 |
| 160 | 1 | 5 | .765 | 159 | 158 | 161 |
| 161 | 1 | 154 | .908 | 160 | 0 | 0 |

FUSION COEFFICIENT VALUES

| Cluster Stage | | Fusion Coefficient Value | Proportionate Jump | Percent Jump |
|------------------|---|--------------------------------|-----------------------|-----------------|
| | 5 | 0.673168182 | 1.044514961 | |
| | 4 | 0.73798579 | 1.09628739 | 9% |
| | 3 | 0.741022468 | 1.004114819 | |
| | 2 | 0.765497744 | 1.033029061 | |
| | 1 | 0.907968283 | 1.186114903 | 18% |

 $\label{eq:appendix} Appendix \ E$ $\label{eq:cluster Means and Significance Values - 2 Cluster Solution}$

| ANOVA | | | | | | |
|----------------------------------|---------|----|-------------|-----|---------|------|
| | Cluster | | Error | | F | Sig. |
| | Mean | df | Mean Square | df | | |
| | Square | | | | | |
| C ⁺ | 4.978 | | 1 .886 | 160 | 5.620 | .019 |
| C ² | .000 | | 1 .000 | 160 | | |
| | .020 | | 1 .042 | 160 | .473 | .492 |
| S⁺ | 2.230 | | 1 .374 | 160 | 5.959 | .016 |
| S ⁻ S [?] | .031 | | 1 .042 | 160 | .741 | .391 |
| S? | .193 | | 1 .029 | 160 | 6.633 | .011 |
| P ⁺ | .900 | | 1 .235 | 160 | 3.830 | .052 |
| P _. | .178 | | 1 .617 | 160 | .288 | .592 |
| P? | .278 | | 1 .376 | 160 | .739 | .391 |
| N/A | 176.400 | | 1 .451 | 160 | 391.456 | .000 |

| Group Statist | ics Cluster Number of Case | N | Mean | Std. Deviation | Std. Error Mean |
|----------------|-------------------------------------|----------|---------------------|-------------------|------------------|
| C ⁺ | 1 2 | 72 90 | | .76287 1.06212 | .08990 .11196 |
| C ⁻ | 1 2 | 72 90 | | .00000 | .00000 .00000 |
| C? | 1 2 | 72 90 | | .23067 .18051 | .02718 .01903 |
| S ⁺ | 1 2 | 72 90 | | .55224 .65533 | .06508 .06908 |
| S | 1 2 | 72 90 | | .16549 .23034 | .01950 .02428 |
| S [?] | 1 2 | 72 90 | | .25599 .00000 | .03017 .00000 |
| P ⁺ | 1 2 | 72 90 | | .43245 .52277 | .05096 .05510 |
| P ⁻ | 1 2 | 72 90 | | .87568 .70569 | .10320 .07439 |
| P [?] | 1 2 | 72 90 | | .64942 .58273 | .07654 .06143 |
| N/A | 1 2 | 72 90 | 2 2.7778 0 .6778 | .82602 .51555 | .09735 .05434 |

 $Appendix\ F$ Cluster Means and Significance Values – 5 Cluster Solution

| ANOV | Α | | | | | | | | | | |
|----------------|--|----------|-----------------|-------------------|------------|--------------------|-----|-----------------|-----------|------|--------------|
| | | Clus | | | | Error | | | F | Sig. | |
| | | Mean S | Square | df | M | lean Square | | df | | _ | |
| | C ⁺ | | 22.112 | 4 | | .3 | 71 | 157 | 59.601 | | 000 |
| | C [?] S ⁺ S [?] | | .000 | 4 | | | 00 | 157 | | | |
| | C? | | 9.664E-02 | 4 | | 4.020E- | | 157 | 2.404 | | 052 |
| | S [⁺] | | 7.551 | 4 | | | 03 | 157 | 37.160 | .(| 000 |
| | S | | 7.893E-02 | 4 | | 4.065E- | | 157 | 1.942 | | 106 |
| | S | | 5.100E-02 | 4 | | 2.956E- | 02 | 157 | 1.725 | | 147 |
| | P ⁺ | | .467 | 4 | | | 33 | 157 | 2.002 | .(| 097 |
| | P _o | | 10.188 | 4 | | | 71 | | 27.488 | | 000 |
| | $P^?$ | | .875 | 4 | | | 63 | 157 | 2.413 | | 051 |
| | N/A | | 45.397 | 4 | | .4 | 26 | 157 1 | 06.519 | | 000 |
| Descri | ptives | N | Mean | Std. Deviation | on | Std. Error | | 95% nfidence | | Min. | Max. |
| | | | | | | | | erval for | | | |
| | | | | | | | | Mean | Llonor | | |
| | | | | | | | LOW | er Bound | Upper | | |
| C ⁺ | 4 | 20 | 0667 | E 7 | 740 | 1042 | | CEOO | Bound | 00 | 2.00 |
| C | 1 | 30 | .8667 | | 13 | .1043 | | .6533 | | .00 | 2.00 |
| | 2 | 33 | .4848 | | 75 | 8.835E-02 | | .3049 | | | 1.00 |
| | 3 4 | 40 | .9500 | | 885 | .1010 | | .7458 | | | 2.00 |
| | 5 | 30 29 | 2.5333 | | 303 | .1333 | | 2.2606 | | | 4.00 2.00 |
| | Total | 162 | .4483 1.0432 | | 724 545 | .1063 7.500E-02 | | .2306 .8951 | | .00. | 4.00 |
| C- | | 30 | .0000 | | 000 | .0000 | | .0000 | | .00 | .00 |
| C | 1 2 | 33 | .0000 | | 000 | .0000 | | .0000 | | | .00 |
| | 3 | 40 | .0000 | | 000 | .0000 | | .0000 | | | .00 |
| | 4 | 30 | .0000 | | 000 | .0000 | | .0000 | | | .00 |
| | 5 | 29 | .0000 | | 000 | .0000 | | .0000 | | | .00 |
| | Total | 162 | .0000 | | 000 | .0000 | | .0000 | | | .00 |
| C? | 1 | 30 | .1333 | | 57 | 6.312E-02 | _ | 4.230E-03 | | | 1.00 |
| Ŭ | 2 | 33 | 6.061E-02 | | 23 | 4.218E-02 | | 5312E-02 | | | 1.00 |
| | 3 | 40 | .0000 | | 000 | .0000 | ۷. | .0000 | | .00 | .00 |
| | 4 | 30 | .0000 | | 000 | .0000 | | .0000 | | .00 | .00 |
| | 5 | | 3.448E-02 | | | 3.448E-02 | -3 | | | .00 | 1.00 |
| | Total | 162 | 4.321E-02 | | | 1.602E-02 | | | 7.486E-02 | | 1.00 |
| S⁺ | 1 | 30 | .2000 | | | 7.428E-02 | | 1.808E-02 | | | 1.00 |
| Ü | 2 | 33 | 1.2727 | | | | | 1.0895 | | | 2.00 |
| | 3 | 40 | .2000 | |)51 | 6.405E-02 | - | 7.044E-02 | | | 1.00 |
| | 4 | 30 | .4667 | | 13 | .1043 | • | .2533 | | | 2.00 |
| | 5 | 29 | .1034 | | | 5.755E-02 | -1 | | | | 1.00 |
| | Total | 162 | .4506 | | | 4.880E-02 | • • | .3543 | | | 2.00 |
| S | 1 | 30 | 3.333E-02 | | | 3.333E-02 | -3 | | | | 1.00 |
| _ | 2 | 33 | .1212 | | | 5.770E-02 | | 3.691E-03 | | | 1.00 |
| | | | _ | | | | | , - | | | |

| | 3 | | 5.000E-02 | | | -2.0590E-02 | | .00 | 1.00 |
|----------------|-------|-----|-----------|--------|-----------|-------------|--------|------|------|
| | 4 | 30 | .0000 | .0000 | .0000 | .0000 | | .00 | .00 |
| | 5 | 29 | .0000 | .0000 | .0000 | .0000 | | .00 | .00 |
| 2 | Total | | 4.321E-02 | | | 1.156E-02 | | .00 | 1.00 |
| S? | 1 | 30 | 6.667E-02 | | | -2.8070E-02 | | .00 | 1.00 |
| | 2 | 33 | .0000 | .0000 | .0000 | .0000 | | .00 | .00 |
| | 3 | 40 | 7.500E-02 | | | -1.0310E-02 | | .00 | 1.00 |
| | 4 | 30 | .0000 | .0000 | .0000 | .0000 | | .00 | .00 |
| | 5 | 29 | .0000 | .0000 | .0000 | | | .00 | .00 |
| | Total | | 3.086E-02 | | | 3.947E-03 | | .00 | 1.00 |
| P ⁺ | 1 | 30 | .3333 | | 9.981E-02 | | | .00 | 2.00 |
| | 2 | 33 | .4242 | | 9.761E-02 | | | .00 | 2.00 |
| | 3 | 40 | | | | 3.435E-02 | | .00 | 1.00 |
| | 4 | 30 | .3333 | .5467 | 9.981E-02 | .1292 | | .00 | 2.00 |
| | 5 | 29 | .1724 | | 7.139E-02 | | | .00 | 1.00 |
| | Total | 162 | .2778 | | 3.842E-02 | | | .00 | 2.00 |
| P ⁻ | 1 | 30 | .1333 | .3457 | 6.312E-02 | | | .00 | 1.00 |
| | 2 | 33 | .4848 | .5658 | 9.848E-02 | | .6855 | .00 | 2.00 |
| | 3 | 40 | .6750 | .7970 | .1260 | .4201 | .9299 | .00 | 2.00 |
| | 4 | 30 | .5000 | .5085 | | .3101 | | .00 | 1.00 |
| | 5 | 29 | 1.6897 | .6603 | .1226 | 1.4385 | | 1.00 | 3.00 |
| | Total | 162 | .6852 | | 6.159E-02 | .5636 | .8068 | .00 | 3.00 |
| $P^?$ | 1 | 30 | .7000 | .5960 | .1088 | .4775 | .9225 | .00 | 2.00 |
| | 2 | 33 | .4242 | .5607 | 9.761E-02 | .2254 | .6231 | .00 | 2.00 |
| | 3 | 40 | .5250 | .6400 | .1012 | .3203 | | .00 | 2.00 |
| | 4 | 30 | .2333 | | 7.854E-02 | | | .00 | 1.00 |
| | 5 | 29 | .5172 | .7378 | .1370 | .2366 | | .00 | 2.00 |
| | Total | 162 | .4815 | | 4.814E-02 | .3864 | | .00 | 2.00 |
| N/A | 1 | 30 | 1.6000 | .5632 | .1028 | 1.3897 | 1.8103 | .00 | 2.00 |
| | 2 | 33 | .9697 | .5855 | .1019 | .7621 | 1.1773 | .00 | 2.00 |
| | 3 | 40 | 3.3750 | | 9.928E-02 | 3.1742 | | 3.00 | 5.00 |
| | 4 | 30 | .5667 | .7279 | .1329 | .2949 | | .00 | 3.00 |
| | 5 | 29 | 1.0000 | .7559 | .1404 | .7125 | | .00 | 2.00 |
| | Total | 162 | 1.6111 | 1.2424 | 9.761E-02 | 1.4184 | 1.8039 | .00 | 5.00 |

Appendix G

Assignment of Females From 2-cluster Membership to 5-Cluster Membership

Cluster Number of Case * Cluster Number of Case Crosstabulation Count

| Count | | | | | | | |
|----------------------|----|---------|----|----|----|----|-------|
| | CI | uster | | | | _ | Total |
| | | nber of | | | | | |
| | C | Case | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | |
| Cluster Number of | 1 | 18 | 5 | 40 | 1 | 8 | 72 |
| Case | | | | | | | |
| | 2 | 12 | 28 | | 29 | 21 | 90 |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 |

$Appendix\ H$

Association of 5-Cluster Solution with Risk Factors

Crosstabs

Case Processing Summary

| | | Cases | | | | | | | | |
|---|-------|---------|------|---------|-------|---------|--|--|--|--|
| | Valid | | Miss | sing | Total | | | | | |
| | Ν | Percent | N | Percent | N | Percent | | | | |
| PHYSICALLY ABUSEI AS CHILD * Cluster Number of Case | 162 | 100.0% | 0 | .0% | 162 | 100.0% | | | | |

PHYSICALLY ABUSED AS CHILD * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | |
|--------------|----------|----|------------------------|----|----|----|-------|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | |
| PHYSICALLY A | BUSE Yes | 20 | 25 | 30 | 22 | 16 | 113 | |
| AS CHILD | No | 10 | 8 | 10 | 8 | 13 | 49 | |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 4.326 ^a | 4 | .364 |
| Likelihood Ratio | 4.174 | 4 | .383 |
| Linear-by-Linear Association | .890 | 1 | .346 |
| N of Valid Cases | 162 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.77.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | |
|---|-----|---------|------|---------|-------|---------|--|--|
| | Va | lid | Miss | sing | Total | | | |
| | N | Percent | N | Percent | N | Percent | | |
| SEXUALLY ABUSED AS CHILD * Cluster Number of Case | 162 | 100.0% | 0 | .0% | 162 | 100.0% | | |

SEXUALLY ABUSED AS CHILD * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | | |
|---------------|-------|----|------------------------|----|----|----|-------|--|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | | |
| SEXUALLY ABUS | E Yes | 11 | 17 | 18 | 13 | 15 | 74 | | |
| AS CHILD | No | 19 | 16 | 22 | 17 | 14 | 88 | | |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 | | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 1.936 ^a | 4 | .748 |
| Likelihood Ratio | 1.948 | 4 | .745 |
| Linear-by-Linear Association | .529 | 1 | .467 |
| N of Valid Cases | 162 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.25.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | |
|--|-----------|-------|---------|---------|-------|---------|--|--|
| | Va | ılid | Missing | | Total | | | |
| | N Percent | | N | Percent | N | Percent | | |
| WOULD YOU LIKE TO RECEIVE COUNSELIN Cluster Number of Case | | 98.1% | 3 | 1.9% | 162 | 100.0% | | |

WOULD YOU LIKE TO RECEIVE COUNSELING * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | |
|---------------|-------------|----|------------------------|----|----|----|-------|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | |
| WOULD YOU LII | Yes | 15 | 16 | 27 | 19 | 15 | 92 | |
| TO RECEIVE | No | 8 | 11 | 7 | 6 | 6 | 38 | |
| COUNSELING | N/A | 6 | 3 | 3 | 3 | 6 | 21 | |
| | D/K | 1 | 0 | 1 | 0 | 0 | 2 | |
| | No Interest | 0 | 2 | 2 | 1 | 1 | 6 | |
| Total | | 30 | 32 | 40 | 29 | 28 | 159 | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|--------------------------|
| Pearson Chi-Square | 12.598 ^a | 16 | .702 |
| Likelihood Ratio | 14.068 | 16 | .594 |
| Linear-by-Linear Association | .128 | 1 | .721 |
| N of Valid Cases | 159 | | |

a. 14 cells (56.0%) have expected count less than 5. The minimum expected count is .35.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | |
|--|-----|---------------------|---|---------|-----|---------|--|--|
| | Va | Valid Missing Total | | | | tal | | |
| | N | Percent | N | Percent | N | Percent | | |
| COUNSELING HELPED Cluster Number of Case | 15/ | 96.9% | 5 | 3.1% | 162 | 100.0% | | |

COUNSELING HELPED * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | | |
|-----------|---------------|----|------------------------|----|----|----|-------|--|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | | |
| COUNSELIN | l Yes | 6 | 13 | 9 | 9 | 8 | 45 | | |
| HELPED | No | 4 | 4 | 2 | 3 | 5 | 18 | | |
| | Never Had Any | 11 | 9 | 20 | 12 | 5 | 57 | | |
| | Never Needed | 2 | 2 | 4 | 2 | 3 | 13 | | |
| | No Abuse-N/A | 6 | 3 | 5 | 4 | 6 | 24 | | |
| Total | | 29 | 31 | 40 | 30 | 27 | 157 | | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|--------------------------|
| Pearson Chi-Square | 14.000 ^a | 16 | .599 |
| Likelihood Ratio | 14.341 | 16 | .573 |
| Linear-by-Linear Association | .004 | 1 | .948 |
| N of Valid Cases | 157 | | |

a. 14 cells (56.0%) have expected count less than 5. The minimum expected count is 2.24.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | |
|--|-----|---------|---------|---------|-------|---------|--|--|
| | Va | lid | Missing | | Total | | | |
| | N | Percent | N | Percent | N | Percent | | |
| ALCOHOL A PROBLET Cluster Number of Case | 160 | 98.8% | 2 | 1.2% | 162 | 100.0% | | |

ALCOHOL A PROBLEM * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | |
|-----------|-----|----|------------------------|----|----|----|-------|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | |
| ALCOHOL A | Yes | 9 | 7 | 14 | 12 | 7 | 49 | |
| PROBLEM | No | 21 | 24 | 26 | 18 | 22 | 111 | |
| Total | | 30 | 31 | 40 | 30 | 29 | 160 | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 3.126 ^a | 4 | .537 |
| Likelihood Ratio | 3.141 | 4 | .535 |
| Linear-by-Linear Association | .058 | 1 | .810 |
| N of Valid Cases | 160 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.88.

Crosstabs

Case Processing Summary

| | Cases | | | | | | | | |
|--|-------|---------|---------|---------|-------|---------|--|--|--|
| | Va | lid | Missing | | Total | | | | |
| | N | Percent | N | Percent | N | Percent | | | |
| EVER USED MARIJUAN. * Cluster Number of Case | 161 | 99.4% | 1 | .6% | 162 | 100.0% | | | |

EVER USED MARIJUANA * Cluster Number of Case Crosstabulation

Count

| | | Cluster Number of Case | | | | | | |
|---------------|----|------------------------|----|----|----|-------|--|--|
| | 1 | 2 | 3 | 4 | 5 | Total | | |
| EVER USED Yes | 26 | 29 | 39 | 26 | 26 | 146 | | |
| MARIJUANA No | 4 | 3 | 1 | 4 | 3 | 15 | | |
| Total | 30 | 32 | 40 | 30 | 29 | 161 | | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 3.382 ^a | 4 | .496 |
| Likelihood Ratio | 4.081 | 4 | .395 |
| Linear-by-Linear Association | .016 | 1 | .901 |
| N of Valid Cases | 161 | | |

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 2.70.

Crosstabs

Case Processing Summary

| | Cases | | | | | | | |
|---|-------|---------|---|---------|-----|---------|--|--|
| | Va | Valid | | Missing | | tal | | |
| | N | Percent | N | Percent | N | Percent | | |
| EVER USED HEROIN * Cluster Number of Case | 161 | 99.4% | 1 | .6% | 162 | 100.0% | | |

EVER USED HEROIN * Cluster Number of Case Crosstabulation

Count

| | | Cluster Number of Case | | | | | | |
|---------------|----|------------------------|----|----|----|-------|--|--|
| | 1 | 2 | 3 | 4 | 5 | Total | | |
| EVER USED Yes | 3 | 5 | 9 | 3 | 2 | 22 | | |
| HEROIN No | 27 | 27 | 31 | 27 | 27 | 139 | | |
| Total | 30 | 32 | 40 | 30 | 29 | 161 | | |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|-----------------------|
| Pearson Chi-Square | 4.560 ^a | 4 | .335 |
| Likelihood Ratio | 4.467 | 4 | .347 |
| Linear-by-Linear Association | .337 | 1 | .561 |
| N of Valid Cases | 161 | | |

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 3.96.

Case Processing Summary

| | | Cases | | | | | | | |
|---|-----|---------|---------|---------|-------|---------|--|--|--|
| | Va | lid | Missing | | Total | | | | |
| | N | Percent | N | Percent | N | Percent | | | |
| EVER USED | | | | | | | | | |
| COCAINE-POWDER * Cluster Number of Case | 161 | 99.4% | 1 | .6% | 162 | 100.0% | | | |

EVER USED COCAINE-POWDER * Cluster Number of Case Crosstabulation

Count

| | | Cluster Number of Case | | | | | | | |
|-------------------|----|------------------------|----|----|----|-------|--|--|--|
| | 1 | 2 | 3 | 4 | 5 | Total | | | |
| EVER USED Yes | 13 | 15 | 21 | 9 | 10 | 68 | | | |
| COCAINE-POWDEI No | 17 | 17 | 19 | 21 | 19 | 93 | | | |
| Total | 30 | 32 | 40 | 30 | 29 | 161 | | | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 4.580 ^a | 4 | .333 |
| Likelihood Ratio | 4.639 | 4 | .326 |
| Linear-by-Linear Association | 1.454 | 1 | .228 |
| N of Valid Cases | 161 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.25.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | | |
|--|-----|---------|---------|---------|-------|---------|--|--|--|
| | Va | ılid | Missing | | Total | | | | |
| | N | Percent | N | Percent | N | Percent | | | |
| EVER USED SPEED * Cluster Number of Case | 161 | 99.4% | 1 | .6% | 162 | 100.0% | | | |

EVER USED SPEED * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | | |
|-----------|-----|----|------------------------|----|----|----|-------|--|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | | |
| EVER USED | Yes | 18 | 18 | 28 | 14 | 13 | 91 | | |
| SPEED | No | 12 | 14 | 12 | 16 | 16 | 70 | | |
| Total | | 30 | 32 | 40 | 30 | 29 | 161 | | |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 5.905 ^a | 4 | .206 |
| Likelihood Ratio | 5.989 | 4 | .200 |
| Linear-by-Linear Association | 1.871 | 1 | .171 |
| N of Valid Cases | 161 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.61.

Crosstabs

Case Processing Summary

| | Cases | | | | | |
|---------------------------------------|-------|---------|---------|---------|-------|---------|
| | Valid | | Missing | | Total | |
| | N | Percent | N | Percent | N | Percent |
| EVER USED CRACK Cluster Number of Cas | 161 | 99.4% | 1 | .6% | 162 | 100.0% |

EVER USED CRACK * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | | |
|-----------|-------|----|------------------------|----|----|----|-------|--|
| | | 1 | 2 | 3 | 4 | 5 | Total | |
| EVER USED |) Yes | 8 | 8 | 11 | 7 | 4 | 38 | |
| CRACK | No | 22 | 24 | 29 | 23 | 25 | 123 | |
| Total | | 30 | 32 | 40 | 30 | 29 | 161 | |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 2.077 ^a | 4 | .722 |
| Likelihood Ratio | 2.255 | 4 | .689 |
| Linear-by-Linear Association | 1.201 | 1 | .273 |
| N of Valid Cases | 161 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.84.

Case Processing Summary

| | | Cases | | | | | |
|--|-------|---------|---------|---------|-------|---------|--|
| | Valid | | Missing | | Total | | |
| | N | Percent | N | Percent | N | Percent | |
| 1ST REASON OF QUITTING SCHOOL * Cluster Number of Case | 154 | 95.1% | 8 | 4.9% | 162 | 100.0% | |

1ST REASON OF QUITTING SCHOOL * Cluster Number of Case Crosstabulation

Count

| | | | Cluster | Number o | f Case | | |
|----------------|------------------|----|---------|----------|--------|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| 1ST | Didn't Quit | 10 | 16 | 18 | 16 | 15 | 75 |
| REASON | Didn't Belong | 0 | 0 | 1 | 0 | 0 | 1 |
| OF QUITTING | Pregnant | 2 | 1 | 0 | 0 | 2 | 5 |
| SCHOOL | Bored | 4 | 1 | 2 | 0 | 0 | 7 |
| | Left Home | 3 | 3 | 0 | 3 | 1 | 10 |
| | Drug/Etoh Use | 2 | 1 | 3 | 1 | 2 | 9 |
| | Kicked Out | 1 | 3 | 2 | 1 | 1 | 8 |
| | Cut & Didn't Ret | 1 | 1 | 0 | 4 | 0 | 6 |
| | Didn't Care | 0 | 1 | 4 | 1 | 0 | 6 |
| | Too Hard | 0 | 0 | 0 | 1 | 0 | 1 |
| | Passed GED | 1 | 1 | 1 | 0 | 0 | 3 |
| | Gang Activities | 0 | 1 | 1 | 0 | 1 | 3 |
| | In Juvenile Hall | 0 | 1 | 0 | 0 | 1 | 2 |
| | N/A | 0 | 0 | 2 | 1 | 0 | 3 |
| | Other | 3 | 3 | 4 | 2 | 3 | 15 |
| Total | | 27 | 33 | 38 | 30 | 26 | 154 |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|--------------------------|
| Pearson Chi-Square | 57.422 ^a | 56 | .422 |
| Likelihood Ratio | 64.131 | 56 | .213 |
| Linear-by-Linear Association | .092 | 1 | .762 |
| N of Valid Cases | 154 | | |

a. 70 cells (93.3%) have expected count less than 5. The minimum expected count is .17.

Case Processing Summary

| | | Cases | | | | |
|------------------|-------|---------|---------|---------|-------|---------|
| | Valid | | Missing | | Total | |
| | N | Percent | N | Percent | N | Percent |
| PARENTS' MARITA | | | | | | |
| STATUS * Cluster | 162 | 100.0% | 0 | .0% | 162 | 100.0% |
| Number of Case | | | | | | |

PARENTS' MARITAL STATUS * Cluster Number of Case Crosstabulation

Count

| | | | Cluster Number of Case | | | | |
|---------|-------------|----|------------------------|----|----|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| | Never Marri | 9 | 6 | 8 | 6 | 8 | 37 |
| MARITAL | Married | 8 | 10 | 6 | 9 | 7 | 40 |
| STATUS | Separated | 2 | 5 | 3 | 3 | 5 | 18 |
| | Divorced | 8 | 11 | 19 | 8 | 8 | 54 |
| | Widowed | 3 | 1 | 3 | 3 | 1 | 11 |
| | Other | 0 | 0 | 1 | 1 | 0 | 2 |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 14.683 ^a | 20 | .794 |
| Likelihood Ratio | 15.433 | 20 | .751 |
| Linear-by-Linear Association | .016 | 1 | .898 |
| N of Valid Cases | 162 | | |

a. 15 cells (50.0%) have expected count less than 5. The minimum expected count is .36.

NPar Tests

Descriptive Statistics

| | N | Mean | Std. Deviation | Minimum | Maximum |
|---------------------------|-----|------|----------------|---------|---------|
| MOTHER, HIGHEST SCHOOL | 162 | 5.91 | 2.98 | 1 | 11 |
| FATHER, HIGHEST SCHOOL | 161 | 7.24 | 3.50 | 1 | 11 |
| Cluster Number of Cas | 162 | 2.97 | 1.36 | 1 | 5 |

Kruskal-Wallis Test

Ranks

| | Cluster Number of Case | N | Mean Rank |
|-----------------|------------------------|-----|-----------|
| MOTHER, | 1 | 30 | 86.60 |
| HIGHEST SCHOOL | 2 | 33 | 89.56 |
| | 3 | 40 | 74.44 |
| | 4 | 30 | 73.58 |
| | 5 | 29 | 84.98 |
| | Total | 162 | |
| FATHER, HIGHEST | 1 | 29 | 76.62 |
| SCHOOL | 2 | 33 | 81.70 |
| | 3 | 40 | 80.89 |
| | 4 | 30 | 74.78 |
| | 5 | 29 | 91.17 |
| | Total | 161 | |

Test Statistics^{a,b}

| | MOTHER, HIGHEST SCHOOL | FATHER, HIGHEST SCHOOL |
|-------------|------------------------------|------------------------------|
| Chi-Square | 3.317 | 2.314 |
| df | 4 | 4 |
| Asymp. Sig. | .506 | .678 |

a. Kruskal Wallis Test

Crosstabs

Case Processing Summary

| | | Cases | | | | | | | | |
|----------------------|-----|---------|---------|---------|-------|---------|--|--|--|--|
| | Va | ılid | Missing | | Total | | | | | |
| | N | Percent | N | Percent | N | Percent | | | | |
| LIVING ARRANGEMI | | | | | | | | | | |
| BEFORE ARREST * | 162 | 100.0% | 0 | .0% | 162 | 100.0% | | | | |
| Cluster Number of Ca | | | | | | | | | | |

b. Grouping Variable: Cluster Number of Case

LIVING ARRANGEMENT BEFORE ARREST * Cluster Number of Case Crosstabulation

Count

| | | | Cluste | er Number of | Case | | |
|------------------|----------------------|----|--------|--------------|------|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| LIVING | Alone | 3 | 2 | 3 | 0 | 0 | 8 |
| ARRANGEMENT | With Both Parents | 2 | 5 | 1 | 8 | 4 | 20 |
| BEFORE ARREST | With Mother Alone | 6 | 4 | 8 | 3 | 5 | 26 |
| ARREST | With Mother+Spouse | 1 | 0 | 2 | 2 | 3 | 8 |
| | With Mother+Partner | 0 | 1 | 3 | 0 | 0 | 4 |
| | With Father Alone | 0 | 2 | 1 | 3 | 0 | 6 |
| | With Father & Wife | 0 | 0 | 1 | 0 | 0 | 1 |
| | W Father & Partner | 0 | 1 | 0 | 0 | 0 | 1 |
| | With Grandparents | 0 | 2 | 3 | 2 | 2 | 9 |
| | With Other Relatives | 3 | 2 | 2 | 2 | 1 | 10 |
| | With Spouse/Partner | 3 | 5 | 3 | 3 | 6 | 20 |
| | W Friends/Roommate | 3 | 4 | 4 | 2 | 3 | 16 |
| | No Perm Residence | 0 | 0 | 5 | 0 | 1 | 6 |
| | Homeless | 5 | 1 | 2 | 1 | 1 | 10 |
| | Other Comm Program | 2 | 2 | 2 | 0 | 2 | 8 |
| | Other | 2 | 2 | 0 | 4 | 1 | 9 |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|--------------------------|
| Pearson Chi-Square | 71.923 ^a | 60 | .139 |
| Likelihood Ratio | 79.982 | 60 | .043 |
| Linear-by-Linear Association | .170 | 1 | .680 |
| N of Valid Cases | 162 | | |

a. 78 cells (97.5%) have expected count less than 5. The minimum expected count is .18.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | | | |
|--|-----|---------|---------|---------|-------|---------|--|--|--|--|
| | Va | llid | Missing | | Total | | | | | |
| | N | Percent | N | Percent | N | Percent | | | | |
| ANY FAMILY MEMBER JAIL/PRISON * Cluster Number of Case | 157 | 96.9% | 5 | 3.1% | 162 | 100.0% | | | | |

ANY FAMILY MEMBER IN JAIL/PRISON * Cluster Number of Case Crosstabulation

Count

| | | | Cluste | r Number o | f Case | | |
|-------------------|----|----|--------|------------|--------|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| ANY FAMILY MEMB Y | es | 27 | 24 | 33 | 29 | 25 | 138 |
| IN JAIL/PRISON N | lo | 2 | 7 | 6 | 1 | 3 | 19 |
| Total | | 29 | 31 | 39 | 30 | 28 | 157 |

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 6.553 ^a | 4 | .161 |
| Likelihood Ratio | 6.853 | 4 | .144 |
| Linear-by-Linear Association | .428 | 1 | .513 |
| N of Valid Cases | 157 | | |

a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 3.39.

Crosstabs

Case Processing Summary

| | | Cases | | | | | | | | |
|---|-----|---------|---------|---------|-------|---------|--|--|--|--|
| | Va | llid | Missing | | Total | | | | | |
| | N | Percent | N | Percent | N | Percent | | | | |
| PARENT/GUARDIAN I JAIL GROWING UP * Cluster Number of Cas | 124 | 76.5% | 38 | 23.5% | 162 | 100.0% | | | | |

PARENT/GUARDIAN IN JAIL GROWING UP * Cluster Number of Case Crosstabulation

Count

| | | Cluster Number of Case | | | | | | |
|---------------------|----|------------------------|----|----|----|-------|--|--|
| | 1 | 2 | 3 | 4 | 5 | Total | | |
| PARENT/GUARDIAI Yes | 10 | 13 | 21 | 10 | 8 | 62 | | |
| JAIL GROWING UP No | 14 | 15 | 10 | 10 | 13 | 62 | | |
| Total | 24 | 28 | 31 | 20 | 21 | 124 | | |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|--------------------|----|--------------------------|
| Pearson Chi-Square | 5.903 ^a | 4 | .206 |
| Likelihood Ratio | 6.004 | 4 | .199 |
| Linear-by-Linear Association | .000 | 1 | 1.000 |
| N of Valid Cases | 124 | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.00.

Case Processing Summary

| | | Cases | | | | | | | | |
|-----------------------|-----|---------|---------|---------|-------|---------|--|--|--|--|
| | Va | ılid | Missing | | Total | | | | | |
| | N | Percent | N | Percent | N | Percent | | | | |
| NUM OF TIMES YOU | | | | | | | | | | |
| LIVED IN FOSTER H | 162 | 100.0% | 0 | .0% | 162 | 100.0% | | | | |
| * Cluster Number of C | | | | | | | | | | |

IUM OF TIMES YOU LIVED IN FOSTER HOME * Cluster Number of Case Crosstabulation

Count

| | | | Cluster | Number o | f Case | | |
|--------------------|--------------------|----|---------|----------|--------|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| NUM OF | None | 17 | 20 | 26 | 23 | 18 | 104 |
| TIMES YO | l Once/At Least Or | 9 | 7 | 5 | 4 | 5 | 30 |
| LIVED IN FOSTER | 2 | 0 | 2 | 1 | 1 | 1 | 5 |
| HOME | 3 | 2 | 1 | 3 | 0 | 2 | 8 |
| 1101112 | 4 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 5 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 6 | 0 | 0 | 1 | 1 | 0 | 2 |
| | 7 | 0 | 1 | 3 | 0 | 0 | 4 |
| | 10 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 12 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 13 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 15 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 20 | 1 | 0 | 0 | 0 | 1 | 2 |
| | 35 | 1 | 0 | 0 | 0 | 0 | 1 |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|--------------------------|
| Pearson Chi-Square | 50.587 ^a | 52 | .530 |
| Likelihood Ratio | 48.387 | 52 | .617 |
| Linear-by-Linear Association | .872 | 1 | .350 |
| N of Valid Cases | 162 | | |

a. 60 cells (85.7%) have expected count less than 5. The minimum expected count is .18.

Case Processing Summary

| | Cases | | | | | |
|--|-------|---------|---------|---------|-------|---------|
| | Valid | | Missing | | Total | |
| | Ν | Percent | N | Percent | N | Percent |
| NUM OF TIMES YOU LIVED IN GROUP HON Cluster Number of Case | | 100.0% | 0 | .0% | 162 | 100.0% |

NUM OF TIMES YOU LIVED IN GROUP HOME * Cluster Number of Case Crosstabulation

Count

| | | Cluster Number of Case | | | | | |
|---|--------------------|------------------------|----|----|----|----|-------|
| | | 1 | 2 | 3 | 4 | 5 | Total |
| NUM OF | None | 13 | 19 | 16 | 16 | 16 | 80 |
| TIMES YOU Once/At Least One LIVED IN 2 GROUP 3 HOME 4 | Once/At Least Once | 4 | 4 | 12 | 5 | 6 | 31 |
| | 2 | 2 | 2 | 4 | | 1 | 9 |
| | 3 | 1 | | 4 | 2 | 1 | 8 |
| | 3 | 3 | 2 | 1 | 1 | 10 | |
| | 5 | 3 | 2 | | 1 | 1 | 7 |
| | 6 | 1 | | | 3 | 1 | 5 |
| | 8 | | | 1 | | | 1 |
| | 9 | 1 | | | | | 1 |
| | 10 | 1 | 1 | | | 1 | 3 |
| | 13 | | 1 | | 1 | | 2 |
| | 15 | | 1 | | | | 1 |
| | 20 | 1 | | | | 1 | 2 |
| | 25 | | | | 1 | | 1 |
| | 60 | | | 1 | | | 1 |
| Total | | 30 | 33 | 40 | 30 | 29 | 162 |

| | Value | df | Asymp. Sig. (2-sided) |
|---------------------------------|---------------------|----|-----------------------|
| Pearson Chi-Square | 54.214 ^a | 56 | .543 |
| Likelihood Ratio | 57.246 | 56 | .429 |
| Linear-by-Linear Association | .108 | 1 | .742 |
| N of Valid Cases | 162 | | |

a. 65 cells (86.7%) have expected count less than 5. The minimum expected count is .18.

Appendix I

N/A Data Statements by Theme

ENVIRONMENT

- N/A I was surrounded by crime, drugs, gangs
- N/A It was a way of life
- N/A Put into placement home because of it
- N/A I turned to the gang because of it
- N/A Kicked out
- N/A Left a group or foster home
- N/A Surrounded by it, life on the streets
- N/A Failed a group home placement
- N/A Drug deal gone bad
- N/A Running the streets
- N/A School problems
- N/A Pregnant

SELF

- N/A Religious conflicts
- N/A Poor judgment
- N/A Fear
- N/A Greed
- N/A I was bored
- N/A It was fun
- N/A Mentally unstable
- N/A Ignorance of the law
- N/A Claim innocence
- N/A Accident/wrong person

OTHERS (ENVIRONMENT/STRUCTURE WITH OTHER PEOPLE)

- N/A When they were arrested I started getting into trouble
- N/A I learned different morals and values because of it
- N/A Other family members shoved it in my face
- N/A Custodial parent had no control in home because of it
- N/A They should have been there to raise me right
- N/A Parents on drugs, alcohol

MONEY/RESOURCES

- N/A To make money
- N/A Economic pressures
- N/A Gambling
- N/A Wanted/needed a car

DRUGS/ALCOHOL

N/A Drugs

To pay for drugs N/A N/A Intoxicated, high

Wanted to get high/drunk Smoking, using drugs, alcohol N/A

N/A

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