

TREATMENT ADHERENCE AND RECIDIVISM:  
AN EVALUATION OF A MULTIPLE FAMILY GROUP INTERVENTION FOR  
FIRST TIME JUVENILE OFFENDERS

by

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(Under the Direction of Arthur M. Horne)

ABSTRACT

This study examined factors related to treatment adherence and investigated the extent to which the completion of a multiple family group intervention program reduced recidivism among a sample of juvenile first time offenders. The serious impact of juvenile delinquency in the United States was reviewed, as were intervention efforts to prevent and reduce the occurrence of juvenile crime. Juvenile delinquency continues to be a pervasive problem in the United States. Implications of this national concern include school drop out, early incarceration, increased likelihood of alcohol and other drug addictions, educational failure, negative peer interactions, and the onset of adult crime. Data trends indicate that juvenile arrests for violent crime will double by the year 2010. It is becoming clear that family and community factors play a significant role in influencing delinquent behavior. Recognizing the important contribution of the

family to reducing juvenile crime, interventions for first-time juvenile offenders range from individual to multiple family based and have varying rates of efficacy. The Family Solutions Program (FSP) is a multiple family group (MFG) therapy intervention that brings together first-time juvenile offenders and their caregivers in an effort to reduce the likelihood of repeat offenses and to improve the ecology of the family system. Results of this study indicated that the number of sessions attended was associated with likelihood of reoffending, in that greater exposure to the intervention reduced number of reoffenses. The overall effect of the program on reducing recidivism was not significantly different between those youth who graduated and those who dropped out of the program. Reported levels of family functioning were not significantly associated with likelihood of successfully completing the program in youth or their parents. Overall family functioning was not significantly improved upon completion of the intervention as measured by one instrument. Associations were found, however, between youth and parent reports of the level of family functioning within the family during the intake process and again upon completion of the program. There are certain variables that are associated with number of sessions attended by the youth and parents in this sample. Families with higher annual household income attended more sessions than those with lower household income, youth in higher grades attended more sessions than younger adolescents, and youth who were suspended fewer times from school attended more sessions of this multiple family group intervention. Thus, although the overall effect of the program did

not reach statistical significance with respect to reducing recidivism in this sample of first time juvenile offenders, results indicate that exposure to the program does reduce future criminal activity. Clinical and research implications are discussed, along with suggestions for future research.

INDEX WORDS: First-time juvenile offenders, Juvenile Delinquency, Multiple family group intervention outcome, Family Solutions Program, Family Functioning, Recidivism

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## CHAPTER 1

### INTRODUCTION

#### ***Overview of the Problem***

Juvenile delinquency, defined as criminal behavior by children and adolescents (Perkins-Dock, 2001), continues to be a pervasive problem in the United States. Delinquent behavior in a youth is usually that which would be considered criminal if committed by an adult (Yoshikawa, 1995). Indicators of this national concern include school drop out, early incarceration, increased likelihood of alcohol and other drug addictions, educational failure, negative peer interactions, and the onset of adult crime. Data trends indicate that juvenile arrests for violent crime will double by the year 2010 (Sickmund, Snyder, & Poe-Yamagata, 1997; Tarolla, Wagner, Rabinowitz, & Tubman, 2002). Corbitt (2000) noted that, as a result of the dramatic increase in births in this country, more youth have contributed to the “nationwide epidemic of juvenile violence” over the past 15 years, and that rates are expected to increase. Rates of crime committed by juveniles in the United States are staggering. In 2000, for example, courts with juvenile jurisdiction disposed 1,633,300 delinquency cases. Further, there is a positive correlation between the age of youth and the number of criminal cases, in that the increase in case rates between ages 13 and 17 was highest for drug offenses. In 2000, drug offense rates for 17 year olds were more than eight times the rate for 13 year olds. This increase continues to be particularly disturbing in light of the fact that research literature suggests that

youth who begin engaging in delinquent acts before the age of 14 are at increased risk for a chronic, serious trajectory of criminal behavior (Chamberlain & Reid, 1998; Farrington, 1989).

Rates of juvenile offenses have steadily increased over the past 4 decades. In fact, the 2000 juvenile court delinquency caseload was four times larger than in 1960. In other words, juvenile courts handled 4,500 cases each day in 2000 as compared to 1,100 delinquency cases in 1960. Further, between 1985 and 2000, increases in the number of delinquency cases were observed across all racial groups. The largest proportion of delinquency cases involving detention in 2000 were accounted for by Caucasian youth (61%). In comparison, African American youth accounted for 35% and youth of other races comprised 4% of the delinquency cases during that year. Youth 13 to 21 years of age accounted for 35.5% of all nontraffic-related arrests during the 1980's in the United States (Lerner & Galambos, 1998). Further, research has delineated three key findings regarding juvenile delinquency across studies and regardless of the terms used to define the behavior (antisocial behavior, delinquency, etc.). These three consistent and important findings are: 1) two distinct groups of juvenile offenders have been recognized dependent upon the age at which their behavior begins; 2) a small group of youth is responsible for the majority of chronic juvenile crime; and 3) youth whose offending behaviors begin early tend not to engage in any specific delinquent act (Yoshikawa, 1995). Lynam (1998;

1996) further notes that the most persistent 5% or 6% of offenders commit between 50% and 60% of crimes.

As a result of the alarming statistics outlined above, literature regarding juvenile delinquency has burgeoned over the past several decades. However, studies on first time juvenile offenders and recidivism among first time juvenile offenders in particular is considerably less common, as much research is concerned with issues related to prevention of and treatment of multiple, serious juvenile offenders (Clingempeel & Henggeler, 2003; Stouthamer-Loeber, Loeber, Wei, Farrington, & Wilkstrom, 2002; Patterson, Forgatch, Yoerger, & Stoolmiller, 1998; Prentky, Knight, & Lee, 1997). As it relates to juvenile delinquency, secondary prevention (Klein, Alexander, Parsons, 1977) can be conceptualized as efforts at reducing future criminal behavior in youth who have already entered the juvenile justice system. Such a prevention program would be focused on improving aspects of the youth's inter- and intra-personal ecology and functioning so that future criminal behavior would be deterred, such as increased social support, respect for education, and involving the family system in the intervention process (Yoshikawa, 1994; Yoshikawa, 1995). A psychoeducationally based program which involves not only the youth offender but his or her family system could address these critical issues by bringing families together to foster social support while introducing new and more effective ways of interacting both within the family as well as with other families and the school system. Further, in a multiple family group intervention format for addressing juvenile delinquency,

attendance by siblings could deter potential future criminal behavior, thereby serving a primary prevention role for these youth.

Juvenile delinquency is detrimental and costly on many levels, including individual, family, community, and in the greater social context. It was estimated that, in 1987, the cost per youth incarcerated in the United States was over \$40,000 (Zigler, Taussig, & Black, 1992). More recently, the cost of incarcerating a child per year is estimated to be between \$35,000 and \$64,000 (Corbitt, 2000). There are many qualitative, and hence less readily subject to scientific scrutiny, indications of the costs of juvenile criminal activity that are important to consider, such as 1) reduced attention to the educational process by teachers who are consumed with reacting to disruptive behavior by students, 2) the development of less than optimal learning conditions for other students, 3) the obvious impact of juvenile crime on victims, 4) the potential for modeling of deviant behavior by siblings and others in the juvenile offenders' peer group, and 5) the emotional duress on the family system caused by the youth's delinquent behavior (Zigler, et al, 1992).

It is clear that juvenile crime has not abated in this country. There are numerous points of influence in a juvenile's world that can either inhibit or foster criminal activity, and along with these points of influence are myriad risk factors at the individual, family, peer, school, neighborhood and community levels that should be addressed and targeted in the creation of effective intervention programs. As such, research literature has attempted to discern the factors that

are most significantly related to problem behaviors in adolescence, and from this inquiry the concept of a “problem behavior syndrome” has been developed. Many of the studies that have attempted to explain the nature of the problem behavior syndrome cite that a proclivity toward deviance is at the root of the syndrome that may lead to involvement in a host of deviant behaviors such as minor or major delinquency, substance use, and sexual activity; however, more recently it has been recognized that problem behaviors can be understood as both part of a syndrome and a unique phenomena, meaning that youth involved in one problem behavior (i.e., minor delinquency) may not necessarily be involved in other deviant acts (Willoughby, Chalmers, & Busseri, 2004). In their examination of multiple problem behaviors in adolescents, Willoughby et al (2004) found general support for the problem behavior syndrome, and noted that 27% of adolescents in their study reported high-risk involvement in multiple problem behaviors. Further, 10% of the sample was youth involved in high-risk behavior in five or more problem behavior areas.

### ***Purpose of the Study***

With the understanding of the nature of the problem comes the recognition of the hardship created by delinquency to not only the families of the victims and perpetrators, but also to the community at large. Indeed, as clearly delineated above, juvenile delinquency continues to be of major societal concern at the individual, family, community, and larger societal levels. The continued prevalence of juvenile delinquency indicates that current treatments, although



effective in the short-term, are not effective in producing desired long-term benefits (Patterson, DeBaryshe, & Ramsey, 1989). What is needed is evidence of effective interventions to reduce the likelihood that first time juvenile offenders will continue a trajectory of adult crime.

Further, as the problem of delinquency is best understood from a systems perspective, it is important to begin within the home, as parents and caregivers can play a crucial role in providing youth with the resources they need to become healthy, effective, and contributing members of society. For example, in a longitudinal study of 80 overtly aggressive and substance abusing juvenile delinquents, Clingempeel & Henggeler (2003) found that those who refrained from future criminal activity reported receiving, among other factors, more emotional support from important people in their lives and a higher quality of interpersonal relationships. Unfortunately, not all juvenile offenders who commit crimes in adolescence “grow out of it” and refrain from continuing to commit crimes as they progress toward adulthood.

Literature clearly states that family-based interventions are among the most promising for reducing the incidence of juvenile delinquency, and that programs that include intensive family support and early education services are both cost effective and efficacious in reducing continued criminal behavior in youth (Yoshikawa, 1995). Further, Chamberlain and Reid (1998) note that “there is a growing consensus among prevention researchers that the next stage in the development of effective interventions must carefully focus on the multiple

domains of antecedents of antisocial developmental trajectories that come into play as the young child moves out of the home and into school and the community” (p.630). Thus, interventions that address not only characteristics of the youth but also the youth’s family and larger social networks would be suitable approaches to intervening early in the juvenile’s life. Multiple family group (MFG) therapy is an example of a family-based intervention that is both cost- and time-effective, and has the added benefits of connecting families with other families with similar life experiences, increasing a sense of personal agency and validation and hope through interactions with others, and may improve feelings of apathy and/or mistrust of professional systems. Further, as the activities in this MFG model are relationally based, families who are experiencing difficulties can process their life experiences in an environment that is not punitive and without fear of retribution.

Quinn & VanDyke (2004) noted that studies of effective MFG interventions for juvenile offenders are needed. Thus, the present study seeks to investigate the effectiveness of one MFG model, The Family Solutions Program (FSP), in reducing the likelihood of recidivism in a population of first-time juvenile offenders. The FSP is an empirically supported, standardized intervention that has resulted in decreased recidivism rates in youth participants as compared to those who dropped out of the program (Quinn & VanDyke, 2004). Results from the FSP have been documented in the literature over the past decade, and have reported effectiveness in reducing rates of recidivism in its participants. However,

study of the expansion of this program to other geographical areas and examination of its effectiveness over an extended period of time has yet to be conducted. Thus, specifically, this study sought to determine the effectiveness of a three year study of the FSP in Richmond County, Georgia. This study examined the questions of:

- 1) Will elevated reported levels of familial conflict at intake reduce program completion among youth and parents of juvenile first offenders?
- 2) Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in targeted youth?
- 3) Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in parents of targeted youth?
- 4) Will successful completion of a multiple family group be associated with increases in self-reported levels of family functioning between parent and adolescent?
- 5) Are particular demographic variables and characteristics of the youth associated with number of sessions attended?
- 6) Is there a relationship between number of sessions attended and incidence of reoffense?

7) Will successful completion of a multiple family group intervention be associated with reduced recidivism rates in a sample of first time juvenile offenders as compared to those who did not successfully complete the program?

## CHAPTER 2

### LITERATURE REVIEW

#### ***Risk and Protective Factors Associated with Juvenile Delinquency***

To date, much has been written about juvenile delinquency with respect to causes, influences, prognosis, and effects of juvenile crime at an individual as well as at societal levels. Although crime rates have witnessed an overall decrease in the United States, violent crimes committed by juveniles have increased 14.9 percent in the period between 1989 and 1998 (Corbitt, 2000). Juvenile crime results in increased use of many resources, such as mental health, child welfare, and special education. In fact, disruptive behaviors by youth are cited as the most common referral for mental health services (McKay, Harrison, Gonzales, Kim & Quintana, 2002). In a study of rates of deliberate self harm and suicidal ideation among juvenile offenders in prisons in England and Wales, Morgan and Hawton (2004) noted that difficulties with peer relationships and previous sexual abuse were significantly related to incidences of previous deliberate self harm and suicidal ideation among juvenile offenders as compared to males in the general community. Although this study was prematurely terminated by the institution, important and disturbing trends regarding the potential for self destructive behavior in this sample of juvenile offenders warrants attention. The fact that juvenile crime has reached crisis levels is not important only for the youth today but also as they develop into adulthood, because as youthful offenders become adults, research indicates that they are

more likely to suffer physical and psychiatric illness, utilize welfare services, become dependent on substances such as alcohol, and experience divorce and chronic unemployment (Patterson, et al.,1989).

As noted by Tarolla et al (2002), the literature regarding juvenile delinquency confirms that a social-ecological conceptualization, based upon the work of Bronfenbrenner (1986), is the most appropriate and comprehensive approach because this approach recognizes that many behaviors, such as delinquency, stem from a combination of the individual (juvenile delinquent) and the individual's social world. It is also important to recognize the consequences of delinquent juvenile acts on the victims of the crimes they commit, in that criminal activity committed by juveniles impacts the community, other families, and the victims themselves (Borduin, 1999).

Over the past five decades, it has become increasingly clear that juvenile delinquent acts are not committed by the adolescent in a vacuum. That is, there is a complex interplay between individual, family, peer, school, and community factors that contribute to juvenile delinquency (Gorman-Smith & Tolan, 1996; Henggeler, 1996). Those characteristics that are related to delinquent behavior in youth have been termed risk factors. Risk factors can be conceptualized as conditions that are related to an increased probability of undesirable outcomes, such as those behaviors that produce negative events (juvenile crime, mortality). Conversely, protective factors can be understood as those factors that are associated with a decreased probability of undesirable outcomes. Studies

indicate that young boys who begin their criminal career in late childhood or early adolescence appear to be at the greatest risk for a trajectory of adult criminal behavior (Farrington, 1983).

It has been hypothesized that there are two categories of antisocial behavior in youth (Moffitt, 1993), and that the “timing and duration of the course of antisocial involvement are the defining features in the natural histories of the two proposed types of offenders” (p. 676). The first category of offender is termed adolescence-limited, and includes older offenders who are temporarily involved in criminal activity; whereas life-course-persistent youth are typically younger and are those involved in criminal activity on a more continuous basis. Moffitt (1993) argues that these two categories of youth are different based not only upon the etiology of their behavior, but particularly with respect to the classification of the behavior as “normative” as opposed to “pathological” (p. 679). Donnellan, Ge, and Wenk (2000) tested Moffitt’s hypothesis that adolescent-limited offenders would have higher scores on tests of cognitive abilities as compared to life-course-persistent offenders. This impressive study incorporated both a large and diverse sample of juvenile delinquents, and used 12 tests of cognitive ability to examine differences between the groups. The arrest records of the juvenile offenders were collected over 20 years. The researchers found that support for Moffitt’s hypothesis is dependent upon the ethnicity of the juvenile offender, in that while support was found for those of Caucasian and Hispanic descent, no support was found among the African

American juveniles. This study has important implications for prevention and treatment planning for juvenile offenders based upon ethnicity. Further, the researchers caution about the use of a single construct or variable in attempts to predict or account for delinquent behavior, citing that “one single factor, such as cognitive ability, will not determine an individual’s fate; however, it may increase or decrease an individual’s chances and length of criminal involvement in certain contexts” (p. 401).

The literature over the past decade has continued to suggest that there are a host of both risk and protective factors that contribute to the onset of juvenile delinquency (Griffin, Botvin, Scheier, Diaz, & Miller, 2000; Yoshikawa, 1994; White, Moffitt, & Silva, 1989). Further, it is widely recognized and accepted that both the characteristics of the individual and key elements of the individual’s social system interact to produce (or serve to protect from) deviant behavior. In fact, Jessor, Van Den Bos, Vanderryn, Costa, & Turbin (1995) note that “multivariate inquiries now map both social and personal influences over time and are displacing single-variable, single-domain, cross-sectional approaches” (p. 923). Thus, the following sections will summarize the literature regarding individual, family, peer, school, and community factors that contribute to the onset of juvenile delinquency, and will conclude with a discussion of the critical role that nurturance of protective factors can play in stemming the incidence of juvenile crime.



### ***Individual Risk Factors***

A focus on individual risk factors would necessitate a “turning inward” to investigate the contributors to or causes of juvenile delinquency. Several individual traits have been linked to criminal behavior, such as cognitive deficits, poor conditionability, and certain personality traits such as impulsivity. (Donnellan, Ge, & Wenk, 2000; Lynam, Caspi, Moffitt, Wikstron, Loeber, & Novak, 2000; Ellis & Walsh, 1999). From this perspective, then, intervention would necessitate an individualistic approach in which attempts would be made to “fix” deficits within the child in an effort to reduce criminal behavior.

Developmental theories of juvenile delinquency cite that the process of becoming involved in criminal activity is a life-course process that occurs across time and that youth can be either encouraged or deterred from engaging in antisocial behavior through many sources such as family interactions and peer influences, as well as individual characteristics (Patterson, et al., 1989). It has been noted, for example, that stability coefficients for childhood aggression rival those for IQ (Olweus, 1979), suggesting that aggressive behavior in children can be a reliable predictor of adult criminal activity if there is no attempt at intervention.

Several studies have examined literature related to a host of early risk factors for delinquency at the individual level, including age, genetic vulnerability, sex, perinatal risk, temperament, as well as cognitive abilities and school achievement (Vermeiren, Schwab-Stone, Ruchkin, De Dlippelle, & Deboutte,

2002; Yoshikawa 1994). Another review of the literature conducted by Tarolla et al (2002) cited similar risk factors such as low verbal skills, noncompliance, peer rejection, low self-esteem, drug use, favorable attitudes toward antisocial behavior, poor school achievement, and low social conformity as related to juvenile criminal activity. Recent reviews of the literature have noted that juvenile delinquency may be less heritable than adult criminal behavior, and that a gene-environment interaction is most likely implicated in the delinquency trajectory (Bronfenbrenner, 1986). Shared environmental factors might include family interaction, parenting styles, and socioeconomic status, for example.

Literature investigating age and sex differences in juvenile crime indicate that boys show higher levels of delinquent behavior as compared to girls. Yoshikawa (1994) notes that while biases in the juvenile justice system have been implicated in the sex discrepancy regarding juvenile crime, the statistics are confirmed through victimization surveys. In the same article, the author cautions that most studies focusing on juvenile delinquency have focused on boys, and that this focus results in more information about male criminal activity than female criminal activity. With respect to the age at which many juvenile crimes are committed, it has been noted that rates for both incidence and prevalence are highest during adolescence, peak around age 17, and drop as youth progress into young adulthood (Moffitt, 1993). Farrington (1983) noted that the rise in crimes committed during adolescence seems to reflect the number of youth who are involved in criminal activity as opposed to an acceleration in the

incidence of offense rates. Thus, implications for early intervention are supported by these findings.

With respect to perinatal risk, anoxia, premature birth, and low birth weight are among the factors associated with delinquency (Yoshikawa, 1994; Moffitt, 1993). This finding is particularly interesting, as prenatal care could be conceptualized as a critical prevention component in reducing the incidence of juvenile delinquency. Mixed results exist in the literature with respect to the influence of temperament on juvenile delinquency (Yoshikawa, 1994; Patterson, et al., 1989), primarily because most reports are parent evaluations of their children, as opposed to more objectively (physiologically) based measures.

With respect to cognitive abilities and school achievement, associations have been established between delinquent behavior and low school achievement (Yoshikawa, 1994) and between low verbal ability and delinquent behavior (Yoshikawa, 1994; Jessor, et al., 1995; Tarolla, 2002). Importantly, the negative correlation between IQ scores and delinquent behavior are consistent even when factors such as race and social class are controlled (Moffitt & Silva, 1988). Similarly, the results of a meta-analysis conducted by Loeber and Dishion (1983) suggested that the strongest predictors of later delinquency in youth were low school achievement, small vocabulary, and poor verbal reasoning skills. Interestingly, Vermeiren et al (2002) reported that in a study of recidivism in a sample of delinquent adolescents, meeting diagnostic criteria for conduct disorder predicted recidivism “over and above a number of criminological

findings” (p. 146). Further support for the relationship between childhood antisocial behavior and future juvenile delinquency was found in a study conducted by Patterson, Forgatch, Yoerger, & Stoolmiller (1998). This study examines the presence of a sequential trajectory through which children who exhibit antisocial behavior travel through three events in the sequence culminating in chronic offending behaviors. The researchers note that “the variables that account for antisocial childhood behavior also predict early arrest and chronic juvenile offending” (p. 544). It is important to consider the diagnostic criteria outlined by the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV) (2000) in a discussion of Conduct Disorder and its relationship to future juvenile delinquency. According to the DSM-IV, the essential feature of Conduct Disorder is a “repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated. These behaviors are further categorized into four major types, including 1) aggressive behavior that causes or threatens physical harm to other people or animals, 2) nonaggressive conduct that causes property loss or damage, 3) deceitfulness or theft, and 4) serious violations of rules. It is noteworthy that many types of offenses committed by juveniles are also categorized similarly, in that offenses range from nonaggressive acts (truancy, unruly, ungovernable) to serious crimes against person or property.

Individual risk factors for a trajectory of juvenile criminal activity are necessary to consider; however, they are not sufficient. In addition to the

characteristics of the youth that contribute to the onset of delinquent acts, the influence of the family must be examined.

### ***Family Risk Factors***

Decades of literature has delineated many factors that are related to juvenile criminal activity (Tarolla, et al., 2002; Borduin, 1999; Tolan & Guerra, 1994; Henggeler, 1989;), and that family and community factors may be the strongest influences on delinquent behavior in juveniles (Quinn, 2004). Specifically, family interaction patterns have been cited as one of the most salient predictors of juvenile delinquency (Patterson, 1989). In fact, two of the greatest potential sources of risk for either emotional or behavioral problems in adolescents are the occurrence of stressful events in their lives and psychological symptoms in their parents (Compas, Howell, Phares, Williams, & Giunta, 1989). Further, recent research (Gerard & Buehler, 1999) has refined this line of inquiry by noting that “it is evident that multiple, stressful life events pose a greater threat to children’s long-term psychological well-being than does a single life stressor” (p. 343). These data highlight the important impact, not only of individual characteristics, but the critical role parents play in the development of their children (Gecas & Seff, 1990). More than twenty years of research has highlighted evidence that neglect and emotional abuse of youth by parents are positively associated with many forms of juvenile delinquency (Brown, 1984), again supporting the notion that family factors are a critical component of juvenile problem behavior. A distinction has been drawn in the research literature

between family processes and parenting practices (Gorman-Smith, Tolan, Zelli, & Huesmann, 1996), in that family processes refer to those characteristics that include the family system as a whole, whereas parenting practices are related more to strategies that are employed by parents to manage their children.

Thus, with respect to interventions for juvenile offenders, both family processes and parenting practices appear to be important to consider and incorporate into the intervention curriculum. In light of these findings, discussion of the benefits of a multiple family group approach to intervention will be provided in the sections to follow.

Specifically, risk factors for delinquency at the family level include such factors as harsh and inconsistent discipline, poor parental monitoring, low socioeconomic status, ineffective parenting styles, attachment, child maltreatment, and marital conflict (Yoshikawa, 1994; Patterson, et al., 1989). With the exception of hours spent at school and the influence of teachers and peers, the impact that parents can have on fostering healthy and adaptive behaviors in their children is paramount to their development. Thus, it has become increasingly clear that parental involvement in reducing juvenile crime is an essential factor that should be included in the intervention process when deviant behaviors are present (McKay, Gonzales, Quintana, Kim, & Abdul-Adil, 1999). In fact, a review of prediction studies related to delinquent behavior by juveniles indicates that ineffective parenting styles are predictive of negative outcomes for aggressive youth (McKay, et al., 1999). In a study of male juvenile

offenders who were mandated to residential care by the juvenile court, Eddy & Chamberlain (2000) conducted a study to determine the extent to which family management skills (i.e., discipline, positive adult-youth relationship, supervision) and deviant peer associations served as mediators of the success of treatment. As adult caretakers engaged in effective parenting skills and youth were deterred from associating with deviant peers, the frequency of delinquent acts was reduced. Essentially, “parenting characterized by firm limit setting, consistent consequences for misbehavior, close supervision of youth activities and whereabouts, limitation of contact with deviant peers, and positive interactions between the youth and his caretaker(s) does make a difference” (p. 861).

As part of a comprehensive review of the current understanding of juvenile offenders, Tarolla et al (2002) cite low affection and cohesion, ineffective parental discipline, poor parental monitoring, hostility, parental difficulties, and high stress as predictive of juvenile criminal activity. Likewise, Kuperminc & Reppucci (1996) document that decades of research cite “strong links between adolescent antisocial behavior and parenting practices as well as qualities of family relationships” (p.130). Finally, in a study of the relationship between parenting practices and juvenile criminal activity, Griffin, Botvin, Scheier, Diaz, & Miller (2000) found that youth from single-parent families and boys engaged in more delinquent behaviors than youth from two-parent households and girls. This study of the moderating effects of family structure and gender is interesting as it was hypothesized that of greatest import in the prevention of delinquency among

youth was increased parent training in general with the specific goals of improving parental monitoring of their children and improving parent-child communication.

Corbitt (2002) noted that there are multiple sources of both positive and negative role modeling of behavior for children, with the family and local community being very influential. It is well established that family and community factors play a significant role in influencing the progression of delinquent behavior (Bronfenbrenner, 1986; Tarolla, et al., 2002). That is, within the home, parents can exact great influence over their children's behavior through effective parenting and role modeling of appropriate behavior. Conversely, poor or ineffective parenting (Abidin, 1992), based on myriad factors such as psychopathology or substance abuse, may lead to difficulties in parenting effectively. Further, while individual intervention with a juvenile delinquent may be effective in the short-term, it is possible that long-term improvement may be thwarted by members of the youth's family system (Perkins-Dock, 2001). Gerard and Buehler (1999) tested three risk models (independent-additive, interactive, and exponential) in order to examine the extent to which multiple risk factors within the family context could predict problem behaviors in youth. The researchers reported that the only factor that was associated with youth externalizing problem behavior (controlling for internalizing problem behavior) was poor parenting practices, and noted that "these results replicate previous



findings and reaffirm the role that parenting quality plays in children's psychosocial adjustment" (p. 357).

In 1996, Gorman-Smith, et al conducted a study to investigate the relationship between family influences and nonviolent and violent behavior in a sample of 362 Latino and African American adolescents living in inner-city Chicago. Results indicated that poorer discipline, less cohesion, and less involvement characterized family processes in the violent juvenile delinquent group, but not in the nonoffenders or nonviolent offenders group, and that these results were consistent across racial groups. This article was particularly important as it examined the differences between family processes and parenting practices, and attended to the racial background of the youth (Kuperminc & Reppucci, 1996) Henggeler, 1996; Dakof, 1996; McCord, 1996; Gorman-Smith & Tolan, 1996). The researchers noted that "it is clear that interventions to reduce violence should directly focus on family relationship characteristics as well as on parenting practices" (p. 125). The approach utilized in the Family Solutions Program, an example of a multiple family group intervention program takes this into account as the program emphasizes the importance of both intra- and interfamilial support and improvement in functioning while also attending to specific behaviors that both parents and youth can learn, refine, or adapt in an attempt to improve the ecology of the household and ultimately reduce delinquent behavior. The responses highlight the importance of including the family (especially the youth's caregivers) in the intervention, as "programs that

intervene in multiple social systems that involve the offending youth have begun to show positive effect, even with violent offenders” (Kuperminc & Reppucci, 1996, p.134).

### ***Peer, School, Neighborhood and Community Risk Factors***

In addition to individual and family risk factors for juvenile delinquency, there are contextual factors that can either aid in or hinder the development of violent behavior in youth. As noted by Bronfenbrenner (1986) and specifically relevant to a discussion of the prevalence and incidence of juvenile delinquency, it is important to consider extrafamilial factors as well as intrafamilial factors as they relate to juvenile criminal behavior. That is, not only are there characteristics of a youth and his or her family that may indicate potential for problem behavior, there are also peer, school, and community factors that interact to either foster or hinder the development of antisocial behavior in youth.

It is clear that there is a complex interplay between the juvenile offender and his or her social systems. Thus, interventions are most likely to be effective if they target not only the criminal offender, but the key aspects of the social world that are contributing to the perpetuation of the criminal activity. For example, at the peer level, poor relationship skills, limited associations with prosocial peers, and high involvement with deviant peers are correlated with increased criminal activity (Tarolla, 2002). For instance, in a longitudinal study of Swedish youth, when early maturing girls were part of a peer group of older girls, rates of norm breaking and delinquent behavior increased (Lerner & Galambos,

1998). Interestingly, when girls affiliated with a same-age peer group, delinquent acts were not related to early maturation. At the school level, low motivation, low commitment to education, poor academic performance, dropout, and poor school conditions are predictive of criminal activity in adolescents. There is strong support in the literature for the fact that, at the community level, low socioeconomic status is related to increased rates of juvenile delinquency (Yoshikawa, 1994). In the same article, the author noted that the effects of community violence and crime have been under-investigated and that more attention should be paid to the effects of such exposure on the development of delinquency in youth.

Further, at the neighborhood and community level, low social support, affiliation with a criminal subculture, high mobility, and low organization and participation among residents are related to juvenile criminal activity (Tarolla, et al., 2002). Likewise, Yoshikawa (1994) reported that low socioeconomic status has been correlated with chronic delinquency in many studies at both family and larger community levels.

In an interesting study of the interactions between juvenile delinquency, neighborhood context, and impulsivity, Lynam et al (2000) found that impulsive boys were at the greatest risk for committing crimes in the poorest neighborhoods in Pittsburgh, Pennsylvania. They note that their study is the first to consider the conditions within the neighborhood and how this affects behavior in youth depending upon their level of impulsivity. They call for future studies to

investigate the specific factors within neighborhoods that moderate the influence of impulsivity on juvenile delinquent behavior. Implications from this study include bolstering the recognition that there is a complex interplay between youth and their environments with respect to juvenile offending and that interventions that focus solely on the youth are insufficient. Vermeiren et al (2002) also note that neuropsychological findings suggest that dysregulation in executive functioning resulting in impulsivity and poor attention capacities may contribute to the development of delinquent behavior.

Although there have been numerous studies conducted in which specific groupings of risk factors have been targeted, it is becoming clear that these contributing factors are not mutually exclusive, and that no single strategy toward furthering the understanding the phenomenon of juvenile delinquency is sufficient without taking a more integrative approach (Oyserman & Markus, 1990).

In addition to the various risk factors that have been associated with the onset of juvenile delinquency, there are a host of protective factors documented in the literature that warrant attention. In fact, Jessor et al (1995) document that “psychosocial protective factors appear to play an important role in the etiology and the developmental course of adolescent problem behavior...the present findings argue, therefore, that scientific attention should be broadened beyond its traditional preoccupation with risk factors to encompass variation in protection as well” (p.930-931). Some multiple family group approaches to juvenile delinquency use a strength-based approach as a foundation upon which the

curriculum is built (e.g., Quinn, 2004). That is, the intervention focuses not only on reducing the targeted negative behavior (delinquency), but also draws upon the strength of the family and other families within the group experience to help improve parent-adolescent communication and improve the ecology of the household.

In summary, literature clearly supports a social-ecological approach to the study of juvenile delinquency in which delinquency is viewed as multidetermined and based upon a complex interplay of not only the youth engaging in the antisocial behavior, but also the larger social system in which the youth is embedded including family, peer, school, and neighborhood systems. A summary of the correlates that have been explored in the sections above is provided below (Henggeler, 1996):

- Individual: low verbal skills, low social conformity, drug use, favorable attitudes toward delinquent behavior;
- Family: parental difficulties (psychiatric illness, drug use), low cohesion, lack of parental monitoring and supervision, ineffective discipline;
- Peer: poor relationship skills, association with deviant peers;
- School: poor attendance, dropout, low commitment to school, poor school environment;
- Neighborhood and community: low social support, few resources, criminal activity, mobility.

### ***Protective Factors***

Just as there are particular risk factors that increase the likelihood that a youth will engage in criminal activity, there also are identified protective factors that can promote prosocial behaviors. Bronfenbrenner (1986) cites promising lines of research related to external influences that can help parents foster the healthy development of their children by asking the question “how are intrafamilial processes affected by extrafamilial conditions?” (p. 723). This important question highlights the critical role that people and experiences in the youth’s social environment play in the development of prosocial behaviors and attitudes.

For example, The Search Institute, an independent nonprofit organization, was founded in 1958 by Dr. Merton P. Strommen “as an applied social science research organization focused on the healthy development of young people” ([www.search-institute.org](http://www.search-institute.org)). A goal of the institute is to generate knowledge and understanding of what is needed to foster the healthy development of children and youth across settings including at the community and societal level. The Search Institute generated the 40 Developmental Assets, which are defined as personal qualities and positive social experiences that youth need to grow into caring, responsible, and healthy young adults. Many of the Search Institute’s Developmental Assets are related to prevention or remediation of delinquent behavior in adolescents by focusing on the importance of education, prosocial peer interactions, abstinence from alcohol and other drug use, and increasing

self-esteem (Tarolla, et al., 2002). A benefit of a multiple family group approach to the treatment of first time juvenile offenders is that, through the bringing together of families with the same concern, group leaders can facilitate dissemination of knowledge and information to parents and youth regarding healthy and adaptive ways of interacting with family members and rely on the power of the group to provide examples of strategies that have worked within their family and also to brainstorm solutions to struggles within families.

Examples of such assets are divided into external and internal assets, and are outlined below:

External assets related to preventing and reducing juvenile delinquency

- *Family support* – high levels of love and support within the family.
- *Positive family communication* – youth and parents are able to communicate positively and the youth is willing to seek advice from parents.
- *Caring neighborhood* – the youth experiences caring neighbors.
- *Caring school climate* – the youth's school provides a caring, safe, encouraging environment.
- *Service to others* – the youth serves in the community.
- *Safety* – the youth feels safe at home, school, and in the neighborhood.
- *Family boundaries* – the family has clear rules and consequences for the youth's behavior and monitors the youth's whereabouts.

- *School boundaries* – the school provides clear rules and consequences.
- *Adult role models* – parents and other significant adults model positive, responsible behavior.
- *Positive peer influence* – the youth’s friends model responsible behavior.
- *High expectations* – both parent(s) and teachers encourage the youth to do well.

Internal Assets related to preventing and reducing juvenile delinquency

- *Achievement motivation* – youth is motivated to do well in school.
- *School engagement* – youth is actively engaged in learning.
- *Homework* – youth reports doing at least one hour of homework every school day.
- *Integrity* – youth acts on convictions and stands up for her or his beliefs.
- *Honesty* – young person tell the truth.
- *Responsibility* – youth accepts and takes personal responsibility.
- *Planning and decision making* – youth knows how to plan ahead and make choices.
- *Interpersonal competence* – youth has empathy, sensitivity, and friendship skills.



- *Resistance skills* – youth can resist negative peer pressure and dangerous situations.
- *Peaceful conflict resolution* – youth seeks to resolve conflict nonviolently.
- *Personal power* – youth feels that he or she has control over “things that happen to me.”
- *Self-esteem* – youth reports having a high self-esteem.
- *Positive view of personal future* – youth is optimistic about personal future.

([www.search-institute.org](http://www.search-institute.org))

One multiple family group approach to reducing recidivism in juvenile offenders (Quinn, 1999) recognizes the importance of both reducing risk factors and nurturing and improving protective factors both within the youthful offender and his or her larger social environment. Many of the protective factors described above are embedded in the curriculum of this multiple family group approach to juvenile delinquency in that youth and their parents are encouraged to learn to interact in healthy and adaptive ways through improvements in their communication patterns. Further, youth and their caregivers are supported through a process of gaining insight into the importance of positive peer associations, dedication to the educational process, and learning effective conflict resolution and decision making skills.

Lerner & Galambos (1998) provide a summary of the features of youth-service programs that have been found to be effective. These factors include 1) intensive individualized attention; 2) communitywide, multiagency collaboration; 3) early identification and intervention; 4) locus in schools; 5) administration of school programs by agencies outside of schools; 6) location of programs outside of schools; 7) arrangements for training; 8) social skills training; 9) engagement of peers in interventions; 10) involvement of parents; and 11) link to the world of work. Obviously, the complex and dynamic interplay of both individual and contextual factors are noted as essential to the effective creation of an intervention program to address delinquent behaviors in the juvenile population. Further, Yoshikawa (1994) noted that early family support and education may in fact serve a protective function in preventing a trajectory of juvenile crime.

In a prospective, longitudinal study of a New Zealand birth cohort, White, Moffitt, & Silva (1989) found that high IQ served a protective function against criminal behavior, as both boys and girls who were engaged in delinquent behavior had significantly lower IQ's than those not engaged in juvenile crime. It is demonstrated by this study that higher intelligence may serve as a protective mechanism in deterrence from the onset of juvenile criminal activity. Further, Clingempeel & Henggeler (2003) conducted a longitudinal study of 80 substance abusing and aggressive juvenile delinquents, and sought to determine individual, family, and peer characteristics during adolescence that might categorize the youth as either persistors or desistors of continued criminal behavior over five

years. The researchers noted that the youth who desisted from continued criminal activity exhibited fewer serious aggressive acts than those who persisted with criminal activity. Additionally, protective factors such as close peer relationships, emotional support, and job satisfaction were related to those who desisted from continued involvement in the criminal justice system, highlighting the importance of attending to both risk and protective factors in the identification and remediation of juvenile delinquent behaviors.

The integration of risk and protective factors to understand the prevalence and incidence of juvenile delinquency necessitates an ecological conceptualization (Bronfenbrenner, 1986) in which both individual, family, as well as larger social networks are integrated. For example, protective factors such as marital happiness and positive community resources influence parental well being, which then influences parent-child communication, involvement, and success. On the contrary, familial risk factors such as economic strain coupled with neighborhood problems interact to negatively impact the quality and success of the parent-child relationship (Voydanoff & Donnelly, 1998).

### ***Individual and Family Interventions***

Concurrent with the rise in juvenile delinquency in the United States, ways in which to intervene and address the epidemic have also expanded (Tarolla, et al., 2002; Davidson, Redner, Blakely, Mitchell, & Emshoff, 1987). Interventions for juvenile delinquency range from individual to family-based with multiple families involved in the treatment program (Quinn & VanDyke, 2004), and can be

conceptualized as secondary prevention because the intervention seeks to reduce the likelihood of repeat offenses in youth who have already committed at least one crime (Klein, Alexander, & Parsons, 1977). Interventions that have been developed to address the problem of juvenile delinquency stem from how the program developers conceptualize the nature of the problem. That is, interventions specific to juvenile crime tend to range from individually based to the bringing together of groups of families. Prevention models of juvenile delinquency can range from primary prevention to remediation of chronic, serious offenders. Several recent articles have highlighted the importance of both primary and community-based intervention programs that are integrative in nature, again highlighting the importance of approaching the problem of juvenile delinquency from a social-ecological framework (Wandersman & Florin, 2003; Nation, Crusto, Wandersman, Kumpfer, Seybolt, Morrissey-Kane, & Davino, 2003).

Individual interventions conceptualize the “problem” behavior as located within the targeted individual. Thus, with respect to juvenile delinquency, an individual based approach would determine that the behavior is the result of a deficit within the youth. Thus, it is logical to assume that early intervention would be the best course of action to reduce the likelihood of a trajectory of life-long deviant behavior. In fact, several programs highlighted by Zigler, et al (1992) suggest that early intervention with children may in fact reduce delinquent behavior over time.

While individual interventions with juvenile offenders may be beneficial, the current mental health system requires both time- and cost-effective means by which to address the national epidemic of juvenile delinquency (Barreto, Boekamp, Armstrong, & Gillen, 2004; Tarolla, 2002). Further, research has posited that family-based approaches to juvenile problem behavior are more effective than interventions that are individually oriented (Quinn, 1999). Family-based approaches to the treatment of juvenile delinquency recognize the important role of adult caregivers in the intervention process, and recent meta-analyses indicate that a family systems approach is “the most effective treatment modality for severe behavioral problems in both adolescents and children” (Perkins-Dock, 2001, p. 609). As noted by Patterson, Forgatch, Yoerger, & Stoolmiller (1998), the past decade has witnessed resurgence in incorporating parenting practices to both the intervention with and prevention of juvenile delinquency. Citing the challenge inherent in utilizing a family-based approach to intervention when the juvenile is incarcerated, Perkins-Dock (2001) reported that while the outcome literature strongly and unequivocally supports family-based interventions in decreasing rates of juvenile delinquency, the practicalities of engaging a family in an intervention while the youth is incarcerated calls for adaptations to this approach. The results of the preliminary study described in this manuscript suggest that a one-person family intervention model may be beneficial. Further, Szapocznik, Kurtines, Foote, Perez-Vidal, & Hervis (1986)

cite support for the one-person family therapy approach in a study of conjoint versus one-person family therapy with a sample of drug-abusing adolescents.

However, a challenge inherent in the family approach to intervention is the added difficulty of engaging multiple family members in the process. In a study of Black and White families who sought treatment for aggressive, oppositional, disruptive, and antisocial behaviors in children, Kazdin, Stolar, & Marciano (1995) found that both the rates and predictors of premature termination varied based on race and that Black families dropped out of treatment earlier in treatment and more often than White families.

DeAngelis (2003), in a report in the *Monitor on Psychology*, reported that the use of community and family-based programs to target juvenile delinquency are showing promise in reducing offense rates as well as reducing costs. For example, Gibbons (1999) conducted a review of research literature over the past 50 years and cited parent training and family therapy as being effective in stemming the incidence of juvenile delinquency. Thus, it has become clear that the use of family-based interventions are not only cost-effective, but also are effective in reducing recidivism over time. For example, Webster-Stratton, Hollinsworth, & Kolpacoff (1989) examined the long-term effectiveness of three different training programs for conduct-problem children and their families. The three groups were waiting-list control, group discussion videotape modeling treatment, and individually self-administered videotape modeling treatment. At one year post-intervention, all improvements that were reported at post-treatment

had been maintained for approximately two thirds of the sample. Further, those assigned to the group discussion videotape modeling treatment reported greater overall satisfaction and were significantly more “clinically improved” (p. 552) than the other two groups. This interesting study is unique in that it assesses the sustained effectiveness of the intervention over a one-year period, and it highlights the added importance and effectiveness of the inclusion of a group discussion format to one of the treatment groups.

There has been a general theme running through the literature over the past several decades, in which the implication that “nothing works” with respect to effective treatments for juvenile crime has been discussed (Hollin, 1999). However, more recently, several empirically based treatments have demonstrated promising results in reducing recidivism in juvenile offenders, such as Multisystemic Therapy, Functional Family Therapy, cognitive-behavioral therapy, and behavioral parent training (Kuperminc & Reppucci, 1996; Kazdin, 1992). Additionally, several studies have indicated that recidivism is reduced through employing family-based interventions. Such interventions tend to focus on increasing effective parenting skills, developing more effective conflict resolution skills, and improving family cohesion and communication skills (Huey, Henggeler, Brondino, & Pickrel, 2000; Quinn, & VanDyke, 2004; Shadish, Montgomery, Wilson, Wilson, Bright, & Okwumabua, 1993).

An example of a multiple family group intervention, the Family Solutions Program, focuses on development and improvement of many of these important

skills, including a session in which parents are taught effective parenting skills, a session in which parents and youth engage in activities designed to develop more effective conflict resolution skills, and several sessions which focus on improving family cohesion and communication skills (Quinn, 2004).

Literature on interventions for juvenile delinquency has increased as the awareness of the dynamic, complex, and multifaceted nature of the problem of juvenile delinquency has become clearer, and “an emerging body of literature establishes the benefits of family-focused interventions in the reduction of child problem behaviors in general populations (Spoth, Goldberg, & Redmond, 1999, p. 157). With respect to group interventions, a problem of generalizability may arise if the group suffers from low initial recruitment. That is, there is a potential threat to the external validity of the study in that the sample may not be representative of the population of interest (Prinz, Smith, Dumas, Laughlin, White, & Barron, 2001). The process of involving individuals or families in an intervention is a delicate process, as noted by Prinz, et al (2001), in that “the quality of staff interactions with prospective participants is critical. Successful recruiting requires patience, gentle persistence, effective communication, noncritical responses in the face of challenges, and a pleasant demeanor” (p. 36).

In the past, reviews of the literature regarding interventions for juvenile crime have resulted in less than favorable outcomes (Patterson, et al., 1989; Kazdin, 1987). However, recent literature has begun to cite effective prevention and treatment intervention models for juvenile delinquency (Tarolla, 2002; Kuperminc &



Reppucci, 1996; Tolan, Guerra, & Kendall, 1995). Consistently, it has been noted that interventions that are most successful employ multiple social systems in their approach. In the paragraphs below, an overview of individual, family, and multiple family group interventions are reviewed. Although it has become clear that family influences are key to the development of a trajectory of juvenile delinquency, research has confirmed that not all family based interventions are effective (Quinn, 2004). That is, interventions that seek only to improve certain family based characteristics (i.e., communication) are necessary but not sufficient. A change in key behaviors is also necessary. Behaviors such as interactions between members of the family should be practiced and generalized to the home setting. Specific behaviors should be modeled in group and practiced at home, and prosocial skills such as conflict resolution, cooperation, and good decision-making should also be practiced and generalized to settings outside of the intervention.

One specific approach to the treatment of juvenile delinquency is Multisystemic Therapy (MST), which was pioneered by Henggeler & Borduin (1990) and is a social-ecological approach based in family therapy and behavior therapy that seeks to reduce problem behaviors in serious juvenile offenders and their families. MST is, to date, the only family-based treatment program that have evidenced efficacy in producing both short- and long-term improvements in the behavior of serious, chronic, and violent juvenile offenders (Tate, Reppucci, & Mulvey, 1995; Henggeler et al., 1992). In an evaluation of MST as compared to

treatment as usual by a Department of Youth Services, youth who received MST had 1) fewer arrests and self-reported offenses, and 2) spent an average of ten fewer weeks incarcerated as compared to youths who received services as usual. Five years later, Borduin, Mann, Cone, Henggeler, Fucci, Blaske, & Williams (1995) investigated the long-term preventive influence of MST in a sample of serious juvenile offenders as compared to individual therapy. Not only was MST more effective in improving family relationships and reducing juvenile delinquency, an impressive 4-year follow-up investigation revealed that those who received MST engaged in less criminal behavior as compared to those who received individual therapy. Finally, Borduin (1999) reported that MST is effective because it is based not only upon empirical findings regarding the multidetermined nature of serious antisocial behavior, but also upon social-ecological models of behavior. As such, MST is concerned with the interconnected systems of the youth and his or her family, school, work, peers, and neighborhood which have reciprocal influences on behavior. Thus, the effectiveness of this family-based intervention has been determined and the approach is widely accepted as an empirically based therapeutic approach to reducing violent behavior in adolescents.

### ***Multiple Family Group Interventions***

A burgeoning literature is becoming available that demonstrates the efficacy and effectiveness of a multiple family group (MFG) approach to the treatment of juvenile delinquency. Theoretically, MFG's combine family therapy

with group process. Multiple family groups have been employed to address numerous populations, including the homeless (Davey, 2004), urban children with conduct difficulties (McKay, Harrison, Gonzales, Kim, & Quintana, 2002), persons with schizophrenia (McFarlane, 2002), juvenile firestarters (Barreto, et al., 2004), and dually diagnosed adolescents (Kymissis, Bevacqua, & Morales, 1995).

The pioneers of the multiple family group approach to intervention are Laqueur and Detre, who independently began using the model in state hospitals in New York and Connecticut, respectively (McFarlane, 2002). Thus, multiple family groups are based upon rehabilitative and clinical approaches and are rooted in the healthcare system. McFarlane noted that his book, *Multifamily Groups in the Treatment of Severe Psychiatric Disorders* (2002), is the first book devoted entirely to this approach, and added that “it is long overdue (p. xv).” The author devotes an entire chapter of his book to outcome studies in multifamily groups, and concludes in his summary that “it is possible to derive a theoretical understanding for the superior outcomes in the multifamily format” (p. 69) and goes on to discuss the unique added benefit of the expansion of group member’s social support system through inclusion in such an approach to intervention.

A basic tenet of the MFG approach to intervention is that members of the targeted individual’s support network play a crucial role in reaching the goals set forth by the intervention. Thus, with respect to juvenile delinquency, the youth’s

parent(s) and other significant family members are key players in attempts to reduce acts of violence perpetrated by the youth.

Psychoeducationally based multiple family groups are based upon at least two assumptions:

- The family is functioning normally, until clearly proven otherwise.
- Better outcome for the ill member is most likely when the family makes compensatory adjustments in daily life. These adjustments are dictated by the specific characteristics of the disorder itself, not by any model of normative functioning.

(McFarlane, 2002)

Thus, specific to the problem of juvenile delinquency, the family is perceived to be functioning well until the problem is discovered and it takes the power of the family coming together to help the targeted youth change their behavior to reduce the likelihood of repeated criminal activity. Within the group proper, there are several ways in which the unique nature of the multiple family group structure can be employed and adapted to meet the needs of the group, such as: 1) reinforcing families' support or constructive confrontation with each other; 2) regulating group tone; 3) expanding conversation between members of one family to include other families' perspectives; 4) when necessary, disagreeing with the direction of a problem-solving process and brainstorming alternatives; and 5) summarizing cross-family interventions that have resulted from effective mutual problem solving (McFarlane, 2002). There are four stages

in the implementation of a psychoeducationally based intervention: 1) joining with individual group members; 2) conducting educational workshops for families; 3) preventing relapse through the use of problem-solving groups attending by families; and 4) pursuing vocational and social rehabilitation in the groups (McFarlane, 2002).

The Family Solutions Program (FSP) is an example of a multiple family group intervention that brings together first time juvenile offenders and their families for ten weeks to address issues related to delinquency. Among the benefits of this modality of intervention is that it is both time- and cost-effective. Further, of all of the possible intervention strategies, the MFG approach is the only one that naturally contains a community of individuals who have come together to address a shared concern. Therefore, the MFG approach seems to be a logical mechanism by which to incorporate that which is known about its cost- and time-effectiveness with support from the literature to address the problem of juvenile delinquency.

Criticisms of the MFG approach include the possibility of “deviance training” in that groups of juvenile offenders are brought together and may learn maladaptive and dangerous behaviors from each other. However, during the implementation of the Family Solutions Program, the youth never engage in activities without the presence of group facilitators and parents. Compliance with treatment is a potential challenge in the MFG intervention approach as the goal is to bring together multiple members of each family, thereby requiring not only one

but several members of one family to set aside the time to attend the intervention program. There are pragmatic issues that may arise (i.e., young children in need of child care, transportation, family discord, evening employment requirements) and impose challenges to families who might otherwise attend and benefit from the intervention. Further, the evaluation of interventions that address juvenile delinquency can be difficult, in that definitions of juvenile crime vary across studies. Additionally, methodological flaws are commonly found in investigation of the methods of studies conducted in this area. For example, random assignment to groups is often a challenge, as is integrating a suitable no-treatment comparison group. Finally, outcome measures are often varied in studies of juvenile crime, and although recidivism is commonly used as a measure of continued criminal activity, it is “not necessarily a good index of renewed violent behavior” (Tate, et al., 1995, p. 777 – 778).

In summary, a host of individual, family, peer, school, and neighborhood risk factors for juvenile delinquency have been summarized based upon a review of the literature, and more recent research has begun to also attend to the important role of protective factors within the juvenile as well as his or her larger social network that may serve a deterrent function with respect to a trajectory of criminal behavior.

## CHAPTER 3

### METHOD

#### ***Sample***

Participants in this study were adjudicated youth and their parents in Richmond County, Georgia who were referred to the Richmond County Family Solutions Program (RCFSP). The RCFSP is a multiple family group intervention that provided services to first time juvenile offenders and their family members. Ninety four (94) parents and their targeted child participated in this study. Offenses which brought each youth to the RCFSP were grouped and coded based upon severity: 1) status offenses such as truancy, unruly, ungovernability, 2) crimes against property such as shoplifting and vandalism, and 3) crimes against person such as battery and simple assault. Data is summarized in Table 1. Further, 20.1% of the sample completed the informed consent document and risk assessment questionnaire, but attended no group sessions. There were no differences on the project measures between those who attended no groups and those who attended at least one group. Frequency data of number of sessions attended by each family is summarized in Table 2.

Table 1.

RCFSP youth offenses coded by severity

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<b>Offense Code</b>	<b>Graduate</b>	<b>Drop out</b>
1 = Status offense (truancy, unruly)	27.7	38.3
2 = Crime against property (vandalism, shoplifting)	17.0	14.9
3 = Crime against person (battery, simple assault)	55.3	46.8
Total	100.0	100.0

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Table 2

Number of sessions attended by each family

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Number of sessions	Frequency	Percent	Cumulative Percent
0	19	20.2	20.2
1	5	5.3	25.5
2	3	3.2	28.7
3	8	8.5	37.2
4	6	6.4	43.6
5	2	2.1	45.7
6	2	2.1	47.9
7	2	2.1	50.0
8	4	4.3	54.3
9	20	21.3	75.5
10	23	24.5	100.00
Total	94	100.0	

---

With respect to the youth in the sample, 78.7% reported African-American ethnicity, 1.1% Asian-American, and 20.2% indicated Caucasian (non-Hispanic) descent, and 39% were female. Youth participants ranged in age from 9 to 17 with a mean age of 14.2 and a median age of 14.

The parent sample consisted of 78.7% African-American, 1.1% Asian-American, and 20.2% Caucasian adults, and 64.9% were female (mother, step-mother, foster-mother, aunt, or grandmother). Parent participants ranged in age from 29 to 62 with a mean age of 39.3 and a median age of 38. With respect to annual income, the mean income was \$16,546 and the median income was \$10,000, indicating that the majority of this sample was low income. 33.0% of the parents in this sample reported being married and living with their partner, 5.3% reported living with a partner but not being married, 27.7% reported being separated, divorced, or widowed, and 29.8% reported having never married. Demographic information for the sample is provided in Table 3.

Table 3

Demographic characteristics of the RCFSP sample

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Variable	Youth	Parent
Sample Size	94	94
Ethnicity		
Caucasian	20.2	20.2
African American	78.7	78.7
Japanese American	1.1	1.1
Gender		
Male	60.6	35.1
Female	39.4	64.9
Mean Age	14.2	39.3

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Each RCFSP meeting was held at the Department of Juvenile Justice in downtown Augusta, Richmond County, Georgia, providing easy access to the public transportation system.

Group leaders consisted of the RCFSP program coordinator and two masters level mental health professionals who were trained in the manualized implementation of the program by the creator of the program, William Quinn, Ph.D. The importance of treatment fidelity was emphasized throughout the training sessions and during regularly scheduled supervision meetings with the study's principal investigator and program coordinator. Treatment fidelity has been demonstrated to be critically important to the successful implementation of intervention programs (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997).

Group participation ranged from three to eleven families per group. One parental unit or in-home caregiver was required to attend each meeting with the adjudicated youth, but frequently other family members would also attend the groups, such as siblings and members of the youth's extended family. Other family members were always encouraged to attend the multiple family group intervention as those in attendance could benefit from the experience and could possibly be deterred from future criminal activity.

Youth and their parents who attended 90% (9 of the 10) of the RCFSP group meetings and did not have any offenses during the group's duration qualified to participate in the graduation ceremony during the final group meeting and were included in the "completed" category for data analysis. Youth who

attended less than 90% of the RCFSP group meetings were considered drop outs of the program and their case was referred back to the Department of Juvenile Justice for consideration (Quinn et al., 2002).

### ***Intervention***

The FSP was created in 1992 through collaboration between the Athens/Clarke County Juvenile Court and the Department of Child and Family Development at the University of Georgia. The program was originally created as an alternative to incarceration or probation for first-time juvenile offenders (Quinn, 1999). The overall goal of the FSP is to “foster changes in youth behavior that decrease the possibility to repeat juvenile offenses, school truancy, or problem behavior” (Quinn, 2004). Ten themes contained within the FSP provide support for its use as a MFG intervention for juvenile first offenders and their families. Specifically, the following ten conditions are considered to be necessary to reach the desired goals of the intervention:

- Try to create trust and willingness to help each other.
- Draw out competencies and strengths of each family member to provide help and support for others to move toward problem-resolution.
- Consider the needs of parents to be as important as the youth’s behavior that resulted in a referral to the program.
- Create a forum for all ideas to be heard and respected.
- Maintain consistent flexibility in the program topics and content across groups.

- Use the vulnerabilities of the group to plan the FSP, such as identifying through risk assessment and group process the vulnerabilities of youth such as school failure or constant interpersonal conflict, and implementing topics and activities that address these difficulties, such as conflict-resolution and anger management strategies.
- Make sure to promote long and short term goals for change, both during and after the program.
- Establish a continuing quest for inspirational experiences to motivate youth and parents to adopt new attitudes and behaviors.
- Share information with families about the resources that exist to help them.
- Expect youth to have an experience which they give back to their community.

(Quinn, 2004).

As indicated by the theoretical foundation upon which the FSP was created, a social-ecological framework was employed to address the multifaceted influences related to juvenile crime (Quinn, VanDyke, & Kurth, 2002). In general, the goal of the FSP is to aid first-time juvenile offenders and their families in developing and fostering a solution-based approach to improving the ecology of the household in order to reduce the likelihood of repeat offenses.

The FSP is a 10-week, two hours per week, MFG intervention that seeks to reduce delinquent behavior in the identified youth by focusing on the

acquisition and nurturing of the following: 1) alteration of chronic conflict patterns within the family; 2) increase in life coping skills as challenges in daily living are encountered; 3) overcoming perceptions of hopelessness and the sense of futility that results from school failure and negative peer involvement; 4) promotion of parental involvement in the daily lives of their children; 5) fostering the development of parenting skills, and 6) help for families learning skills and applying them to promote educational success for their children. The basic assumptions of FSP are:

- Families must be included in helping solve the problems of youths.
- Families coming together can provide a means to find solutions that will improve functioning within the family.
- Youths and families can do better when they express their ideas to others in a friendly and cooperative atmosphere.
- Families can learn and become hopeful with involvement from other families.
- Families and individuals do best when they feel a part of their local community.

(Quinn et al., 2002)

In order to be enrolled in the FSP, each youth was required to attend each session with a parent or caregiver. Each FSP group is lead by school counselors, therapists, or other mental health professionals who have been trained in the standardized, manualized FSP curriculum (Quinn, 1998). The

manual, made available to all group facilitators, outlines the theory base upon which the program has been developed and then details the referral process, goals and objectives of each session, and the forms suggested for use to evaluate the effectiveness of the program (Quinn, 1998).

The curriculum is divided into three progressive sections (Quinn et al., 2002) and is outlined in Table 4. This first stage begins with the first contact between the FSP group leader and the family. Usually, this contact occurs with the family in juvenile court. Once the group has begun, the first stage includes weeks one and two, and the goal of this process is to foster connection between group members, as well as to have the group leaders join with each group member. The topics of cohesion and trust are facilitated by activities such as a discussion of group rules, role-plays regarding potential attitudes about attending the FSP, icebreaker games, and problem solving activities.

The second stage of the FSP includes sessions three through seven. The goal of this stage is to address and work to improve family dynamics and communication, focus on the importance of education, and to develop effective problem-solving skills. Increasing the group members' fund of knowledge regarding these topics is facilitated by activities such as establishing consistent consequences for pro- and anti-social adolescent behavior, focus on education, family contracts, goal setting, and an ideal parent/ideal child exercise. During one session, youth engage in a community service activity while parents attend a parenting skills workshop that is lead by a mental health or associated



professional who is expert in the area of parenting practices and who volunteers his or her time to present material related to effective parenting skills and techniques. The community service activity involves youth volunteering at a local agency such as a personal care home, children's hospital, Red Cross, or the Department of Veterans Affairs Medical Center. This demonstration of the importance of giving back, not only to other group members but to the greater community, is a benefit unique to the MFG approach to intervention.

The third and final stage of the FSP highlights the importance of decision making. An activity that leads to improved decision making skills includes watching and discussing a video called "Multiple Choice" (an Emmy award winning video) in which youth discuss the consequences of their poor choices and behavior. Another activity that leads to increased understanding of the importance of good decision making skills is a role play activity in which youth engage in two separate demonstrations of both ineffective and effective ways to address interpersonal conflict. The first role play by the youth demonstrates an ineffective conflict scenario in which the conflict escalates and is not resolved. The second role play demonstrates the same conflict-laden scenario; however, the youth illustrate an effective and productive resolution to the problem. The FSP ends with a graduation session during the 10<sup>th</sup> week. This session celebrates the culmination of nine weeks of the MFG intervention and involves a graduation ceremony and pot luck dinner. Each family volunteers to bring a snack to be shared with the group. During the course of the session, one or

more inspirational speakers who have volunteered their time to attend the group provide words of encouragement and praise for the completion of the program. Group leaders take turns presenting certificates of completion to each family while highlighting their personal strengths and accomplishments. Members of each family are given the opportunity to speak during the graduation ceremony, and are encouraged to share their reflections on the experience with others. Families often share their most salient memories of the group process, and often thank group leaders and other group members for helping them work through a difficult situation that was discussed during the group sessions.

Table 4

The conceptual stages and description of FSP session topics

<b>Stage</b>	<b>Sessions</b>	<b>Goals of Stage</b>	<b>Group Activities</b>
1	<ul style="list-style-type: none"> <li>• Joining</li> <li>• Cohesion</li> <li>• Trust building</li> <li>• Risk assessment and sessions 1 and 2</li> </ul>	<ul style="list-style-type: none"> <li>• Joining with families</li> <li>• Building trust and group cohesion</li> <li>• Building group structure</li> <li>• Cooperation</li> </ul>	<ul style="list-style-type: none"> <li>• Name Game</li> <li>• Traffic Jam</li> <li>• Toothpicks &amp; Gumdrops</li> <li>• Group rules</li> <li>• Negotiating Topics</li> </ul>
2	<ul style="list-style-type: none"> <li>• Interpersonal / Family skill building</li> <li>• Sessions 3-7</li> </ul>	<ul style="list-style-type: none"> <li>• Communication</li> <li>• Creating a home environment for learning</li> <li>• Have youths participate in an activity in their community</li> </ul>	<ul style="list-style-type: none"> <li>• Ideal parent / Ideal child</li> <li>• Behavioral contracts</li> <li>• Educational planning</li> <li>• Parents – parenting skills</li> <li>• Youth – attend volunteer activity</li> </ul>
3	<ul style="list-style-type: none"> <li>• Improved decision making</li> <li>• Sessions 8 and 9</li> </ul>	<ul style="list-style-type: none"> <li>• Improve decision-making skills of youth and parents</li> <li>• Learn how to handle conflicts in a positive manner</li> <li>• Assist families in finding “solutions” to their problems</li> <li>• Assessing consequences</li> </ul>	<ul style="list-style-type: none"> <li>• “Multiple Choice” video</li> <li>• Conflict-resolution role-plays by youth</li> <li>• Positive interaction (e.g., decorative cards)</li> <li>• Jail visit</li> </ul>
	<ul style="list-style-type: none"> <li>• Graduation</li> <li>• Session 10</li> </ul>	<ul style="list-style-type: none"> <li>• Receive acknowledgement for participation</li> <li>• Celebrate all that the families have accomplished during the program</li> </ul>	<ul style="list-style-type: none"> <li>• Present graduation certificates</li> <li>• Present cards to youth</li> <li>• Presentation by inspirational speaker or civic leader</li> </ul>

(Adapted from Quinn, VanDyke, & Kurth, 2002).

The FSP has empirical support in that data collected between 1992 and 1999 demonstrates that only 22% of youths who successfully completed the FSP had re-offended, while 50% of FSP drop outs had committed another crime (Quinn, Sutphen, Michaels & Gale, 1994). Further, VanDyke (2001) completed a doctoral dissertation evaluating the effectiveness of the FSP in reducing recidivism rates of group participants. Results indicated that those who were on probation only were 9.3 times more likely to reoffend than those who successfully completed the program. Further, those who dropped out of the program prior to graduation were 4.4 times more likely to reoffend than those who graduated from the program. It seems clear that the FSP was effective in reducing recidivism rates in youth from the Athens/Clarke County judicial circuit. Based upon the treatment program created by the host site in Athens/Clarke County, the Richmond County Family Solutions Program (RCFSP) was implemented in October, 2001 in the Augusta Judicial Circuit as a result of a grant provided by the Children and Youth Coordinating Council. The RCFSP is a replication of the FSP program created at The University of Georgia in 1992. The RCFSP brings together juvenile first offenders and their parents, caregivers, siblings, and extended families with professional group leaders and adult volunteer facilitators to address issues within the family while also attending to community supports and barriers with the goal of reducing the likelihood that the adjudicated youth will return to the juvenile justice system. The program can be conceptualized as secondary prevention for the first offender and perhaps as primary prevention for

siblings who may be deterred from future involvement in the juvenile justice system. The specific outcome goals of the RCFSP were as follows:

- To prevent re-offenses, juvenile court commitment, and reduce detention rates;
- To prevent additional involvement with the juvenile justice system; and
- To improve parenting skills and parent-child interaction, as evidenced by decreased conflictual interaction.

### ***Procedure***

All procedures and instruments have maintained full Institutional Review Board (IRB) approval at both the Medical College of Georgia and the University of Georgia. Participants were referred to the RCFSP by the Richmond County Department of Juvenile Justice. A relationship was established with the juvenile court during the creation of the program so that the facility could become a smooth and effective referral source for the project. When a first time juvenile offender was seen by the judge, or when an informal adjustment charge was made against a youth, the option of attending the RCFSP was offered to the family. If the family accepted the offer to attend the program, a FSP coordinator would meet with the family to explain the details of the program and secure informed consent from the parent and assent from the youth to participate. It was explained that the RCFSP was independent of the charges and formal disposition of the court, and that the RCFSP staff could not be involved in

offering any incentives to complete the program such as reduced probation or reduction of fees.

Once informed consent and youth assent was secured, the FSP coordinator would administer a risk assessment to both members of the family. Before completing the instrument, each participant was informed that the information provided would be held in strict confidence unless required by law to disclose the responses. The risk assessment served as a screening tool and there were three specific purposes of the risk assessment, including 1) to assess the likelihood of at-risk behaviors in the family that may preclude their involvement in the program; 2) to alter and adapt program material to better meet the needs of the families; and 3) to aid in evaluation of the FSP across time (Quinn et al., 2002). The content of the risk assessment included gathering of basic demographic information such as age, race, sex, employment, educational level, income, and the general makeup of the household. Further, questions regarding substance use, family criminal activity, and measures of parent-child communication, cohesion, and depth and breadth of family interaction were included. For youth, questions regarding peer group affiliation, drug and alcohol use, school performance and behavior, and their perceptions of their relationships with other members of their family were emphasized.

Upon completion of the risk assessment, families were provided time to have their questions answered and the logistics of program involvement were explained, such as location, date, and time of each session. A printed schedule

of events was provided to each parent so that they could anticipate session topics and arrange their schedule accordingly. Finally, the requirement to attend all sessions by both youth and parent or caregiver was explicitly stated and the consequence of removal from the program for excessive absences or habitual non-participation was explained.

Participants were told that they would be completing a similar battery of instruments upon successful completion of the RCFSP. Thus, upon completion of the ten week program, each group participant completed an exit questionnaire that was similar to the risk assessment completed at intake. Questions regarding family cohesion, parent-child communication, school behavior, and peer influences were included.

Follow up data regarding recidivism by RCFSP participants was collected. Data points were collected at the end of each three-month period for each youth, beginning with the date the family either dropped out of or graduated from the program. Families were recruited for consecutively running intervention groups based upon their time of referral from the Department of Juvenile Justice. Therefore, the three month intervals at which data was collected is the same within groups, but varies based upon when the family was referred to the program. For youth who enrolled in the study at its inception, for example, recidivism data can be tracked since December of 2001. Comparisons between youth and families who completed the RCFSP and those youth and families who dropped out of the program prior to completion were assessed with respect to

continued involvement with the juvenile justice system. Data points were collected at the end of each 3-month period in collaboration with the staff at the Department of Juvenile Justice.

### ***Instrumentation***

#### ***Recidivism***

The major outcome variable in this study was recidivism. Official measures of recidivism were collected by the Richmond County Department of Juvenile Justice, as this information was considered to be the best available data with respect to youth reoffending. The Department of Juvenile Justice tracks youth criminal behavior until the age of 17. For the purposes of this study, youth were considered to have reoffended if they had committed a crime during each three month period since their graduation or dropout date from the RCFSP. Data points (reoffense dates) collected during each three month period were collected and entered into SPSS for analysis. The nature of the offense committed was not documented, as the offenses themselves are not considered to be an integral part of this MFG approach to intervention. All youth referred to the RCFSP, however, had committed less than a felony offense, and many were referred through the informal adjustment process, as noted above.

#### ***Family APGAR***

A measure of family functioning has been administered to all families during the intake process, and was re-administered post-intervention to all families who graduated from the program. The Family APGAR scale (Smilkstein, 1978) is a



five-item scale that taps into dimensions of family functioning that are known to be associated with child well-being, including: 1) Adaptability, 2) Partnership, 3) Growth, 4) Affection, and 5) Resolve (Smilkstein, 1978). The scale is based on the APGAR scale used in medical settings for newborn babies. The Family APGAR is based on a systems model and incorporates indices of stress and adaptation in members of the family. Each of the five dimensions is tapped through responses to the following questions:

- I can turn to my family for help when something is troubling me.
- My family talks over things with me and shares problems with me.
- My family accepts and supports me when I try new things.
- My family shows affection, and notices my feelings, such as anger, sorrow, or love.
- My family and I share time together.

Each of the five questions is close-ended with three possible responses. A “0” point answer is one in which the respondent answered “Hardly ever”, a “1” point answer is one in which the respondent indicated “Some of the time” and a “2” point answer is one in which “Almost always” was the chosen response.

Thus, when summed, the highest possible score on this measure is ten points. A score of 0 to 3 is indicative of a severely dysfunctional family. Likewise, a score of 4 to 6 suggests a moderate level of dysfunction in the family, and a score of 7 to 10 reflects a well functioning family. This measure, although very brief, was

considered to be appropriate for the population most likely served by the RCFSP due to its ease of administration and basic reading level (Quinn, et al., 1994).

The Family APGAR is a reliable and valid measure (Smilkstein, Ashworth, & Montano, 1982) of overall family functioning. Internal reliability estimates range from .80 to .86 (Good, Smilkstein, Good, Shaffer, & Arons, 1979; Smilkstein, et al., 1982). Further, Good et al (1979) report sound construct validity (correlation of .80 with another family function index), split-half reliability (.93), and test-retest reliability over a two-week interval (.83).

A potential limitation of this measure is that it provides a global indication of overall family functioning and it is difficult to determine specific areas of cohesion as compared to difficulty. Further, the respondent may be indicating ability to turn to some members of the family but not others, and therefore for the purposes of this study each youth and parent was instructed to respond to the questions with respect to the person they would be attending the multiple family group intervention with each session. It is noteworthy that Murphy, Kelleher, Pagano, Stulp, Nutting, Jellinek, Gardner, & Childs (1998) noted that the Family APGAR was not a sensitive measure of childhood psychosocial problems, and cautioned that the instrument should be used in conjunction with other measures to ascertain an accurate understanding of a child's overall level of psychosocial functioning. However, use as a global screening measure of overall family functioning is warranted.

The Family APGAR was administered to every youth and parent in the RCFSP sample since beginning the program in 2001. At the completion of the 10-week intervention, the Family APGAR was administered again to all graduates to determine if change in family functioning occurred across time.

### ***Risk assessment questionnaire***

As noted above, each youth and parent participant completed a risk assessment questionnaire at intake and a post-intervention questionnaire upon successful completion of the program. Based upon reviews of the literature, several sections of close-ended questions were asked during the pre- and post-intervention evaluation process (Quinn et al., 2002). Questions related to school activity and performance, peer associations, family functioning, and demographic information such as household family income, race, sex, age, socioeconomic status, and employment status were included in both questionnaires. Several factors were of particular interest with respect to treatment fidelity and outcome, such as youth school performance, perceived level of family functioning, and socioeconomic status.

### ***Statistical Analyses***

Data were analyzed using the Statistical Package for the Social Sciences (SPSS 12.0). This study was quasi-experimental in design due to lack of random assignment to groups. The outcome variable of recidivism was dichotomous (reoffend/did not reoffend), as was the participation in the program (graduate/did not graduate).

The RCFSP began in 2001 and, in 2004, 94 families had been enrolled in the program. Completion of the RCFSP program was determined if a family attended at least 90% (9 of 10) group sessions, meaning that the youth and at least one parent or caregiver were present at the groups together. Youth and their parent(s) who did not attend 90% of the group sessions were removed from the program and served as the dropout comparison group for data analysis purposes. Tracking of recidivism began on the date in which one of two conditions was met: 1) the youth successfully completed the program, or 2) the youth dropped out of the program. Responses to the risk assessment and post-treatment questionnaire were used for data analysis. Recidivism data was gathered in collaboration with the support of the staff at the Department of Juvenile Justice.

## CHAPTER 4

### RESULTS

This study sought to examine characteristics of the family as well as programmatic characteristics of a multiple family group intervention and the effectiveness of reducing recidivism rates in a sample of first-time juvenile offenders. Seven research questions were addressed in this study and are presented in this chapter: (1) Will elevated reported levels of familial conflict at intake reduce program completion among youth and parents of juvenile first offenders? (2) Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in targeted youth? (3) Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in parents of targeted youth? (4) Will successful completion of a multiple family group be associated with increases in self-reported levels of family functioning between parent and adolescent? (5) Are particular demographic variables associated with number of sessions attended? (6) Is there a relationship between number of sessions attended and incidence of reoffense? (7) Will successful completion of a multiple family group intervention be associated with reduced recidivism rates in a sample of first time juvenile offenders as compared to those who did not complete the program? To address these questions, one-tailed *t* tests, chi square analyses, and Pearson Correlation coefficients were utilized.

## ***Attrition***

Ninety four youth and their parents consented and were enrolled in this study. Of the ninety four who enrolled, 47 successfully completed the program. Another 47 families withdrew from the program before its completion. The attrition rate for this study was 50%. While this rate is high, Kazdin, Stolar, & Marciano (1995) note that multiple factors are related to dropping out of treatment in minority families, and that “among families who begin treatment, 40 – 60% terminate prematurely” (p. 402).

There were no invalid response sets on either the pre- or post-intervention questionnaires; however, on the Family APGAR administered during the intake process, four parents and five youth failed to complete the measure. Thus, twenty eight youth and 29 parents of the 47 who successfully completed the program completed both the pre- and post-Family APGAR.

*Question 1: Will elevated reported levels of familial conflict at intake reduce program completion among youth and parents of juvenile first offenders?*

From the sample of 94 families who enrolled in the RCFSP, 42 parents who did not complete the program and 47 parents who graduated from the RCFSP responded to the Family APGAR Index during the intake process. Data was analyzed using an independent samples *t* test to determine if scores on the Family APGAR were significantly different between those parents who completed the program and those parents who did not complete the program. Reported experience of overall family functioning between those who graduated ( $M = 6.96$ ,

$SD = 2.62$ ) and those who did not complete the program ( $M = 6.19$ ,  $SD = 3.15$ ) was not statistically significant ( $t(88) = -1.26$ ,  $p = .11$ ).

From the sample of 94 youth who enrolled in the RCFSP, 41 youth who did not complete the program and 48 youth who graduated from the RCFSP provided a valid response to the Family APGAR Index during the intake process. Again, an independent samples  $t$  test was conducted to determine if scores on the Family APGAR were significantly different between those youth who completed the program and those youth who did not complete the program. Reported experience of overall family functioning between those who graduated ( $M = 5.33$ ,  $SD = 2.59$ ) and those who did not complete the program ( $M = 5.27$ ,  $SD = 3.22$ ) was not statistically significant ( $t(87) = -.103$ ,  $p = .46$ ).

As 19 of the 94 families who enrolled in the program participated only in the intake process and no group sessions, data was analyzed by excluding cases of families who were not involved in the intervention proper. Thus, data from the 75 families who both consented and attended at least one group were analyzed with an independent samples  $t$  test to determine if scores on the Family APGAR were significantly different between those parents who completed the program and those parents who did not complete the program. Scores on the Family APGAR provided by parents who graduated from the RCFSP ( $M = 6.98$ ,  $SD = 2.64$ ) were significantly different from Family APGAR scores provided by parents who did not complete the program ( $M = 5.15$ ,  $SD = 2.92$ ,  $t(72) = -2.76$ ,  $p = .0035$ ). Similarly, scores in the Family APGAR provided by youth who

graduated from the RCFSP ( $M = 5.32$ ,  $SD = 2.61$ ) and those who did not graduate ( $M = 4.96$ ,  $SD = 3.02$ ) were analyzed using an independent samples  $t$  test; however, results were not significant ( $t(72) = -.533$ ,  $p = .298$ ).

*Question 2: Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in targeted youth?*

A paired samples  $t$  test was conducted in order to determine if completion of the RCFSP resulted in improved levels of overall family functioning according to youth self-report on the Family APGAR. Of those who completed both intervention measures, the difference between scores on the pre-intervention Family APGAR ( $M = 5.82$ ,  $SD = 2.60$ ) and the post-intervention Family APGAR ( $M = 6.64$ ,  $SD = 2.34$ ) was not significant ( $t(27) = -1.364$ ,  $p = .09$ ), indicating that although the change was in the anticipated direction as indicated by the mean scores on the index, the improvement in scores over time was not statistically significant.

*Question 3: Will successful completion of a multiple family group intervention result in improved self-reported levels of family functioning in parents of targeted youth?*

A paired samples  $t$  test was conducted in order to determine if completion of the RCFSP resulted in improved levels of overall family functioning according to parent self-report on the Family APGAR. Of those who completed both intervention measures, the difference between scores on the pre-intervention Family APGAR ( $M = 6.79$ ,  $SD = 3.08$ ) and the post-intervention Family APGAR



( $M = 7.45$ ,  $SD = 2.69$ ) was not significant ( $t(28) = -1.175$ ,  $p = .13$ ), indicating that although the change was in the anticipated direction as indicated by the mean scores on the index, the improvement in scores over time was not statistically significant.

*Question 4: Will successful completion of a multiple family group intervention be associated with increases in self-reported levels of family functioning between parent and adolescent?*

Pre- and post- intervention scores by youth on the Family APGAR were compared to pre- and post-intervention scores by parents on the Family APGAR using a Pearson correlation coefficient. Results indicated a significant positive correlation between the youth pre-APGAR and parent pre-APGAR scores ( $r = .303$ ,  $p = .002$ ). Likewise, a significant positive correlation between scores on the youth post-APGAR and the parent post-APGAR ( $r = .457$ ,  $p = .007$ ) was determined. However, the difference between the correlations was not statistically significant ( $z = .77$ ,  $p = .1103$ ). Interestingly, a significant positive correlation was determined between the parent pre-APGAR and the youth post-APGAR ( $r = .554$ ,  $p = .001$ ). Neither the correlation between the youth pre- and post-APGAR nor the correlation between the youth pre-APGAR and the parent post-APGAR were significant. The correlation matrix is presented in Table 7.

Table 7

Pearson correlations between youth and parent pre- and post-APGAR scores

	Youth pre-APGAR	Youth post-APGAR	Parent pre-APGAR	Parent post-APGAR
Youth pre-APGAR	1.000			
Youth post-APGAR	.172	1.000		
Parent pre-APGAR	.303**	.554**	1.000	
Parent post-APGAR	.282	.457*	.464*	1.000

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

*Question 5: Are particular demographic variables and characteristics of the youth associated with number of sessions attended?*

To investigate relationships between several demographic variables and the number of sessions attended by each family, a correlation matrix of the following variables was analyzed: 1) household income over the past year, 2) youth's current grade level in school, and 3) number of times youth had been suspended during the past year. These three variables were chosen for investigation in the analysis based upon inspection of the larger correlation matrix in that they demonstrated stronger relationships with the number of sessions attended. There was a significant positive correlation between the family household income over the past year and number of sessions attended ( $r = .258, p = .027$ ). Likewise, there was a significant positive correlation between the youth's current grade level and the number of sessions attended ( $r = .238, p = .028$ ). There was a significant negative correlation between number of times the youth was suspended from school during the past year and the number of sessions attended ( $r = -.233, p = .029$ ), which indicated that the fewer the school suspensions, the greater the number of RCFSP sessions attended. Results of the correlation analysis is presented in Table 8.

Table 8

Pearson correlations between demographic and personal variables and number of sessions attended

	Grade level	# suspensions	Income	# of sessions
Grade level	1.000			
# suspensions	-.187	1.000		
Income	.415**	-.197	1.000	
# of sessions	.238*	-.233*	.258*	1.000

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

*Question 6: Is there a relationship between number of sessions attended and incidence of reoffense?*

Regardless of graduation status, youth who did not reoffend attended an average of 6.14 sessions ( $SD = 3.93$ ), whereas youth who committed another crime after enrolling in the RCFSP attended an average of 4.46 sessions ( $SD = 4.15$ ). An independent samples  $t$  test was conducted to determine if there was a relationship between number of sessions attended and whether an offense had been committed. Results were statistically significant ( $t(92) = 1.786, p = .03$ ), indicating a relationship between the number of sessions attended and recidivism rates. In addition, as 20.1% of the sample participated only in the intake process and attended no group sessions, an additional analysis was conducted with these 19 data points removed. Results of this analysis did not reach statistical significance ( $t(73) = .673, p = .25$ ). Further, males (61%) committed a significantly greater number of serious offenses (i.e., crimes against person) as compared to females (39%) ( $\chi^2 = 6.879, p = .032$ ).

*Question 7: Will successful completion of a multiple family group intervention be associated with reduced recidivism rates in a sample of first time juvenile offenders as compared to those who did not successfully complete the program?*

In order to determine the effectiveness of the RCFSP in reducing recidivism rates in this sample of first time juvenile offenders, a 2x2 chi square analysis was conducted. Data from graduates and dropouts from the program (coded 0 and 1, respectively) and those who did not reoffend and those who did

reoffend (coded 0 and 1 respectively) were compared. Although a greater number of RCFSP drop outs committed offenses, the results were not statistically significant ( $\chi^2 = 2.014, p = .118$ ). These results indicate that reoffenses were not dependent upon whether one completed or failed to complete this multiple family group intervention.

## CHAPTER 5

### DISCUSSION

It has become clear that the prevalence and incidence of juvenile delinquency has reached staggering proportions, and while literature on juvenile delinquency has proliferated, studies that focus issues related to treatment adherence and reducing recidivism in first time juvenile offenders are less common. Recent literature has suggested that the multiple family group approach to the treatment of juvenile delinquency is likely the most effective and comprehensive approach, as interventions that are most effective are those which recognize the complex interplay between the youth and their social networks including family, peer, school, community, and larger societal systems. Hence, more studies that examine its relative effectiveness are needed. Thus, the purpose of this study was to examine the factors associated with treatment adherence and the effectiveness of a multiple family group intervention in reducing recidivism in a sample of first time juvenile offenders.

#### ***The relationship between family conflict and treatment adherence.***

Family functioning was assessed by the administration of the Family APGAR Index during the intake process. Youth and parents completed this brief, individually-administered instrument as part of the intake packet. Although the mean differences were in the anticipated direction, in that parents who completed the program reported greater levels of overall family functioning at intake, the relationship between parents perception of overall level of family functioning was

not significantly different between those who graduated and those who dropped out of the program. Likewise, mean scores on the Family APGAR index completed by youth were higher for those who successfully completed the program as compared to those who did not; however, results were not statistically significant. Further, 20.1% (19 of 94) of the families completed the informed consent process and risk assessment questionnaire but did not attend at least one group meeting. When data were analyzed having removed these data points from the set, a significant difference was found between the scores provided by parents who graduated from the program and those who dropped out. This finding suggests that parents who failed to complete this MFG program were experiencing significantly greater discord within the family than those who successfully completed the 10-week intervention. Data from the youth were also analyzed, however results were not significant, indicating that increased levels of familial discord was not related to treatment adherence in this sample of first time juvenile offenders.

***The effect of the intervention on youth and parent's perception of overall family functioning.***

The Family APGAR was administered again to each youth and their parent upon successful completion of the multiple family group intervention. Both parents and youth who participated in this study did not report significant improvements in family functioning; however, the mean differences between the pre-intervention and post-intervention scores were in the anticipated direction,



suggesting that the some improvement in their family relationships was noted by both youth and parents. The Family APGAR is a brief, general measure of global family functioning, and may not have been sufficient to tap particular areas of family functioning that are expressly addressed during the intervention.

***The effect of the intervention on perceptions of family functioning between parent and youth.***

As improvements in family functioning can impact youth in a positive manner and can reduce delinquent behavior (Huey, et al., 2000), the Family APGAR was administered to youth and parents during the intake process and again upon completion of the intervention. Of interest was the degree to which improvements in family functioning were related between youth and their parents. Results indicated that youth and their parents perceived the overall level of functioning within the family similarly at intake as well as at the time of graduation. However, although the youth and parents scores were statistically significant, the relationship between the groups of scores did not reach significance. Further, an interesting correlational relationship was found between the parent pre-APGAR score and the youth post-APGAR score. While this correlation was not of interest during the initial analysis, it has compelling implications for the nature of the family relationship at the beginning of the program. Increases in perception of overall family functioning by the parent at intake were significantly associated with increases in the youth perception of the completion of the program. It is possible that parents with more positive

perceptions of the ecology of the household and relationships within the family might engage in more positive and encouraging interactions with their child throughout the process of engaging in the multiple family group intervention, thereby increasing the youth's perception of the level of overall family functioning.

***Demographic variables and characteristics of youth associated with treatment adherence.***

Studies indicate that characteristics of both individuals and larger social systems contribute to juvenile delinquency (Yoshikawa, 1994; Moffitt, 1993; Bronfenbrenner, 1986). Of particular interest in this study were the following characteristics: 1) household income over the past year, 2) youth's current grade level in school, and 3) number of times youth had been suspended during the past year. Results indicated that families who reported higher annual household income also attended more sessions of the multiple family group intervention. This is in accord with studies that indicate that socioeconomic disadvantage is related to treatment dropout and juvenile delinquency (Tarolla et al., 2002). There was a significant positive correlation between the family household income over the past year and number of sessions attended, indicating that as the reported annual household income increased, so did the number of sessions attended by the family.

Youth who were older and in a more advanced grade level in school attended more sessions of this multiple family group intervention than younger youth. These results have interesting implications for prevention studies of

juvenile delinquency that suggest that early identification and remediation is preferable to addressing problem behavior when youth are older. It is possible that the dedication to school that was evidenced by the youth in this study was also related to their willingness to commit to a ten-week intervention program.

An association between number of sessions attended and number of school suspensions by youth was found, indicating that fewer sessions were attended by youth who had a higher number of school suspensions. These results are in line with other studies that suggest that poor school attendance and disruptive behavior in school are significant risk factors for juvenile delinquency (Clingempeel & Henggeler, 2003; Tarolla, et al., 2003; Yoshikawa, 1994; Patterson et al., 1989).

***The relationship between number of sessions attended and reoffense rates of youth.***

Attendance in this multiple family group intervention program resulted in fewer offenses committed by youth, regardless of graduation status. These results suggest that there was an association between increased exposure to this program and the number of offenses committed by the youth. It is evident from the results of this study that as youth attend more sessions of this multiple family group intervention, their number of offenses decreased. It would be interesting to examine reoffending patterns in these youth across a longer period of time, in that it is possible that the effects of the program might become more clear as youth and their parents have more time to practice the skills they learned during

the program. That is, perhaps the group has a latent effect on recidivism in that youth who attended more sessions might commit fewer offenses or repeated offenses across a longer period of time. Further, as an association was determined between number of sessions attended and reoffense rates in this sample, it might be important to consider extending the number of sessions beyond the currently established ten session curriculum.

Finally, it might be beneficial to first time juvenile offenders and their families to be provided the opportunity to attend booster sessions at designated intervals after completion of the program. These booster sessions could be provided by either Family Solutions Program staff or in collaboration with the Department of Juvenile Justice so that the first time offender and his or her parent(s) have the opportunity to return to a non-punitive setting to be reintroduced to the basic tenets of the program.

***Effectiveness of the intervention in reducing recidivism rates.***

Successful completion of this multiple family group intervention did not influence the likelihood of a youth committing another crime. These results may be explained by the dichotomous nature by which the groups were categorized and coded for analysis. That is, youth were categorized as graduates or drop outs of the study in a binary fashion, regardless of number of sessions attended, which is in line with most studies, in that “dropping out is defined in a binary fashion in which patients are classified as dropouts or continuers/completers on

the basis of the number of sessions attended or weeks in treatment” (Kazdin, et al., 1995, p. 402).

Further, stringent attendance criteria were set in place from the beginning of this project in that youth and parents who missed more than one session were withdrawn from the program, and youth were not permitted to attend the session if an adult caregiver was not also present. Further, severity of offense was not considered in this analysis, in that any type of crime committed by each youth upon graduating or dropping out of the program was coded as recidivism.

### ***Research and Clinical Implications***

Research supports the use of family-based, and specifically multiple family group, approaches to intervention with juvenile offenders. Specifically, interventions that involve the youth’s parents are more effective in reducing reoffenses than individual-centered remediation (Quinn & VanDyke, 2004; Tarolla et al., 2002). Characteristics of both the youth and his or her larger family and social system have been examined, and it has become clear that a social-ecological approach to the effective deterrence of a youth from a trajectory of criminal activity is necessary. That is, the recognition of the effects of the dynamic and intertwined relationship between the juvenile offender and his or her family, peer, school, and neighborhood contexts are critical variables in the conceptualization, creation, and implementation of intervention programs that aim to reduce recidivism in this population.

With respect to the findings of this study, it is possible that reliance upon one brief, global measure of an indication of the family's level of functioning limited the possibility of finding significant results between the time the family was referred to the program and their graduation and/or drop out date. However, it is noteworthy that patterns of improvement were found in both youth and parental reports of family functioning even though statistical significance was not reached. It is also possible that the relatively high drop out rate (50%) limited the ability of the statistical analyses to detect change in the anticipated direction.

In summary, the Family APGAR index was used to assess levels of family functioning based on responses by both youth and parents both during the intake process as well as at the tenth and final session for those who did not drop out of the program. Although scores on the pre-intervention measure were higher for those who graduated from the program for both youth and parents, statistical significance was not reached; and the differences between the pre- and post-intervention APGAR scores were in the anticipated direction for both youth and parents but were not statistically significant. Significant correlations were found between 1) higher annual household income and increased number of sessions attended by the family, 2) higher grade level in school of the youth and greater number of sessions attended by the family, and 3) fewer number of suspensions during the past school year by the youth and increased attendance in this multiple family group intervention. Of particular interest, an association was found between increased exposure to the intervention program and fewer

number of offenses committed by the youth upon either graduation from or dropping out of the program, suggesting that this program had a positive effect on reducing youth's future criminal activity. Overall, however, chi-square analyses indicated that number of reoffenses by each youth was not dependent on the youth's graduation status. That is, there was no statistically significant difference between those who dropped out and those who graduated from the program with respect to the number of reoffenses committed. Possible explanations for this and other findings have been discussed in their respective sections of this discussion.

### ***Limitations***

There are several limitations of this study that warrant attention. First, non-random assignment to treatment urges caution in attributing treatment effects, as youth were selected for this program by the juvenile court and there is no control group from which to compare treatment effects. Second, recidivism as the sole outcome variable in this study potentially limits the investigation of additional sources of success within families upon completion of the program. Third, adherence to treatment is a common struggle in the multiple family group format as the requirement of at least two family members to be present at each group adds additional strain to the family system. The drop out rate in this study was 50%, and was not due to a lack of dedication and initiative on the part of the study coordinators. Youth referred to this program were contacted both by the Department of Juvenile Justice staff and the RCFSP program coordinator

following adjudication, and the initial meeting was arranged as quickly as possible. Follow up phone calls were made and a reminder letter was sent to each family along with a schedule of each session date and topic to help ensure that the family would remember to attend each session. Despite these efforts, there remained a large drop out rate in this study. Generalization of the results is therefore further limited by the resultant low sample size.

Despite these limitations, the results of this study provide important and meaningful information regarding the effectiveness of a multiple family group intervention to address the needs of juvenile offenders and their families.

### ***Conclusions and recommendations for further research***

Future studies should address the complex nature of the successful recruitment, retention and follow up of families referred to multiple family group intervention program for first time juvenile offenders. Barriers to successful treatment such as attrition, family stress, lack of social support, and particular characteristics of the adjudicated youth should be further examined in an effort to better understand the predictors of treatment completion as well as the factors that lead to desisting from future criminal behavior.



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