

EFFECTIVENESS OF A MULTIPLE FAMILY GROUP INTERVENTION IN  
REDUCING STRESS IN PARENTS OF JUVENILE FIRST OFFENDERS

by

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(Under the Direction of Arthur M. Horne)

ABSTRACT

This study investigated the extent to which parental stress was reduced by a participation in a multiple group family intervention developed to reduce recidivism among juvenile offenders. The problems, major challenges and tremendous costs of juvenile delinquency to communities, families and youth were reviewed. Parenting practices were presented as leading factors influencing juvenile delinquency and the research on stress experienced by parents of children with behavioral problems was discussed. Parental stress was proposed as one of the more robust constructs related to parenting practices and child behavior disturbance. Multiple family intervention was examined to determine whether parental stress could be reduced. Results indicated that parent stress was reduced by participation in multiple family group intervention in similar populations such as with parents of children with Attention Deficit Hyperactive Disordered children, disabilities, and behavior problems. Parent stress reduction, shown to correlate with improved parental functioning, was demonstrated as a viable measure of treatment outcome in the literature. It was found that parent stress was effectively reduced by completion of a multiple family group intervention program. In addition, this

study examined parent stress in parents of juvenile first offenders regarding parent gender, ethnicity, single versus two-parent households, family functioning, parent-adolescent communication, dropout rates, and intervention benefit change at follow-up. Parents of the present sample reported greater levels of parent stress than non-clinical parents and were not significantly different from parents of children with emotional or behavioral problems. Parental stress did diminish in response to intervention, but not until one- month follow-up to intervention completion. Though there was attrition in the study, no differences were found on initial parent stress level between completers and non-completers of the intervention. No significant differences were found in this study regarding parent stress and gender or ethnicity of the parent; however, single parenting was associated with significantly higher levels of parent stress. Family functioning was significantly negatively correlated with parental stress. Finally, open communication between juvenile first offenders and their parents improved significantly in response to the intervention both at post-intervention and at follow-up.

**INDEX WORDS:** Juvenile first offenders, Family factors, Parent stress, Multiple Family Group intervention outcome, Gender, Ethnicity, Single versus two-parent families, Family functioning, Parent-Adolescent communication, Dropout rate, and Follow-up outcome

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## DEDICATION

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	v
LIST OF TABLES .....	ix
CHAPTER	
1 Introduction.....	1
Overview of the Problem .....	1
Purpose of the Study.....	6
2 Literature Review.....	9
Parent Stress and Juvenile Delinquency: Inferences from Related Research .....	9
Parent Stress and Treatment Outcome Studies.....	13
Parent Stress and Gender.....	14
Parent Stress and Ethnicity.....	17
Parent Stress and Single vs. Two-Parent Households .....	20
Parent Stress, Family Functioning and Parent-Adolescent Communication .....	22
Follow-up Treatment Outcome Focusing on Parent Stress and Multi- Family Group Therapy Approaches with Juvenile Offenders.....	24
3 Method .....	26
Sample .....	26
Intervention .....	27
Instrumentation.....	31



Procedure.....	35
Statistical Processes.....	37
4 Results.....	41
Question 1: Do parents of juvenile first offenders exhibit higher levels of parental stress than the norm? .....	43
Question 2: Will completion of a multi-family group intervention reduce the levels of parental stress exhibited by parents of juvenile first offenders? .....	43
Question 3: Will elevated parental stress at intake have an impact on program completion among parents of juvenile first offenders? .....	44
Question 4: Is there a relation between parental stress and gender among parents of juvenile first offenders?.....	44
Question 5: Is there a relation between parental stress and ethnicity among parents of juvenile first offenders?.....	45
Question 6: Is there a difference in the level of parental stress exhibited in single vs. two-parent households among parents of juvenile first offenders? .....	46
Question 7: What is the effect of multi-family group intervention on family functioning and how does family functioning correlate with parent stress among parents of juvenile first offenders? .....	46

Question 8: What is the effect of multi-family group intervention on the dimensions of open communication and problem solving in parent-adolescent communication and how do these dimensions of parent-adolescent communication correlate with parent stress among parents of juvenile first offenders? .....	47
Question 9: Does any benefit of intervention related to the variables of parent-adolescent communication, family functioning, or parental stress occur, or persist, at one month follow-up? .....	48
5 Discussion .....	51
The Multiple Determinants of Parental Stress .....	51
Gender, Ethnicity, Household Composition, and (Post-Facto) Family Income Effect on Parental Stress, Family Functioning, and Parent-Adolescent Communication .....	55
Research Implications .....	65
Clinical Implications .....	67
Conclusion.....	72
REFERENCES .....	75

## LIST OF TABLES

	Page
Table 1: Within-Subjects Comparison of Pre-Test, Post-Test and Follow-up Scores.....	50
Table 2: Comparison of Study Population to Georgia and United States Demographic Data .....	53
Table 3: Between-Subjects Comparison of Study Sample Pre-Test Scores with Test Norming Samples.....	64
Table 4: Between-Subjects Comparison of Sample Follow-up Scores with Test Norming Samples .....	71

## CHAPTER 1

### INTRODUCTION

#### *Overview of the Problem*

In the last 15 years, the United States has witnessed a nationwide epidemic of juvenile violence (Corbitt, 2000). In 2002 the juvenile population represented 26 percent of the total U.S. population and an expected 8 percent increase is projected before 2015 (Godwin & Helms, 2002). While the overall juvenile arrest rate has been showing a modest decline over the last 6 years, some disturbing trends have occurred including increases in violent crimes and younger aged offenders (Godwin & Helms, 2002). Additionally, arrest rates are growing at a more rapid rate than the adolescent population (Snyder, Sickmund & Poe-Yamagata, 1996) indicating that, as a group, youth are progressively experiencing more legal problems than in the past.

There are a number of risk factors that contribute to increased adolescent delinquency including poverty, drug use, low social conformity, low verbal skill, interpersonal inadequacy, low self-esteem, peer rejection, poor school achievement and dropping out of school, associating with deviant peers, limited prosocial peer involvement, low social support, and frequent mobilization (Carr, 2001; Tarolla, Wagner, Rabinowitz & Tubman 2002). The empirical literature suggests that, overall, delinquency is multi-determined by individual, peer, community and familial characteristics (Tarolla et al., 2002).

In their investigation of risk factors for persistent serious delinquency, Stouthamer-Loeber, Loeber, Wei, Farrington, and Wilkstrom (2002) found child behaviors of substance

abuse, aggression and violence, and absence of guilt to be risk factors. Poor motivation in school and academic underachievement were also found to be associated with persistent serious delinquency. Being from a family below the poverty line and association with delinquent peers rounded out the non-familial risk factors further predicting youthful offending. Social disadvantage and deviant peer group association were also found to be variables that initiated and maintained an early-onset trajectory for juvenile offending in a study by Patterson, Forgatch, Yoerger, and Stollmiller (1998). Living in poverty, less confidence, low self-esteem, poor self-concept, poor social relationships, and low academic abilities were found to describe those at risk for youthful offending by Lerner and Galambos (1998). And in a review of archival profiles of youth offenders, Carr (2001) lists poverty, poor self concept, low self-esteem, poor attitude, low attendance and performance in school, poor temperament, support-avoidance behavior, drug use, and deviant peer selection or rejection by peers as factors found to be associated with juvenile delinquency.

A major construct with demonstrated associations with delinquency is a cluster of family influences. Specifically, these factors include lack of parental monitoring, inept discipline, high levels of conflict and hostility in the home, parental difficulties such as drug use/abuse, psychopathology, criminal activity, low parental affection and warmth, lack of cohesion, and high stress (Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998; Tarolla et al., 2002). Poor structure, few rules in the household and inadequate parental support and guidance are among the greatest contributors to youth offenses (Carr, 2001). Severe and inconsistent discipline practices are also known predictors of delinquency (Hawkins et al., 2000). In their extensive analysis of longitudinal studies on antisocial behavior in youth, Loeber and Dishion (1983) found the most powerful

predictors of delinquency were parenting variables, specifically harsh, inconsistent discipline and poor supervision. Children from homes with one parent or where divorce or separation has occurred have consistently shown a higher rate of juvenile delinquency than those from intact two-parent homes (Hawkins et al., 2000, Wells & Rankin, 1991). Child neglect has been shown to increase the risk for delinquency by more than 50% (Widom, 1992) and children neglected or abused are more likely than children with no known history of abuse or neglect to commit violent crimes (Thornberry, Smith, Rivera, Huizinga, & Stouthamer-Loeber, 1999; Widom, 1992).

Many studies have demonstrated that family interventions can significantly diminish the likelihood of youth offending as well as reduce re-arrest rates for juvenile first offenders. In his review of over 50 years of research and literature on attempts to change lawbreakers, Gibbons (1999) cites family therapy and parent training as clearly having an impact on reducing juvenile crime and delinquency. Efforts to improve the quality of family functioning by focusing on family cohesion and communication, parental direction or guidance, supervision or monitoring, control, trust and problem solving skills have become important variables in the successful treatment of juvenile offenders (Huey, Henggeler, Brondino, & Pickrel, 2000). Increased parental involvement has been shown to be a significant barrier to delinquency, as well as drug use, particularly in minority youth (Hawkins et al., 2000; Kumpfer & Alvarado, 1998). In her review of family intervention literature, Perkins-Dock (2001) found clear research support that treatment and education which focused on the family, such as Functional Family Therapy (FFT), Parent Management Training (PMT), Multisystemic Therapy (MST) and Brief Strategic Family Therapy (BSFT) were effective at preventing and reducing delinquent behavior. Forehand

and Long (1988) cited parent training as the most effective treatment available for acting out children and called for more research and follow-up studies in this area.

In family research done on adolescent substance abuse, which frequently coexists with juvenile delinquency, Szapocznick, Kurtines, Foote, Perez-Vadal, and Hervis (1986) found that after 4 to 12 sessions of family therapy, there was a reduction of adolescent drug use and delinquent behavior, less paternal blaming of the adolescent, better conflict resolution, greater flexibility in the family and more family expressiveness. Some of the components of family based approaches that are hypothesized to reduce adolescent substance use include family outreach strategies, promoting healthier family communication patterns, reducing blaming behavior, reinforcing desired behavior changes such as clean urinalysis results and treatment attendance, educating parents and teens about the harmful effects and consequences of substance use, modeling new parent behaviors, training parents how to better manage their children such as through contracting, increasing problem-solving skills, and enhancing school and community based interventions (Bry, 1988). Joanning, Quinn, Thomas, and Mullen (1992) found that treatments involving the entire family produced twice as many apparently drug-free clients than family education and adolescent group therapy. In general, having family therapy as a component for treating adolescent behavior problems has been shown to increase treatment retention rates, reduce drug abuse, depression and behavior problems in teens, improve adolescent's school or work attendance and performance, and enhance adolescent-parent communication consistently over 'peer group only' therapy (Liddle, 1995)

In his presidential address to the APA division of clinical child psychology, Abidin (1992), the author of one of the first and most comprehensive parent stress inventories (Abidin, 1997), called for a stronger commitment on the part of researchers to consider parent variables, such as belief and motivational systems. In this address, Abidin presented a model theorizing paths of influence regarding the determinants of parenting behavior with parenting stress as a central construct in understanding parenting behavior. Research has demonstrated that parents' stressful events and psychological symptoms were found to be associated with increases in their adolescents' emotional and behavioral problems (Compas, Howell, Phares, Williams, & Giunta, 1989). Parent stress was also related to disrupted discipline practices which showed a direct link to adolescent maladjustment in a study by Conger, Patterson, and Ge (1995) and was found to be a factor on excessively punitive parenting behavior in a study by Greenwald, Bank, Reid, and Knutson (1997). Parent stress has consistently been found to be higher in parents of adolescents (Small, Eastman, & Cornelius, 1988; Wierson, Armistead, Forehand, Thomas, & Fauber, 1990). Finally, parent stress has been shown to be a mitigating factor in the adjustment of children and their parents in a wide variety of populations including parents of children with Attention-Deficit Hyperactivity Disorder (Anastopoulos, Guevremont, Shelton, & Dupaul, 1992; Pisterman et al., 1992), difficult temperaments (Sheeber & Johnson, 1994), antisocial behavior (Kazdin, Siegel, & Bass, 1992), conduct disorder (Eyberg, 1995), cystic fibrosis (Bartholomew et al., 1997), and in the general practice population (Patterson et al., 2002).

While previous work has demonstrated the effectiveness of treatments focused on the family in reducing delinquency, substance abuse and addiction and numerous other



behavioral problems in youth, the problem to be investigated in the present study is the extent to which a structured multi-family group intervention has an impact on parent stress; a construct shown to disrupt competent parenting practices, adversely effect parent-child communication, and decrease the likelihood of successful efforts to make positive change (Webster-Stratton, 1990).

### *Purpose of the Study*

To date, most research on juvenile offenders and their families have focused on familial factors associated with crime and treatment outcomes in terms of juvenile recidivism. There has been very little focus on changes in parent functioning in response to treatment. Yet, the functioning of parents has been demonstrated as a critical role in the success of treatment (Kaufman, 1985). The purpose of the present study is to examine one aspect of parent functioning, that of parental stress levels to: 1) assess whether or not parents of juvenile offenders experience higher levels of stress than normal, 2) evaluate the impact of the intervention involving these parents in reducing stress, and 3) achieve a greater understanding of the relationship between parent stress and gender, ethnicity, single versus two-parent households, and family functioning and communication among parents of juvenile offenders.

Numerous studies in parent-child systems have focused on parent stress to demonstrate the impact on parents of children with particular problems of health and function. For example, it has been demonstrated that parents of children with attention deficit hyperactivity disorder (Anastopoulos, et al., 1992; Murphy & Barkley, 1996), psychologically disordered children (Eyberg, 1995), children with disabilities (Craig & Swan, n.d.) and chronically ill children (Kobe & Hammer, 1994) consistently exhibit

higher levels of parental stress than the norm. Additionally, family interventions have been assessed using the construct of parent stress as a useful measure of outcome. Parent training has been shown to reduce parent stress in parents of children with ADHD (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993). And, parents of children diagnosed with a chronic medical illness displayed reduction of stress when efforts were made to educate them about their child's diagnosis (Sheeran, Marvin, & Pianta, 1997). While most research assessing parent stress indicate that when efforts are made on the part of parents to better understand their children's problems, develop coping skills to aid their children, and improve communication within the family, a reduction in parent stress occurs. Lacking are studies focusing on the parents of adjudicated youth to determine if multiple family group intervention reduces stress in parents, particularly with a majority of African-American parents. This study examined the questions of:

1. Do parents of juvenile first offenders exhibit higher levels of parental stress than the norm?
2. Will completion of a multi-family group intervention reduce the levels of parental stress exhibited by parents of juvenile first offenders?
3. Will elevated parental stress at intake have an impact on program completion among parents of juvenile first offenders?
4. Is there a relation between parental stress and gender among parents of juvenile first offenders?
5. Is there a relation between parental stress and ethnicity among parents of juvenile first offenders?

6. Is there a difference in the level of parental stress exhibited in single vs. two-parent households among parents of juvenile first offenders?
7. What is the effect of multi-family group intervention on family functioning and how does family functioning correlate with parent stress among parents of juvenile first offenders?
8. What is the effect of multi-family group intervention on parent-adolescent communication and how does parent-adolescent communication correlate with parent stress among parents of juvenile first offenders?
9. Does any benefit of intervention related to the variables of parent-adolescent communication, family functioning, or parental stress occur, or persist, at one month follow-up?

## CHAPTER 2

### LITERATURE REVIEW

#### *Parent Stress and Juvenile Delinquency: Inferences from Related Research*

*The misunderstanding of mental processes...has a strong tendency to destroy harmony sic in the family* (August Forel, 1907).

Stress has long been known to have clear physical, emotional and psychological consequences. It became a leading focus in the 1930's when Hans Seyle published his research on the impact of stress hormones on somatic reactions such as gastrointestinal ulcers. Seyle's ideas on the "stress syndrome" stimulated medical research that demonstrated adverse reactions caused by stress in heart disease, arteriosclerosis, immune system function, cancer, ulcers, skin conditions, addictions, and even the common cold (Shannon, 2002). Psychological research on stress began even earlier. In the 1920's Edward Jacobson's "Progressive Relaxation" provided a treatment model still used today to address the ill effects of stress (Jacobson, 1934).

There is a considerable body of research documenting that stress is associated with impoverished mental health. For example, higher levels of stress have been found to be significant contributors in epidemiological rates of depression, the onset of anorexia nervosa and psychotic exacerbation or relapse in schizophrenic patients (Moore & Burrows, 1996). All anxiety disorders have their root in maladaptive reactions to stress and the additions of PTSD and Acute Stress Disorder in later editions of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (APA, 1987; APA, 1994) further validate that stressful life events can lead to severely debilitating mental disorders.

Family stress became a matter of research interest in the 1930's. A systematic analysis of factors that were related to the ability of families to recover from crisis derived from the disruptions introduced by the economic depression of the 1930's were developed by Angell (1936), who studied family integration and adaptability which were found to be not only useful in recovering from crisis, but also important in preventing stress from creating a crisis. Hill (1949) took the empirical data from Angell's research further by updating a list of factors that were related to the ability of families to recover from crisis. He included Angell's constructs of integration and adaptability, but elaborated on them finding that families which were less well organized (integrated) tended to be more crisis prone than other families, and thus more vulnerable to stress. Hill further contributed individuated versus kinship community typologies which lead to early research relating family stress response to the impact of social support such as extended family involvement, affectional relations with family members, marital adjustment, and social participation of wives outside the home (Burr, 1982).

In research on families, stress has clearly been demonstrated as a primary disrupter of parental function, attitude, and practice. These include: extrafamilial stressors such as unemployment, financial difficulties, and daily hassles; interparental stressors like divorce or marital distress; and child stressors such as difficult temperament and conduct problems. The presence of one or more of these stressors has been shown to contribute to a greater likelihood that parents have more negativistic perceptions of their child, become less nurturing, and less capable of problem-solving and become more irritable, critical and potentially abusive. Such parenting behaviors in turn have been associated with greater incidence of conduct disturbance in children, setting up

downward spiraling parent-child interactions and thus further stress on the parents (Holden & Banez, 1996; Webster-Stratton, 1990).

Since data are lacking on whether juvenile delinquency is more prevalent in families in which parent stress factors are pervasive, an examination of populations of anti-social or conduct disordered children may shed light on this studies' hypotheses. In the literature on conduct disorder, a frequently coexisting or preceding factor in juvenile offending, prevalence rates are approximately 2-9% of the population (American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders 4<sup>th</sup> Edition, 1994). Conduct disorder comprises the most frequent cause for clinical referral accounting for one-third to one-half of all child and adolescent clinic referrals (Horne & Sayger, 1990; Kazdin, 1995). Of childhood diagnoses, conduct disorder tends to be relatively stable and persistent in comparison with other dysfunctions that remit over time (Burke, Loeber, & Lahey, 2003; Kazdin, 1995). Therefore, substantial proportions of children diagnosed with conduct disorder continue to maintain behavioral problems into adulthood (DSM-IV) and be non-responsive to treatment efforts (Gacono, Nieberding, Owen, Rubel, & Bodholdt, 2000; Kazdin, 1995). Frequently associated with conduct disorder are hyperactivity, academic problems, poor interpersonal relations, and cognitive problem-solving deficits (Kazdin, 1995; Moffitt, 1993). Many of the family characteristics of conduct disordered youth overlap with juvenile offending such as parent psychopathology, criminality, addictive disorder and maladjustment (Kazdin, 1995; Tarolla, et al., 2002). Disciplinary practices tend to be harsh, lax, erratic or inconsistent in families of children with conduct disorder (Brown, 1984; Kazdin, 1995; Patterson, 1982; Weiss, Dodge, Bates, & Pettit, 1992). Relations between parents and

their conduct-disordered children tend to be strained, with less warmth, acceptance, affection, attachment, and emotional support than non-referred youth (Kazdin, 1995; Patterson, 1982; Rutter, 1994). Family communication tends to be more defensive and less supportive (Kazdin, 1995; Patterson, 1982). Unhappy marital relations, high levels of interpersonal conflict and aggression are more common among the parents of antisocial youth (Kazdin, 1995; Patterson, 1982; Patterson & Bank, 1989). Like juvenile offenders, conduct disordered youth are more commonly found in larger and single parent families, lower socio-economic status (SES) homes, stressful living conditions, and among deviant and aggressive peers (Carr, 2001; Kazdin, 1995; Tarrolla et al., 2002). The younger the age one meets the criteria for conduct disorder, the more severe, persistent and unresponsive to treatment are their problems (DSM-IV; Kazdin, 1995). Risk factors include temperament characteristics of negative mood, rigidity, and high intensity reaction to new stimuli (Kazdin, 1995; Moffitt, 1993). Neurological deficits and difficulties place youth at risk for subsequent conduct problems and delinquency as do academic difficulties and lower levels of intellectual functioning (Bassarath, 2001; Glassberg, Hooper, & Mattison, 1999; Kazdin, 1995; Vermeiren, Schwab-Stone, Ruchkin, DeClippele, & Deboutte, 2002).

A decade of literature review results supports the finding that multiple stressors are associated with parenting even under normal circumstances (McCubbin et al., 1980). While there have been clear research findings supporting that elevated parenting stress scores are associated with children who have problems such as Attention Deficit Hyperactivity Disorder (Anastopoulos et al., 1992; Baker, 1994; Breen & Barkley, 1988), conduct problems (Bagley & Mallick, 1997; Capage, Bennett, & McNeil, 2001; Kazdin,

1995), and physical or mental health problems (Abidin, 1983; Goldberg, Morris, Simmons, Fowler, & Levison, 1990; McNeil, Capage, Bahl, & Blanc, 1999) lacking in the literature is information specific to whether or not parents of juvenile offenders experience elevated levels of stress.

#### *Parent Stress and Treatment Outcome Studies*

Parent stress measures have shown well-documented value in evaluating treatment benefit (Krauss, 1988; Upshur, 1988). They have been used to study the impact of parent training on parents of children with Attention-Deficit Hyperactivity Disorder (Anastopoulos et al; Pisterman et al, 1992), difficult temperaments (Sheeber & Johnson, 1994), antisocial behavior (Kazdin, Siegel, & Bass, 1992), conduct disorder (Eyberg, 1995), cystic fibrosis (Bartholomew et al., 1997), and in the general practice population (Patterson, Barlow, et al., 2002). Parent stress measures have also been used to assess the effectiveness of aggression management training on aggressive parents (Acton & During, 1992) and benefit from parent support groups (McBride, 1991; Winton, 1990).

In addition to measuring treatment benefit, parent stress measures have proven useful in predicting risk for premature termination (Kazdin, 1995). Parent stress variables have also been used in evaluating the impact of social support (Adamakos, Kathleen, & John, 1986; Suarez & Baker, 1997), marital status (Herber, 1998) and relationships (O'Brien & Peyton, 2002; Shek & Tsang, 1993), mental health (Conger, Patterson, & Ge, 1995; Shek & Tsang, 1993), and disciplinary practices (Greenwald et al., 1997; Jackson, Gyamfi, Brooks-Gunn, & Blake, 1998) on parent function. Further, parent stress assessment has been a factor helpful in studies evaluating the impact of



economic disadvantage (Bendell, Stone, Field, & Goldstein, 1989; Carpenter, 1999; Jackson, 2000; Watkins-Victorino, 2000) and ethnic minority status stressors (Bendell et al., 1989; Carpenter, 1999; Jackson et al., 1998) on parenting style. Parent stress measures have aided in assessing the likelihood of parents using services to adapt to childcare demands (Floyd & Gallagher, 2001) and in predicting child adjustment (Landreth & Lobaugh, 1998; Levendosky & Grahambermann, 1998) and parent dysfunction (Dumas, Wolf, Fisman, & Culligan, 1991; Florsheim et al., 2003; Kazdin, 1995). It is hoped that this study contributes to an understanding of the impact of parent stress on parents of juvenile first offenders and provides further direction for intervention efforts focused on the family.

#### *Parent Stress and Gender*

Historically, research has suggested that women report significantly higher rates of psychological distress than do men (Weissman & Klerman, 1977; Wethington, McLeod, & Kessler, 1987). These findings have been attributed to women being more affected emotionally than men by stress because the roles women enact in our society are more stress producing than those of men (Bernard, 1972; Lips, 1997; Wethington, et al, 1987). Women experience higher rates of stress related mental illness, however, they do not report a greater number of stressful life events than do men (Makosky, 1980). There is some evidence that this discrepancy is because of women experiencing events as more stressful than men (Horowitz, Schaefer, & Cooney, 1974), but some events such as separation, divorce, widowhood, and having children are more stressful for women than for men because women tend to experience greater financial loss, are less likely to remarry and are more likely to have the greater burden of childcare (Makosky, 1980).

Women are also more likely than men to experience sexist treatment (Klonoff & Landrine, 1995), another added stressor. Probably the biggest contributor to women's elevated stress levels would be the fact that women are more likely than men to be poor, are more likely to be employed in low-status, low paying jobs, and to be heading single-parent families (Lips, 1997).

Research addressing gender differences in parenting stress has presented mixed results. In general, it was thought that mothers consistently experienced more of the burden of parenting stress than fathers based on their higher overall scores on parenting stress measures (Berry & Jones, 1995). However, it has become evident that factors such as socio-economic status, employment, marital status and satisfaction, child characteristics, and social support have much more robust influences on parenting stress than do gender (Baker, 1994; Burbach, 2003; Deater-Deckard & Scarr, 1996; McBride, Schoppe, & Rane, 2002; Rothbart & Bates, 1998; Thoits, 1987; Walker, 2002).

While no specific research was found on gender-related stress differences in parents of juvenile offenders, the research on parents of children referred for related clinical problems could provide some direction for this study. Mothers of children with ADHD were found to experience significantly higher levels of parenting stress than fathers in a study by Brewer (1997). Baker (1994) found no significant differences in overall scores by gender for parents of children with ADHD; however it was revealed that fathers reported feeling less attached to their children than did mothers on one of the parenting stress measure subscales. Greater stress in the area of attachment to child were similarly found to be significantly higher for fathers than mothers in a study by Walker (2002), who also found mothers scored significantly higher on stress related to role

restriction than fathers. Lumley, McNeil, Herschell, and Bahl (2002) found no significant differences between mothers and fathers of children referred for disruptive behavior problems, but Suarez (2000) found some differences related to parent stress based on gender of parent and child. In her study, Suarez found that parent stress in mothers of children with behavior problems decreased over time for girls but not boys. Finally, in a study by McBride et al. (2002) focusing on the impact of child characteristics, such as temperament, sociability and activity level, some parent gender differences were discovered. Fathers were more impacted by stress than mothers by:

1. Daughters with high emotional intensity; and
2. Sons and daughters with low sociability scores.

Mothers were more stress impacted than fathers by:

1. Sons with high emotional intensity; and
2. Sons and daughters with high activity levels.

It was proposed that these differences were a result of opposite-sex parent-child relationships being more challenging and less scripted. Also, mothers are more likely to be the ones responsible for keeping up with the whereabouts of their children and a high activity level may make this more difficult. Further, father-child interactions tend to consist of more rough and tumble play, likely to be better tolerated by more sociable children (McBride et al., 2002).

Since we know little about how gender influences parent stress, there is a great need for research on multiple populations to determine the relationships between parent stress and its stress-inducing circumstances.

*Parent Stress and Ethnicity*

Most of the research on stress with ethnic minorities does suggest that minority status is associated with higher levels of stress (Clark, Anderson, Clark, & Williams, 1990; Moritsugu & Sue, 1983). However, it appears that SES, resource availability and social support have a much greater impact on parent stress than minority status (Conger et al., 2002; Kessler, 1979). Of particular interest in this study is the experience of parental stress on African Americans, a population over-represented in this research sample, as well as juvenile delinquents as a group (Snyder & Sickmund, 1999; Van Dyke, 2001).

Between 1995 and 2015, the number of African American youth is expected to increase 19%, compared to a 3% increase of white juveniles (Snyder & Sickmund, 1999). While poverty, single parenting, larger number of children in the household, and high school completion show a more robust influence on delinquency than race, African-American youth are more likely to meet these criteria than are their white counterparts (Snyder & Sickmund, 1999). Not surprisingly, given these circumstances black youth have accounted for over half of juvenile homicide and robbery offenders, are over represented in total arrests by race, and are referred to juvenile court at a rate of more than double of that for whites (Snyder & Sickmund, 1999).

In the family literature, African-Americans have undergone tremendous demographic and social transformation over the last 20 years including significant increases in out-of-wedlock births, single-parenting, and poverty rates (Taylor, Chatters, & Jackson, 1997). Data from 2002 indicated that only 47% of black children lived with both parents, compared to 80% of white children (U.S. Bureau of the Census, 2003). In

2002, 9% of black children lived with their grandparents, compared to 4% of white and 6% of Hispanic children (U.S. Bureau of the Census, 2003). Regarding the likelihood of living in poverty, 24.1% of African American families lived in poverty, compared with 10.4% of white families from 2002 to 2003 (U.S. Bureau of the Census, 2003). African American children are also over-represented in incidents of child abuse and neglect (Tatara, 1991).

The research suggests that African Americans are more likely than Americans of European descent to be exposed to more stressful life problems because of particular constellations of roles and lack of economic resources (Keith, 1997; Kessler, 1979). However, even when SES levels are matched, lower SES blacks have been shown to be more vulnerable to psychological distress than lower SES whites (Kessler & Cleary, 1980; Ulbrich, Warheit, & Zimmerman, 1989). Experiences of racism have been consistently demonstrated to result in psychological and physiological stress responses (Clark et al., 1999) and several community studies have shown that the rate of mental illness in ethnic groups rises as their proportionate size in the community decreases (Moritsugu & Su, 1983), suggesting that experiences of racism are more prevalent and impactful when minorities are of smaller number in the community.

Research on parent stress among ethnic minorities fairly mimics the research on stress and minority status in general. African American parents have been assessed as experiencing increased levels of parental stress as compared to Caucasian parents (Belle, 1984; Capage et al., 2001; Kazdin, Stolar, & Marciano, 1995) and as a result are more likely to have difficulties employing effective parenting techniques (Abidin, 1992; Longfellow, Zelkowitz, & Sauders, 1982), have children with behavioral problems (Mash

& Johnston, 1990) and be at greater risk to drop out of treatment (Kazdin et al., 1995). Socioeconomic disadvantage represents the biggest contributor to parent stress and minorities are over-represented both in lack of economic resources and the experience of more stressful life events (McLoyd, 1998; Taylor, Roberts & Jacobson, 1997). Stressful negative experiences have been associated with harsher discipline practices, child abuse, negative perception of parental roles and responsibilities, and less adequate parenting overall by African American mothers (Daniel, Hampton, & Newberger, 1983; Deater-Deckard, Dodge, Bates, & Pettit, 1996; McLoyd, 1990; McLoyd, Jayaratne, Ceballo, & Borquez, 1994). Poverty has been associated with lower maternal supervision of adolescents' behavior (Sampson & Laub, 1994) a particularly important variable in juvenile delinquency. Finally, racial discrimination has been shown in research to result in a "stressor pileup" increasing the amount of psychological distress experienced by African American parents reducing the quality of intimate relationships and parent-child relationships (Murry, Brown, Brody, Cutrona, & Simons, 2001).

In their extensive review of literature on children with conduct problems, McMahon and Wells (1998) note that since less attention has been given to the effectiveness of interventions on ethnic groups it is an area in need of greater research. And in a critical review of the literature on race, class, and gender inclusive research on stress, Snapp (1989) pleads for more differential analysis of the factors contributing to and ameliorating stress in African-American samples in specific, such as the relationships between income level, race, gender, and household composition.

*Parent Stress and Single vs. Two-Parent Households*

Once again, the research on levels of parent stress and single versus married parents suggests that SES and social support factors are more impactful than marital status and it is difficult to discern the variables influencing parent stress. For example, single parents generally do not have the financial resources available in two-parent homes (Herber, 1998), but when they do are likely to be equal in stress levels (Sharp, 2001).

One of the most consistent epidemiological findings in comparing married to unmarried individuals is that married people have a lower level of mental health problems (Bachrach, 1975). Married people have been found to be more resilient to the emotional damage caused by a variety of stressors (Kessler, 1979) and spousal support has been shown to be one of the more powerful determinants of the quality of parenting (Simons, Lorenz, Wu, & Conger, 1993). However, marriages with low marital satisfaction have been demonstrated to significantly raise parent stress levels and adversely affect parent-child behavioral interactions in both mothers and fathers (Webster-Stratton, 1989). And this does appear to affect the rate of incidence of child conduct problems. For example, a study done by Rutter (1987) showed that parents who remain together despite high levels of marital discord had about a seventy percent likelihood of their children being diagnosed with conduct disorder, though this probability could be reduced by the child having at least one harmonious family relationship. No data on marital satisfaction were available in this study, so this issue will not be addressed; however, marital satisfaction has been shown to be a factor influencing parent stress (Simons et al., 1993; Suarez & Baker, 1997).

Research on married couples with dual careers has shown no significant differences in stress than single career families (Tonnacliff, 1997); however, economic pressure more likely in single income households does correlate with increased stress and marital conflict (Conger, Rueter, & Elder, 1999).

Several studies have demonstrated increases in parenting stress associated with single parenting (Bloom, Asher, & White, 1978; Colletta, 1983; D'Ercole, 1988; Greif, 1985; Kazak & Linney, 1983; Pasley & Gecas, 1984; Voydanoff & Donnelly, 1998; Weiss, 1984) regardless of gender of parent, although most of the differences were attributed to socioeconomic factors, multiple role conflicts and greater overall workload. Even in a matched study which accounted for SES and child age and gender, single parents exhibited greater stress compared to married parents and this was attributed to longer work hours, less support from social network and greater workloads associated with single parenting (Weinraub & Wolf, 1983). Weiss (1979) identified three likely categories of stress overload for single parents. The first was *responsibility overload* resulting from one parent having to make all the decisions regarding family life. Secondly, *task overload* occurs as a result of simply having too much to do, with work, preparing meals, household chores, and all the duties of childcare. Finally, *emotional overload* can occur since the single parent has to be available to his or her children even when exhausted, depressed or anxious.

One study did note an exception to elevated single parent stress levels. Elective single mothers did not exhibit elevations in parenting stress level when compared to a matched group of married mothers in a study by Sharp (2001).



Overall, it is no surprise that, certain variables withstanding, such as adequate income and out of home assistance with childcare, single parents generally experience greater levels of stress than in two-parent homes. A part of this study will examine if single parents experience greater levels of stress than those in two-parent homes in a population of parents of juvenile offenders.

*Parent Stress, Family Functioning and Parent-Adolescent Communication*

In research on juvenile delinquency, family functioning characteristics such as parental supervision and knowledge of child's whereabouts, the amount and quality of activities and conversation between parent and child, persistence of and agreement about discipline, the effectiveness of communication around emotions, disagreements and problems between parent and child, caretaker happiness with partner, and parent stress level have all been noted as having a significant bearing on the likelihood of developing or preventing persistent delinquency (Stouthamer-Loeber et al., 2002). Family cohesion or the extent of emotional attachment, dependability, support, and clear communication among family members has been demonstrated as one of the most robust correlates to indexes of child adjustment (Lyon, Henggeler, & Hall, 1992; Mason, Cauce, Gonzales, Hiraga, & Grove, 1994; Tolan, Gorman-Smith, Huesmann, & Zelli, 1997). Structure, which represents organization, predictability of expectations, and clear communication of intolerance for antisocial values, is another well-documented predictor for pro- vs. anti-social behavior (Voorhis, Cullen, Mathers, & Garner, 1988). In an examination of the family influences related to participation in violent delinquent behavior in minority youth, families in the violent delinquent youth reported poorer discipline, less cohesion, and less parental involvement than the other two groups (Gorman-Smith, Tolan, Zelli, &

Huesman, 1996). In a study evaluating the various levels of family functioning, Dekovic, Janssens and Van As (2003) compared global (e.g. family SES), distal (indirect parent disposition, such as depression), contextual (family characteristics, such as quality of marital relations and family cohesion) and proximal (direct parent-child interaction) factors that operate in families to evaluate their impact on predicting antisocial behavior in adolescence. While most of the correlations between family functioning and adolescent antisocial behavior were significant, proximal factors of poor parental attachment, responsiveness, consistency, and involvement were the strongest predictors of adolescent antisocial behavior. The authors of that study surmised that the most important aspects of family functioning in lowering the risk of antisocial child behavior were parent support, guidance, consistency, and supervision.

In related research on parents of children with ADHD, Murphy and Barkley (1996) found that parents of children with ADHD were more likely to have problems in family functioning such as less satisfying marriages, more psychological distress and depression, and overall impairment on measures of psychological and social functioning. Similarly, in families of children with learning disabilities, family functioning was found to be significantly disrupted by social, behavioral and physical deficits often resulting in negative social and psychological consequences (Dyson, 1996).

Revisiting Webster-Stratton's (1990) review of the literature on parent stress, it has been made evident that parent stress has the power to seriously disrupt parenting practices, making parents more irritable, critical and punitive leading to a cycle of negative parent-child interactions and a general downward spiraling in family functioning. For the purposes of this study, scores of family functioning and parent-

adolescent communication will be correlated with parent stress measures to determine if there is a relationship in this population. Also, as another intervention outcome measure, this study will evaluate those who complete the family program to see if family function and communication scores increase in relation to parent stress reduction.

*Follow-up Treatment Outcome Focusing on Parent Stress and Multi-Family Group Therapy Approaches with Juvenile Offenders*

Though follow-up research using parent stress as a treatment outcome measure is limited, four studies have documented the persistence of treatment gains in parents participating in some form of treatment. Parent stress reduction was found to be maintained at a two-month follow-up in a wait-list controlled study evaluating a temperament-focused parent-training program for parents of temperamentally difficult children (Sheeber & Johnson, 1994). Also, in two separate wait-list controlled studies of parents of children diagnosed with ADHD, reductions in parenting stress were found to be maintained two (Anastopoulos et al., 1993) and three (Pisterman et al., 1992) months after participating in a parenting training. Most relevant to this study, parents of children referred for severe antisocial behavior maintained treatment gains in the way of reduced parent stress at one year following a parent management training group (Kazdin et al., 1992).

As early as 1950 criminologists Glueck and Glueck identified the most powerful forces determining whether a child is conditioned to antisocial behavior was “the home atmosphere, and especially the intimate emotional relationships of the parent and child” (p. 287). They further concluded that “little progress can be expected in the prevention of delinquency until family life is strengthened by a large scale, continuous, pervasive

program” (p. 287). Research on multi-family group therapy with juvenile offenders has proven to be the most effective intervention in affecting reduction of recidivism and improving family and youth functioning (Borduin et al., 1995; Gibbons, 1999; Perkins-Dock, 2001; Quinn & Van Dyke, 2004). However, there have been repeated calls in the literature to “inform and refine our knowledge of effective practice” in the treatment of offenders in general (Hollin, 1999) and to “move on to the more interesting and challenging questions of what works best, when, and why” within juvenile delinquency rehabilitation literature (Hollin, 1994; McGuire & Priestley, 1992).

For example, it has been fairly well documented that completion of multi-family group treatment brings about significant reductions in re-arrest rates (Borduin et al., 1995; DeAngelis, 2003; Gibbons, 1999; Hollin, 1999; Perkins-Dock, 2001; Quinn & Van Dyke, 2004). The program being used in this study has shown that first-time juvenile offenders placed on probation were 9.3 times more likely to re-offend compared to graduates of the Family Solutions Program (Quinn & Van Dyke, 2004). Other multiple family group interventions have shown significant drops in recidivism, even among serious juvenile offenders over a four year period (Borduin et al, 1995). What is needed is more information about which specific familial, inter- and intra-personal changes contribute to the success or failure of multi-family group interventions with adjudicated youth over time (Borduin, 1999; Cowan & Cowan, 2002; Cullin & Gendreau, 2001; Hollin, 1999). The present study evaluated three different characteristics of family dynamics that have been documented as having an impact on treatment outcome, those of parent stress, family functioning, and parent-adolescent communication. In addition, a follow-up assessment was conducted to test change in these three constructs over time.

## CHAPTER 3

### METHOD

#### *Sample*

The participants for the present study were parents in six Northeast Georgia counties referred to the Family Solutions Program (FSP), a multi-family group intervention targeting first time juvenile offenders and their family members (Quinn, 1998). One hundred and eighty-one (181) parents participated in this study. The ethnic makeup of this sample was 50% Caucasian and 47% African-American. A small percentage (3%) of the sample listed “other” ethnicity and was not included in comparisons concerning ethnicity. The majority of the sample (80%) was female. Of the female participants, 89% were mothers, step-mothers, or foster mothers, 7% grandmothers, and 4% other relation to youth. All of the male participants were fathers, step-fathers, or foster-fathers except for one grandfather. Parent participants ranged in age from 22 to 61 with a mean age of 40 and a median age of 38. Of the female parent sample, 61% were married or cohabitating and 44% of the male parent sample were married or cohabitating. The remainder were separated, divorced, widowed or never married. Parents from “two-parent” homes comprised 57% of the total sample and 43% were considered from “one-parent” homes. The majority of the sample was low-income, with 54% of the sample reporting a household income of under \$20,000 per year and 46% reporting over \$20,000 per year. The adjudicated youth of the parents sampled were 57% male and 43% female and ranged in age from 9 to 17 with a mean age of 14.07 and a median age of 14.

Family Solutions Program meetings were held in community or juvenile justice facilities such as educational wings of a hospital, schools, probation meeting rooms or juvenile court rooms. Four to ten family units comprised a multi-family group with a family unit consisting of a minimum of one parent and the juvenile first offenders, but often including other family members such as siblings who were encouraged to attend. Only parents who successfully completed the Family Solutions Program graduation criteria were included in post and follow-up intervention data. This means that the parent(s) and adjudicated youth attended and adequately participated in 9 out of the 10 multi-family group sessions and the adjudicated youth did not have any further offenses during the time period of the group that would have required a referral back to the court prior to completion of the program.

### *Intervention*

The FSP was created in 1992 in collaboration with the Department of Child and Family Development at the University of Georgia and the Athens/Clarke County Juvenile Court as an alternative to probation or incarceration for first-time juvenile offenders (Quinn, 1999). Recently, the Family Solutions Program has become a non-profit organization (Families4Change, n.d.) with a two-fold mission of: (1) providing direct services to youth and (2) professional training to communities implementing the Family Solutions Program. Its goal was to foster changes in youth and family environments to reduce the likelihood of juvenile re-offenses.

The FSP consists of 10 two-hour per week sessions which must be attended by the youth and parent(s), and any other family members such as siblings or grandparents, in order to be considered having successfully completed the program. A maximum of one

absence from the group is allowed for the youth and family to be eligible to complete the program and given credit by the juvenile court. A satisfactory level of participation is also required. Excess absences or inadequate participation may result in referral back to the court system (Quinn, Van Dyke, & Kurth, 2002). The groups are lead by human service professionals, school counselors, or therapists trained in the FSP model which is standardized with a curriculum manual outlining the theory, referral process, session goals and objectives, session activities, and evaluation forms (Quinn, 1998). The group leaders must complete a formal one and one-half day training program and receive supervision and consultation with the FSP Coordinator and Executive Director to insure compliance with program curriculum and guidelines. Group leaders also must administer and submit to the FSP Coordinator group process ratings after the third session. These ratings indicate how families are experiencing the group leader as well as the FSP on dimensions such as enthusiasm, empathy, structure, and content. At the final group session, youth and parents complete a session evaluation form rating each activity in the program (Quinn, 1998).

The FSP is a research-based intervention that expands on multi-target ecological treatment, embracing a combination of a systems perspective, cognitive restructuring, parenting strategies, and youth behavioral skills within the family context. Intervention targets personal development and the multiple causes and reciprocal process involved in delinquency including family, school and community factors. The purpose of the FSP is to help juvenile offenders and their families find solutions that will assist them in preventing repeat offenses with the help of other families with similar problems through the group process. 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)

The application of the FSP follows three progressive stages. In the first stage, sessions 1 and 2, the focus is on building trust and group cohesion by getting to know each other, establishing group rules, negotiating group topics, and promoting family cooperation and cohesion. In stage two, sessions 3-9, the focus is on interpersonal and family skill building through communication exercises, behavioral contracting, and parenting skill development. Home-school partnerships are fostered and an emphasis on academic success is promoted. Youth are also required to participate in a community service activity, such as preparing and serving a meal at a local homeless shelter, playing bingo with seniors and bringing prizes, or beautifying a school playground. There is also a focus on improving decision-making skills and building conflict-resolution skills through role play and rehearsal. In stage three, the last group session, members are acknowledged for the work they have done, graduation certificates are received, and the group leader, and sometimes a motivational speaker, judge, or civic leader addresses the group. The youth also receive a 'What We Like About You' card that contains messages from all of the parents in that group. Finally, youth write and read orally an answer to the



question, “What I Have Learned in the Family Solutions Program.” Parents and youth provide testimonies of improvements they have made in their lives while participating in the Family Solutions Program.

The FSP curriculum has numerous components which would be likely to contribute to the reduction of parental stress, improve family functioning and increase parent-adolescent communication. Parenting skills, particularly on general behavior management, have been well documented in studies on programmatic reduction of parent stress (Anastopoulos et al., 1993; Patterson et al., 2002; Pisterman et al., 1992) and are emphasized throughout the FSP, but specifically in sessions which focus on increasing parental responses for establishing consequences for youth in session 3, behavioral contracting between child and parent on specific problem behaviors in session 4, and identifying and expanding a range of successful parenting skills in session 7 (Quinn, 2004). Establishing rewards for compliance with parental expectations (session 4) and offering positive feedback for experiences of success (sessions 9 and 10) are additional FSP themes which have been emphasized as contributory in programs with success in lowering parent stress (Anastopoulos et al., 1992). The FSP’s focus on improving family cohesion, communication and cooperation, clarifying and better communicating family values, and engaging community supports and resources (Quinn, 2004) would likely further contribute to reductions in parental stress.

The FSP has specific activities that focus on improving family communication including exercises to improve speaking and listening skills, problem solving, family games, making family pledges, and sharing affection with each other (Quinn, 2004). The FSP sessions are relational and activity-based and provide the potential for improving

family functioning. Shared participation by the youth and parent in the FSP would also likely improve family communication and functioning level (Quinn, 2004).

The FSP has documented efficacy in reducing juvenile re-offending. Between 1992 and 1999 the number of FSP graduates who re-offended was less than half of those who were referred to, but did not complete the FSP, and those referred to probation only. Only 22% of youths who graduated from the FSP re-offended, compared with 50% of the FSP non-graduates (Quinn, Sutphen, Michaels, & Gale, 1994). More recently, Quinn and Van Dyke (2004) compared first-time juvenile offenders who completed the FSP with first-time juvenile offenders placed on probation only and those who were referred to the FSP, but did not complete the program. Using logistical regression analysis, it was found that those placed on probation were 9.3 times more likely to re-offend and those who dropped out of the FSP prior to completion were 4.4 times more likely to re-offend than FSP graduates. These differences among the three samples held for gender.

### *Instrumentation*

#### *Parental Stress Scale*

The Parental Stress Scale (PSS) was developed in response to the need for a measure specifically targeting the impact of stress associated with the role of parenting (Berry & Jones, 1995). This 18 item questionnaire focuses solely on feelings and perceptions about the experience of being a parent and it has provided clinicians with a user friendly scale that has demonstrated an ability to provide relevant measures of emotions and role satisfaction of parents both in clinical and non-clinical populations. Norms were developed from two groups of parents (358) of children with typical development (191 women and 167 men) and two groups of parents ( $N=129$ ) whose

children were receiving services in schools or outpatient psychiatric clinics for emotional, developmental and behavior problems (Berry & Jones, 1995). It showed strong comparisons to other measures of stress including the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) and the Parenting Stress Index (Abidin, 1986), as well as measures of psychological well-being, role satisfaction, loneliness, anxiety, marital satisfaction, marital commitment, job satisfaction, state-trait guilt, and social support amount and satisfaction (Berry & Jones, 1995). The PSS demonstrated a clear ability to discriminate between parents of children with typical development versus parents of children with emotional, behavioral or developmental problems. With the exception of number of social support measures for fathers, measures from the PSS were significantly related to all the above measures in the expected direction. Moreover, it has certain advantages over other measures in that it is specific to the construct of parent stress, it is appropriate for both mothers and fathers, parents of children with and without clinical problems, and it is brief and easy to read, administer and score (Berry & Jones, 1995).

While the PSS can serve as a brief, valid, and reliable measure of parental stress, one drawback of its use is that the norming samples were 90-95% white. It has been demonstrated to be valid and reliable upon translation into and in use with a Chinese population though (Cheung, 2000) and when compared to the PSI, it has been shown to be less gender (male) biased (Berry & Jones, 1995). One problem with the PSI is the gender difference. Fathers consistently score lower than mothers on the PSI and the recent increases in father's involvement with their children supports the need for an instrument which measures parental stress equitably for both mothers and fathers which has been demonstrated in studies using the PSS (Berry & Jones, 1995).

*Family APGAR Index:*

The Family APGAR (FAPGAR) is a five-item measure designed to evaluate five areas of family functioning: Adaptability, Partnership, Growth, Affection, and Resolve (Smilkstein, 1978). Subjects are presented with a single question for each dimension, 5 questions total, that require responses of hardly ever, some of the time, or almost always, scored 0, 1 and 2 respectively. A total score of 0-3 suggests severe dysfunction in the family, a total score of 4-6 indicates moderate dysfunction, and a total score above 7 represents good family functioning according to this instrument (Smilkstein, 1978). Validity was addressed by examining correlations with the Pless-Satterwhite Family Function Index (validity correlation of .80) and with estimates of family function made by psychotherapists (validity correlation of .64). Internal reliability estimates ranged from .80 to .86 (Smilkstein, Ashworth, & Montano, 1982). This instrument, though very brief, has been found to be minimally disruptive (Doherty & Baird, 1983) and appropriate for use with respondents with low levels of education, a consideration often necessary for the population served by FSP (Quinn et al., 1994).

The FAPGAR has been demonstrated to be effective in demonstrating the effect of lack of social support on child psychosocial dysfunction (Murphy et al., 1998), the association of poor family functioning with greater stress, poorer health (Chao, Zyzanski, & Flocke), and greater incidence of depression (McNabb, 1983). The FAPGAR has been administered at intake since the inception of the FSP with a mean pre-test score of 7.40 for the mothers and 7.52 for the fathers (Quinn, 2004). Compared to the populations used to norm the FAPGAR, the parents of first-time juvenile offenders as a group scored significantly lower than a sample of married graduate students who had a mean of 8.24,

college undergraduate students with a mean of 7.6, and patients at a medical center with a mean of 8.22, but slightly higher than a group of mental health clinic patients who had a mean of 5.89 (Smilkstein et al., 1982).

#### *Parent-Adolescent Communication Scale*

The Parent-Adolescent Communication Scale (PACS) was developed by Barnes and Olson (1982) to evaluate the amount of openness or freedom to exchange ideas, information, and concerns between parents and their children. It also provides information about the trust or honesty experienced, and whether interactions between parents and children tend to be perceived as emotionally negative or positive. Two subscales (10 items each) measure positive aspects (open communication) and problem-solving aspects of process and content issues in communication. Alpha reliabilities for each subscale were .87 and .78 respectively and Cronbach alpha coefficients for the instrument ranged from .74 to .91. (Barnes & Olson, 1985; Masselam, Marcus, & Stunkard, 1990).

The PACS was used by Clark and Shields (1997) to demonstrate a significant association between open communication and reduction of delinquent behavior. Caprara, Regalia, and Bandura (2002) linked poor parental communication to violent conduct using the PACS as a measure in a study. The PACS was found to have sufficient cross-ethnic equivalence with English-speaking Hispanic samples (Knight, Yun Tien, Shell, & Roosa, 1992) and was used effectively in a study of a Korean sample to demonstrate a significant relationship to father-closed communication type and juvenile delinquency (Minn, 1992). The PACS was less effective in determining a direct relationship between adolescent substance use and parent-adolescent communication in a

sample of African-American sons and mothers; however, collateral analyses of the PACS did indicate the existence of strong associations between overall family problems reported by adolescents and those reporting less open and more problem communication with their mothers (Terras, 2000). In a study on SES and family structure the PACS effectively demonstrated that communication was better and conflict lower in two-parent families than in single parent families. In that study the PACS was also helpful in discerning ethnic differences among the African-American sample noting poorer communication levels between African-American children and their fathers compared to the Mexican-American and European-American samples (Baer, 1999). Finally, the PACS was demonstrated to be effective in predicting family therapy outcome in adolescent substance abuse outpatient treatment (Friedman, Tomko, & Utada, 1991).

In a comparison of 419 parents of juvenile first-time offenders and 1,140 intact, randomly stratified families used to norm the PACS, Quinn (2004) found that, prior to the FSP intervention, parents referred to the FSP had significantly lower mean scores (64.03) than the mean (75.63) of the PACS norm.

### *Procedure*

Participants in this study were referred to the FSP by the juvenile court, usually through a process called an “Informal Adjustment.” This is when a first-time juvenile offender opts to admit guilt for their crime to a court officer, usually a probation officer, rather than go before a judge. By doing so the youth and the family are referred to the Family Solutions Program rather than face formal probation, fines, or other sanctions (Quinn et al, 1994). Some (e.g. Walton and Newton County, Georgia referrals) were court mandated and placed on probation so they would be in violation of probation if they

did not show. Prior to admission into the Family Solutions Program (FSP), at the juvenile court at a time agreed upon by the probation officer and FSP Coordinator, the youth and at least one parent meet with a representative from FSP in addition to the probation officer. A risk assessment is conducted, an explanation is given to the family about their obligation, time and place of the first meeting of the FSP is provided, and questions raised by the family are answered.

The risk assessment, or screening process, provides information to FSP staff to determine if a family presents with a characteristic not conducive to successful participation, such as an untreated drug or alcohol problem. It also provides information to help prepare program content and process to conform to the family's issues and needs. General demographic information about age, gender, ethnic background, SES, education level, and family functioning is gathered, with particular attention to risk factors such as school performance and behavior, level of parental supervision, peer associations, and familial alcohol or drug use or criminal history. Confidentiality is explained to the youth and parent. Releases for information were secured when appropriate for the county court system, school, and any other resource involved with the family. FSP involves an inclusive systems approach and family members or other persons who have an ongoing relationship with the youth may be invited by FSP staff to attend. The FSP procedures are reviewed by the University of Georgia's Human Subjects Institution Review Board (IRB) and any program changes must meet with their approval. After IRB approval, the Parental Stress Scale (Berry & Jones, 1995) was included with the FSP risk assessment as part of the ongoing program assessment effort and a consent form outlining the purpose of this study was included.

For those who complete the FSP, at the last group session an FSP staff administers an exit questionnaire or post-intervention assessment to the youth and parent(s) to complete, which includes the same instruments administered at pre-intervention that pertain to the program's goals, including parent-adolescent communication, family functioning, self-report delinquency scale, school information, parental stress scale, and church, school, and community involvement.

Information from all parent participants who completed an intake for the FSP and consented to be part of the study were included in the overall sample to evaluate parental stress in parents of adjudicated youth in general, its impact on program completion, and to compare parental stress in parents of juvenile first offenders on characteristics of gender, ethnicity, and single vs. two-parent households. Parents who successfully finished the FSP completed exit interview packets including the PSS, FAPGAR, and PACS included.

At one month following FSP completion, parents were mailed the PSS, FAPGAR, and PACS along with a second consent form to complete and return in a stamped return-addressed envelope. As an incentive to complete and return follow-up questionnaires, parents were offered a gift-certificate or voucher of no more than ten dollars in value from a local community merchant to be mailed to them upon receiving returned completed items.

### *Statistical Processes*

Parents who satisfactorily completed the FSP by attending and actively participating in at least 9 out of 10 sessions comprised the program completion group. Data from all parents who participated in the FSP during the time period it took to reach



the target number of 100 parents completing the FSP comprised the sample to be evaluated to determine possible changes on the measures of interest in this study. This was determined by comparing the aforementioned sample with the normative sample of the PSS using a two independent samples *t* test.

Pre-test and post-test scores of the PSS from the sample of parents who completed the intervention were evaluated to determine if there was a reduction of parent stress after program completion compared to before intervention using a *t* test for the difference between pre-test and post-test.

PSS scores from parents who attended intake, but did not complete the FSP during the time period of collecting the target goal of 100 parents were compared to evaluate if parental stress measures had predictive value in determining parents at risk of intervention dropout. It was predicted, based on the literature (Kazdin, 1995), that parents with higher levels of parent stress would be more likely to drop out of intervention prior to completion. Therefore a one-way between-subjects *t* test design was used comparing the intake PSS scores of those who did not complete intervention with the intake PSS scores of those who did complete intervention.

Results from all PSS scores collected during the time period it took for 100 parent subjects to complete the FSP were compared using information from all intake packets regarding ethnicity, gender, single vs. two-parent households, APGAR scores, and PACS results to evaluate any relations with parent stress.

Because the literature on gender differences regarding parenting stress was somewhat mixed (Baker, 1994; Berry & Jones, 1995; Brewer, 1997; Lumley et al., 2002; McBride et al., 2002; Walker, 2002), data of male parents were compared with female

parent subjects data using a non-directional between subjects  $t$  test design to evaluate any gender differences in parenting stress between mothers and fathers of juvenile first offenders.

In the case of ethnicity, the African-American parent sample was compared with the white sample using a directional between subjects  $t$  test design. This was based on research that ethnic minority samples traditionally exhibited higher levels of parenting stress than their white counterparts (Belle, 1984; Capage et al., 2001; Kazdin et al., 1995).

To evaluate any changes in family functioning in response to intervention, pre- and post-test scores of the FAPGAR were evaluated using a within subjects non-directional  $t$  test because of the absence of any known research indicating changes in FAPGAR scores in response to intervention of parents of juvenile offenders. Pre- and post-intervention scores on the FAPGAR were compared with corresponding participant pre- and post-intervention PSS scores using a Pearson correlation coefficient.

To evaluate any changes in parent-adolescent communication in response to intervention, pre- and post-test scores of the PACS were evaluated using a within subjects non-directional  $t$  test because of the absence of any known research indicating changes in PACS scores in response to intervention of parents of juvenile offenders. Pre- and post-intervention scores on the PACS were also broken down into their two dimensions, open family communication and problems in family communication to evaluate any response to intervention completion using a within subjects non-directional  $t$  test.

In order to determine if any changes resulting from program completion persisted or developed a minimum of one month after completion of the FSP, PSS, FAPGAR, and

PACS scores were evaluated comparing follow-up results with pre- and post-intervention scores on these scales using within subjects non-directional  $t$  tests.

## CHAPTER 4

### RESULTS

This study was designed to examine demographic, programmatic, and family characteristic variables of parent stress in parents of adjudicated youth. There were nine research questions to be addressed: (1) Do parents of juvenile first offenders exhibit higher levels of parental stress than the norm? (2) Will completion of a multi-family group intervention reduce the levels of parental stress exhibited by parents of juvenile first offenders? (3) Will elevated parental stress at intake have an impact on intervention completion among parents of juvenile first offenders? (4) Is there a relation between parental stress and gender among parents of juvenile first offenders? (5) Is there a relation between parental stress and ethnicity among parents of juvenile first offenders? (6) Is there a difference in the level of parental stress exhibited in single vs. two-parent households among parents of juvenile first offenders? (7) What is the effect of multi-family group intervention on family functioning and how does family functioning correlate with parent stress among parents of juvenile first offenders? (8) What is the effect of multi-family group intervention on parent-adolescent communication, specifically open communication and problem-solving dimensions, and how does parent-adolescent communication correlate with parent stress among parents of juvenile first offenders? (9) Does any benefit of intervention related to the variables of parent-adolescent communication, family functioning, or parental stress occur, or persist, at one month follow-up? *T Tests* and Pearson Correlation Coefficients were used to analyze the data.

From the 181 parents who were referred to the FSP during the time of data collection for this study, 168 provided usable, valid data on the PSS pre-test. Three PSS pre-tests were thrown out because of invalid response sets (respondents used the same number on all 18 items). Ten parents did not complete the PSS at pre-test. Four participants left three or fewer of the 18 PSS items blank, so an imputation process was used for the items left blank by inputting the mean score of the completed PSS items (Little & Rubin, 1987).

Of the 181 referred participants in this study, 127 successfully completed the FSP and 27 did not complete the FSP. Fourteen parents were still in the process of participating in the FSP, so no post-test data were available at the time of data collection termination. Among graduates of the FSP, 105 of the 127 completed valid PSS post-tests that could be paired to PSS pre-test scores. There were no invalid response sets in the 105 respondents who provided pre-test and post-test PSS protocols and all of the 105 respondents completed all 18 items of the PSS at post-test. Four respondents listed 'other' as their ethnicity and were not included in data sets comparing African-American and white sample data.

Data were imputed on three of the 168 pre-test FAPGAR indexes and two of the 92 post-test FAPGAR indexes by using a mean of respondent existing item scores in the place of two or fewer missing responses (Little & Rubin, 1987).

Data were imputed on 15 of the 168 pre-test PACS scores and 11 of the 88 post-test PACS scores by using a mean of respondent existing item scores after following the PACS reverse scoring procedure in the place of three or fewer missing responses (Little & Rubin, 1987).

Only four respondents listed ‘other’ as their ethnicity and were not included in data sets comparing African-American and white sample data.

*Question 1: Do parents of juvenile first offenders exhibit higher levels of parental stress than the norm?*

From the 181 subjects who participated in this study, 168 provided usable, valid Parent Stress Scale pre-intervention scores. Comparing initial, pre-intervention parent stress scores with the non-clinical samples of the Parenting Stress Scale using a between-groups design, parents of first-time juvenile offenders in this sample ( $M = 41.37$ ,  $SD = 10.14$ ) did experience significantly higher levels of stress than the 115 parents included in the non-clinical sample used to norm the Parental Stress Scale ( $M = 37.1$ ,  $SD = 8.1$ ),  $t(282) = 3.92$ ,  $p < .001$ . In addition to providing normative data for non-clinical parents, the PSS provided normative data for parents of children with emotional and/or behavioral problems. When compared to the Parental Stress Scale’s clinical sample of 51 parents whose children were receiving services for emotional and/or behavioral problems ( $M = 43.2$ ,  $SD = 9.1$ ), there was not a significant difference,  $t(217) = 1.23$ ,  $p > .10$  (Table 1).

*Question 2: Will completion of a multi-family group intervention reduce the levels of parental stress exhibited by parents of juvenile first offenders?*

Of the 168 parents who provided usable pre-test Parental Stress Scale scores, 110 successfully completed the Family Solutions Program providing 105 valid pre- and post-intervention Parental Stress Scale scores. A within subjects comparison of post multi-family group intervention completion PSS scores ( $M = 40.03$ ,  $SD = 11.06$ ) and pre-intervention PSS scores ( $M = 40.58$ ,  $SD = 10.58$ ) did not show a significant reduction of parent stress in response to program completion,  $t(104) = -.84$ ,  $p > .10$  (Table 1).

*Question 3: Will elevated parental stress at intake have an impact on program completion among parents of juvenile first offenders?*

Comparing the pre-test Parental Stress Scale scores of parents who successfully completed the Family Solutions Program ( $M = 41.39$ ,  $SD = 10.66$ ) with those parents who did not ( $M = 42.96$ ,  $SD = 9.10$ ) using a between subjects one-way  $t$  test design, there was not a significant difference in program completion rates based on parental stress scores at intake,  $t(152) = .79$ ,  $p > .20$ .

*Question 4: Is there a relation between parental stress and gender among parents of juvenile first offenders?*

Parental Stress Scale scores of fathers ( $M = 41.00$ ,  $SD = 8.35$ ) did not differ significantly from those of mothers ( $M = 41.46$ ,  $SD = 10.56$ ) at intake,  $t(166) = .27$ ,  $p > .10$ . Also, Parental Stress Scale scores of fathers ( $M = 39.18$ ,  $SD = 7.62$ ) did not differ from those of mothers ( $M = 40.03$ ,  $SD = 11.80$ ) at post intervention,  $t(108) = .39$ ,  $p > .10$ . Mothers appeared to experience more of a reduction in parental stress in response to intervention when comparing mothers' follow-up PSS scores ( $M = 36.98$ ,  $SD = 12.04$ ) to their paired pre-test PSS scores ( $M = 39.80$ ,  $SD = 10.43$ ).  $t(39) = -2.12$ ,  $p < .05$ .

However, because of the limited number of fathers who completed follow-up Parental Stress Scales ( $N=6$ ) there may have been a similar benefit from intervention that did not show significance. No significant gender differences were found comparing gender of parent with gender of child, but fathers of daughters in this sample reported elevated levels of parental stress ( $M = 44.09$ ,  $SD = 8.30$ ) when compared to fathers of sons prior to the intervention ( $M = 39.21$ ,  $SD = 7.00$ ).  $t(28) = -1.72$ ,  $p = .10$ .

*Question 5: Is there a relation between parental stress and ethnicity among parents of juvenile first offenders?*

Parental Stress Scale scores of African-American parents ( $M = 42.53$ ,  $SD = 10.41$ ) did not differ significantly from those of white parents ( $M = 40.24$ ,  $SD = 9.98$ ) at intake,  $t(162) = 1.44$ ,  $p > .10$ . Nor did Parental Stress Scale scores of African-American parents ( $M = 40.55$ ,  $SD = 10.87$ ) and white parents ( $M = 39.99$ ,  $SD = 11.43$ ) differ significantly at post intervention,  $t(100) = .39$ ,  $p > .10$ . In examining the relationship between ethnicity at pre-intervention and post intervention to see if there was a difference as a result of program completion no significant differences were found comparing paired pre-test and post-test PSS scores of white parents,  $t(57) = .45$ ,  $p = .66$  and black parents,  $t(43) = .95$ ,  $p = .35$ . However, there was a significant difference when pre-test and follow-up PSS scores were compared. African-American parents displayed a significant reduction in parental stress at follow-up ( $M = 38.29$ ,  $SD = 9.57$ ) when their paired pre-test parental stress scores were compared ( $M = 42.62$ ,  $SD = 9.78$ ),  $t(21) = 2.28$ ,  $p < .05$ . White parents did not show a significant reduction in parental stress at follow-up ( $M = 35.21$ ,  $SD = 12.96$ ) when their paired pre-test parental stress scores were compared ( $M = 36.75$ ,  $SD = 10.31$ ),  $t(24) = .80$ ,  $p > .10$ .

The only significant difference between African-American parents and white parents on other measures evaluated in this study was on pre-intervention mean scores of white parents on the FAPGAR that reflected a higher level of family functioning than black parents,  $t(128) = 2.07$ ,  $p < .05$ .



*Question 6: Is there a difference in the level of parental stress exhibited in single vs. two-parent households among parents of juvenile first offenders?*

This sample of parents of first time juvenile offenders did show a significant difference when the Parental Stress Scale pre-intervention scores of single parents ( $M = 43.47$ ,  $SD = 11.26$ ) were compared with those from two-parent homes ( $M = 39.80$ ,  $SD = 8.96$ ),  $t(166) = 2.27$ ,  $p < .05$ . Parental Stress Scale scores of single parents ( $M = 41.33$ ,  $SD = 12.03$ ) and parents in two-parent homes ( $M = 38.65$ ,  $SD = 9.86$ ) did not differ significantly at post intervention,  $t(103) = .39$ ,  $p > .20$ . In examining the relationship between household composition at pre-intervention and post intervention to see if there was a difference as a result of program completion it was found that parents from two-parent homes had a slight, though not significant, decrease in mean parental stress  $t(51) = .61$ ,  $p = .55$ . Single parents had a reduction in parental stress in response to program completion  $t(54) = -1.69$ ,  $p = .10$ , though not significant at the  $p < .05$  level. Single mothers reported significantly lower levels of family functioning ( $M = 6.89$ ,  $SD = 2.61$ ) than mothers from two-parent homes ( $M = 7.89$ ,  $SD = 2.32$ ) prior to the intervention  $t(108) = 2.115$ ,  $p < .05$ , a factor correlated with higher levels of parental stress in this study.

*Question 7: What is the effect of multi-family group intervention on family functioning and how does family functioning correlate with parent stress among parents of juvenile first offenders?*

Family functioning did show a significant negative correlation ( $r = -.32$ ) to parent stress in this sample of parents of first-time juvenile offenders. Parents who completed the Family Solutions Program did not exhibit any significant changes in family

functioning when pre-intervention ( $M = 7.32, SD = 2.51$ ) and post-intervention ( $M = 7.21, SD = 2.58$ ) FAPGAR scores were compared,  $t(92) = .498, p > .20$ . Also, no significant differences were found comparing paired follow-up FAPGAR scores ( $M = 7.30, SD = 2.57$ ) and pre-intervention ( $M = 7.68, SD = 2.66$ ) FAPGAR scores,  $t(44) = 1.11, p = .28$ .

*Question 8: What is the effect of multi-family group intervention on the dimensions of open communication and problem solving in parent-adolescent communication and how do these dimensions of parent-adolescent communication correlate with parent stress among parents of juvenile first offenders?*

Parent-adolescent communication at pre-intervention did not show a significant correlation ( $r = -.06$ ) to parent stress in this sample of parents of first-time juvenile offenders. Parents who participated in the Family Solutions Program exhibited some improvement in overall parent-adolescent communication when pre-intervention ( $M = 63.90, SD = 7.78$ ) and post-intervention ( $M = 65.32, SD = 7.11$ ) total PACS scores were compared,  $t(87) = 1.60, p = .11$ , though this result was not significant at the  $p < .05$  level. However, when pre-and post-intervention PACS scores were broken down into dimensions of open communication and problem-solving communication, the open communications dimension did show a significant reduction in response to intervention. A paired samples  $t$  test revealed PACS open communications dimension mean scores at post intervention ( $M = 36.83, SD = 6.90$ ) were significantly higher than at pre-intervention ( $M = 34.97, SD = 7.59$ ),  $t(77) = 3.20, p < .05$  (Table 1). Comparing the problem-solving subscale of the PACS dimension at pre-intervention ( $M = 29.21, SD =$

7.34) with post-intervention ( $M = 29.10$ ,  $SD = 7.68$ ) paired mean scores did not reveal a significant difference,  $t(77) = .167$ ,  $p = .87$  (Table 1).

*Question 9: Does any benefit of intervention related to the variables of parent-adolescent communication, family functioning, or parental stress occur, or persist, at one month follow-up?*

Among the 110 who successfully completed the Family Solutions Program, 43 mailed in valid, usable follow-up Parental Stress Scale scores ( $M = 37.16$ ,  $SD = 11.49$ ). The response rate of 39% was only slightly lower than the 41% response rate found in a meta-analysis by Church (1993) on the use of monetary incentives given upon the return of the survey. Follow-up PSS scores continued to show a reduction in parental stress when paired with post-test PSS scores ( $M = 40.03$ ,  $SD = 11.06$ ),  $t(42) = 1.69$ ,  $p = .10$ ; however, it was not significant at the  $p < .05$  level. Parents who completed follow-up PSS tests ( $M = 36.57$ ,  $SD = 11.37$ ) did show a significant reduction in parent stress when paired with pre-intervention PSS scores ( $M = 39.48$ ,  $SD = 10.27$ ),  $t(45) = 2.20$ ,  $p < .05$ . Thus, parents who completed the FSP and mailed in follow-up questionnaires reported a significant reduction in parental stress compared to that reported prior to intervention (Table 1).

Since no significant differences in Parent Adolescent Communication and Family APGAR were found comparing pre-test and post-test scores, follow-up scores were compared to pre-test scores on these instruments. On neither variable was there a significant difference between pre-test and follow-up (Table 1). However, when the PACS was broken down into its two subscales, Open Communication and Problem-Solving Communication, a significant difference was revealed comparing pre-test and

paired follow-up scores on the Open Communication Scale. Parents' pre-intervention mean Open Communication scores ( $M = 34.97$ ,  $SD = 7.59$ ) improved significantly one-month follow-up to intervention completion ( $M = 37.65$ ,  $SD = 7.15$ ),  $t(40) = 2.03$ ,  $p < .05$ .

Table 1

*Within-Subjects Comparison of Pre-Test, Post-Test, and Follow-up Scores*

	<i>N</i>	Pre-Test		Post-Test		<i>t</i>	<i>p</i>
		Mean	<i>SD</i>	Mean	<i>SD</i>		
PSS	105	40.58	10.58	40.03	11.06	.84	.41
FAPGAR	92	7.32	2.51	7.21	2.58	.50	.62
PACS	88	63.90	7.78	65.32	7.11	1.60	.11
Open*	78	34.97	7.59	36.83	6.90	3.20	.002
Problem	77	29.21	7.34	29.10	7.68	.17	.87

 $p < .05$ 

	<i>N</i>	Pre-Test		Follow-up		<i>t</i>	<i>p</i>
		Mean	<i>SD</i>	Mean	<i>SD</i>		
PSS*	46	39.48	10.27	36.57	11.37	2.20	.033
FAPGAR	44	7.68	2.57	7.30	2.66	1.11	.28
PACS	43	63.90	6.79	64.42	6.94	.44	.66
Open*	41	34.97	7.59	37.65	7.15	2.03	.05
Problem	39	29.21	7.34	26.45	7.65	1.32	.19

 $p < .05$

## CHAPTER 5

### DISCUSSION

Based on a recent PsycINFO literature review on parent stress in parents of juvenile offenders and variations of that topic, studies on stress experienced by parents of juvenile delinquents are virtually nonexistent. Moreover, there is a great need for research to better understand the impact of interventions on parents (Cowan & Cowan, 2002; Eddy, Dishion, & Stoolmiller, 1998; Serketich & Dumas, 1996; Van Dyke, 2001) and how variables of parent ethnicity, gender, and household composition interact with stress, communication, and family functioning (Patterson, Dishion, & Chamberlain, 1993; Webster-Stratton & Hammond, 1990). This study examined parent stress in parents of juvenile first offenders evaluating the relationship between parent gender, ethnicity, and household composition and the impact of parent stress on program completion, the bearing of parental stress on intervention dropout and how parent stress was associated with parent-adolescent communication and family functioning.

#### *The Multiple Determinants of Parental Stress*

While no existing research was identified on stress experienced by parents of juvenile offenders, an understanding of the research on parent stress in similar populations could help in interpreting this study's results. The parents of first-time juvenile offenders who participated in this study exhibited significantly elevated levels of parent stress such as that which was found in parents of children with ADHD (Anastopoulos et al., 1992; Pisterman et al., 1992), conduct disorder (Eyberg, 1995) or antisocial children (Kazdin et al., 1992) and children with other behavioral (Webster-Stratton & Hammond, 1990) or clinical (Berry & Jones, 1995) problems. However, in

this population, parent stress levels did not predict (Kazdin, 1995) or diminish significantly upon intervention completion as it did in the aforementioned studies.

Issues of gender, ethnicity, and household composition will be dealt with more fully later in their prospective sections; however, a few comments need to be made about the demographics of this sample which may have impacted parental stress scores. The parents of first-time juvenile offenders who participated in this study had some fairly significant differences from the United States population as a whole, or of Georgia in specific. As the following table shows, the parents in this sample had a much higher proportion of mothers than fathers, blacks than whites, and single parents than married parents. It also had many more parents who were of limited financial means. Prior research has revealed that more often than not mothers have higher parental stress scores than fathers (Weissman & Klerman, 1977; Wethington et al., 1987), blacks have higher parental stress scores than whites (Clark et al., 1999; Moritsugu & Sue, 1983), single parents have higher parental stress scores than those in two-parent homes (Bloom et al., 1978; Colletta, 1983; D'Ercole, 1988; Greif, 1985; Kazak & Linney, 1983; Pasley & Gecas, 1984; Voydanoff & Donnelly, 1998; Weiss, 1984), and low-income parents have higher levels of parental stress than those who have greater financial means (Conger et al., 1999; Ghate & Hazel, 2002; Weiss, 1984). The results of this study showed that parents whose youth have committed a delinquent act experience significantly elevated levels of parental stress, but family stress research and theory indicate that vulnerability, adaptability, and regenerative power contribute to the amount of stress experienced and these are greatly affected by resources such as economic well-being, social support and impoverished environment (McCubbin et al., 1980).

Table 2

*Comparison of Study Population to Georgia and United States Demographic Data*

<b>Parents</b>	<b>Study Sample</b>	<b>Georgia</b>	<b>US</b>
<b>Female</b>	80%	51%	49%
<b>Male</b>	20%	49%	51%
<b>Black</b>	48%	29%	13%
<b>White</b>	50%	65%	77%
<b>Other</b>	3%	6%	10%
<b>1 Parent</b>	43%	26%*	20%*
<b>2 Parent</b>	57%	73%*	65%*
<b>&lt;\$25K</b>	58%	28%*	21%*
<b>&gt;\$25K</b>	42%	72%*	80%*

Note: Detail may not total 100% because of rounding.

\* based on families with children under 18

(2000 U.S. Census Bureau, 2005)



Parent gender and ethnicity did not appear to have a significant impact on the amount of stress experienced by parents of juvenile first offenders in this study, but single parenting was associated with significantly higher levels of parental stress and the number of single parents in this sample was over double of that reported in the state of Georgia. The over-representation of low-income families (Table 2) in this sample also could have contributed to the significantly elevated parental stress scores in this population of parents of first time juvenile offenders. In a post-facto analysis on study data, it was found that the annual household income of mothers was significantly negatively correlated with maternal parental stress scores prior to the intervention  $r(125) = -.20, p < .05$ . The same did not hold true for fathers, but only 24% of fathers reported an annual household income level below \$20,000 compared to 54% of mothers. It is difficult to overstate the impact of financial difficulties as a source of stress in parents. In addition to the financial strain of trying to make ends meet when it comes to food, clothing, and housing expenses, parents living in poor environments have much greater difficulties addressing the physical and mental or emotional health issues experienced by themselves and their children. Low-income parents are also much more likely to have stressful accommodation problems, such as poor quality, overcrowded, uncomfortable and dilapidated housing, and are more likely to live in areas of the community with a higher presence of risk factors, such as exposure to crime, drugs and violence, and substandard educational resources (Boss, 2002; Ghaté & Hazel, 2002; Moen, 1982; Webster-Stratton, 1990).

Though the parents of juvenile delinquents in this sample did have significantly elevated parental stress scores at pre-test, when post-test scores were compared there was

not a significant drop in parental stress. This may have been because of the absence of any specific focus on reducing stress in parents who participated in the Family Solutions Program intervention. However, parental stress did diminish significantly in the sample of parents who completed follow-up parental stress scales. Over one month post intervention, most of the families who successfully completed the Family Solutions Program had resolved the legal problems of the adjudicated youth that led to their referral to the program. It is possible that the stress of existing legal problems, or the requirement to complete the intervention, was effectively ameliorated at one month after the program's completion, thus diminishing a major cause of stress for the parents who completed follow-up surveys. It is also possible that the multi-family group intervention did have a residual intervention effect that continued to reduce parenting stress after program completion. Finally, it is possible that the sample of parents who put forth the effort to complete the follow-up surveys were higher functioning or better organized than non-respondents to follow-up surveys. However, a post facto analysis of follow-up respondents showed that their pre-test parental stress scale scores ( $M = 39.48$ ,  $SD = 10.27$ ) were not significantly different when compared to all study sample pre-test parental stress scale scores ( $M = 41.37$ ,  $SD = 10.14$ ),  $t(214) = 1.11$ ,  $p > .10$ .

*Gender, Ethnicity, Household Composition, and (Post-Facto) Family Income Effect on Parental Stress, Family Functioning, and Parent-Adolescent Communication*

*Gender*

The literature on gender differences regarding parenting stress showed that mothers generally experienced higher parental stress than fathers, but existing research was not definitive on this finding (Baker, 1994; Berry & Jones, 1995; Brewer, 1997;

Lumley et al., 2002; McBride et al., 2002; Walker, 2002). The results from this study suggested that, overall, mothers and fathers of juvenile first offenders experienced similar levels of significantly elevated stress. It may be that juvenile offending was equally stressful to both parents, because both mothers and fathers would likely have to deal with the consequences of the offense. It has been suggested that the Parental Stress Scale is a gender neutral measure of parent stress (Berry & Jones, 1994).

Mothers' parental stress diminished significantly in response to program completion by follow-up. Fathers may have experienced similar reductions, but because of the small number of fathers who completed follow-up Parental Stress Scales ( $N=6$ ) such a relationship was unable to be determined with any degree of certainty. There are many reasons why parental stress may have been reduced after completion of the FSP intervention, the most obvious being a result of participation in the program leading to improvements in parenting skills, more positive and less negative relationships with their children, and/or a sense of accomplishment for completing the program. Also, the alleviation of the legal problems of the youth upon satisfactory completion of the program may have contributed to reduced stress at follow-up. And finally, the parents who returned the follow-up surveys may have been more highly motivated to report a more positive response to the program due to improved personal satisfaction than parents who did not return follow-up surveys.

Measures at all stages of the intervention (pre-, post-, and follow-up) in overall parent-adolescent communication and family functioning comparing mothers and fathers of juvenile first offenders did not meet the stringent significance level utilized to ensure that a Type I error was not produced. One of the weaknesses of this study was the

relatively low rate of paternal participation and response rate at follow-up. Several of the measures in this study did approach significance, but, particularly when broken into subgroups for comparison, the amount of data available on fathers was not sufficient to determine significant differences between mothers and fathers on measures of parental stress, family functioning, and parent-adolescent communication in this sample.

### *Ethnicity*

In the literature comparing parental stress among African-American and white parents, African American parents have been assessed as experiencing greater levels of parental stress than white parents (Belle, 1984; Kazdin et al., 1995), but when matched on income this difference was eliminated (Capage et al., 2001). The African-American sample that participated in this study did not, as a group, display significantly higher levels of parental stress than the white parents in this sample. A post-facto analysis of race and income revealed that the income levels among black and white mothers and fathers were very close in this sample when low-income status (defined as annual household income under \$25,000) was considered. In this sample, 55% of African American parents and 57% of white parents reported annual household incomes of under \$25,000. As was previously mentioned, the parents who participated in this study nearly doubled the rate of low-income family status found in Georgia (Table 2). So the absence of differences found between African-American and white parental stress at pre-intervention could have been because of the similarities of income levels as found in the Capage et al. (2001) study.

At follow-up parental stress in African-Americans was reduced significantly when compared to paired pre-test parent stress levels, a difference not found in white

parents. The literature on differences between white and African-American parents in response to parent programming suggested that African-American parents were less likely than white parents to engage in (Kumpfer, Alvarado, Smith, & Bellamy, 2002) intervention and were more likely to drop out of parenting programs (Kazdin et al., 1995). Intervention engagement was fairly equal when comparing African-American (48%) with white parents (50%) in this sample, as was the intervention graduation rate of African-American (80%) and white parents (83%). The data resulting from this study suggested that when African-American parents engaged in and completed parent programming they demonstrated greater reductions in parental stress in response to the intervention at follow-up than white parents.

The only significant difference in family functioning and parent-adolescent communication between African-American parents and white parents was on the FAPGAR at pre-intervention, which reflected a higher level of family functioning for white parents than black parents,  $t(128) = 2.07, p < .05$ . Comparing African American parents to white parents at pre-test, post-test, and follow-up this difference diminished into non-significance for those African-American parents who completed the intervention and diminished even more at follow-up. It is likely that African-American parents improved in family functioning in response to program participation, though this change did not reach the level of significance set for this study. Research has demonstrated such improvements in response to parent participation in family therapy by Scheel and Rieckmann (1998) by raising self-efficacy and more specifically in a group of parents of juvenile delinquents participating in multisystemic therapy (Huey et al., 2000) by improving family relations.

### *Single Parenting*

The single parents of juvenile first offenders who participated in this study did report significantly higher levels of parental stress as a group than the parents from two-parent homes prior to the intervention. This corresponded with most of the research on single parenting which suggested that, as a group, single parents experienced higher levels of parental stress (Bloom et al., 1978; Colletta, 1983; D'Ercole, 1988; Greif, 1985; Kazak & Linney, 1983; Pasley & Gecas, 1984; Voydanoff & Donnelly, 1998; Weinraub & Wolf, 1983; Weiss, 1979; Weiss, 1984). Prior to the intervention, single mothers as a group reported significantly lower family functioning than mothers from two-parent homes and family functioning was found to be strongly negatively correlated with parental stress. The deficits in family functioning reported by single mothers could account for some of the elevated parental stress found in this sample of single parents.

### *Family Functioning*

The integration of the FAPGAR to measure family functioning in this study did reveal some important aspects of parents of juvenile first offenders and the parental stress experienced by them. The results from this study sample were compared with the FAPGAR norming populations using a two-sample *t* test. Prior to intervention, the 133 parents in this sample who completed FAPGAR indexes displayed a significantly lower level of family functioning ( $M = 7.30$ ,  $SD = 2.46$ ) than Smilkstein et al.'s (1979) norming sample of 38 adults who lived in a married students' housing unit designed for families with children at the University of California, Davis ( $M = 8.24$ ,  $SD =$  not reported),  $t(169) = 3.13$ ,  $p < .05$  (Table 3). The parents in this sample also scored significantly lower than a sample of 133 outpatient clients at a family medical center ( $M = 8.22$ ,  $SD = 2.14$ ),  $t$

(264) = 3.25,  $p < .05$ , but significantly higher than a sample of 158 adult psychiatric outpatients ( $M = 5.8$ ,  $SD = 2.71$ ),  $t(289) = -4.72$ ,  $p < .05$  (Good, Smilkstein, Good, Shaffer, & Arons, 1979). Improvements in family functioning have been shown to be directly associated with reductions in delinquent peer affiliation and delinquent behavior in the family intervention research (Huey, et al., 2000). While this study did not address juvenile delinquency recidivism, previous research on the FSP has demonstrated its effectiveness in reducing recidivism (Quinn & VanDyke, 2004). The parents of juvenile first offenders who participated in this study did not show significant improvements as a group in family functioning.

In regards to parent stress, a significant relationship was found between family functioning and parental stress in this population of parents of juvenile first offenders. Lower family functioning was significantly negatively correlated with higher levels of parental stress, two of the strongest predictors of parent self-efficacy in a study by Scheel and Rieckmann (1998). A similar result was also found by Dyson (1996) in a sample of parents of children with learning disabilities. This study's results serve to confirm the relationship between parental stress and family functioning in yet another population. Inclusion in the FSP curriculum on raising parental self-efficacy could improve family functioning and lower parental stress in parents of juvenile first offenders.

Though not significant at the  $p < .05$  level, the FAPGAR did reveal some interesting differences between mothers and fathers in this sample. While mothers had higher levels of family functioning than fathers prior to intervention, fathers who completed the FSP improved on measures of family functioning to the point of equaling mothers who completed FSP at post-testing. And at follow-up, fathers actually had

higher family functioning scores than the mothers in the sample. It appears as though fathers' family functioning improved more than mothers' in response to participation in this intervention. The research on parental gender differences suggests that fathers' improvement in family functioning may result from increased involvement with the family and improved relations with spouse and/or child (Cowan & Kerig, 1993). Or improvements in fathers' family functioning could have come about the same way they did with African-American parents improvements in family functioning in response to program participation, by raising self-efficacy (Scheel & Rieckmann, 1998) and/or by improving family relations (Huey et al., 2000).

As mentioned before, the white parents in this sample had significantly higher FAPGAR scores than the African-American parents at pre-test, post-test, and follow-up and mothers from two-parent homes reported significantly higher levels of family functioning than single mothers prior to the intervention, a factor associated with lower parental stress.

#### *Parent-Adolescent Communication*

Though the differences were not as robust as those found with the FAPGAR, the PACS did provide some valuable information about parents of juvenile first offenders and their response to intervention. Prior to the intervention, the parents in this sample did display significantly lower Parent-Adolescent Communication Scale group mean scores than a sample of 426 "normal" intact families with adolescents drawn from across the nation used by Barnes and Olson (1985) to establish norms for the PACS. The results from this study sample were compared with the PACS norming populations using a two-sample *t* test. As a group, mothers in the Barnes and Olson (1985) sample reported better



communication ( $M = 75.63$ ,  $SD = \text{not available}$ ) with their children then did fathers ( $M = 72.62$ ,  $SD = \text{not available}$ ),  $t(424) = 3.90$ ,  $p < .001$ . Prior to the intervention, the mothers in this sample had significantly lower PACS group mean scores ( $M = 64.29$ ,  $SD = 7.86$ ) than the mothers in the Barnes and Olson sample,  $t(531) = 13.50$ ,  $p < .001$  (Table 3). The fathers also had significantly lower PACS group mean scores ( $M = 62.36$ ,  $SD = 8.87$ ) than the fathers in the Barnes and Olson sample,  $t(449) = 2.28$ ,  $p < .05$  (Table 3). Given the research on the bearing that poorer parent adolescent communication has on the likelihood of delinquency (Stouthamer-Loeber et al., 2002) and the association of problems in parents communicating clearly with their youth contributing to anti-social behavior (Voorhis et al., 1988) and child maladjustment (Lyon et al., 1992; Mason et al., 1994; Tolan et al., 1997), it was no surprise that this sample of parents of juvenile first offenders displayed significant deficits in parent adolescent communication. Additionally, the parents in this study scored significantly lower than the norm on both the problem-solving communication and open communication subscale measures prior to the intervention and deficits in open communication have been significantly associated with more serious forms of delinquency based on a self-report delinquency scale study done by Clark and Shields (1997).

While not significant ( $p = .11$ ), the parents in this sample did show improved overall parent-adolescent communication in response to the intervention when pre-test and post-test PACS scores were compared. The improvement on the open communication subscale was significant at the  $p < .05$  level at post intervention and at follow-up, which held for gender. The improvements demonstrated by the parents in this sample on open communication could explain one of the sources of reduction of

recidivism rates (Clark & Shields, 1997) and demonstrated by the FSP (Quinn, 2004).

The fact that this significant reduction occurred at both post-intervention and remained robust at follow –up suggests that the intervention may in fact have a potent effect on the quality of communication between juvenile offenders and their parents.

When pre-test and follow-up scores were compared, problem-solving communication scores did improve one month after program completion, though not significant at the  $p < .05$  level. It is quite possible that, with a larger sample, parent adolescent communication improvements in response to participating in the Family Solutions Program may have been more pronounced as they were approaching significance with this sample.

*Table 3**Between-Subjects Comparison of Study Sample Pre-Test Scores with Test Norming**Samples*

	<i>Study Sample</i>			<i>Test Norm</i>			<i>t</i>	<i>p</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
<i>All Parents</i>								
PSS	168	41.37	10.14	116	37.10	8.10	3.92	<.05
FAPGAR	133	7.31	2.46	38	8.22	n.a.	3.13	<.05

	<i>Study Sample</i>			<i>Test Norm</i>			<i>t</i>	<i>P</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
PACS								
<i>Mothers</i>	107	64.29	7.86	426	75.63	n.a.	13.50	<.05
<i>Fathers</i>	25	62.06	9.89	426	66.58	n.a.	2.28	<.05

n.a.: not available

*Research Implications*

While research has demonstrated the importance of family components in intervening with child problem behaviors in general (Kumpfer & Alvarado, 2003; Patterson et al., 1993; Serketich & Dumas, 1996) and juvenile delinquency in specific (Gibbons, 1999; National Mental Health Association, 2004; Perkins-Dock, 2001) there is a critical need for more research to understand how parents affect their children's behavior problems and how interventions affect parenting (Cowan & Cowan, 2002; Serna, Schumaker, Hazel, & Sheldon, 1986) especially at follow-up (Borduin et al., 1995; Webster-Stratton, Hollinsworth, & Kolpacoff, 1989).

Previous research has demonstrated that interventions for juvenile delinquents involving their parents are more successful in reducing recidivism than youth only interventions (Loeber & Farrington, 1998; Quinn & Van Dyke, 2004; Tarolla, et al, 2002), yet there is a need for greater understanding as to what changes occur in parents in response to interventions that promote change in their youth (Cowan & Cowan, 2002; Patterson et al., 1993; Perkins-Dock, 2001). The main changes demonstrated in parents of juvenile first offenders who participated in this study were reductions in parent stress one month after the intervention, and improvements in open communication at post intervention and follow-up. There were, however, numerous other changes in parents in response to the intervention which were indicated, but did not meet the stringent level of significance that was utilized in this study to ensure that a Type I error was not produced. Because of the stringent significance level used for this study there was an increased likelihood of creating a Type II error. If the study sample were larger it is quite possible that these might have yielded more significant results.

As in most research, the results of this study created numerous questions regarding the relationships of its variables. For example a post-facto analysis on household annual income revealed that fathers' level of income was significantly positively correlated with program completion. Other differences in the data resulting from this research that were not a focus of this study or not included due to the stringent level of significance that was utilized in this study to ensure that a Type I error was not produced:

1. Parents who completed the intervention displayed a reduction of parental stress approaching significance from post-test to follow-up test ( $p = .10$ ). It appeared that substantial benefit from the multi-family group intervention regarding reductions in parental stress occurred after the intervention.
2. Single parents who completed the intervention displayed a reduction of parental stress approaching significance from pre-test to post-test ( $p = .10$ ).
3. Fathers of daughters reported higher levels of parent stress ( $p = .10$ ) than fathers of sons prior to the intervention.
4. White mothers reported higher levels of family functioning than white fathers prior to the intervention ( $p = .06$ ).
5. Fathers who completed the intervention reported lower levels of family functioning than those who did not complete the intervention ( $p = .09$ ).
6. Single mothers who dropped out of the intervention had poorer parent-adolescent communication than those who completed the intervention ( $p = .06$ ).
7. The only 6 fathers who started and did not successfully complete the intervention during the data collection period of this study each reported annual household

incomes above \$40,000 (the highest income bracket for this study). These 6 fathers were among 13 in the overall sample in this income bracket. It appeared as though higher earnings were associated with greater risk of drop-out in the fathers who were referred to the FSP.

Further research on the predictive value of intervention drop-out with the PACS and FAPGAR appeared to be warranted by these findings. Also, as many variables as were considered in this study, there were not enough fathers in this sample to evaluate some of the differences within the group of fathers. Inclusion of a household income variable in any future studies on this population is recommended. Finally, given the trend of reduced parental stress and improvements in family functioning and parent adolescent communication seen in this study from post-intervention to one month follow-up, another more long term follow-up measure of these variables may yield more robust data regarding the benefit that parents of juvenile first offenders received from successfully completing the Family Solutions Program.

### *Clinical Implications*

Parent stress has been shown to be a major disruptor of parenting practices (Webster-Stratton, 1990) and given the amount of parental stress demonstrated in this study by the parents of juvenile first offenders, some form of curriculum which targets stress reduction or stress management strategies for parents might be recommended in interventions with this population. Even though parent stress did not differ significantly among those parents who dropped out and those who completed the intervention, While, as a group, all parents stress levels were elevated prior to the intervention, an early focus on reducing this stress might be beneficial in improving FSP's already impressive

retention rate of 63% between 1993 and 2001 (Quinn, 2004). Parent stress interventions have been shown to be effective not only in reducing stress (Hastings & Beck, 2004), but in improving problem solving (Gammon & Rose, 1991), reducing depression and improving social support (Kirkham & Schilling, 1990; Kirkham, 1993), reducing guilt (Nixon & Singer, 1993), and state trait anxiety (Singer, Irving, & Hawkins, 1988).

In order to better understand the relationship between independent and dependent variables in research on clinical interventions, analysis of mediators such as parental stress, family functioning, and parent adolescent can contribute to the knowledge of the when, where, why and how therapy works (Wilson, Alexander, & Turner, 1996). For example, even if the results of this study failed to show significant reductions in parental stress, family functioning, and one aspect of parent–adolescent communication (problem communication) by the time of post-testing, a comparison of this study’s measures norming populations with the study sample’s pre-test and follow-up scores could shed light on what changes did occur as a result of parent participation in the Family Solutions Program (Table 4). Prior to completion of the FSP, the parents in this sample had parental stress scores significantly higher than the norm. By follow-up the parents in this sample did not differ from the population of ‘normal’ parents used to establish the norms for the PSS. It appears likely from these results that the FSP was successful at improving parenting skills, reducing problem behaviors (child and parent), and increasing parent efficacy associated with parental stress reduction (Hastings, 2004). Correspondingly, parents who participated in the FSP had family functioning scores significantly lower than the norm at pre-testing, but by follow-up their scores did not differ from the norming populations of the FAPGAR (Table 4). It has been found that improvements in family

functioning have been directly associated with decreases in both delinquent peer affiliation and delinquent behavior over time (Huey et al., 2000) which could be one of the influences the Family Solutions program has on reducing juvenile recidivism by almost half that of families who drop out of the FSP (Quinn, 2004).

Improvements reported in parent-adolescent communication by the parents in this sample did not approach the PACS norming sample results at follow-up (Table 4). However, parent-adolescent communication was found not to be predictive of parenting efficacy outcome in a study by Shumow and Lomax (2002) and parent-adolescent communication was also found to be ineffective at predicting lower levels of adolescent deviance in a study by Forehand et al. (1997). It appears that measures of parent-adolescent communication from the perspective of the adolescent are more useful for predicting juvenile delinquency (Clark & Shields, 1997) than from parents. Based on the results from this study it is recommended that the FSP consider an alternative construct other than parent-adolescent communication in assessing intervention effect on the parent. In addition, an examination of the parent-adolescent communication scale as reflected in child scores could be undertaken. The research on the effectiveness of programming for families with youth behavioral problems produces cognitive, affective and behavioral changes in family dynamics and environment (Kumpfer & Alvarado, 2003). It is suggested, looking at the literature on the assessment of parenting change in interventions with families with anti-social or delinquent youth (Borduin et al., 1995; Perkins-Dock, 2001; Tolan et al, 1997), that alternative measures of family functioning be considered. For instance a measure of family environment, such as the Family Environment Scale (Moos & Moos, 1994), or adaptability and cohesion, such as the



FACES-III (Olson, Portner, & Lavee, 1985), be used to provide a more accurate picture of pertinent changes with parent functioning.

Table 4

*Between-Subjects Comparison of Sample Follow-up Scores with Test Norming Samples*

	<i>Study Sample</i>			<i>Test Norm</i>			<i>t</i>	<i>p</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
<i>All Parents</i>								
PSS	47	36.64	11.26	116	37.10	8.10	.25	>.20
FAPGAR	45	7.36	2.66	38	8.22	n.a.	1.51	>.10

	<i>Study Sample</i>			<i>Test Norm</i>			<i>t</i>	<i>P</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>		
PACS								
<i>Mothers</i>	40	64.85	7.06	426	75.63	n.a.	9.29	<.001
<i>Fathers</i>	6	61.00	6.69	426	66.58	n.a.	2.28	<.05

n.a.: not available

### *Conclusion*

The current study attempted to examine whether parents of juvenile first offenders experienced higher levels of stress than from a normal sample, the impact of an intervention involving these parents in reducing stress, and the relationship between parent stress and gender, ethnicity, single versus two-parent households, and family functioning and communication among parents of juvenile offenders. The results, in general suggest that parents of juvenile first offenders who participated in this study did have significantly elevated levels of parental stress, lower levels of family functioning, and poorer parent-adolescent communication than numerous samples of “normal” parents used to norm or research the Parental Stress Scale, Family APGAR Index, and Parent-Adolescent Communication Scale. It was further established that participation in the Family Solutions Program intervention did significantly reduce parental stress at one month follow-up to the intervention, but not by the time of post-testing at the last session of the program. In addition, the Family Solutions Program did have an effect on parent-adolescent communication, as the open communication scale at both post-intervention and one-month follow-up were significantly higher than pre-intervention scores.

One of the major parent conditions that were identified as negatively affecting parent intervention outcomes was severe environmental stressors (Webster-Stratton, 1990). Single parents who participated in this study displayed significantly higher levels of parental stress than parents from two-parent homes and maternal annual household income was found to be significantly negatively correlated with parental stress in this sample. The parents who participated in this study had double the rate of single-parenting and low-income household conditions than was normally found in Georgia and

this may have had an impact on intervention outcome. Single parents experienced greater parental stress reduction than two-parent families in response to program participation

Though no significant differences were found regarding parental stress levels based on gender or ethnic groups as a whole among parents of juvenile first offenders prior to the intervention, some gender and ethnicity differences were found within this population that could have contributed to parental stress levels. For example, single mothers reported lower levels of family functioning at pre-intervention than mothers from two-parent homes. African-American parents also reported lower levels of family functioning than white parents at all phases of measurement, and family functioning was found to be significantly negatively correlated with parental stress in this study.

This study explored parent stress in parents of juvenile first offenders and the relationship of parent stress to an intervention outcome and completion. The levels of family functioning and parent adolescent communication among parents of juvenile first offenders were also examined to determine their effects on parent stress. Demographic variables, such as gender, ethnicity, and household composition were also evaluated to determine their relationship to parental stress, family level of functioning and parent adolescent communication patterns.

In examination of all of these variables, five significant findings were revealed. First, parents of juvenile first offenders did report significantly elevated levels of parent stress. Second, the parental stress experienced by parents of juvenile first offenders did diminish in response to intervention, though not until one-month follow-up to intervention completion. Third, single parenting was associated with significantly higher levels of parent stress within this population of parents of juvenile first offenders. Fourth,

level of family functioning was significantly negatively correlated with parental stress.

And, fifth, open communication improved significantly in response to the intervention at both post-intervention and follow-up.

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