Reducing the "Risk" for "At-Risk" Youth by Long-term Engagement in Mentoring

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Abstract

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The present research examined the effectiveness of a behavioral mentoring program for youth with psychiatric disorders. The archival data set included 56 youth (12-17 years old) who were clients of a community agency serving children with mental, emotional, and behavioral problems. In this quasi-experimental design, youth in the mentored improved, while those in the non-mentored group did not. Specifically, this improvement was demonstrated in the home and community as assessed by the Child and Adolescent Functional Assessment Scale (CAFAS). Likewise, youth with higher levels of functional impairment demonstrated the greatest improvements from mentoring. Finally, youth who were engaged in mentoring for longer periods of time demonstrated the greatest levels of overall improvement. Results suggest that mentoring services may be a useful adjunct service for children with behavioral and emotional disorders.
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CHAPTER I

Introduction

The concept of mentoring originated in ancient Greece as described in Homer's *Odyssey* (Butler, 1900/1944). When Odysseus began his famous odyssey, he left his infant son, Telemachos, in the care of a companion named Mentor. This relationship came to define mentoring as a process by which an older person helps to counsel and guide a younger person. Although mentoring began as a process by a known and trusted person, it has evolved into a variety of programs where people are recruited and trained to become mentors for individuals in need of assistance (Phillip, 2003).

Initiatives to promote mentoring relationships in the lives of young people have become immensely popular in recent years (DuBois & Rhodes, 2006). The unprecedented growth in structured mentoring programs, such as Big Brothers Big Sisters of America, has been coupled with increased recognition of the significance of relationships between adults and young people across a broad range of youth-serving organizations and institutions (Zeldin, Larson, & Camino, 2005). Thus, mentoring relationships also include those that can develop more informally in extended families, neighborhoods, and communities (Scales, 2003).

The continued interest in mentoring likely owes some measure of debt to a growing array of research findings over the past several decades that have highlighted the positive contributions that nonparental adults can make in the lives of youth (Baker & McGuire, 2005). Perhaps some of the most noteworthy among these studies are in the
resiliency literature (e.g., Werner, 1995) that point to the close relationships with nonparental adults as a protective factor for the youth. This literature documents favorable outcomes for youth participating in intervention programs in which nonprofessionals, or paraprofessionals, were relied on as the primary agents of intervention (Orford, 1992). Due to the largely successful outcomes for youth involved in mentoring relationships, these findings have been widely heralded among educators and other social service professionals as a convincing demonstration of the benefits of program-initiated mentoring relationships for youth (Walker, 2005). In the end, this research offered a strong argument to launch intensified efforts to sponsor mentoring initiatives at the local, state, and national levels during the past decade (DuBois & Rhodes, 2006).

As research and practice have continued to evolve, a number of theoretical and pragmatic issues have emerged. First, rigorous analysis of the extant research on the effectiveness of mentoring programs has revealed considerable room for improvement in both the strength and consistency of their impacts on youth (Dubois, Halloway, Valentine, & Cooper, 2002). In their meta-analysis of 55 evaluations of youth mentoring programs, DuBois and colleagues (2005) found evidence of only a small benefit \( (d = .14) \), on average, for participating youth on measures of emotional, behavioral, and educational functioning. Several investigations have highlighted the importance of other program and relationship characteristics on the strength of the outcomes of the mentoring programs. For example, Grossman and Rhodes (2002) found that the effects of mentor relationships varied with their duration. Pre- and post-mentoring examinations of self-worth for youth in mentoring relationships were assessed for change and compared with
self-worth scores of youth in a control group followed for an equivalent period of time. Youth who were in mentoring matches that terminated within the first 3 months of their onset experienced significantly greater decreases in feelings of self-worth from pre- to post-test and lower perceived scholastic competence than youth who did not receive any mentoring at all. This may seem counterintuitive; however, as Grossman and Rhodes point out, this finding could be, at least in part, due to the youth’s perception of rejection from the mentor figure when the mentoring relationship is prematurely terminated. Conversely, youth who were involved in matches that lasted longer than 12 months reported significantly higher levels of self-worth, social acceptance, and scholastic competence than the control group participants. Collectively, these findings and those from the meta-analysis (DuBois et al.) underscore the need for greater empirical delineation of the conditions under which mentoring programs can more fully realize their promise of having a positive and transformative impact on young people’s lives (DuBois & Karcher, 2005).

A second issue has been the rapid emergence of new models of practice and their application to an increasingly wide range of youth populations. Existing research (e.g., Dubois & Rhodes, 2006) pertains predominantly to a traditional model of mentoring embodied by programs such as Big Brothers Big Sisters of America. In this traditional model, mentors and youth are paired through a formal mechanism with pairs interacting with each other in person and on a one-to-one basis. The mentor is an adult volunteer and the mentors and youth are largely free to spend time together in a broad range of activities and in different settings. However, the past decade has witnessed an increasing departure from this traditional model of mentoring (DuBois & Rhodes). These variations
include, but are not limited to, approaches that are geared toward encouraging mentoring relationships through more informal and indirect mechanisms, such as improvements in youth-serving organizations (e.g., establishing mentoring relationships within the context of the organization), school reform (e.g., incorporating mentors as part of an academic curriculum), and community capacity building (e.g., establishing mentoring relationships within the context of community agencies). Other variations include group mentoring; e-mentoring programs in which older youth are utilized as mentors; and site-based models in which interactions between youth and mentors are limited to a particular setting, such as school, the workplace, or an after-school program. Recent estimates indicate that programs that employ these community-based models are now only slightly more common (54%) than those in which mentoring activities are site-based (Manza, 2003).

Recently, a third issue that has arisen pertains to the numerous initiatives to tailor mentoring programs to better serve the needs of particular populations of youth (DuBois & Rhodes, 2006). These populations include among others, youth in foster care, youth who are academically at-risk, youth who have a parent who is incarcerated, youth in the juvenile justice system, youth who have disabilities, and youth who are pregnant and/or parenting. To date, very little research has been conducted either to inform the new approaches to youth mentoring or to evaluate their effectiveness (DuBois & Rhodes). As the practice of youth mentoring continues to evolve, it will become increasingly critical to address the gaps that exist between new developments and a knowledge base that was created primarily from a traditional and largely nonspecific model of programmatic mentoring.
The remainder of this introduction will examine the research findings on several factors that have been linked to successful mentoring relationships. The discussion of these factors will be divided into three sections: those affecting mentoring relationships, those impacting the effectiveness of youth mentoring programs, and those affecting mentoring relationships with special youth populations. Finally, a study will be introduced that examines the impact of mentoring on a sample of youth experiencing behavioral and emotional disorders and who are followed at an urban, mental health organization. Further, the proposed study seeks to advance our understanding of the effect of the duration of the mentoring relationship on the outcomes for this sample of youth.

It should be noted that in selecting the literature to be reviewed, no study afforded the possibility of examining both formal and natural mentors within the same investigation. Formal mentoring relationships are those that were initiated through a formal mentoring program. Natural or informal mentoring relationships are those that evolve through the development of a mentoring relationship outside of a formal mentoring program. In addition, case studies and other research that did not have outcome measures were not included in this literature review.

Factors affecting mentoring relationships

Several factors have been identified that contribute to the outcome of mentoring relationships. These include the type of relationship, length of relationship, frequency of contact, time spent together during each visit, matching, training and supervision of mentors, mentor characteristics, and youth characteristics. While mixed results from the research exist for all of the factors, the type and length of relationship, as well as
frequency of contact with the youth have consistently emerged as important factors in determining the outcomes of youth mentoring relationships.

*Type of relationship.* One of the most identifiable differences in mentoring relationships is the manner in which the relationship developed. Relationships can develop naturally, through informal connections, or formally, through established programs. The nature of natural mentor relationships is often unstructured (e.g., they occur naturally and there is not a formal method for pairing mentors with youth); this aspect makes the relationship much more difficult to evaluate due to the lack of availability of formal data on the nature of these relationships. Formal mentoring relationships occur through a program’s identification of at-risk youth and subsequent assignment of a program mentor to the youth. Researchers have suggested that natural mentors may play a vital role in adolescent development that is parallel to that which affects the successes of youth in formal mentoring relationships (Blechman, 1992; Hamilton & Darling, 1996). Moreover, several investigators studying adolescent resiliency have found that nonparental adults who act as natural mentors frequently have a positive effect on younger persons by providing support to at-risk youth (Rhodes & Jason, 1990). In one recent study of urban adolescent youth, Zimmerman and colleagues found that of the 770 adolescents included, 52% reported having a natural mentor. Those with natural mentors were less likely to smoke marijuana or be involved in nonviolent delinquency, and had more positive attitudes in school (Zimmerman, Bingenheimer & Notaro, 2002).

*Length of relationship.* Mentoring programs vary widely in their duration. The variation in duration of programs is from a semester (Cragar, 1994) to 6 months (Dubois
& Neville, 1997) to a year (Dearden, 1998) to 18 months (Cavell & Hughes, 2000). Varying lengths of program time do not appear to be due to empirically-based knowledge of a particular amount of time needed to produce a relationship of enough quality to have a positive effect. On the contrary, the varying lengths appear to be based rather on the school calendar and the length of time mentors are typically willing to commit themselves to a mentoring relationship. In a recent study of 1,138 young, urban adolescents involved in the Big Brothers Big Sisters of America program, Grossman and Rhodes (2002) found that adolescents involved in mentoring relationships that lasted longer than a year reported the greatest number of improvements in social and academic functioning with progressively fewer improvements occurring for youth who were in relationships that terminated earlier than a year.

Frequency of Contact. Another factor affecting the quality of the mentoring relationship is the frequency of contact between mentors and youth. Again, this mentoring factor is quite variable. Most programs require one visit a week of one to several hours. More intensive contacts, such as 9 hours a week for 5 weeks (about 5 times a week), have been seen in some programs, although these are typically seen in the course of summer-only programs (Wright & Borland, 1992). According to the Commonwealth Fund 1998 Survey, the average amount of contact for both formal and informal (analogous to formal and natural) mentors is 10 hours each month of face-to-face meetings (McLearn, Colasanto, Schoen, & Shapiro, 1999). A closely related component to be considered in the frequency of contact of mentoring relationships is the actual amount of time that the youth and mentor spend together during each outing. The time per visit between the mentor and youth has not been a variable of consideration in
many studies. Some programs require a 45-minute to an hour visit per week (Terry, 1999), while most programs have the mentors visit the youth for several hours (2-5) a week (Cavell & Hughes, 2000). The standard of frequency of contact appears to be at least one interaction a week for several hours in duration (Ferguson, 1990). This can be in one or several visits. However, the time per visit continues to be a methodological concern for many mentoring investigations (Cavell & Hughes). The frequency of contact between mentors and youth represents an important influence on the extent to which theoretically-relevant process of change, including role modeling, meaningful dialogue and conversation, and skill development has the opportunity to occur in relationships (Rhodes, 2002). In accordance with this view, greater amounts of time spent together have been found to be associated with higher levels of emotional and instrumental support in mentoring relationships (Herra, Sipe, & McClanahan, 2000; McLearn, Colasanto, & Schoen) as well as with nominations by the youth of the mentor as a significant adult in the youth’s life (DuBois et al., 2002). The research suggests that, in order to yield desired outcomes, it is necessary for programs to establish mentoring relationships between youth and adults that involve patterns of regular contact over significant periods of time (DuBois & Neville, 1997; Freedman, 1992; Slicker & Palmer, 1993).

**Matching.** The concept of matching certain youth with specific mentoring adults is fairly widespread. Many programs match mentors and youth on characteristics such as sex, race, culture, similarities in likes and hobbies, potential career interests, geographic proximity, and hours available for meeting (Flaxman, Ascher & Harrington, 1998). Several programs also match on personality characteristics and preferred recreational
activities (Moccia, Schumacker, Hazel, Vernon, & Deschler, 1989). Other programs employ a hierarchical system of matching in which gender and race are matched for first, followed by similarity in interests, for example (Tierney & Branch, 1992). Some programs reported in the literature only match on race and ethnicity variables when specifically requested by the youth (Grossman & Gary, 1997). Rhodes, Reddy, Roffman, and Grossman (2005) have suggested that while it would be desirable to match youths and mentors on similar characteristics, it is often not programmatically feasible for many programs due to the large number of youth served by comparably fewer mentors.

*Training and supervision.* Most programs have a training component for their mentors, but this component varies widely in implementation and includes introductory get-togethers, short workshops, and more intense training programs (Cavell & Hughes, 2000). Training may include familiarization with the issues of working with at-risk youth, handling misbehavior, conceptualizing child or adolescent development, coverage of skills to assist youth with their needs, familiarization with the youth’s neighborhood, establishment of initial rapport, and a description of program rules (Tierney & Branch, 1992). Spencer and Rhodes (2005) suggest that while it is not feasible for mentoring programs to replicate the literally thousands of hours required for professional education and training, education up front coupled with support over the course of the relationship may significantly increase the effectiveness of youth mentoring relationships. Most programs, however, have limited training and often do not impose many restrictions on the relationship (Freedman, 1992).

*Mentor characteristics.* Characteristics of the mentor (e.g., age, sex, race, ethnicity, and personality) can be important in determining the outcome of a mentoring
relationship. Some programs seek out mentors with particular personality characteristics, such as sensitivity, humor, perseverance, enthusiasm, and a positive attitude (Cavell & Hughes, 2000). Others look for qualities of patience, adaptability, nurturance, and empathy (Whitehead & Nokes, 1990), while still others seek out characteristics like modesty, discretion, tenderness, and a vision for the future (Nicola, 1990). Some programs screen potential mentors based on the program’s conceptualization of a mentor’s primary role for the youth (Grossman & Garry, 1997). Cowen, Zax, and Laird (1966) suggest that screening for particular mentor traits is not useful and that screening should only be done to eliminate those potential mentors who were blatantly unfit.

Although selection of mentors based on personality characteristics is sometimes used, there is a need for more formal empirical evidence upon which to base this practice. Rhodes and colleagues (2005) have developed a screening questionnaire that they suggest would assist in the successful screening of mentor characteristics.

Youth characteristics. Some of the characteristics that youth bring to any relationship include age, sex, family and ethnic background, temperament, social learning history, and cognitive-behavioral patterns, (Perry, Perry, & Boldizar, 1990); however youth personality variables are often not assessed in mentoring programs. The research has demonstrated that the significance attached to mentoring relationships as a protective influence suggests that programs may provide greater benefits to youth who can be considered “at-risk” by virtue of individual and/or environmental circumstances (Rhodes, 1994).

In conclusion, there are several factors involved in the mentoring relationship that have been evaluated for the impact that they have on the outcomes of the mentored youth.
Of these, the type of relationship, length of relationship and frequency of contact have emerged consistently as being important factors in determining the utility of the mentoring relationship for the youth.

**Effectiveness of youth mentoring programs**

During the past decade, mentoring programs for youth have become increasingly popular and widespread. Big Brothers Big Sisters of America, the most prominent of these programs, now includes over 500 agencies nationwide. The National Mentoring Partnership and numerous other organizations also have contributed to the significant growth in mentoring initiatives at the local, state, and national levels (Johnson & Sullivan, 1995). Currently, the National Mentoring Database lists more than 1,700 organizations that support mentoring activities (Save the Children, 1999). However, these data demonstrate the increase in mentor programming, not its effectiveness.

While much research has been dedicated to the effectiveness of mentoring for at-risk youth, the results are disparate. As indicated earlier, DuBois et al. (2002) found evidence for only a modest or small benefit of program participation for the average youth. The authors investigated possible variation in program impact in association with factors relating to several areas including program design and implementation, youth characteristics, mentor-protégé relationships, and assessment of outcomes. Results of their investigation provide some support for the effectiveness of youth mentoring programs. A fixed-effects model analysis of the 55 programs in their meta-analysis indicated an overall positive effect for those specific mentoring programs that have been the subject of formal evaluation (i.e., those included in the review). In a fixed-effect analysis, each effect size's variance is assumed to reflect only sampling error (i.e., error
solely due to participant differences). When a random-effect analysis is carried out, a study-level variance component is assumed to be present as an additional source of random influence. Thus, a second, random-effects model analysis suggested that the benefits of mentoring to implementing this type of intervention may generalize to a broader range of approaches than the empirically-based practices utilized in the review. However, as analyses that examined the possible moderators of effects of mentoring programs revealed, there is little evidence that the potential for programs to yield desirable outcomes is independent of other factors. As DuBois and colleagues (2005) suggested, these include such considerations as whether or not mentoring takes place alone or in conjunction with other services, whether it is provided in accordance with the most widely implemented model (i.e., Big Brothers Big Sisters of America), or whether programs reflect relatively general as opposed to more psychosocial goals (Dubois et al., 2002). Favorable effects of mentoring programs are similarly apparent across youth varying in demographic and background characteristics such as age, sex, race/ethnicity, and family structure, and across differing types of outcomes that have been assessed using multiple sources of data. Although included in only a relatively few studies, follow-up assessments that have been conducted also offer at least a limited basis for inferring benefits of mentoring (e.g., behavioral and social) that extend beyond the end of program participation (DuBois et al.).

DuBois and colleagues (2002) suggest that while these results are promising, the benefit for the typical youth participating in a mentoring program is quite modest in terms of absolute magnitude. The estimated effect sizes of .14 and .18 obtained under the assumptions of fixed and random effects, respectively, were consistent with only a small
observable effect on the youth’s behavior for most mentoring programs. As the authors note, numerous programmatic and other variables including lack of a clearly defined regimen for numerous mentoring relationships and the lack of outcome measures for mentoring relationships within many agencies, may be critical to attend to for the potential benefits of youth mentoring programs to be fully realized. This conclusion is underscored by the substantial overall variability in estimates of effect size (.10 to .25) for the studies covered in the review (DuBois et al.).

In conclusion, a growing body of research has examined the role of mentoring and its relationship to the positive outcomes for those who are mentored. While the research generally supports the beneficial outcomes for mentoring relationships, these effects are often small and demonstrate a substantial variability in their estimates of effect sizes. 

*Mentoring Relationships with Special Youth Populations*

Children and adolescents who face a variety of risk factors represent special populations who warrant study as prevention–focused mentoring programs. The meta-analysis conducted by Dubois and colleagues (2002) suggests that youth from backgrounds “of risk” have the capacity to benefit from mentoring, especially when best practices are employed and strong relationships are formed. Strong mentoring programs for special populations of youth may promote positive youth-mentor relationships and build a sense of trust in the youth for others. Furthermore, mentoring may encourage youth to accept other formal and informal support services and connect with familial, educational, vocational, and community settings (Dubois et al.). Whereas mentoring programs are well received as support services, very little empirical research has been conducted to assess the effectiveness of these programs to meet the diverse needs of
different special populations of youth (Britner, Balcazar, Blechman, Blinn-Pike, & Larose, 2006). The literature of the past decade on mentoring and special populations has tended to focus on five special populations of youth: abused or neglected youth, youth who have disabilities, pregnant and parenting adolescents, juvenile offenders, and academically at-risk students (Britner et al.).

*Abused or neglected youth.* Mentoring programs including or focused on maltreated youth are proliferating; however, little research has examined the efficacy of mentoring programs for youth who have maltreatment histories (Rhodes, Haight, & Briggs, 1999). In spite of this, related studies that exist in the literature (involving formal and informal mentoring) remain noteworthy.

In the 1998 Commonwealth Fund Survey, mentors, most of whom were not involved in formal mentoring programs, reported that 10% of the 1,504 youth with whom they worked had been physically or sexually abused. They also reported that they “helped the youths a lot” in 55% of the cases examined (McLearn, Colasanto, & Schoen). This survey has proven to be useful in providing some estimation of the scope of the problem of maltreatment; however, it is also limited by the use of simple self-report data from mentors only (Britner et al., 2006). Studies of naturally-occurring mentors for abused and neglected youth are, at this point, mostly anecdotal or confined to survey data. Other methods could shed light on our understanding of the relationship between informal mentoring of abused or mistreated youth.

On the other hand, the data on formal mentoring programs for abused and neglected youth are more readily available. Grossman and Rhodes (2002) studied 487 mentored youth and 472 control group youth in an urban Big Brothers Big Sisters of
America program before mentoring and at an 18-month follow-up to mentoring. Youth who had experienced emotional, sexual, or physical abuse were more likely than other youth to have had their mentor relationship end precipitously. Using the same set of data, Rhodes and associates (1999) compared 90 mentored foster youth to control group foster youth. Over a period of 18 months, mentored foster youth reported significant improvements in prosocial support and self-esteem, whereas those without mentors reported declines. This study is considered strong because of its longitudinal, experimental design; on the other hand, limitations include the small sample size and scant information about the maltreatment and placement histories of the foster youth (Britner et al., 2006).

During the past decade, the Connecticut Department of Children and Families (DCF) has funded and developed one-on-one mentoring programs as a part of a comprehensive development program for youth in state custody, in most cases, as a result of child abuse and/or neglect. Preliminary findings suggest that mentor-protégé matches that ended prematurely were marked by poor or inconsistent contact and by mentors who did not “feel a connection” to their protégés. These findings are consistent with the work of Grossman and Rhodes (2002). Some of the strengths of intact matches included consistent and stable contact, and mentors and protégés who enjoyed each other’s company (Britner & Kramer-Rickaby, 2005). Finally, youth who have experienced maltreatment and/or foster care, particularly those who have had multiple placements, may have difficulty trusting adults. Matches with these youth are more likely to be disrupted within a month of the onset of mentoring than matches with youth who have not experienced abuse (Rhodes, 2002).
Youth with Disabilities. Youth with disabilities often grow up in settings that limit peer interactions and experiences, promote dependency, and provide few opportunities to interact with other non-disabled peers (Rousso & Wehmeyer, 2001). There appear to be two key mentor characteristics indicated in data from studies of these youth that may have an impact on program goals and outcomes (McDonald, Balcazar, & Keys, 2005). These characteristics are whether the mentor has a disability and whether the mentor is a peer or adult.

In one study of the effects of mentoring on the self-efficacy and community-based knowledge of adolescents who had severe physical disabilities, youth with mentors had more knowledge of strategies for overcoming barriers to independence, and their parents had more knowledge about how to promote the independence and the abilities of their children (Powers, Sowers, & Stevens, 1995). Similar results were found by Watkins, Pitman, and Walden (1998) who developed a program with deaf mentors to help deaf children and their families improve their communication skills and increase the parent’s understanding and appreciation of deaf culture. The results suggested that the families receiving services from deaf mentors made quicker and stronger gains in communication skills.

In a study of a curriculum developed to teach youth who had learning disabilities how to recruit their own mentors, set goals, and develop plans for actions, mentors were reported by the authors to be instrumental in providing support for goal attainment (Rierson-Espino et al., 2003). In the experimental evaluation of the intervention, youth who received the training and mentoring were able to attain a significantly greater number of goals than those in the non-mentored comparison group.
Hernandez, Hayes, Balcazar, and Keys (2001) developed a program of peer mentoring to help victims of gun violence who had sustained a spinal cord injury to cope with life after the wound. The mentors met their protégés in the rehabilitation hospital and continued their relationship for a year after discharge. The youths who were paired with mentors prior to their discharge demonstrated greater ease of reintegration into the community. The effects of this program have since been replicated in other rehabilitation hospitals with demonstrated benefits for the participants in terms of community reintegration and goal attainment (Britner et al., 2006). In a similar study, Wacker and Berg (1985) used peer mentors with disabilities to train and monitor the performance of their protégés who also had severe disabilities and with whom they were working on an assembly line. The participants were randomly assigned to work in stations with or without peer mentors. Results supported the effectiveness of the peer mentoring and monitoring procedure. Those participants assigned to the work stations with peer mentors demonstrated higher goal attainment and work reintegration than those who were assigned to the non-mentored work stations (Wacker & Berg).

Welkowitz and Fox (2000) used a combination of adult mentors and peers to assist youth with emotional and behavioral challenges in a school-based program. The intervention sought to promote academic success and independence and to build communication, problem-solving, conflict resolution, goal setting, and self-appraisal skills. The researchers used a matched-sample, control group design. There was no evidence of an effect on grades or other measures, particularly those dealing with conflict, anger management, and relationship building. However, school records indicated reductions in absenteeism and disciplinary referrals.
Although the various mentoring relationships seem to have had positive effects, having a mentor who has a disability as a peer mentor appears to be more beneficial to protégés who have not been exposed to appropriate role models and who have similar disabilities. The most common problems encountered in conducting research in this area include difficulties in convening matched control groups (e.g., finding equivalent samples), and that many control group participants also continue to receive services from multiple other sources (e.g., churches, community organizations, mental health agencies; McDonald et al., 2005) making the direct effect of mentoring more difficult to discern.

**Pregnant and parenting adolescents.** Zippay (1995) conducted an exploratory study of formal mentoring by pairing 20 adolescent mothers with professionally employed mentors to increase the adolescents' educational and job skills. The results suggested that the mentors linked the young mothers with resources and information not readily available in their existing support networks and by which they benefited. Findings from other studies support this notion, as well. Rhodes, Ebert, and Fischer (1992) found that when African American adolescent mothers who had natural mentors were compared to adolescent mothers who did not have natural mentors, they reported lower levels of depression, had a larger support network excluding their mentors, utilized more social support, and were more satisfied with the sources of support other than the mentoring that they had received. These same findings were also found for Latina adolescent mothers who had natural mentors (Rhodes, Conterereas & Mangelsdorf, 1994).

In a study of a larger 3-year mentoring program with over 100 pregnant and parenting youth, Blinn-Pike, Kuschel, McDaniel, Mingus, and Poole-Mutti (1998) found that at 1-year postpartum, compared to the nonmentored group, the mentored group
scored significantly lower (better) on a measure of child abuse potential, took their infants to the hospital less often, breast fed longer, and felt less depressed and socially isolated.

Research, generally, has not examined the potentially negative impact of mentoring on the well-being of adolescent mothers and their infants. Adolescents who have adequate support from family and friends may, in fact, find it stressful to make time for mentors in their lives. Significant relationships provide both support and conflict in the lives of adolescent mothers. One study reported that higher perceived emotional support from family (and residence with the grandmother) during the first year postpartum predicted lower educational achievement at 6 years postpartum for the adolescent mother. Learned helplessness, or an overdependence on assistance from family members, may play a role in the negative outcomes of mentoring as social support (Blinn-Pike, 2005).

A second study by these same authors addressed the lack of understanding of the process by which effective mentoring programs assist pregnant and parenting adolescents. Blinn-Pike and colleagues (1998) proposed a process-oriented version of social support theory, called “quasi-parenting”, which was related specifically to mentoring pregnant and parenting adolescents. When mentors and adolescents are securely bonded, the mentor often became a quasi-parent. Quasi-parenting was defined as occurring when the mentor and adolescent were comfortable with the mentor’s provision to the adolescent of the types of emotional, instrumental, and instructional support that are generally assumed to be the purview of the family. Other factors include the achievement of a level of emotional intimacy in which the matched pair discussed
personal and intimate details of the adolescent’s life, and the involvement of the mentor was in both significant and mundane aspects of the adolescent’s life.

*Academically at-risk students.* Mentoring programs for academically at-risk students (AARS) typically involve the pairing of AARS with volunteer teachers, older students, or adults from the community who have knowledge of the school structure and system. Mentors and protégés are engaged mainly in academic activities (e.g., doing homework) for periods that are usually shorter than those observed in community-based programs (e.g., an hour every week for less than 1 year; Herra, Sipe, & McClanahan, 2000).

Larose and Tarabulsy (2005) reviewed the research related to several assumptions in mentoring programs for students who have experienced important school difficulty and failure (but not those students who have chronic individual problems or exposure to high-risk psychosocial contexts). There have been a number of experimental, quasi-experimental, and correlational studies that have found that mentoring relationships (or, in some studies, perceived security in mentoring) predict significant changes in a number of cognitive and emotional outcome variables. Among these were attitudes towards school, academic confidence, self-concept, attitudes toward helping others, feelings of school connectedness, representations of parental and teacher relationships (e.g., the youth’s cognitive representations of parents and teachers), and perceptions of support from significant adults outside mentoring relationships (Larose & Tarabulsy). Three studies provide more specifics to this generalization, although all were not conducted exclusively with AARS. The first study showed that mentoring, within the context of a Big Brothers Big Sisters of America program, resulted in grade improvements and
reductions in voluntary school absences (e.g., truancy); these results were mediated by two variables, parental representations and perceived academic competence (Rhodes, Grossman, & Resch, 2000). The second study revealed a positive effect for perceived connectedness (i.e., cognitive representation of parental support) to parents in the explanation of changes in spelling achievement by elementary school students who were mentored by high school students (Karcher, Davis, & Powell, 2002). The third study suggested that high-risk students' feelings of relatedness and autonomy in the mentoring relationship account for the positive impact of mentoring relationships with teachers with respect to social adjustment and feelings of attachment to the school context (Larose & Tarabulsy).

Mentoring relationships allow AARS students to change inappropriate behaviors and learn new behavioral strategies, thus reinforcing for students the development of social values and norms from the school's perspective. Several studies indicate that mentoring relationships may have a significant impact on the school behaviors of AARS. Based on quasi-experimental, or experimental designs, participation in mentoring relationships has been found to be linked to higher attendance in class and fewer voluntary absences from school (Barton-Arwood, Jolivette, & Massey, 2000), lower aggressiveness (Grossman, 1998), greater levels of social competence (Jekielek, Moore, & Hair, 2002), greater vocational skills (Soucy & Larose, 2000), greater participation in college preparatory activities (Tierney, Grossman, & Resch, 1995), and better chance of taking part in higher education (Larose & Tarabulsy, 2005). Correlational studies further reveal that children's perceived feelings of security with mentors and mentor attendance
to the programs were associated with higher rule compliance (as opposed to acting out) and greater ability to complete schoolwork (Soucy & Larose).

One final note on mentoring relationships with AARS is that these relationships are based on the assumption that AARS and members of the school community (e.g., college students, teachers, and counselors) can develop optimal mentoring relationships (Britner et al., 2006). This assumption implies that matching AARS with members of the school community is, in itself, a good thing to do. Recent research (e.g., DuBois et al., 2002) has suggested, however, important variations in the effectiveness of mentoring relationships. Special attention has been paid to the characteristics of the students targeted by specific programs (e.g., level and kind of risk), the characteristics of the mentors (e.g., perceived self efficacy), and the characteristics of the program (e.g., presence of monitoring) that may potentially moderate the impact of the mentoring relationship. In their meta-analytic review, DuBois and colleagues (2005) found evidence that the effects of mentoring programs on youth adjustment were moderated by the kind of setting that provides the context for mentoring activities. When mentoring activities were set in schools, the estimated impact of mentoring relationships was substantially lower than that of programs set in the workplace or the community, suggesting that community-based models do not readily transfer to school settings.

Juvenile Offenders. Several studies also support the effectiveness of mentoring with juvenile offenders. Blechman and Bopp (2005) reviewed 15 studies of mentoring at-risk youths (including juvenile offenders) and found a lack of unanimity about the definition of mentoring and a methodologically-flawed literature. There are, however, several stronger studies from their review that Blechman and Bopp suggest contribute
information regarding juvenile offenders and the role of mentors. For example, in a meta-analysis of 443 studies evaluating 23 juvenile justice interventions (mentoring included), Lipsey (1992) found less post-treatment evidence of delinquency in experimental than control groups. Better-controlled studies yielded slightly larger mean effect sizes equivalent to a 20% decrease in recidivism, and more structured (e.g., skill-oriented) treatments seemed more effective than less structured (e.g., counseling) approaches.

The Cambridge-Somerville Youth Study (CSYS) is a rare example of a negative outcome in the research on the long-term impact of mentoring on at-risk youth. Between 1935 and 1939, the CSYS recruited boys younger than 12 years old from a low-income, high crime area. Boys were matched on age, family environment, and delinquency-prone histories and then randomized to either an untreated control or an experimental condition. In the experimental condition, a social worker attempted to establish a close personal relationship with the boy and assist both the boy and his family in various ways (e.g., serving as a role model for the youth and as an educator to both the youth and family; McCord, 1992). At the program’s end in 1945, boys in the experimental condition had been visited, on average, twice a month for 5.5 years. When the men were about 47 years old, three objectively defined adverse outcomes were measured: conviction of a Federal Bureau of Investigation index crime, death before age 35, and alcoholic, schizophrenic, or manic-depressive diagnosis. In the paradoxical results of this study, the experimental group fared significantly worse than the untreated control group on all outcomes. No added benefit resulted from more frequent help, longer duration of help, or better rapport between the social worker and the youth. While there has been much speculation on the possible reasons for these results, the authors note that the role of the community and
negative social influences are likely to outweigh the positive social influences that were present in the mentoring relationship.

Belchman, Maurice, Buecker, and Helberg (2000) used propensity analysis to investigate the relative merits of mentoring versus skill training of juvenile offenders. Calculation of a propensity score is equivalent to the conditional probability of assignment to a particular treatment given a vector of observed covariates. Intake characteristics (e.g., type of crime committed, number of prior convictions) that distinguished intervention groups were used to calculate propensity scores, then used to assign offenders to treatment groups. The authors compared juvenile offenders’ recidivism after nonrandom assignment to juvenile diversion, juvenile diversion plus skill training, or to juvenile diversion plus mentoring. After propensity score blocking balanced intake characteristics, skills training proved more cost effective than mentoring. However, each condition produced a 14% relative reduction in recidivism. The skills-training approach achieved this success at a savings of $33,600 per hundred youths.

Because of the anomalous results reported by McCord (1982) and Blechman and colleagues (2000), there is an evident need for better coordination of juvenile offenders’ long-term care. A digital infrastructure (DIF) has been proposed to integrate youths, parents, kin, mentors and professionals into individualized caregiver teams for juvenile offender protégés (Blechman et al.). The DIF creates a database of process and outcome data that could be aggregated across large numbers of youths who receive various types of mentoring from various types of mentors for varying durations. These data could be used to test questions about overlaps in mentoring and non-mentoring services, and the
circumstances reliably associated with reduced recidivism among mentored juvenile offenders (Blechman et al.).

Little empirical research has been conducted to assess the effectiveness of mentoring programs to meet the needs of different special populations of youth. These include abused or neglected youth, youth with disabilities, pregnant and parenting adolescents, academically at-risk students, and juvenile offenders. Of the studies that have examined the role of mentoring with these youth, the at-risk youth who were involved with mentors have demonstrated more favorable outcomes than the non-mentored youth.

The Present Study

After this review of the current literature, it can be seen that there is a need to more adequately address the role that mentors play in the lives of youths with behavioral and emotional disorders. The present study seeks to develop a better understanding of the relationship between mentoring and the emotional and behavioral changes in children with *Diagnostic and Statistical Manual of Mental Disorders IV: Text Revision* (DSM-IV-TR) diagnoses (American Psychiatric Association, 2000). In contrast to the majority of the literature, the present study includes diagnostic information in addition to the commonly identified behavioral and emotional problems that are seen in at-risk youth.

The present study examined the extent to which levels of emotional, behavioral, and academic problems are mediated by the effect of mentoring with the youth. Instruments assessed the severity of disruption (e.g., academic, behavioral, and emotional) in the youth’s lives. The effects of mentoring were assessed by comparison to a non-mentored control group. It was expected that these groups would differ
significantly on various outcome measures. More specifically, there are four hypotheses that were testable within this research. The first hypothesis was that the mentored youth would show a greater degree of positive change than the youth who had not been mentored. The second hypothesis was that more change would be indicated for those youth engaged in longer mentoring relationships. The third hypothesis was that no significant difference would be found in the behavioral outcomes for the African-American youth that were mentored as compared to the Caucasian youth who were mentored. Finally, the fourth hypothesis maintained that youth who were more at risk would benefit the most from mentoring.
**CHAPTER II**

**Method**

*Participants*

There were 56 children, between the ages of 12 and 17, whose records were chosen for the present study from the 127 active clients seen through the Intensive In-home program at Pressley Ridge, a non-profit mental health organization, serving children with behavioral and emotional disorders in Cincinnati, OH. The records were for 35 boys (mean age = 12.4) and 21 girls (mean age = 13.6). The majority of participant records were for clients who were Caucasian (75%); however, 21% of the records represented clients who were African-American, 3% represented clients who were Hispanic, and 1% represented clients from other ethnic groups. These percentages are representative of the overall population of clients at Pressley Ridge. The Intensive In-home program attempts to assist children and their families by addressing the unique needs of the children in an effort to avoid placement in foster care or other residential treatment facilities. The minimum criterion that children must meet to receive services from this program is an Axis I or Axis II diagnosis derived from the DSM IV-TR (American Psychiatric Association, 2000). Clinicians use the multiaxial diagnostic method in order to specify the type of mental disorder being described. Axis I contains all mental disorders that are the focus of clinical attention (e.g. Bipolar Disorder, Attention Deficit Hyperactivity Disorder). Axis II includes the personality disorders and mental
retardation. Of the children’s records selected for review, all active clients who were also receiving mentoring services (N = 28) were included. All children receiving mentoring services also had at least one Axis I diagnosis derived from the DSM IV-TR. None had an Axis II diagnosis. Similarly, all participants in the non-mentored control group had at least one Axis I diagnosis derived from the DSM IV-TR. Again, none of the members in the non-mentored control group had an Axis II diagnosis. The records for the 56 children included in this investigation constituted two groups: (a) 28 children who had received mentoring services; (b) 30 children who had not received mentoring services (non-mentored control condition). Records for the non-mentored control condition were randomly selected from the remaining population of active clients.

All children selected for the sample had received home-based services for 3 months to 2 years at the time of this investigation. The mean time that each child was involved in treatment was 7.4 months. Each mentored child had received mentoring services for exactly 6 months during the interval of home-based services. The mentoring services were provided by the Intensive In-home staff at Pressley Ridge. The staff consisted of 1 man and 5 women. Each person providing mentoring services possessed a minimum of a Bachelor’s degree in a human service field (e.g., psychology, social work, sociology). Generally, children were not matched for mentoring services with a same sex mentor due to the disproportionate number of male and female staff members. The mentoring services were offered both at the office and in numerous community locations (e.g., libraries, schools). The services that each child received were designed to address the various social, vocational, emotional, and behavioral needs of each individual child. Depending upon the youth’s needs, the child and mentor typically engaged in a wide
variety of leisure-and goal-oriented discussions and activities (e.g., discussions of child’s behavior, role-modeling of appropriate behavior, exploring the child’s interests and goals for the future) with the overall goal of promoting the youth’s positive development. Each youth met with his or her mentor an average of once per week, with each meeting lasting an average of 2.25 hours.

Materials

Parents and legal guardians of the children in this study were required to complete an initial admission form (*Child at Entry*), which is presented in Appendix A (note that information used in the present study is indicated on the Child at Entry form by asterisks). This form collected information about current issues faced by the child, and included information about family life, academic status, drug and alcohol history, and involvement with other community agencies or services. These completed forms provided certain demographic and behavioral information for the present research. In addition, behavioral assessments used for the present investigation included the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1989; 1997); and the Ohio Youth Problems, Functioning, and Assessment Scales (*Ohio Scales, 2000; Appendix B*). The latter is an instrument required by the state of Ohio to be administered to any child receiving mental health services (Ohio Mental Health Outcomes Task Force, 1996).

*Child at Entry Form.* This extensive worksheet includes items that assess such areas as gender, race, ethnicity, residential instability (e.g., county custody, removal from home), behavioral issues observed over the past 12 months (e.g., aggression, school problems), diagnosis at entry to the program, living environment at entry (e.g., home, foster care), school environment at entry (e.g., regular classroom, special education), and other system involvement (e.g., juvenile justice, substance abuse treatment). The Child at
Entry Form was developed by the Pressley Ridge Performance Improvement Committee in 1996 with the goal of creating a document that accurately summarized the wide range of problems and issues of each child admitted to the Intensive In-home program. The form contains a total of 118 items to address each of the above areas. For the current investigation, this form was used to obtain demographic and identifying information for the children, including their length of involvement in the In-home program, age, ethnicity, gender, and racial identification.

*Child and Adolescent Functional Assessment Scale (CAFAS).* The CAFAS (Hodges, 1989; 1997) is an inventory for measuring functional impairment in children and adolescents. CAFAS was originally designed for use in a mental health policy research project. Canino, Costello, and Angold (1999) suggest that functional impairment involves a number of interrelated concepts including functioning, competence, social adaptation, and impairment.

The instrument can assess dysfunction at different periods of time (i.e., the initial rating, rating after 3 months of treatment, and rating after 6 months of treatment). The CAFAS is used to obtain information from the child (*child scales*) and the child’s caregiver (*caregiver scales*). The instrument consists of eight child scales: School/Work Role Performance (e.g., the child is comfortable and competent in relevant roles, or is out of school or job due to behavior), Home Role Performance (e.g., the child typically complies with reasonable rules, or the child is not in the home due to behavior), Community Role Performance (e.g., the child’s behavior does not negatively impact the community, or, the child is confined due to behavior), Behavior Toward Others (e.g., the child relates satisfactorily to others, or behavior is consistently bizarre or extremely odd),
Moods/Emotions (e.g., the child’s daily life is not disrupted, or it is viewed as odd or strange because emotional responses are incongruous most of the time), Self-Harmful Behavior (e.g., the child has not exhibited self-harmful behaviors, or non-accidental self-destructive behavior that has resulted in or could result in serious self-harm or self-injury), Substance Abuse (e.g., the child does not use substances, nor does the child’s lifestyle center on acquisition and use of substances), and Thinking (e.g., the child’s thought as reflected by communication is not disordered or eccentric, nor are there communications which are impossible or extremely difficult to understand.

In addition, the CAFAS also has two caregiver scales including the Basic Needs scale and Family/Social Support scale. For each of these two caregiver scales, the extent of functional impairment is rated on a 4-point Likert-type scale. The Basic Needs scale includes such items as, “the child’s basic needs are arranged for or adequately met so that there is no disruption in the child’s functioning”, or “the child’s needs are not being met such that there is a severe risk to the health or welfare of the child.” The Family/Social support scale includes such items as, “the family is sufficiently warm, secure, and sensitive to meet the youth’s major needs”, or the “sociofamilial” setting is potentially dangerous to the youth due to lack of family resources required to meet the youth’s needs/demands.”

A subscale score of 30 corresponds to severe, 20 corresponds to moderate, 10 corresponds to mild, and 0 corresponds to minimal or no impairment in the child’s functioning. The total score for the child scales is the sum of scores on the eight individual child scales. Categories of impairment are identified by overall ranges of scores on the CAFAS. Score ranges indicating the youth’s level of impairment are
applied as follows: “Youth exhibits no noteworthy impairment” (score range of 0-10); “Youth likely can be treated on an outpatient basis, provided that risk behaviors are not present” (score range of 20-40); “Youth may need additional services beyond outpatient care” (score range of 50-90); “Youth likely needs care which is more intensive than outpatient and/or which includes multiple sources of supportive care” (score range of 100-130); “Youth likely needs intensive treatment, the form of which would be shaped by the presence of risk factors and the resources available within the family and community” (score of 140 and higher).

The CAFAS is a global, multidimensional measure. When scoring the CAFAS, the rater is required to directly assess either behavioral impairment itself or behavioral indicators of cognitive or emotional problems. In addition, the rater determines the severity level for each scale by choosing among the provided behavioral descriptions (e.g., severe, minimal or no impairment). These two features are important in assuring that the CAFAS is used consistently and in the intended way.

The validity and reliability of the CAFAS have been empirically documented (Bates, Furlong & Green, 2006). Its inter-rater reliability was determined for raters with various levels of experience from novice undergraduate students to doctoral level psychologists. For the CAFAS child scale total score, both internal consistency and inter-rater reliability values obtained with student raters were similar to those for the Children’s Global Assessment Scale (Shaffer, Gould, Brasic, Ambrosini, Fisher, & Bird, 1983) obtained with highly trained professionals. Hodges (1997) stated that the internal consistency coefficient (Cronbach’s alpha) values ranged from .63 to .68, citing her own psychometric paper as the source for these data (Hodges & Wong, 1996). Evidence for
the inter-rater reliability for the CAFAS has been well-documented. Hodges and Wong assessed inter-rater reliability for the CAFAS and determined that the aggregated Pearson coefficients for four different samples ranged from .74 to .99. Similarly, Bates and colleagues found that the CAFAS items successfully measured the cognitive and behavioral domains of the target population.

Hodges and Wong (1996) demonstrated the construct validity of the CAFAS by investigating it’s relationships with global measures of psychopathology and problematic behaviors. These measures included the Child Assessment Scale (CAS; Hodges, 1990), Parent Child Assessment Scale (PCAS; Hodges, 1990), the Burden of Care Questionnaire (BCQ; Bickmann, 1996), the Child Behavior Checklist (CBCL; Achenbach, 1991), and the Teacher Report Form (TRF; Edelbrock & Achenbach, 1984). Correlations between the CAFAS and other global measures of functioning across four points in time were as follows: PCAS (.59, .62, .58, .63); CBCL (.42, .49, .48, .47); CAS (.54, .56, .55, .52); and BCQ (.36, .42, .43, .42). As indicated, moderate positive correlations were found for all measures across all time periods, providing evidence for the validity of the CAFAS for evaluating a wide range of problematic behaviors.

The psychometric data for the CAFAS were collected through the Fort Bragg Evaluation Project (Bickman, 1996), a demonstration project comparing the continuum of care with traditional mental health services for youths with Severe Emotional Disorders (SED). Thus, the psychometric data are clearly relevant to the target population and do provide support for its valid use with children and adolescents with SED (Bates, 2001).

*The Ohio Youth Problems, Functioning, and Satisfactions Scales (Ohio Scales).*

The Ohio Scales (2000) were created to measure four primary areas or domains of youth
functioning including problem severity, functioning, hopefulness, and satisfaction with behavioral health services. It employs three forms to be completed by the youth client, the youth's parent or primary caregiver and the youth's mental health agency worker. The parent/caregiver, youth, and agency worker rate the problem severity and functioning scales. The youth and parent rate their satisfaction with behavioral health services scales. The youth rate their hopefulness about life and overall well-being. Parents or caregivers rate their hopefulness about ensuring that the child’s mental and emotional needs are being met.

The Problem Severity Scale is comprised of 20 items covering areas of common problems reported by youth who received behavioral health services (e.g., case management, therapy, medication/somatic services) at the time the scale was developed. Each item is rated on a 6-point Likert-type scale for severity or frequency where 0 indicates Not at all and 5 indicates All of the time. A total score for the Problem Severity Scale is achieved by summing the scores for the 20 items.

The Functioning Scale is comprised of 20 items intending to rate the youth’s level of functioning in a variety of areas of daily activity (e.g., interpersonal relationships, recreation, self-direction and motivation). Each of these items is rated on a 5-point Likert-type scale where 0 indicates Extreme troubles and 4 indicates Doing very well. A total score is achieved by summing the scores for the 20 items.

The Satisfaction and Hopefulness Scales included on both the parent and youth forms are comprised of four items assessing satisfaction and inclusion in behavioral health services on a 6-point Likert-type scale where 1 indicates Extremely satisfied and 6
indicates Extremely dissatisfied. The total Satisfaction and Hopefulness score is achieved by summing the four items for each of the parent and youth forms.

Four additional items on the parent and youth forms tap levels of hopefulness and well-being, either about parenting or self-future, respectively. On the parent version, the items assess the caregivers' feelings about their ability to care for the child. The youth version contains items that assess the youth's feelings about his/her self and future. The value of each of these is also rated on a 6-point Likert-type scale. The total hopefulness score is calculated by summing the four items.

Finally, the agency worker version includes a copy of the Restrictiveness of Living Environments Scale (ROLES; Hawkins et al., 1986). The ROLES assesses the level of restrictiveness for the youth's placements during the 90 days prior to the completion of the scale. The ROLES consists of a list of 23 categories of residential settings. Next to each specific setting there is a blank line in which the agency worker writes the number of days (during the prior 90 days) that the youth was residing in that setting. A higher score means that the youth is placed in a more restrictive setting. While the author of the Ohio Scales did not develop this scale (see Hawkins et al., 1986), it was felt that tracking this information could be useful to the agency worker (Ogles, Melendez, Davis, & Lunen, 2000).

Procedure

Permission to use the data from the active client files at Pressley Ridge for the purposes of the present study was granted to the author by the Intensive In-home Program Director at Pressley Ridge (Appendix C). The present investigation used analyses of archival data from the Pressley Ridge Intensive In-Home program. Each child involved in
this study had a completed Child at Entry form, CAFAS, and Ohio Scales upon his or her admission to the program. Children in the mentored condition began receiving mentoring services after their admittance to the Intensive In-Home program. The CAFAS and Ohio Scales were re-administered to each child at 1-month, 3-month and 6-month intervals during their involvement in the program. Changes in the scores were evaluated and considered to be indicative of changes in the youth’s behavioral and emotional functioning. The only rater of the data in the present study was the author.
CHAPTER III

Results

The means and standard deviations of the dependent variable, functioning, as affected by mentoring condition, time of administration of the CAFAS, and domains of the CAFAS, as analyzed in the present study are presented in Table 1 (See Appendix D). The mentored youth demonstrated lower mean scores on all domains from the first to third administrations of the CAFAS. Likewise, the largest difference in mean scores was between the first and third administration for the mentored youth on the home role performance and community role performance domains of the CAFAS. Conversely, the non-mentored youth demonstrate relatively stable scores on all domains from the first to third administrations.

Do the Child and Adolescent Functional Assessment Scale (CAFAS) and the Ohio Youth Problems, Satisfaction and Functioning Scales (Ohio Scales) measure the same thing?

A Pearson Product Moment correlation analysis addressed the relationship between scores on the CAFAS and the functioning subscale of the Agency Worker version of the Ohio Scales at each administration (initial, 3 months, 6 months). Note that the scoring of the CAFAS is inverse to that of the Ohio Scales: that is, higher scores on the CAFAS indicate poorer functioning, while higher scores on the Ohio Scales indicate better functioning. The correlations were found to be statistically significant at an alpha level of .01. For the initial administration, a correlation was found of \( r = -.56 \). For the three-month administration, a correlation was found of \( r = -.621 \). For the six-month
administration, a correlation was found of $r = -0.659$. Each correlation indicates that the two instruments were inversely, and strongly related at each time of measurement, consistent with their different scoring methods. Since these two instruments were demonstrated to measure the same concepts, the remainder of this investigation focused solely on the CAFAS. In addition, the use of the CAFAS offered the ability to investigate specific life domains of the youth in the present investigation. The Ohio Scales did not offer this possibility.

In order to get an overall look at improvement in functioning, a count was made of those youth who had improved from the first to the last administration of the CAFAS. See Table 2, for the percents based on these frequencies. These data were used to obtain an overall effect of mentoring, as well as to evaluate its specific effects as a function of race and gender. First, to look at overall effectiveness of mentoring, a binomial test compared mentored to non-mentored participants and indicated that the mentored youth demonstrated a greater

Table 2

Percent of Change from CAFAS Administration 1 to CAFAS Administration 3

<table>
<thead>
<tr>
<th></th>
<th>School/Work</th>
<th>Home</th>
<th>Community</th>
<th>Behavior</th>
<th>Mood/Emotions</th>
<th>Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored</td>
<td>7.7</td>
<td>26.9</td>
<td>7.7</td>
<td>15.4</td>
<td>7.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-Mentored</td>
<td>0.0</td>
<td>6.7</td>
<td>0.0</td>
<td>0.0</td>
<td>16.7</td>
<td>3.3</td>
</tr>
</tbody>
</table>
improvement in functioning, $z = 2.07, p < .05$, the level of significance used throughout the remainder of these analyses. Of the mentored youth, 83% exhibited higher levels of functioning over the time period studied. This is in contrast with the non-mentored youth, where 17% exhibited higher levels of functioning over the same time period.

Is there a difference in mentoring according to race?

As can be seen in Table 3, there were 42 Caucasian youth and 14 Non-Caucasian youth evaluated in the present research. Of these, 19 Caucasian youth were mentored and 7 Non-Caucasian youth were mentored. As can be seen in Table 4, 57.9% of the mentored Caucasians and 28.9% of the mentored Non-Caucasians improved in functioning from the first to the third administration of the CAFAS. In contrast, only 20% of the non-mentored Caucasians improved. There appears to be no difference in improvement between the mentored and the non-mentored Non-Caucasians (28.9%).

Although there was a large disparity in frequency in the sample due to the low numbers of Non-Caucasian youth followed by the youth agency providing the data for analysis, a chi-square test of independence was conducted in order to determine the effects of mentoring depending on the mentored youth’s race. As we had hypothesized, results of this analysis indicated that there was no significant difference for the mentored and non-mentored youth between the Caucasian and Non-Caucasian youth, $\chi^2(df = 1) = 0.303$.

However, this finding must be viewed with caution due to the relatively low number of Non-Caucasian participants utilized in the present investigation. Thus, race was eliminated from further analysis in this investigation.
Table 3

Percent of Change from CAFAS Administration 1 to CAFAS Administration 3 for Race and Condition (Mentored vs. Non-Mentored)

<table>
<thead>
<tr>
<th></th>
<th>Caucasian</th>
<th>Non-Caucasian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored</td>
<td>57.9</td>
<td>28.9</td>
</tr>
<tr>
<td>Non-Mentored</td>
<td>20.0</td>
<td>28.9</td>
</tr>
</tbody>
</table>

Is there a difference in mentoring according to gender?

There were 21 girls and 35 boys evaluated in the present research. Of these, 8 girls were mentored and 18 boys were mentored. As can be seen in Table 4, 61.1% of the mentored boys and 25% of the mentored girls improved in functioning from the first to the third administration of the CAFAS. In contrast, only 29.4% of the non-mentored boys improved. There appears to be little difference in improvement between the mentored and the non-mentored girls (23.1%). A chi-square test of independence was conducted in order to determine the effects of mentoring depending on the mentored youth’s gender. Results of this analysis indicated that, despite the apparent difference between mentored and non-mentored boys in improvement in functioning, there was no statistically significant difference for the mentored and non-mentored youth between boys and girls, \( \chi^2 (df = 1) = 1.31 \). Thus, gender was also eliminated from further analysis in this investigation. Again, these results must be considered with caution due to the disparate number of boys and girls in the study, also consistent with the relative number of male and female youth in treatment (Ohio Department of Mental Health, 2008).
Table 4

Percent of Change from CAFAS Administration 1 to CAFAS Administration 3 for Sex and Condition (Mentored vs. Non-Mentored)

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentored</td>
<td>61.1</td>
<td>25.0</td>
</tr>
<tr>
<td>Non-Mentored</td>
<td>29.4</td>
<td>23.1</td>
</tr>
</tbody>
</table>

*Is mentoring more beneficial to youth with initial higher levels of functional impairment?*

A Pearson Product Moment Correlation analysis addressed the relationship between youth with more functional impairment as indicated by higher initial CAFAS scores and overall percentage of change. Results indicated that the youth with higher levels of functional impairment demonstrated the most improvement from the mentoring relationship, $r = .578$.

*Do the individual domains of the CAFAS make a difference and does the length of time involved with a mentor have a role in the youth’s functioning?*

It was hypothesized that the youth involved with a mentor would demonstrate a greater amount of improvement with longer involvement with a mentor. In order to test this hypothesis, a three-way mixed factorial Analysis of Variance (ANOVA) with one between subjects factor (mentoring condition) and two within subjects factors (domain and administration time) was conducted in order to determine the relationship between mentoring condition, time of administration, and specific domains of the CAFAS.

Consistent with what can be seen in Figure 1, Panels (a) and (b), the results of this
Figure 1(a). Mean CAFAS Functioning Score for the Non-Mentored Condition for Eight Domains.

Figure 1(b). Mean CAFAS Functioning Score for the Mentored Condition for Eight Domains.
analysis indicated a three-way interaction between condition, time of administration, and domain, $F(14, 756) = 2.576, MSE = 2.947, \eta^2 = .046$. As can be seen in Figure 1, the mentored youth did show improvements in functioning, however, these improvements were only shown for specific domains of the CAFAS. Because we cannot assume that functioning on any one domain of the CAFAS is independent of the other domains, (see Hodges 1996), further analyses attempted to identify the loci of the interaction by looking at each domain separately. To that end, separate $2$ (condition) x $3$ (administration) mixed factorial ANOVAs were conducted for each of the eight domains of the CAFAS.

**Home Role Performance.** In addition to a main effect of administration, $F(2, 108) = 8.83, MSE = 4.595, \eta^2 = .141$, the ANOVA revealed a significant two-way interaction between condition and administration in their effects on home role performance as measured by scores on the CAFAS, $F(2, 108) = 3.13, MSE = 4.595, \eta^2 = .055$. That is, functioning appears to improve reliably from the first ($M = 16.15, SD = 9.83$) to the second ($M = 14.62, SD = 9.89$) to the third ($M = 13.46, SD = 8.49$) administration of the CAFAS for the mentored youth. In contrast, the mean functioning scores for the non-mentored youth was higher ($M = 17.33, SD = 9.80$) than that for the mentored youth at the first administration of the CAFAS. In addition, there appears to be little change from first to second ($M = 16.67, SD = 9.59$) or, indeed, to third ($M = 16.67, SD = 9.59$) administration for the non-mentored youth. Follow-up analyses focused on identifying the sources of the interaction and took the form of simple interaction and paired-comparison t-tests to evaluate improvement in functioning across CAFAS administrations.
As can be seen in comparing Figures 1 (a) and (b), larger differences appear to exist for the mentored youth between Administrations 1, 2, and 3 of the CAFAS than there do for the non-mentored youth. Further, the largest differences appear to be between Administrations 1 and 3 for the mentored youth. To statistically support this observation, three, simple 2 (mentoring condition) x 2 (administration) interaction analyses compared the mentored and non-mentored youth for differences in functioning as measured by the CAFAS, first for Administration 1 (A1) versus Administration 2 (A2), second for A1 versus Administration 3 (A3), and, third, for A2 versus A3. In only one case—A1 versus A3, was there a significant two-way interaction, $F(1, 54) = 4.42$, $MSE = 6.465$, $\eta^2 = .076$. For this comparison, there was also a main effect of administration, $F(1, 54) = 12.154$, $\eta^2 = .184$, but no main effect of mentoring condition, $F(1, 54) < 1.0$, $MSE = 172.372$. Follow-up paired comparison t-tests indicated that the difference between the mentored youth and non-mentored youth was due to the significant improvement in functioning from A1 to A3 for the mentored but not for the non-mentored youth. The difference between A1 and A3 was reliable for the mentored youth, $t(25) = 3.035$, $SE = 0.887$, but not for the non-mentored youth, $t(29) = 1.439$, $SE = 0.463$.

To complete the picture of changes in functioning in home role performance, the remaining 2 x 2 simple interaction and paired-comparisons analyses revealed no significant effects for A2 versus A3: for the interaction and effect of administration the results were identical and approached significance, $F = (1, 54) = 3.773$, $p = .057$, $MSE = 4.862$; but, no effect for mentoring condition, $F(1, 54) = 1.101$, $MSE = 174.727$. Similarly, there was no interaction for A1 versus A2, $F(1, 54) = 1.089$, $MSE = 4.862$;
and no main effect of mentoring condition, $F(1, 54) < 1.0$, $MSE = 186.154$; however, there was a main effect of administration, $F(1, 54) = 6.965$, $MSE = 4.862$, $\eta^2 = .114$. Follow-up paired comparison t-tests revealed a significant difference for the mentored youth between A1 and A2, $t(25) = 2.132$, $SE = 0.722$, but not for the non-mentored youth, $t(29) = 1.439$, $SE = 0.463$.

In summary, improvement in functioning in home role performance was reliable and consistent for the mentored youth, particularly from the beginning to the end of the mentoring period, while there was no improvement for the non-mentored youth.

**Community Role Performance.** In addition to a main effect of administration, $F(2,108) = 3.377$, $MSE = 3.059$, $\eta^2 = .049$, the ANOVA revealed a significant two-way interaction between condition and administration in their effects on community role performance functioning as measured by scores on the CAFAS, $F(2,108) = 2.987$, $MSE = 3.059$, $\eta^2 = .055$. That is, functioning appears to improve reliably from the first ($M = 19.62$, $SD = 9.58$) to second ($M = 17.31$, $SD = 10.02$) to the third ($M = 16.54$, $SD = 9.77$) administration of the CAFAS for the mentored youth. In contrast, the mean functioning scores for the non-mentored youth was slightly higher ($M=19.67$, $SD = 7.65$) than that for the mentored youth at the first administration of the CAFAS. In addition, there was no change from the first to second ($M = 19.67$, $SD = 7.65$), nor to the third ($M = 19.33$, $SD = 7.85$) administration for the non-mentored youth. Follow-up analyses focused on identifying the sources of the interaction and took the form of simple interaction and paired-comparisons t-tests to evaluate improvement in functioning across CAFAS administrations.
As can be seen in Figures 1 (a) and (b), larger differences appear to exist for the mentored youth between Administrations 1, 2, and 3 of the CAFAS for the Community domain than there do for the non-mentored youth. Further, the largest differences appear to be between Administrations 1 and 3 for the mentored youth. To statistically support this observation, three simple 2 (mentoring condition) x 2 (administration) interaction analyses compared the mentored and non-mentored youth for differences in functioning as measured by the CAFAS, first for A1 versus A2, second for A1 versus A3, and, third, for A2 versus A3. Significant two-way interactions were found between A1 and A2, $F(1, 54) = 6.06, MSE = 6.125, \eta^2 = .101$, and also between A1 and A3, $F(1, 54) = 5.39, MSE = 9.727, \eta^2 = .091$. There was also a main effect of administration for A1 and A2, $F(1, 54) = 6.055, MSE = 6.125, \eta^2 = .101$ and also for A1 and A3, $F(1, 54) = 8.327, MSE = 9.727, \eta^2 = .134$. There was no main effect of mentoring condition for A1 and A3, or for A1 and A2, $F(1, 54) < 1.0$, in each case, $MSE = 172.372$ and 168.225, respectively. Follow-up paired comparison t-tests evaluated the three means for administration for mentored and non-mentored youth, separately, and indicated that the difference between the mentored youth and non-mentored youth was due to the significant improvement in functioning from A1 to A2 and from A1 to A3 for the mentored youth but not for the non-mentored youth. The difference between A1 and A2 was reliable for the mentored youth, $t(25) = 2.287, SE = 1.01$, but not for the non-mentored youth, $t(29) = 1.439, SE = 0.463$. Likewise, the difference between A1 and A3 was reliable for the mentored group, $t(25) = 2.540, SE = 1.211$, but not for the non-mentored group, $t(29) = 1.368, SE = 0.457$.

To complete the picture of changes in functioning in community role performance, the remaining 2 x 2 simple interaction and paired-comparisons analyses
revealed no significant effects for A2 versus A3. Both tests of the interaction, $F(1, 54) < 1.00$, $MSE = 4.456$, and an effect of administration, $F(1, 54) = 1.323$, $MSE = 4.456$, were non-significant.

In summary, improvement in functioning in community role performance was reliable and consistent for the mentored youth, particularly from the beginning to the end of the mentoring period, while there was no improvement for the non-mentored youth. Likewise, these findings suggest that the domains of home role performance and community role performance were the predominant loci of the interaction found in the omnibus three-way analysis.

*Domains of School/Work Role Performance, Self-Harmful Behavior, Thinking, and Substance Abuse.* Separate 2 x 3 ANOVAs revealed no interaction or main effects for any of the four domains of school/work role, self-harmful behavior, substance abuse or thinking, $F(2, 108) \leq 2.4902$, $MSE = 0.597$ to $2.425$, for interaction and main effect of administration, in each case; and $F(1, 54) \leq 1.285$, $MSE = 69.338$ to $260.198$, for main effect of mentoring condition, in each case. Thus, as suspected by the examination of Figures 1 (a) and (b), there was no reliable improvement in functioning for these domains. It should be noted that youth, regardless of mentoring condition in the present study, functioned better (i.e., scored lower) in the Self-Harmful Behavior and Substance Abuse Domains. These observations are consistent with those of Hodges and Wotring (2000) who reported a cluster analysis identifying this type of youth as Comorbid/ Self-Harmful, and which found them to be the least impaired of a variety of behaviorally-impaired youth. Hodges and Wotring evaluated youth with substance abuse, as well, categorizing them as Substance Users/ Externalizers; similar to those fitting the CAFAS
category of Self-Harmful Behavior, these youth were less functionally impaired than for other domains identified in those authors’ cluster analysis.

*Domains of Behavior towards Others, and Moods/Emotions.* Separate $2 \times 3$ ANOVAs revealed no interactions between administration and mentoring condition, $F(2, 108) \leq 1.773$, $MSE = 2.282$ to 4.482, nor any main effects of mentoring condition, $F(1, 54) < 1.0$, in any of these domains. However, in each domain, there was a main effect of administration; for the domain of Behavior towards Others, $F(2, 108) = 3.376$, $MSE = 2.282$, $\eta^2 = .059$; and for the domain of Moods/Emotions, $F(2, 108) = 3.367$, $MSE = 4.482$, $\eta^2 = .059$. Consequently, paired-comparison t-tests evaluated the means of the three administrations of the CAFAS, calculated by collapsing across the variable mentoring condition. First, for the domain of Behavior towards Others, the mean difference in functioning improvement between A1 and A3 was significant, $t(55) = 2.057$, $SE = 0.347$, however, the remaining two mean comparisons were not, $t(55) = 1.427$, $SE = 0.250$ in each case. Second, for the domain of Moods/Emotions, the mean difference in functioning improvement between A1 and A2, as well as between A1 and A3, was significant, $t(55) = 2.057$, $SE = 0.3473$ and $t(55) = 2.192$, $SE = 0.489$, respectively. However, there was no reliable mean difference in functioning improvement between A2 and A3 for the Moods/Emotions domain, $t(55) = 1.00$, $SE = 0.384$. In summary, consistent reliable differences exist for the administration condition, regardless of mentoring condition, indicating, that for these two domains, experience with mentoring produced no noticeable advantage for one group of youth over the other.
CHAPTER IV

Discussion

It is well established in the research literature that mentoring often produces positive outcomes for the mentored individual (Eby et al., 2007). Results often demonstrate that mentoring is associated with a wide range of favorable behavioral, attitudinal, health-related, relational, motivational, and career outcomes, although the effect size is generally small (DuBois et al., 2002; Eby et al.). The present study sought to advance our understanding of the role of mentors in the lives of youth by examining improvements in mentored youth’s behavior over time. Although previous studies have taken the approach of evaluating behavioral improvement over time (e.g., Grossman & Rhodes, 2002), the present study investigated specific life domains in which the youth demonstrated the most improvement. Using the Child and Adolescent Functional Assessment Scale (CAFAS), the present study examined eight life domains including school/work role performance, home role performance, community role performance, behavior toward others, moods/emotions, self-harmful behavior, substance use, and thinking. Changes in scores on each of the domains were measured for both mentored and non-mentored individuals at the initial assessment and for the 3- and 6-month intervals following the mentored youth’s involvement with a mentor. In addition, total scores on the CAFAS were correlated with the scores of the functioning portion of the Ohio Scales. The Ohio Scales had been administered for the same time frame as the
CAFAS. CAFAS and functioning scores for the Ohio Scales were highly correlated. Thus, remaining analyses focused on the CAFAS scores.

The first hypothesis for the present research was that the mentored youth, in contrast with the non-mentored youth, would demonstrate improved functioning scores on the CAFAS. Statistical results indicated that, overall, a greater percentage of the mentored youth demonstrated improvement as measured by scores on the CAFAS as compared to the youth in the non-mentored control group. Further analyses found a three-way interaction between condition, time of administration, and domain. These analyses suggested that the mentored youth did show improvements in functioning, however, these improvements were only reliable for specific domains of the CAFAS. The mentored youth demonstrated the greatest improvement in the home role performance and community role performance domains, while both the mentored and the non-mentored youth demonstrated improvement in the behavior towards others and the moods/emotions domains of the CAFAS. We speculate that the improvement in functioning on these domains for the non-mentored group is largely attributable to the fact that 60% of these youth were participating in individual therapy; additionally, there were 38% of the youth from the mentored group also involved in individual therapy.

The second hypothesis of the present research was that the mentored youth would demonstrate greater improvement in functioning with longer involvement in a mentoring relationship as compared to those in the non-mentored condition. A correlation analysis supported this hypothesis. Further, follow-up analyses to the three-way interaction between condition, time of administration, and CAFAS domains found that scores on the third administration of the CAFAS were lower—indicating improvement—than the
previous two administrations; the statistical reduction in the scores in all cases was
between the initial administration and the second administration, or between the initial
and the third, of the CAFAS. The reduction in scores between the second and third
administrations was not statistically reliable, indicating the likelihood that the advantages
of the mentoring relationship are experienced quickly and early in the first 3 months of
the relationship. Further analysis once again suggested that the mentored youth did
demonstrate a greater improvement over time than the non-mentored youth, but reliably
only for the home role performance and community role performance domains of the
CAFAS.

The third hypothesis of the present research was that there would be no difference
between the African-American and the Caucasian youth who were mentored. As we had
anticipated, there was no significant difference found in CAFAS score improvement
between the African-American and Caucasian mentored youth. We anticipated this
finding due to the fact that both races were receiving mentoring services from the same
mentors, therefore, the racial identity of the child should not impact outcome. Further,
Rhodes and colleagues (2005) found that youth involved in cross-racial mentoring
relationships often demonstrated greater behavioral outcomes than youth who were
involved with a mentor of the same race. Most importantly, this finding is consistent with
extant research that cross-race mentoring relationships are generally as helpful and
satisfying as same-race mentoring relationships and both produce equally beneficial
outcomes for the mentored youth (Johnson, 2007). However, it must be noted that there
were a disproportionately smaller number of African-American youth as compared to the
number of Caucasian youth in the present study. This disproportionate number is typical
of the clientele of the agency and others like it in this area of the state. Similarly, there was no significant difference found in improvement between male and female youth in the study. While research has demonstrated that mentoring has positive effects for both boys and girls (Darling et al., 2006), the effectiveness of these relationships depends largely on ensuring that mentoring occurs within a context of awareness of the differences in the social identities of boys and girls (Bogat & Liang, 2005). Since the present research was archival in nature, there was no possibility to ensure that such a context was or was not in place during the mentoring.

The final hypothesis of this study maintained that the youth who were more at risk would benefit the most from mentoring. As we had expected, results of the correlational analysis demonstrated that the youth with the most initial impairment in functioning did, in fact, show the greatest improvement in functioning over time. While it is not certain why this occurred, we speculate that one reason is that the youth with the highest initial CAFAS scores were more likely to be referred to receive mentoring services. This is supported by the fact that the youth in the non-mentored group had lower initial CAFAS scores and demonstrated less improvement over time.

Of particular importance to the present research questions is that behavioral improvement was not equal across all domains of the CAFAS. Specifically, the domains of home role performance and community role performance showed the greatest improvement for the mentored youth. While the other domains of the CAFAS did not show significant improvement for the mentored youth, we speculate that we could anticipate improvement in those domains with continued engagement in mentoring due to the fact that the mentored youth did demonstrate a greater overall level of improvement.
Similarly, Grossman and Rhodes (2002) found that adolescents involved in mentoring relationships that lasted longer than one year reported the greatest number of improvements in social and academic functioning with progressively fewer improvements occurring for youth who were in relationships that terminated earlier.

There are several possible factors that may contribute to the improvement that the mentored youth demonstrated. The mentored youth in the present study demonstrated the most marked improvement in functioning within the domains of home role performance and community role performance. We attribute this finding to the fact that much of the mentoring that the youth in the present study received, most often occurred in community settings or in the home. Similarly, Beam and colleagues (2002) suggest that mentors tend to provide a combination of positive adult qualities (e.g., providing advice, serving as a role model) and “peer-like” relations (e.g., nonjudgmental, nonpunitive, fun) that often transfer to the context in which the mentoring occurred.

While there was no significant improvement for the mentored youth in the school/work domain of the CAFAS, effective outcomes for mentored youth in both vocational and academic settings have been documented (Britner et al., 2006). However, these relationships generally lasted for the entire course of the academic year. Similarly, while the present study did find significant improvement for the mentored youth, as well as for the non-mentored youth, in the domains of behavior toward others and moods/emotions, Greenberger and colleagues (1998) found that mentors demonstrated a positive effect on the youth’s behavior and mood, and this effect was independent of analogous family and peer interactions. Likely, these interactions produced benefits for
the mentored consistent with those experienced by the non-mentored—and some
mentored—youth in individual therapy.

Finally, there was no statistically significant improvement for the mentored or the
non-mentored youth on the thinking domain of the CAFAS. However, prior research has
indicated that mentoring produces significant changes in a number of cognitive and
emotional outcome variables. These include attitudes toward school, academic
confidence, self-concept, attitudes toward helping others, feelings of school
connectedness, representations of parental and teacher relationships (e.g., the youth’s
cognitive representations of parents and teachers), and perceptions of support from
significant adults outside mentoring relationships (Larose & Tarabulsy, 2005). Again,
these mentoring relationships, part of a larger academic program, generally lasted for the
entire school year.

Limitation of the Present Study and Future Research

There is a methodological consideration that may have placed limitations on this
study. That is sample size. There were a total of 56 participants in the present study. Of
these, 26 were mentored youth. The number of participants was limited by selecting all of
the youth who were mentored in the past, and randomly selecting a comparable non-
mentored control group. As such, it is believed that this limited sample size might have
contributed to the lack of significant findings for some and the overall weak effect for
other domains ($\eta^2$ ranged from .089 to .172) examined in the present study.

There are a number of ways in which research on mentoring and benefits for
youth could be addressed in future research. First, research should attempt a more
controlled study with a larger sample size to replicate the results that we have found. As
we noted earlier, it would be beneficial to evaluate functional improvement of the mentored youth following longer involvement with a mentor. This would possibly enable the researcher to identify other domains of the CAFAS in which behavioral improvement would be demonstrated that were not found in the present study. Similarly, the improvements for the home role performance and community role performance may be even greater following longer involvement in a mentoring relationship.

A second area that research should address is the way in which mentoring relationships vary depending on the gender of the mentor. In the present study, mentors were assigned regardless of gender and, due to availability, all but one of the mentors were women. Future research should examine the behavioral outcomes of youth with same sex versus opposite sex mentors. This area of investigation has been addressed in prior research (e.g., Baugh, Lankau, & Scandura, 1996) who found differing outcomes for same-gender versus opposite-gender protégés in the workplace. However, it would be beneficial to evaluate its role in mentoring relationships with youth.

In conclusion, the present research serves to further our understanding of the role of mentoring in working with youth with mental and emotional disorders. Our use of archival data for this investigation proved to be a non-intrusive means of gaining an understanding of the functional improvements that are seen in youth who are involved in a mentoring relationship. Likewise, the use of a repeated-measures design enabled us to observe changes in the youth’s behavior over a six-month period. Finally, use of the CAFAS enabled us to determine specific behavioral domains of the youth that benefited most immediately from involvement with a mentor. In conclusion, the merits of
scrutinizing at-risk youth behavior according to CAFAS domains are strongly consistent with the goals of mentoring.
References


APPENDIX A

Child at Entry Form
## CHILD AT ENTRY

**CHILD’S NAME:**

<table>
<thead>
<tr>
<th>ENTRY DATE:</th>
<th>DATE OF BIRTH:</th>
</tr>
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<tbody>
<tr>
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<table>
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<tr>
<th>Male</th>
<th>Female</th>
<th>African American</th>
<th>Native American/Alaskan Native</th>
<th>Asian/Pacific Islander</th>
<th>White</th>
<th>Hispanic Origin</th>
<th>Multiracial</th>
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</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### OUTCOMES

- **TFC & HB Attach CAFAS**
- **STL Attach CAMS**
- **All OH Programs attach Ohio Scales**

### RESIDENTIAL INSTABILITY (prior 2 years)

<table>
<thead>
<tr>
<th>Has had three or more moves?</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>In county custody?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>County has removed from family home</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Resides or has resided in residential treatment facility</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### CURRENT FAMILY PROBLEMS

- Behavioral health limitations of the parent or caregiver including mental retardation/developmental disabilities  
  - Yes | No |
- Behavioral health limitations of the parent or caregiver including mental illness  
  - Yes | No |
- Behavioral health limitations of the parent or caregiver including substance abuse  
  - Yes | No |
- Communication limitations of the family (i.e., deaf, hard of hearing, Aphasia)  
  - Yes | No |
- Criminal behavior in family;  
  - Yes | No |
- Domestic abuse and violence in the family;  
  - Yes | No |
- History of child neglect or abuse by the parents or caregiver;  
  - Yes | No |
- Other person(s) living in the house with mental illness, substance abuse, or other problems that require intervention;  
  - Yes | No |
- Physical health limitations of parent or caregiver;  
  - Yes | No |
- Siblings with serious mental illness, substance abuse, or other problems that require intervention.  
  - Yes | No |

### ISSUES AT ENTRY (RATE FOR LAST 12 MONTHS)

**SEVERE:** Significant problems or symptoms impairment causes significant disruption and very poor functioning in at least one life sphere almost all the time, requires constant attention. Difficult or impossible to perform important activities or to behave as expected. Welfare of youth or others around youth is at risk.

**MODERATE:** Frequent, occasional or intermittent disruption with major implications for functioning. One or more areas of functioning negatively impacted or interfered with. Youth is still able to continue functioning.

**MILD:** Some problems or distress that disrupt functioning, requires some attention. Note-worthy problems or symptoms but no major dysfunction or disturbance or interference with functioning.

### INTENSITY LEVEL

- **Abuse/Neglect** (abandoned, physical, sexual, emotional)  
  - mild | moderate | severe |
- **Aggression** (physical, verbal, property destruction)  
  - mild | moderate | severe |
- **Alcohol Use**  
  - mild | moderate | severe |
- **Chemical or Drug Use**  
  - mild | moderate | severe |
- **Conduct** (non-aggressive; defiant, runaway, overactive, impulsive)  
  - mild | moderate | severe |
- **Criminal Behavior** (vandalism, drug related, assault, felony)  
  - mild | moderate | severe |
- **Family Problems** (domestic violence family conflict)  
  - mild | moderate | severe |
- **Interpersonal/Social Skills** (poor peer relations, withdrawn)  
  - mild | moderate | severe |
- **Mood/Anxiety** (depressed, suicidal, overanxious)  
  - mild | moderate | severe |
- **Police Contact or Arrest** (protest, delinquency, felony, jailed)  
  - mild | moderate | severe |
- **Pregnancy or Parenthood** (pregnant, gave birth, fathered child)  
  - mild | moderate | severe |
- **Schools Problems** (academic, behavior, suspension)  
  - mild | moderate | severe |
- **Sexually Active**  
  - mild | moderate | severe |
- **Tobacco Use** (cigarettes, cigars, pipes, smokeless)  
  - mild | moderate | severe |
- **Running Away**  
  - mild | moderate | severe |
- **Fire Setting**  
  - mild | moderate | severe |
- **Suicidal Gestures**  
  - mild | moderate | severe |
<table>
<thead>
<tr>
<th>OUTCOME</th>
<th>REASON</th>
<th>SYSTEMS INVOLVED</th>
<th>SOLUTION</th>
<th>PRIMARY CONTACT</th>
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<tr>
<td>Adult</td>
<td>Self</td>
<td>Independent living</td>
<td>Foster care</td>
<td>Social Services</td>
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<tr>
<td>Child</td>
<td>Home</td>
<td>Homeless</td>
<td>Residential</td>
<td>Foster Care</td>
</tr>
<tr>
<td>Youth</td>
<td>School</td>
<td>Special Education</td>
<td>Classroom</td>
<td>Teacher</td>
</tr>
</tbody>
</table>

**PRESSLEY RIDGE CLINICAL PERFORMANCE INDICATORS**

**REVISED 11-14-05**
APPENDIX B

Ohio Youth Problems, Functioning, and Satisfaction Scales (Ohio Scales)
Ohio Mental Health Consumer Outcomes System
Ohio Youth Problem, Functioning, and Satisfaction Scales

Child’s Name: ____________________________

UCI #: ____________________________

County: Hamilton □ Butler □ Clermont □ Other ______

Program: Foster Care □ Home Based □ Supported Transitional Living □

Child’s Grade: ______

Administration: Initial □ 6 months □ Annual □ Termination □ Other □

Form Completed By: ____________________________ Case Manager □ Therapist □ Other □

Date Completed: ____________________________

Please complete the following demographics for initial administrations only:

Sex: male □ female □

Race: White □ Native American/Pacific Islander □ Black/African American □ Hispanic/Latino □ Asian □ other □

Date of Birth: ____________________________

Admission Date: ____________________________

Primary Diagnosis: ____________________________

Please Rate the degree to which the designated child has experienced the following problems in the past 30 days.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not at All</th>
<th>Once or Twice</th>
<th>Several Times</th>
<th>Often</th>
<th>Most of the Time</th>
<th>All of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arguing with others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Getting into fights</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Yelling, swearing, or screaming at others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Fits of anger</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Refusing to do things teachers or parents ask</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Causing trouble for no reason</td>
<td>0</td>
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<td>2</td>
<td>3</td>
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</table>
### Agency Worker - W

**Roles:** Enter the number of days the youth was placed in each of the following settings during the past 90 days. (For example, the youth may have been in a detention center for 3 days, a group home for 7 days, and with bio mother for 80 days.)

<table>
<thead>
<tr>
<th>Setting</th>
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</tr>
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<tbody>
<tr>
<td>Jail</td>
<td>Foster Care</td>
</tr>
<tr>
<td>Juvenile Detention Center</td>
<td>Supervised Independent Living</td>
</tr>
<tr>
<td>Inpatient Psychiatric Hospital</td>
<td>Home of a Family Friend</td>
</tr>
<tr>
<td>Drug/Alcohol Rehabilitation Center</td>
<td>Adoptive Home</td>
</tr>
<tr>
<td>Medical Hospital</td>
<td>Home of a relative</td>
</tr>
<tr>
<td>Residential Treatment</td>
<td>School Dormitory</td>
</tr>
<tr>
<td>Group Emergency Shelter</td>
<td>Biological Father</td>
</tr>
<tr>
<td>Residential Job Corp/Vocational Center</td>
<td>Biological Mother</td>
</tr>
<tr>
<td>Group Home</td>
<td>Two Biological Parents</td>
</tr>
<tr>
<td>Therapeutic Foster Care</td>
<td>Independent Living with Friends</td>
</tr>
<tr>
<td>Individual Home Emergency Shelter</td>
<td>Independent Living by Self</td>
</tr>
<tr>
<td>Specialized Foster Care</td>
<td></td>
</tr>
</tbody>
</table>

**Total for two columns must equal 90 days**

<table>
<thead>
<tr>
<th>Number in Past 90 days</th>
<th>-Arrests</th>
<th>-Suspensions from school</th>
<th>-Days in Detention</th>
<th>-Days of School Missed</th>
<th>-Self-Harm Attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

**Instructions:** Please circle the number corresponding to the designated youth’s current level of functioning in each area.

1. Getting along with friends
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

2. Getting along with family
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

3. Dating or developing relationships with boyfriends or girlfriends
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

4. Getting along with adults outside the family (teachers, principal)
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

5. Keeping neat and clean, looking good
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

6. Caring for health needs and keeping good health habits (taking medicines or brushing teeth)
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

7. Controlling emotions and staying out of trouble
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

8. Being motivated and finishing projects
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

9. Participating in hobbies (baseball cards, coins, stamps, art)
   - Extreme Troubles: 0
   - Quite a Few Troubles: 1
   - Some Troubles: 2
   - OK (or better): 3
   - Doing Very Well: 4

10. Participating in recreational activities (sports, swimming, bike riding)
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

11. Completing household chores (cleaning room, other chores)
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

12. Attending school and getting passing grades in school
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

13. Learning skills that will be useful for future jobs
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

14. Feeling good about self
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

15. Thinking clearly and making good decisions
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

16. Concentrating, paying attention, and completing tasks
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

17. Earning money and learning how to use money wisely
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

18. Doing things without supervision or restrictions
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

19. Accepting responsibility for actions
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

20. Ability to express feelings
    - Extreme Troubles: 0
    - Quite a Few Troubles: 1
    - Some Troubles: 2
    - OK (or better): 3
    - Doing Very Well: 4

---

**Signature of Person Completing Assessment**

**Date**

Pave 2 of 2
Ohio Mental Health Consumer Outcomes System
Ohio Youth Problem, Functioning, and Satisfaction Scale

Parent Form – P

Child’s Name: ____________________________  UCI #: __________________________________

Today’s Date: ___________ Child’s Grade: ___________

County: Hamilton □ Butler □ Clermont □

Program: Foster Care □ Home Based □ STL □

If not completed: Refused □ Unable to complete □

Administration: Initial □ 6 months □ Annual □ Termination □ Other □

Form Completed By: mother □ father □ step-mother □ step-father □ other □

Please rate the degree to which your child has experienced the following problems in the past 30 days.

<table>
<thead>
<tr>
<th></th>
<th>Not at All</th>
<th>Once or Twice</th>
<th>Several Times</th>
<th>Often</th>
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<tbody>
<tr>
<td>1. Arguing with others</td>
<td>0</td>
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<td>3</td>
<td>4</td>
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<tr>
<td>2. Getting into fights</td>
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</tr>
<tr>
<td>4. Fits of anger</td>
<td>0</td>
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<tr>
<td>6. Causing trouble for no reason</td>
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</tbody>
</table>
### Parent Form – P

Instructions: Please circle your response to each question.

1. Overall how satisfied are you with your relationship with your child right now?
   1. Extremely satisfied
   2. Moderately satisfied
   3. Somewhat satisfied
   4. Somewhat dissatisfied
   5. Moderately dissatisfied
   6. Extremely dissatisfied

2. How capable of dealing with your child’s problems do you feel right now?
   1. Extremely capable
   2. Moderately capable
   3. Somewhat capable
   4. Somewhat incapable
   5. Moderately incapable
   6. Extremely incapable

3. How much stress or pressure is in your life right now?
   1. Very little
   2. Some
   3. Quite a bit
   4. A moderate amount
   5. A great deal
   6. Unbearable amounts

4. How optimistic are you about your child’s future right now?
   1. The future looks very bright
   2. The future looks somewhat bright
   3. The future looks okay
   4. The future looks both good and bad
   5. The future looks bad
   6. The future looks very bad

---

<table>
<thead>
<tr>
<th>Instructions: Please rate the degree to which your child’s problems affect his or her current ability in everyday activities. Consider your child’s current level of functioning.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Getting along with friends</strong></td>
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<td><strong>2. Getting along with family</strong></td>
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<td><strong>3. Dating or developing relationships with boyfriends or girlfriends</strong></td>
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**Signature of Person Completing Assessment**

**Date**

**Page 2 of 2**
Ohio Mental Health Consumer Outcomes System
Ohio Youth Problem, Functioning, and Satisfaction Scale
Youth Rating-Short Form (Ages 12-18)

| Youth Name: ______________________________ | UCI #: ___________________________ |
| County: Hamilton [ ] Butler [ ] Clermont [ ] |
| Program: Foster Care [ ] Home Based [ ] STL [ ] |
| If not completed: Refused [ ] Unable to complete [ ] Under 12 [ ] |
| Today's Date: ___________ Grade: ______ |
| Administration: Initial [ ] 6 months [ ] Annual [ ] Termination [ ] Other [ ] |

Please rate the degree to which you have experienced the following problems in the past 30 days.

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<td>1 [ ]</td>
<td>2 [ ]</td>
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</table>
### Youth Form – Y

**Instructions:** Please circle your response to each question.

1. **Overall how satisfied are you with your life right now?**
   1. Extremely satisfied
   2. Moderately satisfied
   3. Somewhat satisfied
   4. Somewhat dissatisfied
   5. Moderately dissatisfied
   6. Extremely dissatisfied

2. **How energetic and healthy do you feel right now?**
   1. Extremely capable
   2. Moderately capable
   3. Somewhat capable
   4. Somewhat incapable
   5. Moderately incapable
   6. Extremely incapable

3. **How much stress or pressure is in your life right now?**
   1. Very little
   2. Some
   3. Quite a bit
   4. A moderate amount
   5. A great deal
   6. Unbearable amounts

4. **How optimistic are you about the future?**
   1. The future looks very bright
   2. The future looks somewhat bright
   3. The future looks ok
   4. The future looks both good and bad
   5. The future looks bad
   6. The future looks very bad

---

**Instructions:** Below are some ways your problems might get in the way of your ability to do everyday activities. Read each item and circle the number that best describes your current situation.

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<td>1. Getting along with friends</td>
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<td>2. Getting along with family</td>
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<td>3. Dating or developing relationships with boyfriends or girlfriends</td>
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<td>4. Getting along with adults outside the family (teachers, principal)</td>
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<td>5. Keeping neat and clean, looking good</td>
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<td>7. Controlling emotions and staying out of trouble</td>
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<td>8. Being motivated and finishing projects</td>
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<td>9. Participating in hobbies (baseball cards, coins, stamps, art)</td>
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<td>10. Participating in recreational activities (sports, swimming, bike riding)</td>
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<td>11. Completing household chores (cleaning room, other chores)</td>
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<td>13. Learning skills that will be useful for future jobs</td>
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<td>14. Feeling good about self</td>
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<td>15. Thinking clearly and making good decisions</td>
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<td>16. Concentrating, paying attention, and completing tasks</td>
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<td>17. Earning money and learning how to use money wisely</td>
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<td>18. Doing things without supervision or restrictions</td>
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<td>19. Accepting responsibility for actions</td>
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<td>20. Ability to express feelings</td>
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**Signature of Person Completing Assessment**

**Date**

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*Page 2 of 2*
APPENDIX C

Permission for Research Letter
February 25, 2007

Erika M. Smith MSW, LSW
Pressley Ridge
734 Dayton Street
Hamilton OH 45011
esmith@pressleyridge.org

University of Dayton
Department of Psychology
Attn: Susan Davis Ph.D.
300 College Park
Dayton OH 45469

Dear Dr. Davis:

I am writing this letter in regards to Mark Brown’s completion of the M.A. thesis at the University of Dayton. Mark has informed me of his intent to complete the thesis on the subject of mentoring using the client files and data at Pressley Ridge. Mark has been employed with the agency since August 2005, and has the permission and authority to access the client records and data for the purpose of completing the Master’s thesis.

If you have any further questions or would like to contact me directly I can be reached at (513) 737-0400.

Sincerely,

Erika M. Smith MSW, LSW
Program Director
Intensive In-home Services
APPENDIX D

Table 1
Table 1

CAFAS Scores for each Condition (Mentored vs. Non-mentored; Domain, and CAFAS Administrations 1, 2, and 3) of the Present Research

<table>
<thead>
<tr>
<th>Domain and Administration of CAFAS</th>
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<th>SD</th>
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CAFAS Scores for each Condition (Mentored vs. Non-mentored; Domain, and CAFAS Administrations 1, 2, and 3) of the Present Research

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CAFAS Scores for each Condition (Mentored vs. Non-mentored; Domain, and CAFAS Administrations 1, 2, and 3) of the Present Research

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