

2010

# The Influence of Treatment Team Cohesion in the Success of In-home Mental Health Treatment for Children and Adolescents with Emotional and Behavioral Disorders

Jaimie C. Orndorff

*Antioch University - Santa Barbara*

Follow this and additional works at: <http://aura.antioch.edu/etds>

 Part of the [Child Psychology Commons](#), [Clinical Psychology Commons](#), [Mental and Social Health Commons](#), and the [Quantitative Psychology Commons](#)

---

## Recommended Citation

Orndorff, Jaimie C., "The Influence of Treatment Team Cohesion in the Success of In-home Mental Health Treatment for Children and Adolescents with Emotional and Behavioral Disorders" (2010). *Dissertations & Theses*. 122.  
<http://aura.antioch.edu/etds/122>

This Dissertation is brought to you for free and open access by the Student & Alumni Scholarship, including Dissertations & Theses at AURA - Antioch University Repository and Archive. It has been accepted for inclusion in Dissertations & Theses by an authorized administrator of AURA - Antioch University Repository and Archive. For more information, please contact [dpenrose@antioch.edu](mailto:dpenrose@antioch.edu), [wmcgrath@antioch.edu](mailto:wmcgrath@antioch.edu).

The Influence of Treatment Team Cohesion in the Success of In-home Mental Health Treatment for Children and Adolescents with Emotional and Behavioral Disorders

A dissertation submitted to the Faculty of Antioch University, Southern California in partial fulfillment of the requirements for the Degree of Doctorate of Psychology in Clinical Psychology with a Family Psychology specialization and a concentration in Family Forensic Psychology

By

Jaimie Orndorff

Dissertation Committee

---

Dr. Steve Kadin

---

Dr. Cheryl Smith

---

Scott Musgrove, Psy.D.

Michael A. Lindsay Ph.D.

---

## **Table of Contents**

List of Tables	vi
Introduction	1
Literature Review	3
Methods	47
Results	55
Discussion and Conclusions	58
References	62

## **List of Tables**

Table 1 - Means and standard deviations of study variables	56
--	----

## **Abstract**

*Background:* The author pursued this area of interest due to having had a positive experience working as a therapist within a high cohesion treatment team in an in-home setting. This experience with a high cohesion team seemed to lead to more successful results than other teams that were deemed low cohesion, in the same format. This experience led to a general curiosity about why the team this author was on was more effective. Additional research allowed this author to determine the possible link between cohesion, success of treatment and reduced risk for burnout, defined as a response to chronic job related stressors (Maslach, 2003). This possible link paved the way for this research to be accomplished. The purpose of this study was to determine if treatment team cohesion is a factor in determining the success of in-home treatment for children and adolescents with emotional and behavioral diagnoses. The link between cohesion and treatment team success has not been specifically researched; however, cohesion has been related to the success of teams in various sports. It was hypothesized that a high cohesion treatment team would result in more successful in-home treatment than a low cohesion treatment team.

*Methods:* A closed record review was completed on 26 participants, with 13 participants in each treatment team. The participants were assigned to a specific

team by the Clinical Director of the family preservation services provider based upon the caseload of the clinicians at the time of assignment. The same licensed therapist completed the Work Environment Scale (WES) to determine which team had the higher level of cohesion. Demographic variables of gender, ethnicity, duration of treatment, and medication status were used, along with the CAFAS and GAF scores in two hierarchical linear regression analyses. Two hierarchical linear regressions were performed using SPSS. The first regression utilized the cohesion measure, demographic variables (gender, ethnicity, duration of treatment and medication status), and the initial Global Assessment of Functioning (GAF) score as independent variables (IVs) to determine the likelihood of prediction of the final GAF score, both individually and combined as a group. The second regression provided the cohesion measure, demographic variables (as listed above) and the initial Child and Adolescent Functional Assessment Scale (CAFAS) score as IVs to determine the likelihood of prediction of the final CAFAS score, both individually and combined as a group.

*Results:* Hierarchical regression analyses did not support the hypothesis; however, the statistical power of the sample size was too low to determine if significant results actually existed. Due to the restraints of managed care, inclusionary and exclusionary restrictions for this particular research and the significant decrease of

funding for in-home treatment programs the participants that were appropriate for the purposes of this research unexpectedly resulted in a limited sample size.

*Conclusions:* Results implicated a relationship between the CAFAS scores and the racial background of the participants. While this relationship is unclear the majority of the participants were African American and the clinician completing the CAFAS was Caucasian. Limitations of the study indicate additional research with a larger sample size would be beneficial to determine if there is a relationship between the cohesion of the treatment team and the success of in-home therapy.

## **Introduction**

In-home, or home-based treatment programs for children and families with a mentally ill child, have been in place for more than a decade. There are many ways services are distributed, and funding for these services vary from state to state. Research on the success rates of in-home treatment programs regarding different theoretical orientations exists, but there is little research that addresses treatment team factors, including team cohesion. Walker and Schutte (2004) provide the only researched model for team factors regarding effectiveness of services.

The President's New Freedom Commission on Mental Health (2003), also identified as the Commission, indicated that between 5% and 9% of the United States population of children have severe emotional disturbances, equating to millions of young people. These children were diagnosed with Oppositional Defiant Disorder and Conduct Disorder; however, other disorders, such as Major Depressive Episode and Attention Deficit Hyperactivity Disorder, were also identified and were also frequently treated with implementation of in-home treatment programs. The Commission, at the time, indicated mental health services needed to be reformed in order to provide appropriate care due to

Americans suffering with unfair treatment limitations by insurance companies, an inadequate delivery system and a strong stigma that surrounds mental illness. The Commission's task was to determine where the current mental health system fails in order to bridge the gaps in the current system (2003). After thorough research, the Commission determined effective reform would require a recovery based system of family-centered treatments that would increase the functioning of the client. The current mental health system focuses on management of symptoms; however, an individual's ability to recover and build resilience should be the focal point of treatment. In-home therapy requires the participation of the family, regardless of theoretical orientation, which suggests that increases in the use of in-home therapy versus residential therapy could be the transformation in the efficacy of mental health treatment that is desired. While the flexibility of theoretical orientation allows the therapist to provide individualized treatment planning, it can be a confound when determining treatment success. In-home treatment varies per clinician due to personality type, theoretical orientation and other individualized factors which makes it difficult to study success factors across different providers.

Research linking treatment team cohesion to the success of the client's treatment does not exist; however, some research on team effectiveness as it relates to the success or effectiveness of sports teams is available. Because successful services can be related to the cohesion of the team which in turn is related to reducing burnout it seems plausible to suggest that a relationship between all three exists. This body of research served as the impetus for the current study to determine if the level of treatment team cohesion could affect the success rate, as indicated by the participants in an in-home treatment program. This researcher hypothesized those participants who worked with a high cohesion team would result in more success than those who worked with a low cohesion team. This research sought to determine if there is a relationship between treatment team cohesion and the success of in-home treatment.

## **Literature Review**

### *Clinical Case Example*

John and Jane (names changed for the purposes of confidentiality) were 16-year-old fraternal twins who lived with their single mother. Prior to implementation of services, John and Jane's mother was using punishment that included physical reprimand, grounding, removal of items and privileges and abusive verbal punishment. John and Jane's mother was overwhelmed with their behavior and also struggled with her own Bipolar disorder and as a result even the above mentioned implementation of behavioral consequences was inconsistent at best. John and Jane refused to attend school, and got into trouble in school when they did attend. There are indications that they were most likely using marijuana several times a week. John and Jane were physically abusive to their mother and engaged in fights outside the home. They had also been arrested for property destruction.

Having been referred to an in-home treatment provider, John and Jane were approved for 12 weeks of in-home therapy. The first month they refused to meet with the treatment team until they were threatened by their mother to be placed in a residential treatment facility outside of the home. John demonstrated

particular disdain for the master's level clinician assigned to his treatment team, calling her "the devil" and requesting a different clinician. Responding to John's demands and changing this particular clinician would have resulted in successful splitting of the treatment team; therefore, the Clinical Director refused to switch clinicians. John and Jane's mother actively and enthusiastically participated in the family therapy sessions and learned how to respond to her children's oppositional behaviors in a consistent manner, presenting more appropriate consequences for undesirable behavior and learning how to communicate more effectively. As a result, John and Jane learned how to communicate in a more appropriate manner, identify feelings, accept responsibility for their actions and utilize coping skills when needed. These newly learned skills enabled them to forge new friendships that provided a more positive social environment for them. Within 8 weeks both John and Jane were back in school, completing their homework assignments and passing all classes. There was also a cessation of their previous illegal and violent activity.

The twins and their mother responded well to the cognitive behavioral approach utilized by the treatment team. The team met and communicated on a

regular basis, identified which part of the treatment plan each team member worked on and informed other team members of any developments on the case. The team members felt important and valuable to the case and to the other team members and functioned in a manner which allowed the team to properly address all the goals on the treatment plan. This case is an example of successful in-home treatment with a high cohesion treatment team. A low cohesion treatment team working on the same case may not communicate about which clinician was focusing on different areas of the treatment plan. A low cohesion team who did not communicate regularly may find experience less success in meeting treatment goals. Vital information about events including arrests and hospitalization may not be transferred until after resulting in a missed opportunity for successful intervention. The treatment team may have recommended the clinical director change the clinician ignoring the fact that the clinician was challenging John in a way that would encourage personal growth but caused him to dislike that clinician.

### **In-home therapy**

In-home therapy, also known as home-based therapy, is defined as the implementation of therapeutic services in the family's home. This researcher

believes in-home therapy, provided by a cohesive treatment team, will have more successful results than a treatment team that is less cohesive. Cohesion has not yet been linked to the success of in-home therapeutic treatment, therefore, begging the question: Is there an effect of treatment team cohesion on the success of in-home treatment?

This research will review the origin of in-home therapy, target populations, previously researched success factors, the rationale for utilizing in-home therapy, rather than traditional outpatient or residential treatment, several specific programs that conduct in-home therapy, cohesion and group, also called team, effectiveness, justification and a review of instruments used in this research.

### **Background and historical information for in-home therapy.**

In-home therapy began over half a century ago with the implementation of child welfare and social workers. The Child Abuse and Prevention Treatment Act of 1974 (CAPTA) allowed for the creation of the National Center of Child Abuse and Neglect to facilitate public and non-profit agencies efforts to “prevent, identify and treat child abuse and neglect” (Judicial Education Center, 2010, para. 3) with state programs. CAPTA’s requirements from federal legislature passed on

to the states a responsibility to use federal financial assistance to the development of child abuse and neglect treatment options.

The Adoption Assistance and Child Welfare Act of 1980, P.L. 960-272 (Judicial Education Center, 2010, para. 6) catapulted in-home therapy into the field of research (Kelly & Blythe, 2000). Prior to the Child Welfare Act, therapeutic services were provided to children after being removed from the home, rather than preventing the out-of-home placement with the use of in-home therapy. The out-of-home placement created a disadvantage that was revealed with the Child Welfare Act, in treatment outcome, availability and recidivism. At the time, children who were placed outside of the home spent as much as two or three years in the custody of child welfare at significant psychological and economical costs (Kelly & Blythe). Additionally, the Adoption Assistance and Child Welfare Act aimed at decreasing the time spent outside of the home and encouraging foster parents to adopt children placed in their care when those children could not be returned to their biological family's home. Farmer et al. (2008) indicated one out of home placement increases the likelihood that several placements will be necessary; therefore, research supports the implementation of

in-home therapy to prevent out of home placement, as well as future placements outside the home.

Research has demonstrated home-based therapy is considered “theoretical perspective” (Woodford, 1999, p.266) on traditional therapy that focuses on the family of the child referred for services with services delivery in the home. According to Woodford, the home-based theoretical perspective provides the family with in-home therapy utilizing family, multisystemic therapy techniques and social learning theory. Viewing in-home treatment as a theoretical perspective can be useful; however, most theories are able to identify interventions and constructs implemented when using a particular theory which is lacking when viewing in-home therapy as its own perspective without the support of individual theories.

### **Variations of in-home therapy.**

In-home therapy consists of many different variations, but all are usually fixated around a similar goal; to retain in-home placement by utilizing intensive in-home services to prevent out-of-home placements. While many programs exist, this review will provide information regarding the most widely researched

programs: Homebuilders, Multisystemic Therapy, Ecosystemic Structural Family Therapy, and Family Preservation Services.

### **Homebuilders.**

#### ***History of Homebuilders.***

Homebuilders was the first recognized in-home therapy treatment program. Homebuilders began in 1974, with one team of four therapists, boasting a 92% success rate up to three years post treatment (Kinney, Haapala, Booth, & Leavitt, 1990). Several beliefs influenced the origin of Homebuilders: family is the foundation of the system, hope can be instilled in each family, treat clients as colleagues to lead to more success, parents make an honest attempt to be appropriate and effective and an awareness clinicians must be cautious, as it is possible to cause damage, as well as repair, the current family functioning level (Kinney et al. 1990).

#### ***Theoretical Background of Homebuilders.***

The Homebuilders program utilizes one therapist per family, incorporating cognitive-behavioral interventions, behavior modification, conflict resolution, crisis intervention, effectiveness, and assertion training (Kinney, Madsen, Fleming, & Haapala, 1977). The family fades out treatment in the last few weeks

and coordinates outpatient services to be implemented after discharge (Institute for Family Development, 2009).

***Target Population for Homebuilders.***

Homebuilders' programs require the supervisor to assist the therapist in determining the eligibility of the case. Eligibility to participate in the Homebuilders program includes residence within a specific city, minimal potential for danger, agreement between agencies that the identified patient in the family will be placed in an alternative placement if action is not taken, and at least one member of the family must be motivated to participate or reunification will not occur without service implementation (Institute for Family Development, 2009; Kinney et al. 1977).

***Specific Homebuilders program information.***

Homebuilders' providers are available for services, and crisis intervention, 24 hours a day, seven days a week (Institute for Family Development, 2009). The program is intense, with 35-40 hours of face-to-face time per week, but brief, with a four to six week average length of service. Teams meet weekly to consult on cases and supervisors are available during the week at any hour necessary. The

therapist sets goals with the family and recognizes strengths and areas of growth necessary to provide safety and improve individual and family functioning.

Homebuilders' staff adhere to rigorous training modules, including an introduction, Homebuilders' strategies, stress management for therapists, defusing, engaging, and confronting clients, assessment for potential violence, structuring prior to, during, and between visits, assessment of families and goal setting, teaching behavior management, communication (active listening skills), cognitive intervention, assertiveness, anger management and family problem-solving skills to families, depression and suicide, how to address a stall in progress, multiple impact therapy, how to teach in the proper moment, and termination (Kinney et al. 1990).

#### ***Success rates of Homebuilders program.***

The Homebuilders program has been through extensive research and has its own quality assurance procedures called QUEST (Institute for Family Development, 2009). Research collected three months after discharge indicated 97% of clients had retained in-home placement (Kinney et al. 1997).

#### **Multisystemic Therapy.**

##### ***History of Multisystemic Therapy.***

Multisystemic Therapy (MST) is an in-home treatment model utilizing family and community interventions shown to be effective with children (Henggeler, 1999). MST has also been shown to significantly reduce recidivism rates in those juveniles who have committed sex crimes (Borduin, Schaeffer, & Heiblum, 2009). Several significant family traits have been evaluated as more effective after treatment with MST; family cohesion and adaptability between family members, bonding, maturity, and decreased aggression, as related to peer interactions and improved academic grades (Borduin et al. 2009). Self-report measures completed by both parents and youths found a significant decrease in criminal behavior and incarceration rates, as well as behavior problems. Borduin et al. (2009) indicated those participating in MST had 80% fewer days incarcerated than in a comparison group.

#### ***Theoretical Background of Multisystemic Therapy.***

MST was born from a combination of Bronfenbrenner's special ecological framework and family systems theory (Henggeler & Lee, 2003; Schoenwald & Henggeler, 2005). MST also incorporates other empirically-based treatments, including: cognitive-behavioral and behavioral therapies, parent training, structural and strategic family therapy, and pharmacological

interventions, when necessary (Henggeler & Lee, 2003). MST interventions are flexible, but the overall theoretical orientation is present-focused, action and change-oriented, and strength-based (Henggeler & Lee).

Henggeler and Lee (2003) indicated that MST accounts for direct and indirect factors involved in one's life, including: peer, family, social, school, and other community influences, both direct and indirect. In order for MST to have long-term effects, interpersonal change must occur and be maintained, and, at least, one stable caregiver's participation is necessary (Henggeler & Lee, 2003; Schoenwald & Henggeler, 2005).

***Target Population of Multisystemic Therapy.***

Research indicates MST is an effective family-based and in-home treatment for children and adolescents with chronic behavior and serious emotional problems (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Sheidow, Henggeler & Schoenwald, 2003). Originally developed for juveniles involved with the legal system, MST has disseminated across populations to include those with severe emotional and behavioral difficulties who are not involved with juvenile justice (Hoagwood et al. 2001). Tolman, Mueller,

Daleiden, Stumpf, and Pestle (2008) indicated that MST is beneficial for males and females, while the success of MST is equal across both genders.

***Specific Multisystemic Therapy program information.***

Traditional MST follows nine treatment principles: (1) the therapist must find the appropriate fit between the identified problems and the systemic context; (2) focus on the positives and strengths of the system to create change; (3) increase responsibility within the system; (4) focus on the present; (5) target sequences of behavior; (6) utilize interventions that require daily effort; (7) generalize to everyday life and long-term use; (8) developmentally appropriate; and (9) continuously evaluated by the team members (Henggeler & Bourduin, 1995; Henggeler & Lee, 2003). MST implements such principles to assist with standardization across providers, allowing for less complicated effectiveness research.

***Success rates of Multisystemic Therapy.***

While MST has had more research and claims to be more heavily grounded in technique and theory than other in-home treatment programs, some opponents of MST have indicated most of the studies of MST programs or

implementation of programs have been conducted by those who have developed MST; therefore reducing the objectivity of the obtained results (Littell, 2001).

Multisystemic Therapy has been a widely recommended option to prevent out-of-home placement for adolescents and has been more effective than regular child welfare services at decreasing out-of-home placements, as well as behavioral symptoms (Ogden & Hagen, 2006). After participating in MST or regular child welfare services, Ogden and Hagen (2006) found an increase of nearly 30% of adolescents who scored within the normal range on a behavior checklist completed by their parents.

Tolman et al. (2008) studied statewide client outcomes with the implementation of MST and found that the fidelity among in-home therapy orientations is the highest with MST programs. Tolman et al. examined demographic characteristics and MST outcome measures to determine the results of the implementation of MST statewide. Success was defined by all goals being met, partial success, if 25%, but less than 100% of goals were met, and unsuccessful, if less than 25% of goals were met. Tolman et al. found a significant correlation matching higher levels of therapist success with lower levels of client \

impairment. Clients with more than one diagnosis were rated successful more often than those clients with one diagnosis.

Stambaugh, Mustillo, Burns, Stephens, Baxter, Edwards, and DeKraai (2007) compared outcomes from youths who received wraparound services, MST, or wraparound, in conjunction with MST. Wraparound was described as an individually-based service designed to strengthen systemic resources, allowing one to retain home placement. Children and families were treated with family therapy techniques in the MST and wraparound plus MST groups. MST also implemented school-based interventions and increased parental involvement of academic performance (Scherer & Brondino, 1994). The groups were not randomly assigned, and those in the MST and wraparound combined group saw less clinical and functional change, even though more interventions were implemented. Stambaugh et al. (2007) indicated all three groups improved throughout the course of the study; however, the MST only group improved the most.

Henggeler (1999) posited the following for the basis of success: MST addresses clinical problems in a comprehensive and individualized fashion; protective factors are encouraged and developed. As such, MST's unique system

of accountability and quality assurance increased fidelity and the ability to provide clear research data on the success of MST programs.

Finally, Halliday-Boykins, Schoenwald, and Letourneau (2005) investigated youth outcomes from sites implementing MST to determine if ethnic similarities affected their success. They found matching clinician and caregiver ethnically increased the success of the MST treatment by: decreasing symptoms, increasing time in treatment and successful discharge, and by meeting treatment goals, when compared to those not matched ethnically. Maramba and Hall (2002) found reduced dropout rates and more consistent attendance to sessions by ethnically matched clients and therapists, but only when relevant to ethnic minorities. Halliday-Boykins, Shoenwald, and Letourenau (2005) indicated that ethnically similar therapists are viewed as more credible. For the purposes of this research, it is necessary to indicate that the licensed clinician on both treatment teams was the same individual; therefore, it may be helpful to mention her ethnic background was dissimilar to the majority of the clients treated. The master's level unlicensed clinicians on both teams were ethnically matched to the majority of the participants. These variables were not directly addressed and there was no

indication based upon review of records and clinician report that the therapeutic relationship suffered due to ethnic background with any of the participants.

### **Ecosystemic Structural Family Therapy.**

#### ***History of Ecosystemic Structural Family Therapy.***

Lindblad-Goldberg, Jones, and Dore (2004) developed an Ecosystemic Structural Family Therapy (ESFT) based model is being followed by providers in Pennsylvania. Implementation of ESFT was initiated by Pennsylvania's Child and Adolescent Service System Program (CASSP). The CASSP sought to transform current mental health services to services that were multiculturally appropriate, individualized, less restrictive, and centered on family intervention, but remained community-based (Lindblad-Golberg, Jones, & Dore, 2004). ESFT seeks to reduce and/or prevent out-of-home placement and emergency room visits for mental health issues.

#### ***Theoretical Background of Ecosystemic Structural Family Therapy.***

The theory guiding ESFT indicates all behavior, seen as a form of communication, exists within social interactions linking an individual's functioning level to his or her environment (Lindblad-Goldberg et al. 2004). ESFT posits that the cause of an individual or family dysfunctional pattern is

circular and a family's ability to function is determined by the demands placed on the family, both inside and outside of the system.

Ecosystemic Structural Family Therapy (ESFT) focuses on the hierarchies, subsystems, and boundaries within the family (Lindblad-Goldberg et al. 2004). Lindblad-Goldberg et al. (2004) also posited that change occurs by increasing competence, disrupting the cyclical, causal pattern of maladaptive interactions, and correcting the structure of the family. Flexibility, individual competence, and proper familial structure and interaction with systems outside of the family occur in successful interventions.

Lindblad-Goldberg et al. (2004) specified that assessment includes family, community, and individual components. Relationship patterns, individual cognitive development (emotional, physical, and social), and structure of the family are all assessed. ESFT serves to strengthen parental supports and skills, indicating healthy family interactions can increase an individual's functioning level, while maladaptive interactions can aggravate an individual's difficulties.

***Target Population of Ecosystemic Structural Family Therapy.***

Pennsylvania's family-based mental health services program, which operates the ESFT programs, targets children and youths who have been

diagnosed with a severe emotional or behavioral disability and are at risk for being placed outside of the home. Youths who have been placed outside of the home, but are attempting reunification with foster or biological families, are also included in the ESFT population group.

***Ecosystemic Structural Family Therapy specific program information.***

Lindblad-Goldberg et al. (2004) indicated ESFT providers deliver services in the home, school, and community for a duration of 8 months, with no more than 8 cases per team. Lindblad-Goldberg et al. emphasized the ESFT provider is accountable for engaging the family in treatment and guiding them through the four stages of the model: (1) constructing the therapeutic system; (2) establishing a meaningful therapeutic focus; (3) creating key growth-promoting interpersonal experiences; and (4) solidifying changes and termination. Structural family therapy techniques are used in the ESFT model, while the social, community, family, and home settings are taken into account.

***Success rates of Ecosystemic Structural Family Therapy.***

Effectiveness studies usually emphasize real world settings and implementation of actual services. ESFT has been found to be effective, based upon almost 2000 participating individuals and families (Lindblad-Goldberg et al.

2004). ESFT results have shown significant improvements for up to one year post treatment. Programmatic features found to be critical to effectiveness include: delivery of home-based services, treatment integrity, supervision that assists clinician's attempts to work collaboratively with families and systems, engaging family in treatment, and addressing barriers to successful outcomes (Lindblad-Goldberg et al. 2004).

### **Family Preservation Services**

Family preservation services (FPS) is a category of in-home treatment providers. For the purposes of this review, the term family preservation services will encompass numerous variations of in-home treatment; however, there are only slight differences between family preservation services, and often, the only difference in the implementation of such services is the name under which the provider operates. The company utilized in this research identifies themselves as an Intensive Family Intervention program; however, Barth (1990) indicates Family Preservation Services provide the same individual and family therapy, as well as mentorship services, provided by the Intensive Family Intervention program. The location of the program may determine the category of the name.

### ***History of Family Preservation Services.***

Family preservation services are in place in at least 30 states and operate under a variety of titles. Intense family-based services, also called Family Preservation Services, Intensive Family Preservation Services, or Intensive Family Intervention, provide services based on a modified version of Homebuilders (Barth, 1990; Walton, 1998).

***Theoretical Background of Family Preservation Services.***

Several major theories affect service delivery: family systems, social learning, ecological, and crisis intervention. While many interventions focus on individual needs, family preservation services seem to be more family-centered than most other in-home treatments (Nelson, 1990). The delivery of theoretical orientations with FPS can vary with each company providing services, increasing the difficulty of conducting research on the overall effectiveness of FPS.

In 1990, Barth described four theories utilized in family preservation services, which include: structural family therapy, encouraging the family to create boundaries, proper alignment between family members, and creating a power structure efficient to increase family functioning. Social learning theories posit that a family member's response to another's actions will determine if the behavior will continue or be extinguished over time. Behaviors, beliefs, and

emotions connected to such behaviors influence each other in the maintenance of dysfunction. Ecological theory focuses on the environment one is in when the behavior occurs. Crisis intervention theory suggests reactions to crisis situations are only limited by the self, and symptoms can disappear or be processed to avoid an inappropriate reaction to crisis in the future (Barth, 1990).

***Target Population of Family Preservation Services.***

Family preservation services target a population of children and adolescents includes those who are diagnosed with emotional and/or behavioral disorders, those at risk for out-of-home placement, or those transitioning to live with family members or foster care providers. They may also be involved with the legal system and have family dysfunction as it relates to placement (Barth & Greeson et al. 2007; Barth & Lloyd et al. 2007).

***Family Preservation Services specific program and procedure.***

Family preservation services (FPS) are flexible and workers are on-call all hours and days of the year (Blythe, Salley, & Jayartne, 1994). Overall, family preservation services are not only utilized to prevent out-of-home placement, but also to provide parental support so they can effectively parent their children. Often, FPS providers assist with case management and connecting families to

alternative services; however, not all families engage in aftercare. Families have often used alternative services prior to home-based services; for example, outpatient mental health therapy, psychiatric services, or school-based counseling. Staudt (2001) indicated even families who have utilized other services prior to home-based treatment are introduced to new community services, while receiving home-based family preservation services.

***Success rates of Family Preservation Services.***

Heneghan, Horwitz, and Leventhal (1996) reviewed intensive family preservation programs and determined there was no significant decrease in out-of-home placement in children at risk for abuse or for neglect. Although Heneghan, Horwitz, and Leventhal did not advocate for the use of family preservation services, their finding may have more to do with the parent's ability to be effective parents without causing harm. The lack of findings from such researchers may suggest home-based therapy may be more effective with children not at risk for danger and parents who are not prone to be abusive.

Fraser, Nelson, and Rivard (1997) identified the following areas which appear to be successful elements for family preservation services: present focus, empowerment of family members, 24 hour a day availability for crisis

intervention, skill building, interaction to reduce marital and family conflict, case management services (connecting the family with community services), and assistance to meet basic needs. In summary, Fraser et al. (1997) indicated that studies show the effectiveness of family preservation can be plagued by low population numbers, variable effect sizes, and poor implementation of family preservation services; therefore, a study with rigorous implementation is needed.

#### **General populations treated with in-home treatment.**

Schmidt, Lay, Gopel, Naab, and Blanz (2006) indicated there are three groups of children who would benefit from in-home treatment; children leaving psychiatric hospitals, those in need of psychiatric hospitalization, and those suffering from severe treatment resistant emotional or behavioral disorders. Case management services and resource linkages were part of the program provided by the therapist. Both groups presented with similar symptoms and demographic variables. Blind evaluation at the end of treatment revealed improvement in all areas: overall functioning, symptoms presentation, and global scores. Scherer and Brondino (1994) supported these findings with their multisystemic family preservation research geared for rural and minority serious juvenile offenders.

According to the statistics compiled in 1992, juveniles committed over 17 percent of violent crimes in the United States (Federal Bureau of Investigations, 1992). The 2009 statistics indicate violent crime committed by juveniles occurred at 15.3 percent (Federal Bureau of Investigations, 2009). Home-based therapy has been found to be successful for juvenile offenders (Schmidt, Lay, Gopel, Naab, & Blanz, 2006; Scherer & Brondino, 1994; Blaske, Borduin, Henggeler, & Mann, 1989).

Pullmann, Kerbs, Koroloff, Veach-White, and Gaylor and Sieler's (2006) working with juvenile offenders found youths who had wraparound services, instead of traditional outpatient mental health services after being released, took three times longer to return to corrections and spent less time in detention. Special populations, including the homeless, older children, chronic juvenile offenders, children with siblings, children of mentally ill parents, and children of color, to name a few, are overrepresented in the population of those receiving in-home services (Denby & Curtis, 2003; Scherer & Brondino, 1994).

Glisson and Green (2006) defined specialty mental health care as assistance with mental health difficulties provided by "mental health professionals, community mental health centers, day treatment programs,

outpatient clinics or in-home treatment programs” (p. 480). Glisson and Green indicated that the odds a juvenile offender with specialty mental health services would be placed out of their home during the follow-up period of six months post-release were decreased by up to 40%, when compared to those who did not receive specialty mental health care. Non-specialty mental health services were not predictive of out-of-home placements. Children who are referred for welfare or juvenile justice services often have mental health difficulties, so specialty mental health services can play a vital role in maintaining their home placement.

Minorities receiving regular outpatient services are much more likely to be placed outside of the home than Caucasian children; however, in-home family preservation services, one type of in-home therapy may mitigate the racial disparity (Kirk & Griffith, 2004; 2008). Minorities in foster care still use mental health services less frequently than non-minority children who are in their biological family’s care (Kirk & Griffith, 2008). Hines, Lee, Osterling, and Drabble (2006) suggested the differences in efficacy between races is due to the disproportionate amount of minorities participating in services, thus, race is not a strong predictor for reunification. Several factors were predictive for reunification; younger age at onset of services, family in which the mother was

married, and neglect, as rationale for services (Hines, Lee, Osterling, & Drabble, 2006).

The term “special population” has been used to determine who should be eligible for in-home treatment; however, there are so many different definitions that it can restrict eligibility for services, or make everyone referred for services appropriate (Denby & Curtis, 2003). Denby and Curtis (2003) also found individual providers had the following explanations for not including special populations in their inclusionary criteria: the term special populations has evolved to include all of their clients, a lack of community resources deter treatment delivery, those types of cases require more effort and time than is available, referring and funding sources discourage service delivery to such populations, and general eligibility qualifications tend to reduce the number of special populations being served.

#### **Previously researched success factors of in-home treatment.**

Dagenais, Begin, Bouchard, and Fortin (2004) studied several in-home therapy programs to determine the impact of services. Dagenais et al. (2004) suggested in-home therapy clients were placed outside of the home almost as often as children in the control groups; however, the review of programs indicated

when each program targeted behavior problems and delinquency, retention of in-home placement was successful in significantly more cases. Evans, Boothroyd, Armstrong, Greenbaum, Brown, and Kuppinger (2003) found even when three different programs were compared, there was no significant difference between the programs when success is determined only by retention of placement.

Fraser, Walton, Lewis, and Pecora (1996) indicated family reunification had promising results when intense family home-based services were implemented prior to returning children to their biological families. Fraser et al. (1996) also found children in stable foster home placements appear to have greater resiliency, while children in multiple placements show difficulty in social, psychological, and academic adjustment. Successful reunification chances were further increased by foster care placement not initiated by the parents. Furthermore, there were little parental problems when the child was removed, there was extensive and intensive home-based therapy prior to reunification, and case management was retained after being returned to the home and leaving home due to a specific commitment (Fraser, Walton, Lewis, & Pecora, 1996).

Fraser et al. (1996) also indicated the workers built relationships with each family in order to instill hope and dispel negative beliefs that may prevent

effective change. Staff worked with biological family members to improve anger management, problem solving, communication, and parenting skills (Fraser et al. 1996). Families who needed more assistance, children who had been previously placed outside of the home, and those removed for a parent-child conflict or ungovernable behavior were all more likely to be returned to foster care after an attempt at reunification. Employment status, age of the primary caretakers, household size, and education were all positively correlated with successful reunification (Fraser et al.).

Eyberg, Nelson, and Boggs (2008) evaluated the research conducted between 1996 and 2007 to determine evidence-based treatments for children and adolescents who displayed disruptive behavior. Eyberg et al. (2008) categorized the treatment programs evaluated as psychosocial due to the interaction between psychological and social development required to participate in each program (p. 215). Each treatment program provided an unconventional treatment (either home or school-based), involving parents, families, and schools in services. Eyberg et al. found 16 evidence-based treatments, as well as 9 “possibly efficacious” treatments (p. 217). They indicated the evidence-based and possibly efficacious treatment programs that contained home-based therapy, or parts of

home-based therapy, included: anger control training, in-home treatment for those already in foster care, multisystemic therapy, parent training, problem-solving skills training, and cognitive behavioral school-based treatments.

Some individual factors related to the treatment provider, or the participant, have also been noted to be of importance (Lay, Blanz, & Schmidt, 2001). Lay, Blanz, and Schmidt indicated that the child's compliance with the treatment and the therapist's professionalism were identified as predictors of success. Due to the lack of research investigating the treatment team's cohesion level as it relates to the success of the treatment, this research should provide some information with which to help guide future researchers and clinicians conducting in-home treatment.

#### **Limitations of in-home research.**

Many studies show difficulty with implementing in-home therapy in a manner that can sustain fidelity due to the incorporation of many theoretical orientations and implementations (Kelly & Blythe, 2000; Kirk & Griffith, 2004; Woodford, 1999). The operational definition of imminent risk, often a requirement for services, seems to vary with many studies, which may account for differences in population and inclusion or exclusion from studies (Blythe, Salley,

& Jayaratne, 1994). Kelly and Blythe (2000) argued that poor staff training is another reason why fidelity is difficult to determine.

Pullman et al. (2006) argued while fidelity of services remains difficult to standardize, there should be some consensus of general components within all in-home therapy programs. Pullman et al. (2006) also indicated in-home programs should include the following elements: case management, individual and family therapy, coordination of community supports and services, implementation of services post-discharge, and school intervention, where necessary.

Research has acknowledged inconsistency in results of meta-analysis studies are representative of the numerous implementations and methodology of in-home therapy (Dagenais et al. 2004; Fraser, Nelson, & Rivard, 1997). Many of the contributions to these studies were eliminated, or minimized, due to insufficient data or extraneous factors, such as an attempt to study too many variables at once, poorly targeted problem areas and uncertainty regarding the implementation of the actual programmatic disciplines. These factors made it impossible to determine which factor played a role in the program's effectiveness.

Dagenais et al. (2004) provided a list of complications that vary widely, including: admission chaos, resistance of referral source, identifying which

families' symptoms form the correct constellation for the treatment, contacting and obtaining consent from the families, tendency of therapists to default to traditional therapies, difficulty recruiting staff and applying the program as was originally intended, and poor data collection strategies. Despite multiple complications in numerous studies, it is clear some impact was apparent, regardless of the orientation of the intervention (Dagenais et al. 2004). Meta-analysis indicated most of the variables showed a significant improvement in each area, the majority of the studies reported positive results on the family support network; however, the quality of family environment and child's symptoms were equally divided between significant and non-significant findings. In summary, Dagenais et al.'s meta-analysis showed the impact on the families functioning levels is generally positive.

#### **Guidelines of conducting in-home research.**

Raschick and Critchley (1998) suggested guidelines for evaluating family preservation programs. They indicated the researcher should take the time to collaborate with employees, clients (when possible), potential clients, and management staff to determine what information is being requested by the research and whether or not the measures have adequate content and face validity.

When applicable, the research should establish a control group, measure placement patterns which occur over time, recognize entrance to and exit from alternative placement, evaluate improvements in family or child functioning, and use qualitative approaches, when also applicable.

Raschick and Critchley (1998) further suggested the most abundant existing research area focuses on placement outcomes. However, they argued that placement research should be accompanied by finding a way to evaluate improvements in individual or overall functioning or creating evaluation instruments.

### **Rationale for utilizing in-home, rather than residential therapy**

Multiple factors have increased the need for in-home treatment as an alternative to residential treatment and psychiatric hospitalization: research indicating the effectiveness of in-home therapy, in-home treatment has been identified as successful for specific populations, cost of residential treatment, implementation of managed care, lengthy waitlists into residential treatment, and an overall lack of service providers. Juvenile justice center placement is the most economical at \$151 per day when compared to residential treatment facilities and inpatient psychiatric hospitalization (Stevens et al., 2006).

Many of the gains from placement in a residential treatment facility are often negated post-discharge due to a lack of involvement by the family, poor after-care planning, and inefficient coaching of adaptive and coping skills (Barth & Greeson et al., 2007). However, some research indicates that retention of home placement, after home-based services, when measured six months to two years post treatment has been quite successful. Evans et al. (2003) indicated in their study of 279 children between 5 and 18 years of age and their families, home placement was maintained with 82% of their study's participants with no significant difference between treatment groups. Evans et al. utilized the following types of in-home therapy: Home Based Crisis Intervention (HBCI), a program similar to the Homebuilder's model; Enhanced Home Based Crisis Intervention (EHBCI), the same interventions as HBCI but clinicians were trained by nationally renowned educators, a parent support group and flexible monetary support as needed and Crisis Case Management (CCM) which assessed the families' needs and linked them to other services.

Lay, Blanz, and Schmidt (2001) conducted research utilizing participants who were diagnosed with externalizing disorders, defined as a disturbance of activity and attention, and conduct and oppositional defiant disorders

(characterized by patterns of antisocial, defiant, or aggressive conduct). Lay, et al. (2001) found the participants who were diagnosed with such externalizing disorders benefit from in-home treatment in psychosocial contexts, areas of treatment that account for psychological development and interaction with the social environment. Psychosocial improvements were seen in almost every participant, indicating the combination of psychological and social treatment seems to be successful in both areas (Lay, Blanz, & Schmidt, 2001).

Schmidt, Lay, Gopel, Naab, and Blanz (2006) examined treatment effects with two groups of participants, one group using in-home treatment and one using residential treatment, that were not randomly assigned. The home-based interventions lasted for three consecutive months and showed less efficacy than inpatient treatment; however, at a one year follow-up, in-home treatment effects were sustained in more participants than residential treatment. When a child is in a restrictive environment, the ability to effectively generalize, the ability to use new skills in community settings, is significantly decreased (James, Leslie, Hurlburt, Slymen, Landsverk, David, Mathiesen & Zhang, 2006).

Scherer and Brondino (1994) indicated in-home therapy can be more effective than residential therapy when certain factors are the emphasis of

treatment, including: disorganized family structure, parental illegal activity, poor attachment and affection, and little discipline or supervision. Family structure includes, but is not limited to, mother-child enmeshment and disorganized or chaotic boundaries of single parent households (Scherer & Brondino). Other research supports the notion that in-home therapy can be more successful than inpatient psychiatric hospitalization (Wasylenki, Gehrs, Goering, & Toner, 1997; Warner, 1997). It is possible the population of children and adolescents who need to be hospitalized may have more severe symptoms than those who are placed directly into in-home treatment. Farmer, Mustillo, Burns and Holden (2008) indicate at least one third of their youth participants who were living at home at the time of enrollment into their system of care resulted in an out-of-home placement within two years of initiation of services. Kinney et al. (1977) indicated 129 out of 134 participants continued to remain at home 16 months after in-home treatment, thus saving over \$2300 per participant.

The financial comparison between in-home and inpatient services is substantial. Kinney, Madsen, Fleming, and Haapala (1977) found implementation of home-based services saved over \$278,300 by preventing out-of-home placements in 121 out of 134 participants. According to the inflation rate, 4.05%

annually, the amount saved in 2010 would be \$949,003 (H Brothers Incorporated, n.d.).

James, et al. (2006) indicated residential care has the highest cost and least effective evidence base. Several out-of-home placement options exist, including residential treatment facilities and inpatient psychiatric centers. Residential treatment facilities are most frequently used for long term out-of-home placement and are the most expensive long term treatment option. Inpatient psychiatric centers are the most expensive and restrictive among all out-of-home placement facilities, but are often the most brief placement. Juvenile offenders, severely mentally ill children and adolescents and those in need of immediate, short term psychiatric care for stabilization are frequently sent to inpatient psychiatric centers. Inpatient psychiatric care is approximately 10 times the cost of therapeutic foster care, which is 3 times the cost of foster care placement with family members.

Implementation of managed care has drastically changed the average length of stay in out-of-home placements as well as the number of available beds in residential and inpatient psychiatric care units (James et al., 2006). Residential settings are usually utilized for longer term placements; however, insurance

companies have started using residential settings as acute care or short-term settings due to lack of inpatient psychiatric hospital beds. (James et al.).

Regardless of length of placement, economic and success factors suggest options for placement with relatives, in therapeutic foster care and/or in-home therapy should be implemented prior to placement in a residential care facility (James et al.). The suggestion that in-home treatment can be as successful and more cost-effective than all out-of-home placements further supports the use of in-home therapy and the quest to determine what can increase its effectiveness.

## **Cohesion**

### **Operational definition and history of concept development.**

Lott and Lott (1965) indicated cohesion is the single most important small group variable which leads to efficacy and success. This study sought to determine if higher levels of treatment team cohesion led to more successful cases within the scope of in-home treatment. Lott (1961) defined cohesiveness as a group property resulting from the mutual liking of group members. Lott and Lott (1965) noted, understandably, that this factor of cohesion is only one part of the full concept. Cohesion has been defined as a process involving members who are all focused on meeting mutual goals, and remain together due to this shared

interest (Brawley, Carron, & Widmeyer, 1987; Carron, Brawley, & Widmeyer, 1998).

It is vital to remember cohesion is both multidimensional and dynamic (Brawley, Carron, & Widmeyer, 1987). Cota, Evans, Dion, Kilik, and Longman (1995) introduced a multidimensional definition of cohesion by indicating both primary and secondary dimensions exist. Primary dimensions are applicable to groups in multiple disciplines, while secondary dimensions are specific to one particular group (Cota et al. 1995).

Carron and Brawley (2000) defined cohesion as a “dynamic process” which reflects the “tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of members affective needs” (p. 94). Due to the multidimensionality of cohesion, not all of the dimensions have equal importance to all of the members in the group, nor does each member interpret dimensions of equal importance across time.

#### **Importance of high cohesion levels.**

Molleman and Slomp (2006) indicated cohesion has been found to increase as each team member feels he or she is an integral part of the team.

Mudrack (1989) indicated a cohesive group involves members who are connected

to the other members, as well as the group, as a whole. Research also indicated the individual members of the group should maintain close relationships outside of the group to sustain group cohesion (Mudrack, 1989). While Mudrack argued cohesion stems from interpersonal attraction, cohesion is also strengthened when the group goals are a significant focus (Molleman & Slomp, 2006). A group with high cohesion has more influence on each group member than a group with low cohesion. Cohesion represents a group level characteristic and encourages interactive and cooperative involvement (Molleman & Slomp).

Carron and Brawley (2000) implied that beliefs about the group from the members are focused on personal/individual and collective/group concerns. The individual perceptions of the group's "closeness, similarity and bonding as a whole and the degree of unification of the group field" (p. 90) are identified by Group Integration (GI) beliefs. Individual Attractions to the Group (ATG) are defined by each person's impetus to remain in the group, level of satisfaction for personal needs, and feelings for the group. The focus for GI and ATG beliefs are task-oriented and socially-related.

Johnson (1981) studied staff cohesion in a residential treatment facility and determined low staff cohesion led to decreased support, personal problems,

and practical orientations and autonomy. Low staff cohesion also led to increased staff control (Johnson, 1981). Support was provided by the encouragement of the staff and clients to help each other. Personal Problem Orientation is the examination of personal problems and feelings. Autonomy is the decision-making power of the clients. Practical orientation is the orientation toward practical skills and general skill building. Staff control is the staff using rules, schedules, and other means to control the clients. These factors could be mediated by high staff cohesion, suggesting high cohesion among a treatment team will lead to more successful results.

#### **Relationship between cohesion and performance.**

Carron, Brawley, Bray, Eys, Dorsch, Estabrooks, Hall, Hardy, Hausenblas, Madison, Paskevich, Patterson, Prapvessis, Spink, and Terry (2004) noted cohesion and performance success have been linked since Kurt Lewin developed group dynamics. While Lewin did not assign a directional relationship between cohesion and performance, Chang and Bordia (2001) indicated cohesion seemed to be an antecedent to group performance, not a result. Lott and Lott (1965) posited interpersonal attraction holds motivational power and cohesion is the single most important group variable that leads to efficacy and success. This

body of research suggests interpersonal attraction can assist with cohesion which may increase group performance, as well as the opposite effect with the lack of interpersonal attraction.

Groups with higher cohesion have been related to greater performance and success in sports teams (Evans & Dion, 1991; Senecal, Loughhead, & Bloom, 2008). Although the research indicates group cohesion and performance have a positive relationship, Mullen and Copper (1994) indicated this correlation is the result of a commitment to completing the task, not necessarily group pride or interpersonal attraction. The variance may also be explained by the inconsistent operationalization of cohesion (Evans & Dion, 1991). Individual factors of cohesion are not always noted in the research but cohesion in general is linked to success between work groups, so guiding the research to determine which factors of cohesion have the strongest effect may be useful.

#### **Group effectiveness.**

McComb, Green, and Compton (2007) investigated the relationship between group effectiveness and staffing quality, and the moderator properties, where more flexibility is involved in complex projects. The results indicate that flexibility mediates the relationship between staffing quality and group

performance, including goal achievement and cohesion. When projects are unstructured, the flexibility-performance relationship remains positive, but with multiple alternatives to complete a project, the relationship becomes negative.

Walker and Schutte (2004) suggested a model for wraparound effectiveness based on the factors of the team providing therapy. Their theory is a variation of the input-process-output model that is often used for team effectiveness research (Hackman & Morris, 1975). Walker and Schutte alter Hackman and Morris' input-process-output system by adding a practice category between input and process. Walker and Schutte define inputs as; the organizational context, the task at hand, and team members' characteristics and abilities. In the input section of the model, the team members' background, knowledge, and skills are included which would affect the way the team functions both individually and as a team. In the process step of the model, the "collective identity" is formed which allows the team to build cohesion through the "shared perceptions of cooperativeness, efficacy, equity, psychological safety and support for wraparound and its' value base" (p. 184). Walker and Schutte clearly identify the attributes of the team including cohesion and confidence to meet goals

identified during the collective activity of the process stage play an important role on the effectiveness of the wraparound approach.

Walker and Schutte (2004) also indicated a team that works together to generate options will generate more effective options, become more efficient when making decisions, and gain additional insight into the nature of the problem than when working individually. While interpersonal attraction makes up only part of group cohesion, in a team of coworkers, a relatively high level of mutual liking must exist in order for the team to work cooperatively, collaboratively, and produce successful results (Walker and Schutte, 2004). Team cohesiveness, as well as the team's confidence in its ability to meet the goal, is also a factor in wraparound effectiveness (Walker & Schutte). The family perspective in wraparound service implementation is vital due to the high level of family involvement, as well as the systemic component to the therapy.

***Team factors related to the effectiveness of services.***

Gockel, Russell, and Harris (2008) conducted research to determine if the relationship between the parent of the client and the workers providing treatment affected the effectiveness of treatment. Overall, workers that used interventions, accepting clients' emotions without being judgmental, meeting clients' needs with

flexible interventions, and focusing on client strengths to assist parents to participate with interventions found higher effectiveness (Gockel, Russell, & Harris, 2008). Workers were seen as more effective by caregivers, if interventions respected the caregiver's autonomy, emphasized parenting efforts, and built upon current skills. Parents sometimes have difficulty feeling empathy and compassion for their children while acting out behaviorally; however, interventions increased empathy during times of crisis were found to be helpful. Much like building competence in clients, research has indicated a team that builds confidence in its members can result in higher levels of success (Allen & Hecht, 2004).

The reality of diversity, any attribute which renders one unique from others, in the workplace is a more pessimistic view of what most would like to believe is optimal (Mannix & Neale, 2005). Employees would like to believe a diverse workplace environment will result in a melding of different perspectives, sharing of knowledge and more creative problem solving interventions (Knouse & Dansby, 1999; Mannix & Neale). Mullen and Copper (1994) indicate a lack of similarities between group members may actually decrease group performance.

Theories have been described in the research literature indicating both points of the positive and negative affect diversity has on group performance.

Tolbert, Andrews & Simons (1995) note that social construct theory emphasizes a large percentage of diversity will bring greater performance. Competition theory predicts a higher percentage of diversity results in strong competition, possible decreased cohesion, and group performance. The psychological minority phenomenon, also known as critical mass or representative minority (Davis, 1980; Izrali, 1983; Knouse & Danby) posits that between 10% and 20% diversity seems to comfort the minority of the group without causing competition. The disadvantage to the theories is the inability to create a context specific theory that will assist with the effects of diversity to favor a particular group.

Knouse and Danby (1999) indicate a 30% diversity for men and 50% for women is the maximum level of diversity prior to decrease success. Reward systems that focus on an individual instead of the workgroup tend to increase the competition tendency and the group suffers as a result. Research indicates surface level categories, such as age, gender or race, are more disruptive than deeper classifications of diversity (Mannix & Neale, 2005). Inherently, those in the majority group tend to use surface level diversity factors to represent underlying differences, thus perpetuating stereotypes. An effective team must be able to tolerate different perspectives in a way that assists with rather than inhibits team

or group success (Mannix & Neale). It would be safe to hypothesize that the work group effectiveness research could assist in determining treatment team efficacy results.

Overall, workplace research indicates that either group or team, success is influenced by diversity factors. It is, of course, variable in each context and unique to each group; however, general guidelines can be provided to each team leader could increase the likelihood of success. Li, Li & Wang (2009) indicate the ability of the group to share knowledge without negative recourse, accept diverse group members, utilize strong process skills, such as communication, making decisions and managing conflict seems to denote whether that group will be effective. The team, or group, leader holds the largest responsibility for setting a standard for the group to follow that accepts all members and ideas relative to the group goal. Task meaningfulness has been shown to positively affect team performance (Li, Li & Wang, 2009). Li, Li and Wang also indicate task autonomy and feedback are directly related to the member satisfaction, which will be important to account for in the facilitation of teams. While many characteristics affect team performance, feeling meaningful to the team and the task is one way that high cohesion teams may be more effective than low cohesion teams.

As it relates to this research, the team leader was female as was the master's level professional on the high cohesion team; while the master's level professional on the low cohesion team was male. There is no specific evidence to link gender to performance and/or cohesion level; however, it may be proposed that given the research, the high cohesion team may have been more likely to accept diversity issues than the low cohesion team or there may be a more optimal level of diversity which creates a high cohesion team. The research is inconsistent in how gender or other diversity rules play into the success of any treatment team; therefore, this may be an excellent focus for future research.

#### **Work satisfaction and preventing burnout.**

Haapala and Kinney (1988) indicated having one worker maintains a focus on goals and reduces the need to debrief other team members after visits. However, there are some disadvantages to having one person in place; if the person is sick, someone new and unfamiliar with the case has to take over, the one person may run out of ideas for assisting the family and won't have the collaborative approach utilized by that team, and there is less interaction with team members, which has the potential to cause therapist burnout (Prosser, Johnson, Kuipers, Szmukler, Bebbington, & Thornicroft, 1997).

Prosser, Johnson, Kuipers, Dunn, Szmukler, Reid, Bebbington, and Thornicroft (1997) found working in the community can be more stressful than working in an inpatient psychiatric facility; however, it can be more rewarding. Prosser et al. support the notion that community-based work is stressful; therefore, it should be conducted in teams, which increases job satisfaction, to reduce burnout.

The work environment can vary at different times due to employee turnover, a change in management or on a programmatic level, thus, resulting in a difference in cohesion (DeFrais & Schaie, 2001). The employees must be flexible enough to tolerate change with the environment in order to maintain their own supportive network. Work environment can greatly affect burnout with mental health professionals (Savicki & Cooley, 1987). High burnout rates have been shown to be related to a lack of worker autonomy, confusing work objectives and responsibilities, and workers who have little impact on procedural issues within the company (Savicki & Cooley, 1987, 1982). Riolli and Savicki (2003) identified personal characteristics of those with little available resources that can protect against burnout; “personal style of control coping” (p. 248) and optimistic

attitude result in lower levels of burnout. A personal style of escape, coping, and pessimism resulted in higher burnout levels (Riulli & Savicki, 2003).

Work environment and cohesion of the group, or team, have been linked in a positive correlation, suggesting that high cohesion levels should mitigate work stress and burnout (Carron, 2004; Gockel et al. 2008; Prosser et al. 1997). These studies have indicated that measuring cohesion levels in teams can be beneficial to any practitioner working with a team, on a team, or creating treatment teams.

The current collective data indicates that high cohesion within treatment teams, sports teams and other work environments can mitigate burnout, result in higher levels of success and increase positive morale within the work place. It would be logical to surmise the research completed to date would support this current research in determining the actual affect of high cohesion on the success of in-home treatment.

### **Instruments used in this study**

#### ***Child and Adolescent Functional Assessment Scale (CAFAS).***

The CAFAS is utilized to assess the levels of impairment which exist in day-to-day functioning in children and adolescents (Hodges, 2006). The CAFAS

has been used with populations who have varying diagnoses, levels of severity, and types of symptoms. The CAFAS' psychometric properties have been evaluated extensively and show to be reliable, valid, and generalizable in relation to the assessment of children and adolescents (Breda, 1996; Hodges & Grunwald, 2005; Hodges & Wotring, 2000, 2004; Holden, Friedman, & Santiago, 2001; Manteuffel, Stephens, & Santiago, 2002; Wotring, Hodges, Xue, & Forgatch, 2005; Xue, Hodges, & Wotring, 2004). The CAFAS has been used with multiple agencies, including departments of mental health, juvenile justice, social services, substance abuse programs, public health departments, and child welfare services.

The Child and Adolescent Functional Assessment Scale (CAFAS) has been used in more than two dozen states to determine eligibility for mental health services (Hodges, 2004). The CAFAS measures impairment of daily functioning in at-risk children and adolescents (Hodges, 2004). The CAFAS consists of eight youth subscales and two caregiver subscales, including: School/Work, Home, Community, Behavior Toward Others, Moods/Emotions, Self-harmful Behavior, Substance Use and Thinking. The youth subscales will be utilized in this research.

The CAFAS has no cutoff score, but gives a generic framework for applying total score ranges to clients in a way that a parent can understand the

scoring system. A total score between 0 and 10 indicates no significant impairment; between 20 and 40 designates a client who has a slight impairment that can be treated with outpatient therapy. A score between 50 and 90 means the youth may need services beyond outpatient care; between 100 and 130, the youth likely needs more intensive care than outpatient or multiple sources of supportive services. A score over 140 indicates a necessity of intensive treatment that should be individually designed based upon individual risk factors and the resources available to the client.

Hodges, Doucette-Gates, and Liao (1999) compared the CAFAS to the Child Behavioral Checklist (CBCL) at intake and at 6 months and found the CAFAS was a significant predictor variable of service utilization and produced a stronger association than did the CBCL. Youths with higher scores at intake were usually found to be placed outside of the home than those with lower scores who remained in their own home or those who were placed with relatives. Those youths with higher intake CAFAS scores were also more likely to spend more time in out-of-home placements than those with lower CAFAS scores.

### **Work Environment Scale**

Brawley, Carron, and Widmeyer (1987) developed the Group Environment Questionnaire to assess cohesion in sports teams. While Carron et al. (1987) focused on sports teams, there was a possible application for many other groups outside of sports teams. The Group Environment Questionnaire is similar to the Work Environment Scale (WES). While the Group Environment Questionnaire was developed after the Work Environment Scale, more research exists regarding sports teams and utilizing the Group Environment Questionnaire.

This research utilized Moos' Work Environment Scale (WES). There are three major perspectives on workplace environment, including: human relations, socio-technical, and the social information processing approach (Moos, 1986, 2008; Moos & Schaefer, 1987; Moos, R., Schaefer, & Moos, B., 2007). Originally, the WES was developed in 1986, but there were updated sets of normed reference groups in 2008.

The WES measures coworker relationships with three dimensions, including: Relationship, Personal Growth or Goal Orientation, and System Maintenance and System Change (Moos, 2008). These dimensions help organize the following subscales: involvement, coworker cohesion, supervisor support, autonomy, task orientation, work pressure, clarity, control, innovation, and

physical comfort. While all of these concepts are necessary to create a healthy work environment, coworker cohesion was the focus of this research. Coworker cohesion, or team cohesion, identifies the level of comfort and support evident in the workplace. Finally, it also determines how open coworkers can be regarding their feelings and shows their interest in each other.

## **Methods**

### **Participants**

The Family Preservation Services' (FPS) company participating in this research operates in a large metropolitan area in the southern region of the United States. This company serves children with many disorders and their families, including, but not limited to: Attention-Deficit Hyperactivity Disorder, Bipolar Disorder, Conduct Disorder, Major Depressive Episode and Oppositional Defiant Disorder. This FPS model provides individual and family therapy, case management, mentorship, social rehabilitation, and retention of in-home placement. The average length of services is 12 weeks, sometimes longer, if authorized for additional treatment. Clients can be released from treatment due to early termination, insurance payment conflicts, moving out of the treatment area, or long-term out-of-home placement.

The participants' demographic information is as follows: 18 males and 8 females; 23 African Americans, 1 Caucasian, 1 Latino, and 1 mixed race child. The participants' age ranged from 8 to 16, with a mean age of 11 years old.

### **Inclusion criteria.**

The FPS company from which the sample of 26 records was provided, reported using Cognitive Behavioral Therapy and Family Systemic Therapy interventions and has retained the same Licensed Professional Counselor for the entire time period on both teams. The charts were assigned to a low or a high cohesion team according to the team that the cases were assigned to. Research was completed with closed files, since assessment after discharge was more effective in determining success or failure of the treatment due to the assessment of treatment goals, out-of-home placement or recidivism rates, after discharge.

The participants were between the ages of eight and sixteen and completed at least three months of Family Preservation Services (FPS). The majority of the participants are African American, low socioeconomic status, and receiving either Medicaid or aid provided by the state to unemployed and/or uninsured residents. Those who met the above criteria and were diagnosed with Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, Conduct Disorder, and/or Major Depressive Episode or Bipolar Disorder, without psychotic features, were included in the study. Dually diagnosed children and adolescents were accepted as long as the primary disorder was not a substance abuse disorder. These inclusion

criteria assisted with the development of similar goals, disorders, and treatment styles among all of the participants, thus, minimizing confounding variables.

**Exclusion criteria.**

Participants who were younger than 8, and older than 16, were excluded to ensure similar interventions, goals, and developmental level across the sample population. Those who did not complete at least three months of treatment were not treated by either the high or low cohesion team based upon assignment of cases by the FPS company, and/or were diagnosed with Mental Retardation, Autism, Asperger's Disorder, Pervasive Developmental Disorder or psychosis were not included in this study.

Variables outside the control of the study included: the design of the company who treats only those who are at risk for out-of-home placement, those who are involved with the legal system or under disciplinary action of the school system, and those who have a low socioeconomic status. While it was impossible to control for these factors, they are similar across the sample population; therefore, they created a more homogeneous sample.

**Instruments**

This research utilized the Child and Adolescent Functional Assessment Scale (CAFAS) and the Global Assessment Functioning (GAF) score to determine if the team's cohesion level had a relationship to the success of the in-home treatment program. The Work Environment Scale (WES) was utilized to verify the Licensed Professional Counselor's indication of one high and low cohesion team based upon members of the team.

The CAFAS has eight different scales measuring the child's role performance and personality; school/work role performance, home role performance, community role performance, behavior toward other, moods/emotions, self-harmful behavior, substance use, and thinking. The CAFAS has a total score that indicates overall functioning.

Yorgason, McWey, and Felts (2005) utilized the Child and Adolescent Functional Assessment Scale (CAFAS) to determine indicators of success. Yorgason et al. used a pre-post design with the CAFAS and the Global Assessment Functioning, GAF (American Psychiatric Association, 2000). The CAFAS has significant indicators of reliability and validity with interrater reliability ranging from .74 to .99 (Bates, 2006; Hodges & Wong, 1996) and test-

retest reliability of .95 (Bates, 2001). Training is required in order to administer the CAFAS, which helps to ensure high interrater reliability.

The dependent measure; level of success, was determined by several factors. This researcher administered the CAFAS based upon data review at the beginning and end of services. The total scores will be examined, and a decrease from the initial CAFAS to the discharge CAFAS will indicate successful treatment based upon previous research (Roy, Roberts, Vernberg, & Randall, 2008). The beginning and end of services GAF will also be explored in relation to the success of the treatment with an increase in GAF score indicating successful treatment.

The Work Environment Scale (WES) was utilized to assign participants to a low or a high cohesion team. The coworker cohesion scale focuses on how friendly and supportive coworkers are of each other. This cohesion measure was utilized to confirm placement of participants in the low or high cohesion team, one of the independent variables (IVs).

The WES sought to measure broad constructs of the work environment in order to remain applicable to many work settings. Moos (2008) employed five psychometric criteria to the data to develop the final form: no more than 80

percent of respondents should answer any one item in the same direction, items should correlate with their own subscale, each subscale should have approximately the same number of items dedicated to it, there should be “low to moderate inter-correlations” (p. 39), and each subscale should discriminate among work settings. The WES was normed on 13,757 employees in numerous work groups and on different levels of their corporations. Participants working in a generalized work setting indicated that coworker cohesion was higher than that of employees in social services. The mean of the coworker cohesion scale, which has 9 items, was 5.62, with a standard deviation of 1.96 for an individual and .91 for the normed group (Moos, 2008, p. 40). Test-retest reliability was measured by participants completing the measure twice, with one month in between administrations; these ranged from .69 to .83 for individual subscales (Moos, 2008). Internal reliability was recorded based upon 1045 participants for the cohesion subtest at .69 (Moos, 1994).

### **Description of research design**

Informed consent, for the purposes of this study, was dismissed, according to the American Psychological Association’s Ethics Code 8.05 (b) (2002) and federal regulation established by the United States Department of Health and

Human Services, provided the participants were not at risk for criminal or civil liability, damage to financial standing, employment, or reputation. All identifying information was changed following Health Insurance Portability and Accountability Act (HIPAA) guidelines for data collection.

These guidelines were followed, in addition to gaining informed consent from the program director, clinical director, and the licensed clinician. This informed consent included the parameters of the research and allowed the researcher access to closed files and for the licensed clinician to complete the team cohesion measure, the Work Environment Scale (WES).

### **Procedures**

A record review of all appropriate participants meeting the study requirements was completed by this researcher after given consent by the program's owner, clinical supervisor, and licensed professional team leader. Participants were selected for chart review from the family preservation service company based upon assignment to one of the two teams selected based upon cohesion levels. The participants' age must be between 8 and 16 years of age, not experiencing psychotic symptoms and placed in the parents' home or with relatives at the beginning of services. The participant must have completed at

least 3 months of treatment and the chart review must take place on the participant's initial placement into services.

The chart was reviewed extensively to collect the following information: intake and discharge CAFAS and GAF, which were completed by this researcher to reduce extraneous variables and ensure rater reliability, review of symptoms recorded in notes, and intake and discharge summaries. The participants' diagnoses, status of placement at discharge of services, date of birth, school grades, racial membership, whether or not the participant was on medication, presenting problem, referral source, and discharge recommendations were recorded. The researcher stored only the participants' initials and program number to adhere to HIPAA guidelines.

### **Statistical methods**

The collected information was maintained in an Excel file and transferred into a Statistical Package for Social Service's (SPSS) spreadsheet after the data collection was completed. Two separate hierarchical linear regressions were completed on SPSS to test the hypothesis that higher cohesion will result in higher levels of success of treatment. In the first hierarchical linear regression analysis, the independent variables were the Work Environment Scale (WES),

demographic variables including; gender, ethnicity, months of treatment, and medication status (whether or not the client was taking psycho-pharmaceutical medication) and the initial CAFAS. Success, the dependent variable, was operationalized by the discharge CAFAS total score. In the second hierarchical linear regression analysis, the independent variables were the WES, demographic variables including; gender, ethnicity, months of treatment, and medication status and the initial GAF score. Finally, success, the dependent variable, was operationalized by the discharge GAF total score.

## Results

The means and standard deviations of the study variables are presented in Table 1. To complete the first hierarchical regression, the final GAF score was entered as the dependent variable; in the first block the initial GAF score was entered, the demographic variables (gender, ethnicity, months of treatment, medication status) in the second block, and the coworker cohesion score in the final block. The final GAF score was not significant in supporting the hypothesis.

The second hierarchical regression required the final CAFAS score to be entered as the dependent variable, the initial CAFAS score was in the first block, demographic variables (gender, ethnicity, months of treatment, medication status) in the second block, and the coworker cohesion score in the third block. The final CAFAS score did not support the hypothesis; however, the intake and discharge CAFAS were significantly correlated to the ethnicity of the client with correlation coefficients of .415 and .492, respectively.

The results of the WES indicated the coworker cohesion for the high cohesion team produced a standard score of 62.7, which is considered considerably above average. The coworker cohesion for the low cohesion team

Table 1

*Means and Standard Deviations of Study Variables*

<b>Study Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>Intake GAF</b>	48.58	6.640
<b>Discharge GAF</b>	57.04	11.622
<b>Intake CAFAS</b>	110	21.726
<b>Discharge CAFAS</b>	95	27.166
<b>Age</b>	11.00	2.349
<b>School Grade</b>	5.54	2.195
<b>Months of Treatment</b>	4.19	2.117

produced a standard score of 52.5, which is considered average. There is a statistically significant difference of 10.2 percent, or more than one standard deviation of 10 points. The WES scores supported the licensed professional's opinion of each team indicating the professional's point of view was accurate.

After completion of the original research design, post-hoc analyses was performed to determine the power of the sample using GPower. The study design included 5 independent variables and one dependent variable and utilized a significance value of  $p > .05$ . GPower determined the power of the current sample was .22, but should have been at least .8. This power difference indicated the sample size needed to determine if statistically significant results were available, it would have been 92 participants. Overall, the post-hoc analyses resulted in a medium effect size and indicate that the lack of support for the hypothesis may be due to the low power of the study.

### **Discussion and Conclusions**

The relationship between team cohesion and the success of the team has been documented with sport teams (Carron, Brawley & Widmeyer, 1998; Carron, Widmeyer & Brawley, 1985; Evans & Dion, 1991). Walker and Schutte also implied team cohesion plays an important role in the effectiveness of wraparound programs. The current research proposed this positive relationship would extend to treatment teams and the success of treatment of in-home therapy. This relationship is difficult to determine given the lack of consistency between services providers which inhibits the ability to generalize in-home treatment research to programs that operate under different theoretical orientations, formats, time constraints and treatment goals.

The lack of firm research in this area suggests more research is needed in order to determine if the relationship exists. The hypothesis that a relationship exists between the treatment team's cohesion level and the success of in-home treatment was not supported with this research. These results suggest the cohesion level of the treatment team working with children and adolescents in family preservation service settings may not be related to the success of the treatment

which is in conflict with current research (Evans & Dion, 1991; Senecal, Loughhead, & Bloom, 2008; Walter & Schutte, 2004).

Cohesion levels were represented by the WES evidenced by anecdotal descriptions given by the licensed counselor of both teams; however, several unintended factors may have affected the cohesion levels. While the general population would like to believe high levels of diversity are beneficial in the workplace research has not supported this notion (Knouse and Danby, 1999; Mannix & Neale, 2005).

The gender of the other team members, and/or the gender of the counselor completing the measures may have influenced the results. The counselor is female, as is the additional team member on the high cohesion team; however, the additional low cohesion team member is male. Gender may have influenced the perception of the cohesion level based upon the counselor's report. While Li, Li and Yang (2009) imply that gender has some influence on the cohesion level of the treatment there is minimal research by others to support this notion. This researcher believes gender may not be the only diversity factor which links cohesion with treatment team success.

There is a suggestion the ethnicity of the client may be related to the CAFAS. The majority of the participants were African American while this researcher completing the initial and discharge CAFAS' is Caucasian. These results could be a reflection of the population sample, this author's racial background or the interaction of differences in these racial memberships. Ethnic differences between the clients and the licensed clinician as well as between the licensed clinician and the remainder of the team could have affected the success of treatment.

A logical connection would indicate cohesion is related to group success which in turn reduces burnout especially in the mental health field. This author believes this connection may be circular indicating a change in any individual component would directly affect the others. Burnout in the mental health field is an increasingly popular topic for current research and finding a way to circumvent burnout would, in the author's opinion, be valuable to any workplace employing those in the mental health field, as well as any mental health clinician.

Overall research has shown in-home treatment can be equally effective and more economical than residential placement. Due to the current state of the economy, as well as the implementation of managed care, in-home treatment

should be considered a viable opportunity for children and adolescents with emotional and behavioral disorders. Research in the area of in-home therapy is expanding; however, a need for additional research and possible standardization of in-home treatment still exists. This author recognized the need for research into the factors that make in-home treatment effective thus this current research was completed. Factors that make in-home treatment effective relative to the team may be easier to implement across in-home treatment programs that have different theoretical orientations than standardization of treatment implementation.

### **Recommendations for Future Research**

The results may be insignificant based upon the low number of participants which resulted in a low power score obtained in post hoc analyses. The current sample size would not have highlighted significant results due to the lack of power; however, a larger sample size will increase the statistical power of the research and allow for evidence of statistically significant results should they appear. Implementation of future research may want to include an individual rater of the initial and discharge CAFAS and GAF given based upon the client's symptoms during services versus a closed record review. The sample size should

be larger to increase the power of the sample which will allow for significant results to emerge.

Future research should investigate the possible relationship between the cohesion of the team and the gender of the team, as well as the link between the CAFAS and ethnicity. The gender of the team member may play a role in the interpreted cohesion of the team by the counselor completing the cohesion measure. It may be more beneficial if a cohesion measure is completed for each treatment team member, rather than one per assigned team. Overall, the topic is still viable for research and the recommendations for future research should be explored.

## References

- Allen, N & Hecht, T. (2004). The 'romance of teams': Toward an understanding of its psychological underpinnings and implications. *Journal of Occupational and Organizational Psychology*, 77, 439-461.
- American Psychological Association. (2002). American Psychological Association ethical principles of psychologists and code of conduct. Retrieved April 5th, 2010, from <http://www.apa.org/ethics/code2002.html>
- Bagdasaryn, S. (2005). Evaluating family preservation services: Reframing the question of effectiveness. *Children and Youth Services Review*, 27, 615-635.
- Barth, R. (1990). Theories guiding home-based intensive family preservation services. In J.K. Whittaker, J. Kinney, E.M. Tracy & C. Booth (Eds.), *Reaching high-risk families: Intensive family preservation in human services* (p.p. 89-112). New York: Walter de Gruyter.
- Barth, R., Greeson, J., Guo, S., Green, R., Hurley, S. & Sisson, J. (2007). Outcomes for youth receiving intensive in-home therapy or residential care: A comparison using propensity scores. *American Journal of Orthopsychiatry*, 77(4), 497-505.
- Barth, R., Lloyd, C., Green, R., James, S., Leslie, L. & Lansverk, J. (2007). Predictors of placement moves among children with and without emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, 15(1), 46-55.
- Bates, M.P., Furlong, M.J. & Green, J.G. (2006). Are CAFAS subscales and item weights valid? A preliminary investigation of the Child and Adolescent Functional Assessment Scale. *Administration and Policy in Mental Health and Mental Health Services Research*, 33(6), 682-695.

- Blaske, D. M., Borduin, C. M., Henggeler, S. W., & Mann, B. J. (1989). Individual, family, and peer characteristics of adolescent sex offenders and assaultive adolescents. *Developmental Psychology, 25*, 846-855.
- Blythe, B., Salley, M.P., Jayaratne, S. (1994). Review of intensive family preservations services research. *Social Work Research, 18*(4), 213-224.
- Borduin, Schaeffer & Heiblum (2009). A randomized clinical trial of Multisystemic therapy with juvenile sexual offenders: Effects on youth social ecology and criminal activity. *Journal of Consulting and Clinical Psychology, 77*(1), 26-37. doi: 10.1037/a0013035
- Brawley, L., Carron, A. & Widmeyer, W. (1987). Assessing the cohesion of teams: Validity of the Group Environment Questionnaire. *Journal of Sport Psychology, 9*, 275-294.
- Burns, B.J., Hoagwood, K. & Mrazek, P.J. (1999). Effective treatment for mental disorders in children and adolescents. *Clinical Child and Family Psychology Review, 2*(4), 199-254.
- Carron, A. & Brawley, L. (2000). Cohesion conceptual and measurement issues. *Small Group Research 31*(1), 89-106.
- Carron, A., Brawley, L., Bray, S., Eys, M., Dorsch, K., Estabrooks, P., Hall, C., Hardy, J., Hausenblas, H., Madison, R., Paskevich, D., Patterson, M., Prapavessis, H., Spink, K. & Terry, P. (2004). Using consensus as a criterion for groupness: Implications for the cohesion-group success relationship. *Small Group Research 35* (4), 466-491.
- Carron, A., Brawley, L. & Widmeyer, W. (1998). Measurement of cohesiveness in sport groups. In J.L. Duda (Ed). *Advances in sport and exercise psychology measurement* (pp. 213-226). Morgantown, WV: Fitness Information Technology.

- Carron, A. Widmeyer, W. & Brawley, L. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology*, 7, 244-266.
- Chang, A. & Bordia, P. (2001). A multidimensional approach to the group cohesion-group performance relationship. *Small Group Research*, 32(4), 379-405.
- Child Welfare Information Gateway. (n.d.). Retrieved from <http://www.childwelfare.gov/pubs/factsheets/about.cfm> (obtained 4/25/2010)
- Cota, A., Evans, R., Dion, K., Kilik, L. & Longman, R. (1995). The structure of group cohesion. *Personality and Social Psychology Bulletin*, 21, 572-580.
- Dagenais, C., Begin, J. Bouchard, C., & Fortin, D. (2004). Impact of intensive family support programs: a synthesis of evaluation studies. *Children and Youth Services Review* 26, 249-263.
- De Fraix, C.M., & Schaie, K.W. (2001). Perceived work environment and cognitive style. *Experimental Aging Research*, 27, 67-81.
- Denby, R. & Curtis, C. (2003). Why special populations are not the target of family preservation services: A case for program reform. *Journal of Sociology and Social Welfare* 2, 149-173.
- Davis, L. (1980). When the majority is in the psychological minority. *Group Psychotherapy, Psychodrama, and Sociometry*, 33, 179-184.
- Evans, C. & Dion, K. (1991). Group cohesion and performance: A meta-analysis. *Small Group Research*, 22(2), 175-186.
- Evans, M., Boothroyd, R., Armstrong, M., Greenbaum, Pl, Brown, E. & Kuppinger, A. (2003). An Experimental study of the effectiveness of intensive in-home crisis services for children and their families: Program outcomes. *Journal of emotional and Behavioral Disorders*, 11(2), 92-102.

- Eyberg, S.M., Nelson, M.M. & Boggs, S.R. (2008). Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Clinical Child & Adolescent Psychology*, 37(1), 215-237. doi: 10.1080/15374410701820117.
- Farmer, E., Mustillo, S., Burns, B. & Holden, E. (2008). Use and predictors of out-of-home placements within systems of care. *Journal of Emotional and Behavioral Disorders*, 16(1), 5-14.
- Federal Bureau of Investigation. (2009). Crime in the United States 2008. Retrieved from [http://www.fbi.gov/ucr/cius2008/data/table\\_38.html](http://www.fbi.gov/ucr/cius2008/data/table_38.html)
- Federal Bureau of Investigations. (2002). Crime in the United States 2001. Retrieved from [http://www.fbi.gov/ucr/cius2001/data/table\\_41.html](http://www.fbi.gov/ucr/cius2001/data/table_41.html)
- Fraser, M.W., Walton, E., Lewis, R.E. & Pecora, P.J. (1996). An experiment in family reunification: Correlates of outcomes at one-year follow-up. *Children and Youth Services Review*, 18(4/5), 335-361.
- Fraser, M., Nelson, K. & Rivard, J. (1997). Effectiveness of family preservation services. *Social Work Research*, 21(3), 138-153.
- Glisson, C. & Green, P. (2006). Role of specialty mental health care in predicting child welfare and juvenile justice out-of-home placements. *Research on Social Work Practice*, 16(5), 480-490.
- Gockel, A., Russell, M. & Harris, B. (2008). Recreating family: Parents identify worker-client relationships as paramount in family preservation programs. *Child Welfare*, 87(6), 91-113.
- H Brothers Incorporated. (n.d.). <http://www.dollartimes.com/calculators/inflation>
- Haapala, D. & Kinney, J. (1988). Avoiding out-of-home placement of high-risk status offenders through the use of intensive home-based family preservation services. *Criminal Justice and Behavior*, 15(3), 334-348.

- Halliday-Boykins, C., Schoenwald, S., & Letourenau, E. (2005). Caregiver-therapist ethnic similarity predicts youth outcomes from an empirically based treatment. *Journal of Consulting and Clinical Psychology, 73*(5), 808-818.
- Hardy, J. Eys, M.A. & Carron, A.V. (2005). Exploring the potential disadvantages of high cohesion in sports teams. *Small Group Research, 36*(2), 166-187. doi: 10.1177/1046496404266715.
- Heneghan, A., Horwitz, S. and Leventhal, J. (1996). Evaluating intensive family preservation programs: A methodological review. *Pediatrics, 97*(4), 535-542.
- Henggeler, S. (1999). Multisystemic therapy: An overview of clinical procedures, outcomes, and policy implications. *Child Psychology & Psychiatry Review, 4* (1), 2-10.
- Henggeler, S. & Borduin, C. (1995). Multisystemic treatment of serious juvenile offenders and their families. In I.M. Schwartz & P. Auclair (Eds.), *Home-based Services for Troubled Children* (pp. 113-130). Lincoln: University of Nebraska Press.
- Henggeler, S. & Lee, T. (2003). Multisystemic treatment of serious clinical problems. In Alan E. Kazdin & John R. Weisz (Eds.), *Evidence based psychotherapies for children and adolescents* (pp. 301-322). New York: Guilford.
- Hibbs, E.D. (2001). Evaluating empirically based psychotherapy research for children and adolescents. *European Child & Adolescent Psychiatry, 10*(1), 3-11.

- Hines, A., Lee, P., Osterling, K. & Drabble, L. (2006). Factors predicting family reunification for African American, Latino, Asian and White families in the child welfare system. *Journal of Child and Family Studies*, 16, 275-289
- Hoagwood, K., Burns, B.J., Kiser, L., Ringeisen, H., Schoenwald, S.K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52(9), 1179-1189.
- Hodges, K.(2006). *CAFAS self-training manual and blank scoring forms*. Ann Arbor, Michigan: Author.
- Hodges, K., Doucette-Gates, A. & Liao, Q. (1999). The relationship between the Child and Adolescent Functional Assessment Scale (CAFAS) and indicators of functioning. *Journal of Child and Family Studies*, 8(1), 109-122.
- Hodges, K., Xue, Y. & Wotring, J. (2004). Use of the CAFAS to evaluate outcome for youths with severe emotional disturbance served by public mental health. *Journal of Child and Family Studies*, 13(3), 325-339.
- Institute for Family Development (2009). Homebuilders fidelity measures (2.3 ed.). Retrieved from <http://www.institutefamily.org/pdf/HOMEBUILDERS-FidelityMeasures-Abridged-2-3.pdf>.
- Izraeli, D. Sex effects or structural effects? An empirical test of Kanter's theory of proportions. *Social Forces*, 62, 153-165.
- James, S., Leslie, L.K., Hurlburt, M.S., Slymen, D.J., Landsverk, J., Davis, I., Mathiesen, S.G. & Zhang, J. (2006). Children in Out-of-Home Care: Entry Into Intensive or Restrictive Mental Health and Residential Care Placements. *Journal of Emotional and Behavioral Disorders*, 14(4), 196-208.

- Johnson, S.M. (1981). Staff cohesion in residential treatment. *Journal of Youth and Adolescence*, 10(3), 221-232.
- Kelly, S. & Blythe, B. (2000). Family preservation: A potential not yet realized. *Child Welfare*, 79(1), 29-42.
- Kinney, J., Haapala, D., Booth, C. & Leavitt, S. (1990). The Homebuilders model. In J.K. Wittaker, J. Kinney, E.M. Tracy & C. Booth, (Eds.), *Reaching High-risk Families: Intensive Family Preservation in Human Services* (pp. 13-30). New York: Walter de Gruyter.
- Kinney, J., Madsen, B., Fleming, T., & Haapala, D. (1977). Homebuilders: Keeping families together. *Journal of Consulting and Clinical Psychology* 45(4), 667-673.
- Kirk, R. & Griffith, D. (2004). Intensive family preservation services: Deonstrating placement prevention using event history analysis. *Social Work Research*, 28(1), 5-13.
- Kirk, R. & Griffith, D. (2008). Impact of intensive family preservation services on disproportionality of out-of-home placement of children of color in one state's child welfare system. *Child Welfare League of America*, 87(5), 87-105.
- Knouse, S.B. & Dansby, M.R. (1999). Percentage of work-group diversity and work-group effectiveness. *Journal of Psychology*, 133(5), 486-494.
- Lay, B., Blanz, B., & Schmidt, M.H. (2001). Effectiveness of home treatment in children and adolescents with externalizing psychiatric disorders. *European Child & Adolescent Psychiatry*. 10 (1), 80-90.
- Li, F., Li, Y. & Wang, E. (2009). Task characteristics and team performance: The mediating effect of team member satisfaction. *Social Behavior and Personality*, 37(10), 1373-1382.

- Lindblad-Goldberg, M., Jones, C.W. & Dore, M. (2004). Effective family-based mental health services for youth with serious emotional disturbance in Pennsylvania: The ecosystemic structural family therapy model. Harrisburg, PA: Pennsylvania CASSP Training and Technical Assistance Institute.
- Littell, J. (2001). Client participation and outcomes of intensive family preservation services. *Social Work Research, 25*(2), 103-113.
- Lott, A.J. & Lott, B.E. (1965). Group cohesiveness at interpersonal attraction: A review of relationships with antecedent and consequent variables. *Psychological Bulletin, 64*(4), 259-309.
- Lott, B.E. (1961). Group cohesiveness: A learning phenomenon. *Journal of Social Psychology, 55*, 275-286.
- Mannix, E. & Neale, M.A.(2005). What differences make a difference? The promise and reality of diverse teams in organizations. *Psychological Science in the Public Interest, 6*(2), 31-55
- Maramba, G.G. & Hall, G.C.N. (2002). Meta-analysis of ethnic match as a predictor of dropout, utilization and level of functioning. *Cultural Diversity & Ethnic Minority Psychology, 8*, 290-297.
- Maslach. (2003). "Job burnout: new directions in research and intervention." *Current Directions in Psychological Science, v. 12* issue 5, 2003, p. 189-192
- Mattejat, F., Hirt, B.R., Wilken, J., Schmidt, M.H., Remschmidt, H. (2001). Efficacy of inpatient and home treatment in psychiatrically disturbed children and adolescents. *European Child & Adolescent Psychiatry, 10* (1), 71-79.

- McComb, S.A., Green, S.G. & Compton, W.D. (2007). Team flexibility's relationship to staffing and performance in complex projects: An empirical analysis. *Journal of Engineering and Technology Management*, 24, 293-313. doi: 10.1016/j.jengtecman.2007.09.004.
- Molleman, E. & Slomp, J. (2006). The impact of team and work characteristics on team functioning. *Human Factors and Ergonomics in Manufacturing*, 16 (1), 1-15
- Moos, R. (2008). *Work Environment Scale Manual: Development, applications, research* (4th ed.). Palo Alto, California: Stanford University School of Medicine.
- Mudrack, P.E.(1989). Group cohesiveness and productivity: A closer look. *Human Relations*, 9, 71-785.
- Mullen & Copper. (1994). The relation between group cohesiveness and performance: An integration. *Psychological Bulletin*, 115(2), 210-227.
- Nelson, D. (1990). Recognizing and realizing the potential of "Family Preservation." In J.K. Wittaker, J. Kinney, E.M. Tracy & C. Booth, (Eds.), *Reaching High-risk Families: Intensive Family Preservation in Human Services* (pp. 13-30). New York: Walter de Gruyter.
- Ogden, T. & Hagen, K.A. (2006). Multisystemic treatment of serious problems in youth sustainability of effectiveness two years after intake. *Child and Adolescent Mental Health*, 11(3), 142-149.
- Paskevich, D., Patterson, M., Prapavessis, H., Spink, K. & Terry, P. (2004). Using consensus as a criterion for groupness: Implications for the cohesion-group success relationship. *Small Group Research*, 35(4), 466-491.
- President's New Commission on Mental Health. (2003). *Achieving the Promise: Transforming Mental Health Care in America*. Retrieved 4/20/2010 from <http://www.mentalhealthcommision.gov>

- Prosser, D., Johnson, S., Kuipers, E., Szmukler, G., Bebbington, P. & Thornicroft, G. (1997). Perceived sources of work stress and satisfaction among hospital and community mental health staff and their relation to mental health, burnout and job satisfaction. *Journal of Psychosomatic Research*, 43(1), 51-59.
- Pullmann, M., Kerbs, J., Koroloff, N., Veach-White, E., Gaylor, R., & Sieler, D. (2006). Juvenile offenders with mental health needs: Reducing recidivism using wraparound. *Crime & Delinquency*, 52 (3), 375-397.
- Raschick, M. & Critchley, R. (1998). Guidelines for conducting site-based evaluations of intensive family preservation programs. *Child Welfare*, 77(6), 643-680.
- Riulli, L. & Savicki, V. (2003c). Optimism and coping as moderators of the relationship between chronic stress and burnout. *Psychological Reports*, 92, 1215-1226.
- Roy, K.M., Roberts, M.C., Vernberg, E.M. & Randall, C.J. (2008). Measuring treatment outcome for children with serious emotional disturbances: Discriminant validity and clinical significance of the Child and Adolescent Functioning Assessment Scale. *Journal of Child and Family Studies*, 17, 232-240. doi: 10.1007/s10826-007-9162-1.
- Savicki, V. & Cooley, E.J. (1982). Implications of burnout research and theory for counselor educators. *Personnel and Guidance Journal*, 60(7), 415-419.
- Savicki, V. & Cooley E. (1987). Relationship of work environment and client contact to burnout in mental health professionals. *Journal of Counseling and Development*, 65, 249-252.
- Schaeffer, J. & Moos, R. (1993). Work stressors in health care: Context and outcomes. *Journal of Community & Applied Social Psychology*, 3, 235-242.

- Scherer, D. & Brondino, M. (1994). Multisystemic family preservation therapy: Preliminary findings from a study of rural and minority serious adolescent offenders. *Journal of Emotional & Behavioral Disorders*, 2(4), 198-206.
- Schmidt, M., Lay, B., Gopel, C., Naab, S., & Blanz, B. (2006). Home treatment for children and adolescents with psychiatric disorders. *European Child & Adolescent Psychiatry*, 15 (5), 265-276.
- Senecal, J., Loughhead, T. & Bloom, G. (2008). A season-long team building intervention: Examining the effect of team goal setting on cohesion. *Journal of Sport & Exercise Psychology*, 30, 186-199.
- Sheidow, A., Henggeler, S. & Schoenwald, S. (2003). Multisystemic Therapy. In T.L. Sexton, G.R. Weeks & M.S. Robbins (Eds.), *Handbook of family therapy: The science of practice of working with families and couples* (pp. 303-322). New York: Brunner-Routledge.
- Stambaugh, L., Mustillo, S., Burns, B., Stephens, R., Baxter, B., Edwards, D. & DeKraai, M. (2007). Outcomes from wraparound and multisystemic therapy in a center for mental health services system-of-care demonstration site. *Journal of Emotional and Behavioral Disorders* 15(3), 143-155.
- Staudt, M. (2001). Use of services prior to and following intensive family preservation services. *Journal of Child and Family Studies*, 10(1), 101-114.
- Stevens, S., Ruiz, B., Bracamonte-Wiggs, C. & Shea, M. (2006). Intensive home-based treatment for children and adolescents: A promising alternative to residential and hospital care. *Child & Family Behavior Therapy*, 28(4), 39-58. doi:10.1300/J019v28n04\_03

- Tolbert, P.S., Andrews, A.O. & Simons, T. (1995). The effects of group proportions on group dynamics. In S.E. Jackson & M.N. Ruderman (Eds.), *Diversity in work teams: Research paradigms for a changing work place* (pp. 131-159). Washington DC: American Psychological Association.
- Tolman, R., Mueller, C., Daleiden, El., Stumpf, R. Pestle, S. (2008). Outcomes from multisystemic therapy in a statewide system of care. *Journal of Child and Family Studies*, 17, 894-908.
- Walker, J.S. & Schutte, K.M. (2004). Practice and process in wraparound teamwork. *Journal of Emotional and Behavioral Disorders*, 12(3), 182-192.
- Walton, E. (1998). In-home family-focused reunification: A six-year follow-up of a successful experiment. *Social Work Research*, 22 (4), 205-214.
- Wasylenki, D., Gehrs, M., Goering, P., Toner, B. (1997). A home-based program for the treatment of acute psychosis. *Community Mental Health Journal*, 33(2), 151-162.
- Woodford, M.S. (1999). Home-based family therapy: Theory and process from “friendly visitors” to multisystemic therapy. *Family Journal: Counseling and Therapy for Couples and Families*, 7(3), 265-269.
- Yorgason, J. B., McWey, L.M. & Felts, L. (2005). In-home family therapy: Indicators of success. *Journal of Marital and Family Therapy*, 31(4), 301-312.

