Attachment, Anxiety, and Depression: A Study of Women in Residential Treatment with Their Children at the Susan B. Anthony Recovery Center (SBARC) (1995-2010)

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Attachment, Anxiety, and Depression: A Study of Women in Residential Treatment with their Children at the Susan B. Anthony Recovery Center (SBARC) (1995–2010)

by

Gary Miles Forrest

A Dissertation Presented to the Graduate School of Humanities and Social Sciences of Nova Southeastern University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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Graduate School of Humanities and Social Sciences

This dissertation was submitted by Gary Miles Forrest, under the direction of the chair of the dissertation committee listed below. It was submitted to the Graduate School of Humanities and Social Sciences and approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Program of Marriage and Family Therapy at Nova Southeastern University.

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Acknowledgment

Leading 20th century British social worker, Clare Winnicott, once wrote in a letter to her husband, Donald Winnicott:

If one has a good experience once—it never ceases to exist, it is dynamic & creative & enters so deeply into the fabric of the personality—that it is independent of time & place—& simply cannot pass like any ordinary event. It is not only made up of external reality. (Winnicott & Kanter, 2004, p. 276)

Until recently, I have not truly appreciated the simplicity, rightness, and appropriateness of Winnicott’s sentiment. In some ways, the secure base provided by my family of origin provided an abundance of good experiences such that I was largely unaware of their positive effects. Because of this, perhaps I learned to expect good experiences, while at the same time, becoming inured to them? My research at the Susan B. Anthony Recovery Center (SBARC) provided stark and sad evidence that good experiences are not a universal construct. It is most fortunate, therefore, that organizations such as SBARC exist.

Although you will not find it listed anywhere in literature, or written in any of its residents’ treatment plans, or even lettered on one of the many handcrafted inspirational posters that adorn the walls of the group activity rooms, a key motivator for all of the clinicians, administrators, workers, and volunteers at SBARC is a genuine desire to provide the women and children at SBARC with a good experience. I know that I certainly had one while working on this dissertation at SBARC.

I would like to acknowledge my sincere thanks and admiration for the SBARC clients, staff, and volunteers who inspired this dissertation. I dedicate this research study
to you. Finally, I want to thank Marcia Currant for her unswerving leadership of SBARC and for her years of dedication to helping scores of women and their children recover their lives.
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Abstract

The Susan B. Anthony Recovery Center (SBARC) in Pembroke Pines, Florida is a residential center where women live with their children while receiving treatment for a variety of co-occurring substance abuse and mental health issues and while participating in mandatory parenting classes. Unlike most women’s residential treatment centers, which address only the woman and her problems, SBARC treats the mother-infant/child dyad. I designed and created a database to examine the data previously available only in the paper client records of over 800 women who received treatment at SBARC from 1995 through 2010 in a previous project. This nonexperimental, retrospective explanatory study (Johnson, 2001; Johnson & Christensen, 2014) analyzed that newly digitized historical data to examine the efficacy of the SBARC treatment with respect to three key variables: dyadic attachment, maternal anxiety, and maternal depression (N = 268). Correlational analysis (MANOVA) of the three variables showed significant results, which suggest that reductions in maternal anxiety and maternal depression may be related to increases in the quality of the dyadic attachment. Statistical analysis (ANOVA) found significant increases in dyadic attachment and decreases in maternal anxiety and maternal depression. The results of this nonexperimental study support the need for future research via controlled studies to determine the relationships among these key treatment variables. Grossmann, Grossmann, and Waters (2005) and others claim that improvement in dyadic attachment improves outcomes for children. Dodge, Sindelar, and Sinha (2005) and others also believe that reductions in maternal depression and maternal anxiety may result in better outcomes. The results of this study suggest that there is value in combining these
two perspectives so that measurements of dyadic attachment, maternal anxiety, and maternal depression inform future program offerings and treatment plans. The multidisciplinary foundation of attachment theory and its rich offering of systemic and relational therapy approaches provides what I believe may be an effective blend of treatment options supported by useful empirical measures that can greatly enhance and expand professional competencies of Marriage and Family Therapists involved in clinical practice with similar at-risk populations.
CHAPTER I: INTRODUCTION

The staff of the Susan B. Anthony Recovery Center (SBARC) hear more tales of woe than most people hear in a lifetime. Fortunately, they also see more women whose lives have been renewed than most people ever get a chance to see. SBARC is a place where women can reside with their children—or while they are pregnant—and receive mental health and substance abuse treatment, learn job skills, and attend parenting classes. SBARC is unusual in that the women learn new skills and get clean and sober, while living with and caring for their children. Achieving sobriety is important, but keeping the families together is also important. Teaching women who, in many cases, have experienced unspeakable horrors of abuse and tragedy in their pasts to nurture their children is a worthwhile endeavor.

SBARC Data Collection Project (SDCP)

Since its founding in 1995, SBARC had collected reams of data (on paper) concerning the women and children enrolled in their treatment program. Trained SBARC clinicians had faithfully administered widely accepted tests for measuring dyadic attachment (Davis & Michelle, 2011; Pittman, Kerpelman, Lamke, & Sollie, 2009; van Ijzendoorn, 1995), maternal depression (Ward & Dow, 1998), and maternal anxiety (Ward & Dow, 1998) at intake and at discharge to the mother-infant/child dyads in residence at SBARC over the years from 1995 through 2010. Unfortunately, the paper tests languished in the client files where they were buried unseen under reams of paper. Because no one had examined the results of either test for evidence of change in levels of dyadic attachment, maternal depression, or maternal anxiety, SBARC lacked an accurate statistically supported picture of its anecdotally supported success.
For two and a half years prior to the current study, I organized and entered SBARC’s data (1995–2010) into a computer database that I designed as a tool for SBARC employees to track their client statistics and outcomes. The SBARC Data Collection Project (SDCP) data provided the basis for this study. See Appendix A for more information about the SDCP.

**Statement of the Problem**

A preponderance of behavioral and psychological developmental research has long established correlations between early childhood interactions in the child/primary-caregiver dyad and later behavioral, developmental, and mental health issues for the child (Gray, 2011; Greco, 2010; Somech & Elizur, 2012; Sonthalia & Dasgupta, 2012). The AQS (Waters, 1987) and its derivatives (Pederson et al., 1990) are established instruments for measuring levels of attachment between mother and child (Davis & Michelle, 2011; Pittman et al., 2009; van Ijzendoorn, 1995). In addition, conventional wisdom, supported by a host of outcomes research, supports the proposition that reductions in depression and anxiety over the course of treatment may be related to better outcomes, such as a lowered probability of relapse in abuse treatment programs (Grant et al., 2004; Hasin et al., 2002; Willinger et al., 2002).

In this case, the problem was that the 828 client records spanning 16 years had never been examined for evidence of anything. This study constitutes the first review and analysis of much hitherto untouched data.

**Purpose of the Study**

The purpose of this study was to investigate the SDCP data (that is, SBARC historical records spanning the years 1995 through 2010) for statistical evidence of
increased dyadic attachment, decreased maternal anxiety, and decreased maternal depression. (Without further research, any claims of SBARC program effectiveness would be premature.) Although most funding agencies look solely to program completion rates upon which to base their funding decisions, this study attempted to buttress SBARC’s impressive program completion percentages and anecdotal reports of success with emergent analytical data.

In this study, I reviewed the newly digitized historical data of the SDCP that SBARC had collected about the 828 women who participated in their comprehensive substance abuse, mental health, and parenting program from 1995 through 2010. I examined the SDCP data through the theoretical lens of attachment with an eye to how three variables: dyadic attachment, maternal anxiety, and maternal depression changed as evidence of treatment efficacy. The SDCP data included evaluations of dyadic attachment, maternal anxiety, and maternal depression, which were measured both at the beginning of the SBARC program (at intake) and shortly before its conclusion (at discharge).

**Limitations and Assumptions of the Study**

Eight hundred twenty-eight women were treated at SBARC from 1995 through 2010. Only women with both complete case files and children in residence were included in this study. After excluding the case files of those women who did not fit the criteria, a total of 268 dyads were that formed the study sample ($N = 268$).

Ideally, for study purposes, the SBARC experience would remain the same throughout its existence. In the real world, however, that is rarely possible. The class offering varied from year to year as experience informed SBARC about the needs of the
resident population and as facilities changed. Furthermore, as expected, staff turnover occurred over the years. It is impossible to state with authority that any aspect of the SBARC treatment remained the same over 16 years. In fact, no institutional memory exists detailing precisely what instruction the first residents received. Luckily, every resident was evaluated for dyadic attachment, maternal depression, and maternal anxiety using the same test instruments, which are established instruments for measuring attachment: the Attachment Q-Sort (AQS) (Block, 1952, 1961) and its derivatives (Pederson, Gleason, Moran, & Bento, 1998; Pederson & Moran, 1995; Pederson, Moran, Sitko, et al., 1990; Waters, 1987; Waters, Garber, Gornall, & Vaughn, 1983); and the Functional Assessment Scale (FARS) (Ward & Dow, 1998). These test instruments are widely accepted as valid and reliable tools for measuring the strength of attachment between mother and child (Gravetter & Wallnau, 1991; Strayer, Verissimo, Vaughn, & Howes, 1995), maternal depression, and maternal anxiety. (For more information on these tests, see Test Instruments in Chapter III.) In addition, these tests are observational. Therefore, it is important to know that although the same clinician administered the tests for the most recent six years, the clinician varied during the previous nine years.

Each of the 268 dyads in this study received a treatment plan that was specifically designed for that mother-infant/child combination. As a result, we can make no representations about precisely what treatment any particular dyad received. However, because the treatment was tailored to the needs of that dyad, we can assume that the experience was generative. Similarly, we can make no representations concerning length of treatment, because each dyad was in residence at SBARC anywhere from a week or two to many months.
It is also important to remember that the population from which the study sample was drawn—and therefore the members of the study sample themselves—are very much a population at risk. These are women whose personal histories frequently include not just substance abuse and/or mental health issues, but also sexual, physical, and mental abuse of every sort. The client files for many of these women are heartbreaking. It is difficult to read of a 6-year old, so badly mutilated by a gang rape that she needed several reconstructive surgeries, or of an 8-year old whose virginity was sold by her mother for crack. These are the client details contained and hidden in the inches-thick accordion files that are reduced to dry facts in the SDCP dataset.

Each SDCP client data set included over 100 facts about each particular dyad. The vast data set “allowed for more comparisons than could reasonably be included in a single study” (Roznowski, Hong, & Reith, 2000). Therefore, I chose to examine variables for which quantitative data existed: dyadic attachment, maternal anxiety, and maternal depression.

**Significance of the Study**

Women who are positively attached with their children are more apt to be successful in their attempts to reenter society after treatment (Pederson et al., 1990). Martini et al. (2013) found that a growing body of research associated anxiety and depression with “adverse outcomes in mother and offspring (Andersson, Sundström-Poromaa, I., Wulff, M., Åström, M., & Bixo, 2004; Deave, Heron, Evans, & Emond, 2008; Mauri et al., 2010; Skouteris, Wertheim, Rallis, Milgrom, & Paxton, 2009)” p. 2. Furthermore, as Martini et al. (2013) assert:
Schechter and Wilheim (2009), Feldman et al. (2009), Glasheen, Richardson, and Fabio (2010), O’Connor, Heron, Golding, Beveridge, and Glover (2002), Weinberg and Tronick (1998), and Hirshfeld et al. (1992) suggest a link between maternal anxiety and early adversities in the offspring (e.g., behavioral inhibition, mother-infant-interaction problems, insecure attachment) that are discussed to be early risk factors for later adverse child development. (p. 3)

Simply put, these and other studies have found that increased dyadic attachment is good and too much maternal anxiety and maternal depression are bad. (See Chapter II, Review of the Literature, for more information on literature associated with dyadic attachment, maternal depression, and maternal anxiety.) This study is significant in that the presence of such an inverse link would suggest that strengthening dyadic attachment might be of enormous benefit to this generation and the next (Pederson et al., 1990).

A preponderance of behavioral and psychological developmental research, such as that done by Cain and Fast (1972), Cassidy (1988), Grossmann, Grossmann, and Waters (2005), Sagi et al. (1995), Waters (1987), and Waters, Merrick, Treboux, Crowell, and Albersheim (2000), has long established correlations between early childhood interactions in the mother-infant/child dyad and later behavioral, developmental, and mental health issues for the child (Gray, 2011; Greco, 2010; Somech & Elizur, 2012; Sonthalia & Dasgupta, 2012). In addition, a host of outcome research studies, including Christophe, Dupoux, and Mehler (1994), Conners, Grant, Crone, and Whiteside-Mansell (2006), Dodge, Sindelar, and Sinha (2005), and Rounsaville, Weissman, Kleber, and Wilber (1982), support the proposition that reductions in maternal depression and maternal anxiety over the course of treatment may result in better outcomes in general
(Grant et al., 2004; Hasin et al., 2002; Willinger et al., 2002), and may lower the probability of relapse in substance abuse treatment programs in particular (Carroll, Power, Bryant, & Rounsaville, 1993; Dodge et al., 2005; Forsyth, Parker, & Finlay, 2003; Guydish, Sorensen, et al., 1999; Guydish, Werdegar, Sorensen, Clark, & Acampora, 1998; Marlatt & Gordon, 1985; Wolpe & Abrams, 1991). Clearly, an increase in dyadic attachment is desirable, as are decreases in maternal anxiety and maternal depression.

**Research Summary**

In this study, I explored how maternal depression and maternal anxiety affected dyadic attachment as measured at discharge from SBARC. To do this, I examined SBARC’s newly organized historical data (years 1995 through 2010) for evidence of change in mean degree of dyadic attachment experienced by 268 discrete mother-infant/child dyads in residence at SBARC. Similarly, I analyzed the mean levels of maternal anxiety and maternal depression measured at intake and discharge for each of the 268 women. I also examined the data to determine if dyadic attachment were to change, would maternal depression or maternal anxiety change inversely. Finally, if positive change occurred (dyadic attachment strengthened and maternal depression and maternal anxiety lessened) more research would be necessary to make any claims of program effectiveness.

This nonexperimental, retrospective explanatory study (Johnson, 2001; Johnson & Christensen, 2014) employed two statistical analyses. The first analysis was a multivariate analysis of variance (MANOVA) in a two-group intake/discharge comparison design (Creswell, 2009; Gall, Gall, & Borg, 2007; Gay, Mills, & Airasian,
2012) that measured significance in overall mean score among the various combinations of the three variables—dyadic attachment, maternal anxiety, and maternal depression—as a result of the SBARC experience. This procedure enabled partial eta squared values to report effect sizes. A key incentive for using MANOVA was to determine whether “there are significant differences in a set of two or more dependent variables [called criterion variables by Belli (2009)] across two or more groups formed by one or more categorical independent variables [called predictor variables by Belli (2009)]” (Swanson & Holton, 2005, p. 133). (See Chapter III, Methodology, for specific information on this study design.) The second analysis employed a univariate analysis of variance (ANOVA $F$ test) wherever the results of the MANOVA analysis showed significant differences as a way to discover if significant differences existed in each of the three individual dependent variables from intake to time of discharge.

By using two data analyses, I was able to show statistically significant differences among the multivariate interactions of these variables (MANOVA) and, subsequently, show the individual significance of each of the three treatment variables.

**Research Questions**

This study reviewed 16 years of historical data collected about women who underwent a comprehensive substance abuse and mental health treatment program at SBARC from 1995 through 2010. Intake and discharge assessments (Pederson et al., 1990; Waters, 1987) of levels of dyadic attachment were analyzed to measure changes. Intake and discharge assessments using the Functional Assessment Rating Scales (FARS) (Ward & Dow, 1998) were used to assess changes in levels of maternal anxiety. Intake
and discharge assessment using the FARS (Ward & Dow, 1998) were also used to measure changes in levels of maternal depression.

As suggested by Johnson (2001), the specific research questions (RQn) for this study were both descriptive and predictive:

RQ1. What was the relationship among dyadic attachment, maternal depression, and maternal anxiety? (Descriptive)

RQ2. What effect did dyadic attachment have on maternal anxiety and maternal depression at time of discharge from SBARC? (Descriptive)

RQ3. Does an increase in dyadic attachment predict a decrease in maternal anxiety and maternal depression at discharge? (Predictive)

Furthermore, Johnson and Christensen (2014) suggested that the overarching research question for this type of retrospective explanatory research must always be “Does the relationship we predict really exist?” (p. 82).

**Organization of This Dissertation**

Chapter II is a review of the literature that is pertinent to this study.

Chapter III describes the methodology used to analyze the data from this study.

Chapter IV presents the research results. This chapter concludes by answering the research questions.

Chapter V discusses the implications of the study and provides recommendations for future research.
CHAPTER II: REVIEW OF THE LITERATURE

To compile this literature review, I employed a comprehensive search of both seminal texts and online resources. I gave special attention to original writings of Bowlby and Ainsworth with respect to the underlying theory and influence of attachment theory and its relationship to the preponderance of theoretical and research literature that followed. I made extensive use of a host of online databases to locate pertinent information from peer-reviewed journals, articles from reputable research journals, and statistical and factual information from well-established web sites. For example, I used the Substance Abuse and Mental Health Services Administration website (SAMHSA.org) and the National Institute on Drug Abuse website (NIDA.gov) extensively to supplement and help elaborate on related topics in this literature review.

The core topics of attachment theory, depression, and anxiety could easily yield an overwhelming flood of information. Therefore, to maintain forward progress, I used a variety of research techniques such as reference chaining, which proved to be an efficient technique for identifying and organizing the essential threads of the topics.

To conduct extensive searches of the literature, I used the following keywords: attachment theory, attachment theory AND depression, attachment theory AND anxiety, women’s substance abuse, women AND children AND residential substance abuse treatment, and the like.

Organization of This Chapter

The literature review begins with a description of two previous studies undertaken at SBARC and follows with an overview of residential treatment and the special circumstances that affect women with children. Although it is very common for women
who suffer from co-occurring disorders to be pregnant or to have young children, it is most uncommon for such women to pursue treatment for their co-occurring disorders in a residential setting without having to separate from their children. This group of relatively young, troubled women makes up the population of SBARC.

Following that is an exploration of the various aspects of attachment theory, including its surprising foundational genesis. By examining various theories and themes, Bowlby’s creation of attachment theory emerges as an amalgam of such theories as control systems (McCulloch, 1965; Miller, Galanter, & Pribram, 1986; Von Bertalanffy, 1972), cybernetics (Bateson, 1971, 2000; Monk, 1997; Schwartz, 2007), and ethology (Harlow, 1959; Lorenz, 1950, 2003) that also embrace certain constructivist ideas (Miller, 2011; Shanmugam, Jowett, & Meyer, 2011).

This literature review mirrors my own investigation of attachment theory and its possible association with anxiety and depression. Consequently, it begins by describing a number of studies in which attachment measures are associated with levels of anxiety and depression. Over time, I examined the associations among dyadic attachment, maternal anxiety, and maternal depression, either directly or tangentially, in a variety of subject populations. As a result, the literature review also describes studies that involve such associations. Then, I explored the literature associated with the variety of psychometric tests that purport to measure attachment. These psychometric tests are related to the Mother-Infant Interaction Scale and the Mother-Child Interaction Scale (Pederson et al., 1990; Waters, 1987) used by SBARC in this study.

This literature review concludes with an exploration of nonexperimental quantitative research and situates this study within that body of literature.
**Previous Studies at SBARC**

The Susan B. Anthony Recovery Center (SBARC) has been the subject of two studies. The first (Sowers, Ellis, Washington, & Currant, 2002) analyzed treatment outcomes for 41 women who participated in a detoxification program and then were sent to SBARC for residential treatment or to a day treatment program. The study found that SBARC participants had better outcomes for three psychosocial variables: abstinence, arrest, and employment. The study also showed that SBARC participants had significant improvements on their total functional rating scores and overall customer satisfaction.

Much more recently, an applied clinical project (Winer, 2012) demonstrated that solution-focused group therapy sessions provided a strength-based family support program, which enhanced support for the women in treatment.

**Co-occurring Disorder Treatment**

A large scale SAMHSA study (Covington, Burke, Keaton, & Norcott, 2008) that focused on trauma- and gender-informed treatment programs for women in drug treatment, found that 55% to 99% of women with co-occurring disorders “have experienced trauma from abuse and that abused women tend to engage in self-destructive behaviors” (p. 387). This study also found that in 2006, 22.2 million individuals in the United States were classified as having a substance abuse or depressive disorder (that is, co-occurring) over the preceding year. In the same period, more than 6 million women age 18 or older met the criteria. Furthermore, Moggi, Ouimette, Moos, and Finney (1999) found that women in treatment for co-occurring disorders have among the poorest outcomes.
Research on women in treatment indicates that women are more likely than men to experience stressors, such as histories of maltreatment, mood, affective disorders, and relationship difficulties (Colman & Widom, 2004); personality disturbances (Tong, Oates, & McDowell, 1987; Wekerle & Wolfe, 2003), post-traumatic stress disorder (Schaaf & McCanne, 1998), and sexual problems (Beitchman et al., 1992; Wolfe, Wekerle, Scott, Straatman, & Grasley, 2004).

Over the years, there have been substantial barriers for women seeking treatment for co-occurring disorders. At a fundamental level, many practitioners refuse to work with clients who are actively using substances (Grella, 2003). Others have noted a bias among treatment providers that any focus on mental health issues would detract from substance abuse treatment (Osher & Drake, 1996). Another inhibitor to treatment is a lingering stigma associated with the combination of substance abuse and mental health issues (Grella & Young, 1998). In some cases, the practitioner’s fear is that uncovering trauma might drive the client from sobriety and, therefore, opts to address trauma after the client has achieved 6 to 12 months of recovery. As a consequence, individuals are often not referred for mental health services until after they have completed substance abuse treatment (Kieke, Moroz, & Gort, 2007). These biases against—and inhibitors regarding—the dually diagnosed client frequently leave women seeking treatment in an unenviable position, even though a substantial body of research clearly links substance abuse with mental health issues (Brown, Read, & Kahler, 2003; Najavits, Weiss, & Shaw, 1997).
Victimization, Traumatization, and Substance Abuse

Treatment research demonstrates that there exist strong links between either victimization or traumatization in women and the propensity to abuse substances (Grella, 2003; Najavits et al., 1997). In contrast to the holistic approach toward co-occurring treatment offered at SBARC, a key limitation of many treatment programs for women is that they have a single focus (Najavits, 2004). Moggi et al. (1999) demonstrated that patients undergoing treatment for co-occurring disorders fared better when their psychological problems were dealt with directly during their substance abuse treatment. In a similar vein, Cocozza et al. (2005) found that trauma counseling for women is most effective when combined with substance abuse treatment.

Trauma associated with childhood sexual abuse is oftentimes a factor for women seeking treatment for substance use disorder (SUD). Strong empirical support suggests that women with histories of sexual abuse are more likely to suffer from SUD (Najavits, Weiss, & Shaw, 1999). One study in particular (Molnar, Buka, & Kessler, 2001) found strong support for the relationship between childhood sexual abuse and SUD.

Incarceration

The Department of Corrections (DOC) refers many women to SBARC when they are pregnant. In other instances, DOC refers women to SBARC so that they can be reunited with their children while they complete their sentences (M. L. Currant, personal communication, July 10, 2010). Studies have shown that incarcerated women frequently display the cumulative effects of sexual abuse and its attendant trauma by experiencing measurably elevated levels of emotional distress, atypical physical ailments, and ongoing patterns of substance abuse (Jordan, 2004; Jordan et al., 2002; Messina & Grella, 2006).
In addition, incarcerated women are more likely than are their male counterparts to report a history of victimization (Lewis, 2006). Studies by Chesney-Lind and Pasko (2013) and by McDaniels-Wilson and Belknap (2008) echoed Lewis’s work in that both studies found that women enter prison with histories of prior trauma and abuse more frequently than do their male counterparts.

Roe-Sepowitz, Bedard, Pate, and Hedberg (2014) noted that “frequently women enter prison with problems that remain untreated during their incarceration, which leaves them profoundly unprepared to reenter their communities” (p. 191). Chesney-Lind and Pasko (2013), Kessler et al. (1995), Lewis (2006), and Zlotnick et al. (2003) believe that the mental health problems suffered by incarcerated women, which often include posttraumatic stress disorder, SUD, and longstanding emotional, sexual, or physical abuse, result from lifelong histories of abuse.

**Addiction**

Research has established the efficacy of gender-specific treatment for substance abusing and dependent women (Covington, 1999; Covington & Bloom, 2007; Keil & Haughton, 2007; Nelson-Zlupko, Kauffman, & Dore, 1995). The paths that women take to addiction oftentimes differ from their male counterparts in that although women require proportionally smaller quantities of substances, they progress more rapidly to addiction than do men (Grella, 1996). Women are also distinguished from men in substance abuse in that women report higher incidences of anxiety, depression, and other psychiatric disorders (Benishek, Bieschke, Stöffelmayr, Mavis, & Humphreys, 1992). An additional burden for many substance-abusing women is that incidences of rape and sexual assault are often part of their histories (Hanke & Faupel, 1993).
Addicted women also feel a great sense of guilt and shame related to their drug abuse and its impact on their families (Rosenbaum, 1979). Colten (1982) found that addicted women sometimes rationalize their substance abuse as acceptable mothering practices and believe that “staying clean while pregnant indicated . . . that they were good mothers” (p. 357). Furthermore, they tended to rationalize drugs as a way of coping with stress: “The drugs were not used to ‘party,’ but to maintain emotional control and physical well-being to effectively function for their children” (p. 358).

Gilbert et al. (2006) estimated that between 25% and 57% of women in treatment have been victims of intimate partner violence (IPV). Overall, women enter treatment with more co-occurring problems than men, including higher rates of mental health, family, and child-care problems (Marsh, Cao, & D'Aunno, 2004). Ongoing research indicates a strong association between substance abuse and IPV (Clark & Foy, 2000; Easton, 2006). Research also indicates that women who have a history of IPV enter treatment with multiple, complex problems that stem from the trauma and isolation that is common in abusive relationships (Gilbert et al., 2006), which further bolsters arguments for gender-specific treatment programs.

Estimates of post-traumatic stress disorder (PTSD) associated with IPV for women in substance abuse treatment run as high as 64%, compared to estimates of from 1% to 12% of non-substance-abusing women in the general population (Golding, 1999). Encouragingly enough, Golding (1999) concluded that “a majority of studies reviewed found that neither physical nor sexual abuse is predictive of change in substance abuse from pre- to post-treatment” (p. 552). Similarly, a study by Pirard, Sharon, Kang, Angarita, and Gastfriend (2005) comparing outcomes for women clients in substance
abuse treatment with and without histories of physical or sexual abuse found no
differences in outcomes at a follow up one year after treatment.

**Theoretical Framework: Attachment Theory**

Attachment is a deep and enduring emotional bond that connects one person to
another across time and space (Bowlby, 1982). Freud believed that attachment in infancy
to someone who provides support, protection, and care constitutes a genuine love
relationship (Ainsworth & Bowlby, 1991; Freud & Gay, 1989). This belief, which
Freud’s warm relationships with his own children makes easy to imagine (Freud, 1958;
Young-Bruehl, 2008), is the basis of modern attachment theory.

According to Ainsworth and Bowlby (1991), attachment theory is the joint work
of John Bowlby and Mary Ainsworth. John Bowlby (1907–1990), a British psycho-
analyst, developed the basic tenets of attachment theory by drawing on concepts from
many different disciplines, including ethology, cybernetics, information processing,
developmental psychology, and psychoanalysis (Bretherton, 1992). Bowlby’s colleague,
Mary Ainsworth (1913–1999), operationalized Bowlby’s theory by creating innovative
methodologies that not only made it possible to test some of Bowlby’s ideas empirically,
but also helped expand the theory itself (Bretherton, 1992). (For more information on
Mary Ainsworth and her work, see Mary Ainsworth (1903–1999) in this section.)

**John Bowlby (1907–1990)**

John Bowlby (1958) theorized that the distress that biologists had observed in
infants of other mammalian species when they were separated from their parents (for
example, crying, searching for the parent) could be applied to humans. Furthermore, he
speculated that these behaviors, which he called attachment behaviors, might serve an
evolutionary function, in that proximity to the parent, or attachment figure, frequently made the difference in whether an infant survived to adulthood. Bowlby called this system of potentially lifesaving behaviors the attachment behavioral system. Conceptually, according to Fraley (2002), the attachment behavior system links ethological models of human development with modern theories of how emotions are regulated and how personalities are developed. In fact, Waters and Deane (1985) believed that the cornerstone of Bowlby’s attachment theory actually replaced psychoanalytic drive reductions theory with a control system analysis.

Bowlby’s thinking was considered revolutionary for its time because “on the basis of ethological evidence, he was able to reject the dominant ‘cupboard love’ theory of attachment prevailing in psychoanalysis and learning theory of the 1940s and 1950s” (van der Horst, van der Veer, & van IJzendoorn, 2007, p. 332). Although Waters and Deane (1985) concurred with Freud’s view of the mother-child relationship as one of love, they also recognized that attachment closely tracks patterns of behavior toward caregivers and that “this behavior is complexly organized, goal-corrected, and sensitive to input from the environment” (p. 41). Bowlby profoundly changed how we view the mother-child relationship today (Bretherton, 1992).

Elaborating further on this change, Waters, Hamilton, and Weinfield (2000) claimed that the real significance of Bowlby’s work was that he “hypothesized that early relationship experience with the primary caregiver leads eventually to generalized expectations about the self, others, and the world” (p. 678). Bowlby (1973), Bretherton,
Ridgeway, and Cassidy (1990), and Oppenheim and Waters (1995) all confirmed that relationships emerge early in infant development and continue to evolve with attachment-related experiences during childhood and adolescence.

Security theory, as explained by Blatz (1940), posited that before infants and young children can face unfamiliar situations successfully, they need to develop a secure dependence on parents or caregivers. He coined the term *immature dependent security* to describe how infants and small children rely on their parent figure to take care of them and to be responsible for the consequences of their behavior. Echoing and expanding on this, Ainsworth and Bowlby (1991) wrote:

> If and when children become uneasy or frightened while exploring, they are nevertheless secure if they can retreat to a parent figure, confident they will receive comfort and reassurance. Thus, the parent’s availability provides the child with a secure base from which to explore and learn. (p. 334)

With the secure base provided by the parent, Blatz (1940) conceptualized how the young child experiences the “thrill of insecurity, and he has overcome this insecurity through his own efforts. We may say that the child has achieved security through the acquisition of a skill . . . ” (p. 185).

John Bowlby’s magnum opus was three volumes (Bowlby, 1973, 1980, 1982) devoted to the many facets of attachment theory. Bowlby originally envisioned a single volume devoted to observations he made about how children respond to the temporary loss of their mother.
However, as Bowlby noted in his second edition of Volume I (Bowlby, 1982):

Events were to prove otherwise. As my study of theory progressed it was gradually borne in upon me that the field I had set out to plough so lightheartedly was no less than one that Freud had started tilling sixty years earlier, and that it contained all the same rocky excrescences and thorny entanglements that he had grappled with—love and hate, anxiety and defen[s]e, attachment and loss. (p. xxvii)


The last and final installment of the trilogy, *Attachment and Loss Volume 3: Loss: Sadness and Depression* (Bowlby, 1980), begins by situating mourning in the literature and then provides detailed descriptions of associations between attachment, loss, and depression in children and adults, which manifest as a consequence of loss. In this final volume, according to Bretherton (1992):

[Bowlby] uses information processing theories to explain the increasing stability of internal working models as well as their defensive distortion. The stability of
internal working models derives from two sources: (a) patterns of interacting
grow less accessible to awareness as they become habitual and automatic, and
(b) dyadic patterns of relating are more resistant to change than individual
patterns because of reciprocal expectancies. (pp. 767-768)

In developing attachment theory, Waters, Crowell, Elliott, Corcoran, and Treboux
(2002) assert that Bowlby created a true amalgam drawing from a variety of sources:

[He] replaced Freud’s drive reduction model of relationship motivation with one
that emphasized the role relationship plays in support of exploration and
competence. He also introduced concepts from control systems theory [(Monk,
1997)] to highlight and account for the complex monitoring of internal states,
relationship experience, and context that shapes proximity seeking,
communication across distance, and exploration away from the attachment
figures. (p. 230)

Mary Ainsworth (1913–1999)

Mary Ainsworth provided empirical support for Bowlby’s attachment theory
(Ainsworth, Blehar, Waters, & Wall, 1978). In addition, she expanded attachment theory
by contributing the concept of the attachment figure as a secure base from which an
infant can explore the world (Bretherton, 1992).

Ainsworth studied under Blatz at the University of Toronto and responded
enthusiastically when Blatz suggested she base her doctoral dissertation on his security
Based upon the Concept of Security*, Mary Salter [Ainsworth] (1940) elaborated on the
importance of security in the parenting relationship when she said, “Where familial
security is lacking, the individual is handicapped by the lack of what might be called a secure base from which to work” (p. 48).


This idea of the secure base dovetailed with the Bowlby and Ainsworth (1951) notion that to grow up mentally healthy, “the infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother substitute) in which both find satisfaction and enjoyment” (p. 13). Bowlby emphasized the role of social networks, economic, and health factors in the development of strong mother-child relationships. Bowlby and Ainsworth (1951) asserted the critical role of parenting in this regard, saying:

> Just as children are absolutely dependent on their parents for sustenance, so in all but the most primitive communities, are parents, especially their mothers, dependent on a greater society for economic provision. If a community values its children it must cherish their parents. (p. 84)

Bretherton (1992) lamented that “[Bowlby’s] call to society to provide support for parents is still not heeded today”(p. 759). Bowlby’s belief that parents (and especially mothers) deserve the support of society is particularly pertinent today in that funding for
women’s treatment centers and many charitable institutions that treat women and children face unsustainable cutbacks.

**Attachment Analogy in MRI: Different Branches, Common Roots**

Bowlby adapted concepts from systems theory and notions of the role of the relationship within the mother-child dyad in much the same way that Jackson and Haley (1963) did in the early conceptualization of the MRI approach. Like attachment theory, the theoretical underpinnings of MRI wed psychoanalytic (Freudian) concepts with theories from other disciplines, including relationships, context, and environment, to form a better understanding of what might be happening in the real world. Late in his career, Bowlby (1985) succinctly described both attachment theory and his world view: “I have always held the view that the internal world is a reflection of the external world and there is a constant interaction—you can’t understand one without the other” (p. 20).

**Attachment Patterns of Behavior**

Bowlby credits Ainsworth with expanding the concepts of attachment theory and innovating empirical testing of those concepts (Bowlby, 1988). The groundbreaking Uganda infant studies (Ainsworth, 1967) and the Baltimore Study that provided replication research of the Uganda study (Ainsworth & Wittig, 1969), provided the initial extensive field observations of attachment behaviors.

Table 1 lists the four attachment patterns identified and described through empirical research. The first three patterns—Secure, Ambivalent Resistant, and Avoidant—were described in Ainsworth et al. (1971) and Piaget and Inhelder (1956). The last pattern—Disorganized—was identified, empirically measured, and added to the research some years later (Main & Solomon, 1986).
<table>
<thead>
<tr>
<th>Attachment Pattern</th>
<th>Child</th>
<th>Caregiver</th>
</tr>
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<tbody>
<tr>
<td><strong>Secure</strong></td>
<td>Child relies on caregiver to provide a secure base from which to explore. Child will protest departure of caregiver and seek proximity and comfort upon caregiver’s return, then return to exploring. Child may seek comfort from stranger but shows preference for caregiver.</td>
<td>Caregiver responds promptly and appropriately to child’s needs. Indication that caregiver has successfully created a secure attachment to the child.</td>
</tr>
<tr>
<td><strong>Ambivalent/Resistant</strong></td>
<td>Child not able to use caregiver as a secure base; seeks proximity before separation occurs. Child demonstrates ambivalence, anger, or reluctance to warm to caregiver. Will not explore on return of caregiver. Child is preoccupied with caregiver’s availability; seeks contact but resists with anger when contact is achieved. Stranger has difficulty calming child. The child frequently feels anxious because of inconsistent availability of caregiver.</td>
<td>Caregiver is inconsistent in attending to child, oftentimes vacillating between appropriate and neglectful levels of response.</td>
</tr>
<tr>
<td><strong>Avoidant</strong></td>
<td>Child demonstrates little or no affective sharing with caregiver during play. Little or no distress on caregiver departure or return. Child will ignore or turn away from caregiver and make no effort to maintain contact if picked up. Treats the stranger and the caregiver similarly.</td>
<td>Caregiver provides little or no response to child in distress. Caregiver discourages crying and encourages independence.</td>
</tr>
<tr>
<td><strong>Disorganized</strong></td>
<td>Child demonstrates stereotyped behavior, such as freezing in place or rhythmic rocking, on return of caregiver. Child reveals the lack of coherent attachment strategy by contradictory, disoriented behaviors such as approaching caregiver but with back turned.</td>
<td>Caregiver withdraws or reacts negatively to the child. Often, there is role confusion, communication errors, and maltreatment. This pattern is associated with many forms of child abuse.</td>
</tr>
</tbody>
</table>
Ainsworth et al. (1978) make a distinction between attachment theory—the “bond, tie, or enduring relationship between a young child and his [caregiver]” (p. 17)—and attachment behaviors, “. . . through which such a bond first becomes formed and later serves to mediate the relationship” (p. 17). Ainsworth et al. (1978), Pederson et al. (1990, 1995), and Waters (1987) identify and classify attachment behaviors using various measurement instruments, such as the Mother-Infant/Child Interaction Scales (which SBARC uses) to determine the type and relative strength of dyadic attachment.

As Prior and Glaser (2006) noted, "Quantitative terms such as 'strong', 'intense' or 'weak' are not appropriate terminology in attachment theory and were very rarely used by Bowlby and Ainsworth. Instead, attachments are described and classified by their qualitative characteristics" (p. 24). The attachment patterns are classified as organized and disorganized and are a measure of the child’s “strategy for gaining [organized] proximity of an attachment figure when the attachment behavioral system is activated, or the lack of collapse [disorganized] of such a strategy” (p. 24). According to Carlson (1988), disorganized attachment is associated with a number of developmental problems, including dissociation in adolescence. Lyons-Ruth (1996) and Lyons-Ruth, Alpern, and Repacholi (1993) found that disorganized attachment is also associated with anxiety, depression and other behavioral problems in childhood.

A review of the results of three meta-analyses by Levy, Ellison, Scott, and Bernecker (2011) examined the associations between attachment anxiety, avoidance, and security and psychotherapy outcome. This synthesis of 14 studies included 19 separate therapy cohorts with a combined sample size of 1,467. It contains an excellent and detailed discussion of findings and related research on the link between attachment and
the therapeutic relationship. It concluded that “Attachment theory, developed by Bowlby to explain human bonding, has profound implications for conducting and adapting psychotherapy” (p. 193).

Sroufe and Waters (1977) define attachment in the caregiver-child dyad as:

An affective tie between infant and caregiver to a behavioral system, flexibly operating in terms of set goals, mediated by feeling, and interaction with other behavioral systems. In this view, behavior is predictably influenced by context rather than constant across situations. (p. 1185)

Turner and Bruner (1986) describe the internal working model of attachment as “conscious and/or unconscious rules for the organization of information relevant to the attachment and for obtaining or limiting access to that information, that is, to information regarding attachment-related experiences, feelings, and ideations” (pp. 66-67).

According to Waters (n.d.), “It was important to establish that infant attachment behavior is context sensitive and goal corrected in ways that only a control system model can explain” (p. 1). Ainsworth et al. (1978) developed a technique called the strange situation, which was, according to Fraley (2002), “a laboratory paradigm for studying infant-parent attachment” (p. 2). Ainsworth, Bell, and Stayton (1971) claimed that strange situation classifications could only be as valid as the classifications of the secure base behavior on which they are based. As a result, when Vaughn and Waters (1990) were able to replicate the relationship between strange-situation classifications and secure-base behavior, it, according to Waters (n.d.), “illustrated a method that can be used to test the validity of Strange Situation classifications across age, cultures, and in clinical
populations” (p. 1). In 1985, Waters adapted Block’s 1961 test, called the Q-set (Block, 1961), to do just that. Waters called his test the Attachment Q-Set (AQS) (Waters & Deane, 1985). “The AQS can be seen as a valuable instrument for cross-cultural studies of mother-child relationships” (Strayer et al., 1995). (See the Q-set subsection in the Test Instruments section for more information on the Q-set.)

A 20-year longitudinal study (Waters, Merrick, et al., 2000) followed the experiences of 60 white middle-class infants seen in the Ainsworth strange situation at 12 months of age. Fifty infants from the original population (21 males, 29 females) were assessed 20 years later using the Berkeley Adult Attachment Interview (AAI) (George et al., 1985). The results of this study support Bowlby’s original hypothesis:

[I]ndividual differences in attachment security can be stable across significant portions of the lifespan and yet remain open to revision in light of experience.

[The authors caution however that] The task now is to use a variety of research designs, measurement strategies, and study intervals to clarify the mechanisms underlying stability and change. (Waters, Merrick, et al., 2000, p. 684)

Obsessive Compulsive Disorder (OCD)—considered an anxiety disorder (APA, 2000)—was the focus of a study by Doron, Moulding, Kyrios, Nedeljkovic, and Mikulincer (2009) that used a student sample ($N = 446$) to examine the maladaptive beliefs associated with OCD, such as an inflated sense of responsibility and perfectionism. The study focused on the factors that led to these beliefs by examining how adult attachment orientations relate to OCD-related cognitions and OCD symptoms while controlling for depression.
Doron et al. (2009) also found that adult attachment insecurities are related to OCD in that:

Attachment insecurities (either anxiety or avoidance) predicted dysfunctional OCD-related cognitions and OCD symptoms. Moreover, the contribution of attachment anxiety and avoidance to OCD symptoms was fully mediated by OCD-related beliefs, and remained significant, with the effect of attachment anxiety on OCD symptoms being somewhat larger than the effects of attachment avoidance. (p. 1039)

Echoing these research findings of Waters (n.d.), Doron et al. (2009) found that their findings also supported the idea that results of these and similar studies generalize across gender and cultures of origin.

**Attachment and Infants**

One hundred twenty-nine Dutch 15-month-old infants were assessed for attachment security using the AQS (Waters, 1987) and a short version of the Strange Situation Survey (SSS) (Ainsworth et al., 1978) in a study conducted by Kersten-Alvarez et al. in 2012. According to the results from the SSS, secure infants had significantly higher AQS scores than insecure infants and, especially, had higher AQS scores than disorganized infants who were described as “significantly more noncompliant, fussy, and angry relative to secure infants” (p. 175). The study concluded by indicating that: “The apparently unfavorable set of characteristics associated with low AQS security scores suggests such scores to predict later developmental problems” (p. 175).
Attachment and Toddlers

Pallini and Laghi (2012) sought to develop and validate the Toddler Attention Questionnaire (TAQ) by measuring the relationship between attention and attachment to a professional caregiver in toddlers age 20 to 36 months. The study used the Italian Questionnaire on Temperament (Axia, 2002) to measure attentive processes in the toddlers and attachment behaviors were measured using the AQS (Block, 1961; Waters & Deane, 1985).

Attachment and Adolescents

Sonthalia and Dasgupta (2012) state that attachment is an established clinical measure for legally sanctioned evaluation of school-age children. Furthermore, according to Sonthalia and Dasgupta (2012), Bowlby’s theoretical framework posited that caregivers have “predictable, common styles that impact a child’s emotion regulation, social relatedness, capability for self-reflection, and overall neurological development” (p. 54).

Gray (2011) found that binge eating and obesity in adolescents has been correlated with relative measures of attachment. A study of 525 insecurely attached children who engaged in binge eating had higher Body Mass Index (BMI) scores at age 15 than their securely attached counterparts who did not engage in binge eating.

For a study of conduct problems (CP), 136 adolescent boys (median age = 15.2) were sampled from Israeli schools for a study that examined how relative adherance to an honor code might mediate the prediction of CP. The study measured levels of insecure attachment in the adolescents and found that the level of insecure attachment was
predictive of adherance to an honor code, but was not an independent predictor of CP (Somech & Elizur, 2012).

In Lake County, IL, a 2012 study examined the attachment levels of 70 adolescents who were recruited from a local detention center and were administered the Adult Attachment Interview (AAI) (George, Kaplan, & Main, 1984, 1985, 1996). The study investigated a sample of incarcerated juveniles to examine the mediating role that parent-child attachment might have in relationship with the adolescent being exposed to community violence, maltreatment, and symptoms of psychopathology (including anxiety and depression). Insecure attachment was linked with elevated levels of psychopathology (Kokubu, Okano, & Sugiyama, 2012).

A 30-year logitudinal study of a New Zealand birth cohort found that “increased rates of early anxiety/withdrawal were associated with increased risk of later anxiety and depression. Positive parent-child attachment in adolescents was associated with a decline in the risk of later anxiety and depression” (Jakobsen, Horwood, & Fergusson, 2011, p. 303).

**Attachment and Gender Differences**

In 2012, McLaughlin, Zeanah, Fox, and Nelson examined the relationship between the experiences of 136 Romanian girls and boys (ages 6 to 30 months) reared in institutions. The study posited that the inability of the child to form a secure attachment to a primary caregiver when placed in foster care might be associated with the higher rates of psychiatric disorders often measured in institutionally reared children. Attachment for all children was assessed at 42 months using the Strange Situation Procedure. Internalizing disorders were assessed for all children at 54 months using the
Preschool Age Psychiatric Assessment (Egger & Angold, 2004). The findings indicated that girls in foster care had fewer internalizing disorders than their control group. However, foster care had no measureable effect on the boys in terms of ameliorating internalizing disorders. Girls in foster care, when measured at 42 months, were more likely to have secure attachment relations than girls in the control group. Boys in foster care, on the other hand, had no difference in observed attachment relationships than boys in the control group. The study had two key conclusions: first, a secure attachment relationship in both sexes was predictive of lower rates of internalized disorders in both sexes; second,

> [t]he differential effects of [foster care] on attachment security in boys and girls explained gender differences in the intervention effects on psychopathology. Findings provide evidence for the critical role of disrupted attachment in the etiology of internalizing disorders in children exposed to institutionalization. (McLaughlin et al., 2012, p. 46)

**Attachment-Based Family Therapy**

Attachment-Based Family Therapy (ABFT) is a brief (12 to 16 weeks) empirically based treatment intervention for working with depressed and anxious adolescents (Diamond, G. S., 2005; Diamond, G. S., Reis, Diamond, Siqueland, & Isaacs, 2002). It is based on the structural family therapy tradition (Minuchin, 1974), informed by Multidimensional Family Therapy (Liddle, Rowe, Dakof, Henderson, & Greenbaum, 2009), and blends attachment theory and developmental research (Shpigel, Diamond, & Diamond, 2012). One significant finding from this study (Shpigel et al., 2012) was that “decreases in adolescents’ perceived parental control during treatment were associated
with reductions in adolescents’ depressive symptoms from pretreatment to 12 weeks posttreatment” (p. 271).

By 2009, three clinical trials had tested the ABFT model and found it effective in treating adolescents with suicidal ideations as well as depression and anxiety (Diamond, G. S., Wintersteer, et al., 2009).

In 2012, Shpigel, Diamond, and Diamond reported that in a test of 18 suicidal adolescents and their mothers for 12 weeks of ABFT, “decreases in adolescents’ perceived parental control during the treatment were associated with reductions in adolescents’ depressive symptoms from pretreatment to 12 weeks posttreatment. This [was] the first study examining the putative change mechanisms in ABFT” (p. 271).

Finally, G. S. Diamond, Diamond, and Levy (2014) added a case study illustrative of the context of adolescent depression to their previous work with ABFT. Interestingly, J. Curry (2014) stated, “Research over the past 3 decades has shown that psychotherapy can successfully address adolescent depression. Cognitive behavioral models have been most extensively and rigorously tested, with evidence also supporting interpersonal psychotherapy and attachment-based family therapy” (p. 510).

Dyads and Attachment

In its own way, focusing empirical research on the mother-child dyad was a revolutionary notion—certainly in the face of the traditional Freudian psychoanalytical tradition—as was advancing theories of psychology, psychiatry, and psychotherapy that suggested we must look at the individual within the context of relationship to understand how change might be possible (Bateson, 2000; Bowen, 1978; Keeney, 1983).
Historically, Bowlby’s focus on dyads bears a striking resemblance to the contributions Don Jackson made to the discipline of family therapy. Like Bowlby, Jackson, a classically trained psychoanalyst, crossed the Rubicon from a Freudian intrapsychic framework to a much expanded one in which context (Bateson, 1979; Ruesch & Bateson, 1951), relationships (Bateson & Donaldson, 1991; Watzlawick, Bavelas, & Jackson, 1967; Watzlawick, Weakland, & Fisch, 1974), transgenerational effects (Bowen, 1978; Kerr, M. E., & Bowen, 1988), and the influence of the analyst at facilitating change (Jackson & Haley, 1963) all might be part of the magic (de Shazer, 1994) that is the “talking cure” (Posada et al., 1999, p. 184). Although Jackson and Bowlby did not share the same influences, Bowlby’s theoretical development from psychoanalysis to Ethology—a subdiscipline of zoology that focuses on the naturalistic study of animal behavior (Lorenz, 2003)—played a pivotal role in establishing attachment as a phenomenon that only made sense when studied as behaviors in context between a child and caregiver (McFarland et al., 2011).

Early in his career, Bowlby worked in training as a child psychoanalyst under Melanie Klein (van der Horst, 2011), the celebrated Freudian psychoanalyst who once said “analysis . . . is not concerned with the real world . . . It is concerned simply and solely with the imaginings of the childish mind” (Loper & Tuerk, 2011, pp. 376-377).

Late in life, according to Limke, Showers, and Zeigler-Hill (2010), Bowlby was still frustrated when he recounted a key moment in his training:

One of his first patients was a young boy with many fears whom Bowlby was treating with play therapy. The boy was exceptionally anxious during one session and, after making some inquiries, Bowlby discovered that his mother had
abandoned the son three days earlier. Bowlby, excited by this discovery, could not wait to tell Klein this important piece of information. (p. 43)

Bowlby had noticed earlier that when the mother brought the child—who was quite anxious and hyperactive—she also seemed very anxious and unhappy. Bowlby told Klein he wanted to speak with the mother to see if her anxiety and unhappiness might be related to that of her child. Klein dismissed Bowlby’s theory (McFarland et al., 2011):

“Dr. Bowlby,” she said, “We are not concerned with reality, we are concerned only with the fantasy.” Rambo and Hibel (2013) argue that Bowlby’s fundamental disagreement with Klein “began his relational consideration of human development” (p. 4), which is a key tenet of the family therapy movement. While Klein believed that “all behavior was motivated by inner feelings or drives, Bowlby felt that external relationships, e.g., the way a parent treats a child, were important to consider in understanding the child’s behavior” (McFarland et al., 2011, p. 20).

McLaughlin et al. (2012) examined a community sample of 763 mothers, 46% of whom rated their anxiety above the normal range. They found that mothers without a partner reported higher maternal anxiety (MA) than those with a partner. They took a subsample ($N = 98$) of mothers who were selected for low, medium, and high levels of anxiety and observed their young children (4 to 5 years old) for behavioral inhibition (BI) and attachment. Their analysis suggests, “a child with high BI may be particularly vulnerable to MA, resulting in an [a]mbivalent attachment” (p. 199).

Guttmann-Steinmetz, Shoshani, Farhan, Aliman, and Hirschberger (2012) compared a sample of 29 Palestinian mother-child dyads from the West Bank with 21 Israeli mother-child dyads to study the children’s psychological symptoms—aggression
in particular—“in the context of family characteristics, exposure to political violence, and nationality” (p. 79). They found that nonsecure mothers suffered from higher levels of depression and anxiety when exposed to political violence. In addition, they found that the children’s’ symptoms correlated with the mothers’ depression and anxiety.

M. A. Kerr (2012) assessed the mediating role that parenting and attachment security have on behavior in 51 mother-daughter dyads, where the daughters were ages 13 to 17. Of particular interest were outcomes in areas related to depression and disruptive behavior. Each mother-daughter dyad was surveyed two times at 12-month intervals. The study found that the mother’s parenting practices fully mediated the connection between maternal depression and the daughter’s disruptive behavior. They also found that parenting and attachment were predictive of the daughter’s levels of depression at the first survey. The researchers next controlled for the influence of “the mothers’ parenting, daughters’ attachment, and daughters’ outcomes” (p. 3) from the first survey. Finally, M. A. Kerr (2012) concluded that:

These results suggest that maternal depression may in part impact on daughters’ disruptive behaviour through its influence on mothers’ parenting, which in turn helps to shape the daughters’ attachment to their mothers. The fact that mothers’ depressive symptoms also uniquely predict [the second survey] outcomes indicates that there might be more complex elements of the depression construct . . . that influence adolescent well-being in a more insidious manner. (p. 3)

Dyad attachment research has also been applied by Cort, Toth, Cerulli, and Rogosch (2011) to study intergenerational effects of multitype maltreatment (i.e., combinations of maltreatment such as, neglect, sexual, physical, and emotional abuse,
which manifest when the maltreated children become maltreating parents). As Cort et al. note, while much research has established a link to the intergenerational transmission of maltreatment, little or no research exists on the intergenerational transmission of multitype maltreatment. In this study, 104 mother-child dyads were examined to explore this phenomenon and found that the “mother’s childhood multitype maltreatment directly predicted their children’s multitype maltreatment” (p. 20).

A biologically oriented study conducted by Feldman, Gordon, and Zagoory-Sharon (2011) examined the relationship between the body’s secretion of the neuropeptide oxytocin (OT)—in paternal and maternal plasma, urine, and saliva—and its relationship to attachment measures of the dyad to determine if oxytocin is implicated in the human bonding process. The researchers studied oxytocin levels of 112 mothers and fathers interacting with their 4- to 6-month-old infants. They found that plasma and saliva OT were associated with attachment relationships for both mother and father dyads. Urine OT was correlated with relationship anxiety and parenting stress only in the mothers. The suggestion is that OT is involved in human attachment. The conclusion was that “The dual role of oxytocin in stress and affiliation underscores its complex involvement in processes of social bonding throughout life” (p. 752).

A key tenet of attachment theory is the idea that early childhood care matters greatly in determining the quality of the child-caregiver attachment relationship (Posada et al., 1999): “Research findings indicate that the secure-base phenomenon is characteristic in children from different cultures and socio-economic contexts” (p. 4). They also show that rates of secure attachment are lower in families under stress than in families with lower levels of stress (Gravetter & Wallnau, 1991; Meites, Ingram, &
Siegle, 2012; Misri et al., 2010), and vary from culture to culture (Moss, Bureau, Cyr, & Dubois-Comtois, 2006; Newton, 2008; Pallini & Laghi, 2012).

**Parenting Programs and Attachment**

According to Scott (2012), the quality of parenting can have a considerable impact on a child’s development and ongoing mental health as explicated by a review of recent literature on the relationships between the quality of parenting and a host of outcomes in the children. “Biological indices of stress, such as C-reactive protein, show that prenatal anxiety is a significant determinant of later outcomes for children, and abusive parenting of young children has lasting biological effects into adulthood” (Scott, 2012, p. 301). They also found research indicating that efficacy of parenting programs at increasing the security of the infant’s attachment.

Hennessy, Deak, and Schiml-Webb (2010) examined the intergenerational transmission of attachment psychopathology by focusing on mother-child dyads, and by comparing and contrasting how the young mother related to her mother and her children. They discovered an “intergenerational pattern . . . [which is shown to improve with appropriate intervention]” (p. 292).

A longitudinal study conducted by Guttmann-Steinmetz et al. (2012) examined the attachment styles of a group of adults who as children were identified as nonorganic failure to thrive and received social work intervention and therapy. The study focused on assessing the internal working models of the individuals 20 years after the treatment and compared their adult attachment style with their childhood attachment to their mother. The study found that in some instances the internal working model demonstrated a change from an insecure to a secure attachment style. This study suggests that targeted
therapeutic interventions and “changes in life circumstances” (p. 179) may effect change in an individual’s internal working model.

Nylen, Moran, Franklin, and O'Hara (2006) examined postpartum depression and its effects on the mother-child relationship and concluded that infants of depressed mothers are reliably less securely attached and, therefore, “often have cognitive, emotional, and behavioral deficits that persist well into childhood” (p. 327).

**Marriage and Family Therapy and Attachment**

Attachment is an area of therapeutic study that is unfamiliar to many marriage and family therapists. A large body of literature, beginning with Ainsworth and Bowlby, and continuing today with the ongoing research of many devoted social scientists throughout the world, such as van Ijzendoorn and Waters, addresses aspects of the issues that were examined in this study.

Intrinsic to attachment is the implication that families and their wellbeing are important. This is demonstrated in the number of attachment books and articles that have been written about family issues. For example, in 2002, G. S. Diamond, Reis, G. M. Diamond, Siqueland, and Isaacs designed a 12-week treatment for adolescent depression using Attachment-Based Family Therapy (ABFT). G. S. Diamond adapted ABFT to working with depressed and anxious adolescents in 2005.

Most interesting to the present study was Parker, Tambling, and Campbell (2013), because it examined adult attachment as a mediator that explained “the association between dyadic adjustment and depressive symptoms” (p. 28) in 199 women and 35 men. The results showed a significant relationship between poor attachment and depression.
Anxiety, Depression, and Attachment

A study that related anxiety and depression to attachment in adults (Surcinelli, Rossi, Montebanocci, & Baldaro, 2010), assessed the attachment styles of 274 adult volunteers who were categorized into four groups—secure, preoccupied, fearful, and dismissing-avoidant—using the Bartholomew model (Puckering et al., 2011)—found that secure attachment was associated with better mental health, while insecure attachment was associated with higher levels of anxiety and depression.

A longitudinal study of 94 pregnant women who were assessed for antenatal anxiety and depression to see how it affected postpartum parenting stress found that antenatal anxiety and depression had a direct impact on postpartum parenting stress (Misri et al., 2010). In this study, the women were monitored during the third trimester of pregnancy and 3- and 6-month intervals postpartum. The findings indicated a direct relationship between measured levels of antenatal anxiety and depression and higher levels of parenting stress, which was not ameliorated by antenatal antidepressant therapy.

For information on anxiety and depression measurements, please see the Anxiety and Depression Measurements subsection in the Assessments section of this chapter.

It is estimated that 10% to 15% of new mothers experience maternal depression beyond two weeks postpartum (Onunaku, 2005). Depressed mothers have been shown to have lowered levels of responsiveness and more impaired levels of quality of care for their children when compared to their nondepressed counterparts (Barr, 2008; Gla, Fiori-Cowley, Hooper, & Cooper, 1996).

One important way maternal depressive symptoms affect development of children is by affecting the quality of mother-child interactions. Depressed mothers tend to
express fewer emotions, are more likely to show sad affect, are more intrusive, and are less involved in their interactions with infants. Depressed mothers speak less to infants and show more hostility to children. Children of depressed mothers interact differently with their mothers because children who experience maternal emotional unavailability and unresponsiveness display avoidance and lack of positive affect to their mothers, which, in turn, affects maternal behavior (van Doesum, Riksen-Walraven, Hosman, & Hoefnagels, 2008).

Attachment theory posits that lowered quality of care and lack of responsiveness from the primary caregiver may later lead to social and behavioral problems in children that they carry into adulthood (Bowlby, 1988). Maternal depression, which contributes to lowered quality of care, has been shown to be related to negative outcomes for children, including higher incidences of depression in the child (Milan, Snow, & Belay, 2009). When mothers experience depression in the first year of their children’s lives, infants have been shown to display higher levels of distress, negativity, and avoidance of their mothers (van Doesum et al., 2008). In addition, children of depressed mothers are more likely to develop insecure attachments to their mothers (Cicchetti, Rogosch, & Toth, 1998).

Radke-Yarrow, Cummings, Kuczynski, and Chapman (1985) found a relationship between maternal depressive diagnosis and child attachment patterns. Insecure attachments were more common among children of mothers with major depression than in children of mothers with minor depression or among nondepressed mothers.

Over the years, attachment theory-based research has expanded from its roots in studying the behaviors of the caregiver-child dyad to include outcomes research focusing
on adult attachment. One study used the Relationship Scales Questionnaire (RSQ) (Bartholomew & Horowitz, 1991) to assess attachment styles and found that “adult attachment anxiety was correlated with depressivity . . . and attachment avoidance” (Donges et al., 2012, p. 149). An intriguing facet of this study, which harkens back to Bowlby’s reliance on biology and observed behavior to inform his theory (Bowlby, 1969, 1982), is its conclusion that measurements of adult attachment anxiety were found to be associated with enhanced automatic neural response to positive facial expression.

The neuroscientific literature describes a host of empirical studies relating measures of attachment to neuroanatomical structures and functioning (Burnett & Williams, 2009; Cullen & Harris, 2009; Dinur & Sherman, 2009; Nolte, Guiney, Fonagy, Mayes, & Luyten, 2011). Dinur and Sherman (2009) proposed:

A functional neuroanatomical framework to integrate the key brain mechanisms involved in the perception and regulation of social emotional information, and their modulation by individual differences in terms of secure versus insecure (more specifically avoidant, anxious, or resolved versus unresolved) attachment traits. (p. 1)

The proposed framework focuses on two areas of the brain: the limbic cortico-subcortical areas (for affective evaluations) and the fronto-temporal areas for “cognitive mentalization and regulation” (p. 13). The authors suggest that these areas may relate dynamically with one another when functioning. Furthermore, the authors suggest that it may be possible to measure this differential functioning relative to the subject’s attachment history. In much the same way that Bowlby (1982) believed that a multidisciplinary context was necessary to give rise to attachment theory, so too Dinur
and Sherman (2009) suggest that their neuroscientific framework “will be made possible by using an interdisciplinary approach based on neuroimaging, genetic, and psychological investigations in humans, as well as innovative studies on animal models of social behaviors . . .” (p. 16).

Another interesting area of research exploration relating to attachment is maternal-fetal attachment (MFA). In a study examining the effects of depression in pregnancy, McFarland et al. (2011) suggested that while there is substantial evidence that maternal depression may adversely affect the mother-infant attachment, much less is understood about “the impact of depression in pregnancy on maternal emotions and cognitions about the fetus (often termed ‘maternal fetal attachment’) is unclear” (p. 425). In the study, 161 pregnant women—65 of whom met the criteria for Major Depressive Disorder (MDD)—were evaluated during their second or third trimester (23 to 36 weeks gestation). The study used Cranley’s Maternal Fetal Attachment Scale (Levy et al., 2011) at 26 and 36 weeks gestation to measure attachment. When compared to the scores for nondepressed mothers, the results showed that “clinically defined MDD during pregnancy negatively impacts MFA, suggesting that the basis for poor mother-to-infant attachment in postpartum MDD may have roots in pregnancy” (p. 425).

More closely related to this proposed study, researchers studied the experiences of 70 women who had diagnoses of MDD and a history of childhood sexual abuse to determine how attachment orientation (i.e., anxiety and avoidance) and the development of a working alliance affects outcomes. They found that women with a history of childhood sexual abuse were less responsive to treatment for depression and have a greater difficulty in forming and maintaining secure relationships. Greater levels of
attachment avoidance combined with weaker levels of working alliance was predictive of more severe symptoms of depression. In this study, the measured effects were found to be independent of comorbid bipolar disorder (BPD) and PTSD (Smith et al., 2011).

A group of first-time pregnant mothers were screened for depression in Goecke et al. (2012), which suggested promoting good dyadic attachment during pregnancy may positively influence later occurrences of post-partum depression.

A study that examined the relationship between secure attachment and maternal depression found that secure attachment in early childhood could have a protective, moderating effect on children exposed to chronic levels of maternal depression. Also, it found that children with disorganized attachment were most vulnerable to maternal depression (Milan et al., 2009).

**Overview of Assessments**

Several widely used assessments were an integral part of this study. Therefore, it is important to understand what the assessments are, how they work, and how widespread is the use of each one. This study includes intake and discharge assessments for dyadic attachment: the Mother-Infant Interactional Scale (see Appendix C) and the Mother-Child Interactional Scale (see Appendix D). Both of these assessments are adaptations of the Maternal Behavior Q-Set (MBQS) (Pederson et al., 1990) and the Attachment Q-set, Version 3.0 (AQS) (Waters, 1987). This study also includes intake and discharge assessments for maternal anxiety and maternal depression: the Functional Assessment Rating Scale (FARS) intake and discharge assessments (Ward & Dow, 1998, with Text Revisions 2004, 2005, 2006). This section describes the test instruments, their developmental histories, and their usual provenance.
**Functional Assessment Rating Scale (FARS)**

The Functional Assessment Rating Scale (FARS) was first used in Florida in 1995 to monitor changes in functioning in both mental health and substance abuse populations for children and adults. Its progenitor, the Colorado Client Assessment Record (CCAR) (Ellis, Wackwitz, & Foster, 1991), had been in wide use in several states, including Arizona and New York, for several years when Ward and Dow (1998) revised it for use in Florida. The FARS, like the CCAR, was intended to measure psychiatric symptoms and psychosocial impairments. Since 1995, it has been widely used and accepted as a snapshot of mental health.

The FARS is usually used for client evaluations as part of an admissions interview, as a case review, or at completion of a program to ensure that decisions made based on the assessment reflect current levels of cognitive and behavioral functioning. Because of the temporal nature of the FARS assessment, the clinician administering the FARS must focus on how the client is functioning now and how the client has been functioning for the past three weeks only. Although investigating a client’s history can be useful for other purposes, it has no purpose or place in a FARS assessment. Scores on the FARS can help identify and document how well a client is functioning cognitively and behaviorally. As a result, a FARS can be a useful benchmark in developing or monitoring progress towards achieving short- or long-term goals (Ward & Dow, 1998, with Text Revisions 2004, 2005, 2006). It is important to note that the FARS is a way of documenting and standardizing impressions from clinical evaluations or mental status exams using cognitive, social, and role functioning as its focus.
The FARS assesses depression, anxiety, hyper affect, thought processes, cognitive performance, substance use, medical/physical, interpersonal relationships, family relationships, family environment, traumatic stress, socio-legal, work or school, ADL functioning, danger to self, danger to others, self-care, and security/management needs. Also, the FARS includes Global Assessment of Functioning (GAF) as an overall measure of functioning (Ward & Dow, 1998).

The FARS scales for Anxiety and Depression were used as intake and discharge assessments for all the women included in this study. The FARS has been shown to have “very good interrater reliability, test-retest reliability, construct validity, and concurrent validity” (Kiser, Medoff, Black, Nurse, & Fiese, 2010, p. 389).

**Dyadic Attachment Assessments**

To fully appreciate the dyadic attachment assessments used in this study (the Mother-Infant/Child Interaction Scales), it is necessary to be conversant with the Attachment Q-set (AQS), and its progenitors, the Q-set and the Q-sort. The following two subsections describe Q-sort and Q-set.

**Q-sort assessment.** The Q-sort is a psychometric method of rank ordering that was originally developed in 1953 by Stephenson as a personality assessment technique. The Q-sort allows a trained clinician to sort qualities and perceptual responses, which has obvious appeal in that it allows clinicians to evaluate such intangibles as maternal attachment. It has been used extensively in personality assessment and developmental research by Baumrind (1968), Bem and Funder (1978), Block (1961) (who actually refined the Q-sort), Block and Block (1980), Roberts, Block, and Block (1984), and Waters et al. (1983), and many others.
**Q-sort methodology.** The Q-sort methodology consists of three components: procedures for developing sets of descriptive items to which scores are to be assigned, procedures assigning scores to items by sorting them into a rank order from most characteristic to most uncharacteristic within each subject, and a wide variety of procedures for data reduction and analysis.

According to Pitt and Sube (1979), Q-sort was useful for sorting and rank ordering aspects of many different disciplines that are otherwise very difficult to test. In fact, Pitt and Sube even used Q-sort to determine which landscape designs would have near-universal appeal to a wide range of potential property buyers.

Everett Waters, an Ainsworth protégé, recognized the Q-sort as a useful way to test different aspects of attachment. To that end, he developed the Attachment Q-set (AQS) (Waters, 1987), on which, in part, the SBARC mother-infant and mother-child interaction tests are based.

**Attachment Q-set (AQS).** The AQS is the widely used standard for assessing secure base behavior and attachment security (Pederson et al., 1990; Waters, n.d.). Prior to the development of the AQS, the accepted way to assess attachment was the Strange Situation Procedure (SSP) (Ainsworth et al., 1978). [Note: The SSP and the Strange Situation Survey (SSS) are one and the same.]

Version 3.0 of the AQS was first published and 1987 and is used today. A meta-analysis designed to study the reliability and validity of the AQS examined 139 studies comprising 13,835 children. The AQS security scores showed convergent validity with the SSP security ($r = 31$) and excellent predicted validity with sensitivity measures ($r = 39$). The association of the AQS with measures of temperament was weaker ($r = 16$),
which supports discriminant validity of the AQS. Studies on the stability of the observer AQS are still relatively scarce, but they have yielded promising results (mean $r = 28; k = 4, n = 162$). I can conclude from this that the observer form of the AQS—a version of which is the standard used at SBARC in its measurements of attachment—is a valid measure of attachment (Bakermans-Kranenburg, van Ijzendoorn, & Juffer, 2005).

Both the Mother-Infant Interaction Scale and the Mother-Child Interaction Scale that SBARC uses are based on the AQS, version 3.0. The AQS, which was designed by Waters in 1987, is made up of 90 items (questions or statements) that use the Q-sort method of sorting to assess secure behavior and organize information (McWey & Mullis, 2004). The information thus sorted is believed to be “consistent across all socioeconomic and cultural classes in society” (Waters, n.d., p. 1).

Waters developed the AQS for three reasons: first, to provide an economical methodology to examine relations between secure base behavior at home and SSP classifications; second, to better define (via a Q-sort) the behavioral referents of the secure base; and third, to stimulate interest in normative secure base behavior and individual differences in attachment security beyond infancy (Waters, 1987).

The AQS scores measure security on a continuum, thereby capturing information about potentially meaningful differences with each group. However, Waters recognized that it is “sometimes useful to convert continuous AQS scores to a secure/insecure dichotomy,” Waters (n.d., p. 1). Waters was adamant that the AQS not be used as a value system, but rather as an informational assessment system that allows interpretation.

The AQS is an observational assessment in which a clinician observes interactions between a parent and child in a natural setting. Ideal observers are familiar
with the dyad through repeated observations. The AQS is a 90-item criterion-referenced Q-sort designed to assess characteristics of a child’s behavior by looking for both the presence and absence of specific behaviors and the frequency with which behaviors occur. Observers assess parent-child interaction for 90-minute intervals or longer. The observers then rank the items that describe observed behavior. Individual correlation scores are interpreted as quality of attachment on a continuum in which 1.0 depicts the optimally securely attached child and -1.0 represents an extremely insecurely attached child (McWey & Mullis, 2004, p. 295).

**Mother-Infant/Child Interaction Scales**

The Mother-Infant/Child Interaction Scales are versions of the AQS designed for use with specific age groups. The Mother-Infant Interaction Scale is very similar to the Mother-Child Interaction Scale. In fact, the only real difference between the two scales is that the questions and statements (called items) on the Mother-Infant Interaction Scale are age-appropriate for infants 14 months and younger, while the items on the Mother-Child Interaction Scale are designed for children 15 months and older. In both cases, the assessments are designed to evaluate the strength of the infant or child’s attachment to its mother using an assessment that allows a trained clinician to observe and, finally, to score the infant or child’s quality of interaction with its mother.

In all cases, a trained Master’s- or Ph.D.-level clinician\(^1\) administered an intake assessment to the mother and infant or child. If the mother had more than one child in

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\(^1\) Most clinicians at SBARC are also licensed through the Florida Department of Health. Because SBARC is designated as a nonprofit 501(c)3 entity, the requirement for clinical members to have state licenses is waived. However, most staff members are license-eligible. The clinician who administered all the attachment intake and discharge evaluations for the last seven years has a Master’s degree in Social Work, but does not have a license.
residence with her, the clinician repeated the intake procedure with each child. At the conclusion of the mother’s stay at SBARC, a clinician repeated the assessment as part of the discharge process. Thus, the archived client file memorializes the assessment scores at both intake and discharge.

**Nonexperimental Quantitative Research**

Following the “cardinal rule of research . . . that you first determine your research questions and then select the strongest research method available to address those questions” (Johnson & Christensen, 2014), this study was nonexperimental because it was based on archival data. The definition of nonexperimental research, according to Kerlinger (1986), is as follows:

Nonexperimental research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables. (p. 348)

“[N]onexperimental research cannot provide evidence for causality that is as strong as the evidence obtained in experimental research. Evidence for causality in nonexperimental research is more tentative, more exploratory, and less conclusive” (Johnson & Christensen, 2014). However, Kerlinger (1986) emphasized the importance of nonexperimental research as follows:

It can even be said that nonexperimental research is more important than experimental research. This is, of course, not a methodological observation. It means, rather, that most social scientific and educational research problems do not
lend themselves to experimentation, although many of them do lend themselves to
controlled inquiry of the nonexperimental kind. Consider Piaget’s studies of
children’s thinking, the authoritarianism studies of Adorno et al., the highly
important study *Equality of Educational Opportunity*, and McClelland’s studies of
need for achievement. If a tally of sound and important studies in the behavioral
sciences and education were made, it is possible that nonexperimental studies
would outnumber and outrank experimental studies. (pp. 359–360)

Nonexperimental Research Categories

Johnson (2001) categorizes nonexperimental research according to a two-
dimensional nonexperimental research scheme in which the first dimension “represents a
categorization of the basic goal or main purpose for conducting the nonexperimental
study [research objective] and the second dimension [time dimension][is classified]
according to the time frame in which the data were collected” (Belli, 2009, p. 65).

Research Objective Dimension

Following his two-dimensional research categorization scheme, Johnson (2001)
and Johnson and Christensen (2014) divided research objectives into the following three
categories:

1. Descriptive—“Research that describes, usually in detail, phenomena as
   they exist. . . . contrasted with research that comes to causal conclusions or
2. Predictive—“[A]n investigation whose goal is to forecast (predict, but not
   explain) the values of one variable by using the values of one or more
   other variables. . . . In other terms, the goal in predictive research is to
estimate a future value of a dependent variable. Usually contrasted with explanatory research” (Vogt & Johnson, 2011, p. 300).

3. Explanatory—“[R]esearch that seeks to understand variables by discovering and measuring causal relations among them” (Vogt & Johnson, 2011, p. 134). “[T]he goal is to understand the causes behind relations, to test theory-based hypotheses to develop a theory, or sometimes to compare the effectiveness of two theories to explain variance in a dependent variable. . . . In other words, the goal is to estimate the partial regression coefficients that are interpreted as showing the degree of effect or causal relation for each variable, controlling for the other variables” (Vogt & Johnson, 2011, p. 300).

Given these three options, this study was Explanatory.

**Time Dimension**

Johnson (2001) and Johnson and Christensen (2014) further divided nonexperimental research into the following three categories with respect to when the data collection took place (that is, the time dimension):

1. Cross-sectional—Data were collected at one time.
2. Longitudinal—Data were collected in a forward direction over time.
3. Retrospective—Data were collected that represented present and past.

According to Vogt and Johnson (2011), a retrospective study is “research that uses information from the past to draw conclusions (p. 342).” In addition, Johnson and Christensen (2014) also states that in longitudinal research “data are collected at multiple
time points, and comparisons are made across time” (p. 404). As a results, the time
dimension for this study was retrospective-longitudinal.

Table 2 is a matrix that illustrates the intersection of these two dimensions
(research objective and time dimension), which determined the type of nonexperimental
design most appropriate for this study (Johnson, 2001, Johnson & Christensen, 2014).

Table 2

*Matrix of Research Types (Research Objective x Time Dimension) (Johnson &
Christensen, 2014, p. 402)*

<table>
<thead>
<tr>
<th>Research Objective</th>
<th>Time Dimension</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Retrospective*</td>
</tr>
<tr>
<td>Descriptive</td>
<td>Retrospective descriptive</td>
</tr>
<tr>
<td>Predictive</td>
<td>Retrospective predictive</td>
</tr>
<tr>
<td>Explanatory</td>
<td>Retrospective explanatory</td>
</tr>
</tbody>
</table>

*A a retrospective study can also be, as in this study, longitudinal (that is, retrospective-longitudinal) (Johnson & Christensen, 2014, p. 403).*
CHAPTER III: METHODOLOGY

The Susan B. Anthony Recovery Center (SBARC) is a fully accredited co-occurring disorder Level 3 residential treatment facility as defined by the American Society of Addiction Medicine (ASAM) (Stevenson-Hinde & Shouldice, 1995). As such, SBARC regularly reports on its successful outcomes to various governmental and funding sources. The purpose of this study was twofold: 1) to add to previous work on attachment and to increase knowledge and understanding of maternal depression and maternal anxiety as it related to attachment and, ultimately, to parenting; 2) to provide quantitative data that SBARC could report to funding sources as support for its impressive anecdotal success.

The women who enter the SBARC program usually live with one or more children while they are residing at SBARC. Because of this, the SBARC program was designed, in part, to strengthen parenting skills. Unfortunately, over the years, no formal study had been conducted to evaluate SBARC’s parenting success. In addition, the parenting program had changed over the years of SBARC’s existence, making any claims of statistical program effectiveness moot. Although everyone—community, staff, and residents—agreed that the SBARC experience was beneficial for its residents in many ways, that success was purely anecdotal. However, throughout SBARC’s 16-year history, each resident was evaluated at intake and just prior to discharge to measure dyadic attachment, maternal anxiety, and maternal depression. The scores on these evaluations have formed the basis for investigating change in the key treatment variables.
Study Subjects

All subjects in this study were admitted to the SBARC residential program for treatment of a variety of substance abuse, mental health, and co-occurring disorders during the 16-year period from the beginning of 1995 through the end of 2010. The subjects in residence at this nonprofit, 501(3)c charitable institution were referred to it from a variety of sources, including: Department of Corrections, Department of Children and Family services, and many community-based mental health centers. The study subjects were all from the local community and were provided no monetary rewards to participate in the SBARC program. At intake, each SBARC participant in the residential program granted permission (i.e., each participant signed an informed consent form) for SBARC to use her de-identified data.

Active subject recruitment was not part of this study. This study relied entirely on historical data. I examined the data sets collected earlier (828 clients), applied the case exclusion criteria and, thereby, derived the total number of records that were used for the study sample (*N* = 268). All subjects in this study were admitted to SBARC for a variety of substance abuse, mental health, and co-occurring disorders during the 16-year period from the beginning of 1995 through the end of 2010.

The following three assessments were administered twice by trained SBARC clinicians: first, within two weeks of entering the program; second, shortly before discharge:

1. The Mother-Infant Interaction Scale (see Appendix C).
2. The Mother-Child Interaction Scale (see Appendix D).

For more information on these three assessments, see the Assessments section in this chapter.

At discharge the SBARC staff therapist prepares a Discharge Summary and determines whether the outcome is Successful or Unsuccessful. Each Successful outcome is a story of a mother-infant/child dyad who managed to perform a series of personal improvement tasks, such as getting a GED, learning to use a computer, or learning to read, while remaining clean and sober. At this point, SBARC considers the resident to be Successful and to have graduated. (A limitation of this study is that because SBARC tailors each client’s program to her unique needs, the number of weeks or months needed to complete each program varies.) A resident who leaves the SBARC program prematurely is deemed Unsuccessful and does not graduate. Although graduation rates are important to governmental or charitable funding sources, they were not considered relative to this study. However, the presence of a written Discharge Summary in the client file, whether Successful or Unsuccessful, was an essential part of the criteria for inclusion in the study sample.

Subject Inclusion Criteria

From its inception in 1995, a key prerequisite for admission to residence at SBARC was that the women either have at least one infant or child reside with them or be pregnant at the time of admission. In addition, all SBARC residents were exposed to the same parenting skills classes. Theoretically, all residents who completed treatment at SBARC may have been considered for inclusion in this study. However, as a practical
matter, since this study depends exclusively on historical data, the chief exclusion criteria for this study were those cases for which the historical records were found to be missing the requisite data.

In order to qualify for inclusion in this study, the data record collected for the client included at a minimum:

1. Intake and discharge evaluations for the Functional Assessment Rating Scales (FARS).
2. Intake and discharge evaluations for the Mother-Infant Interactional Scale (AQS), and/or
3. Intake and discharge evaluations for the Mother-Child Interactional Scale (AQS).
4. SBARC Discharge Summary.

Subject Exclusion Criteria

Women who resided at SBARC during the time period studied were excluded from this study for one of the following reasons:

1. They did not have an infant or child in residence with them. (Many women who participate in SBARC’s programs have children who reside with a family member.)
2. Their files did not include SBARC Discharge Summary forms.
3. Their files did not include both intake and discharge AQS tests (that is, attachment assessment scores).
4. Their files did not include both intake and discharge FARS Anxiety scores.
5. Their files did not include both intake and discharge FARS Depression scores.
As is evident from this list, the primary exclusion criterion for any woman who had a child in residence while she completed the program was lack of documentation in the archived file. A missing evaluation score or a missing Discharge Summary was sufficient for exclusion from the sample.

**Assessments**

The following three assessments were administered twice by trained SBARC clinicians: first, within two weeks of entering the program; second, shortly before discharge:

4. The Mother-Infant Interaction Scale (see Appendix C).
5. The Mother-Child Interaction Scale (see Appendix D).

The observational assessments that provided the data of interest in this study were:

1. The Mother-Infant Interaction Scale (see Appendix C) and the Mother-Child Interaction Scale (See Appendix D). These scales are adapted versions of two AQS assessments, which are derived from Pederson et al. (1990) and Waters (1995) Version 3.0. These instruments measured changes in attachment in the mother-infant/child dyads.

2. The Functional Assessment Rating Scale (FARS) (Ward & Dow, 1998) provided a clinical estimate of maternal anxiety at intake and discharge. (See Appendix E for more information on the FARS.)
3. The Functional Assessment Rating Scale (FARS) (Ward & Dow, 1998) provided a clinical estimate of maternal depression at intake and discharge. (See Appendix E for more information on the FARS.)

The following two subsections detail the assessments that SBARC uses to evaluate each mother and mother-infant/child dyad. These assessments were administered twice during the treatment episode. The intake evaluation was administered within the first two weeks of residential treatment; the discharge assessments was administered just before completion of the program.

**Mother-Infant/Child Interaction Scales**

If an infant was less than 15 months old at the time of the intake evaluation, the dyad was assessed using the Mother-Infant Interaction Scale. If the child was 15 months or older, the dyad was assessed with the Mother-Child Interaction Scale. These two assessments are very similar, but they were designed to be age appropriate for two different age groups. Also, these two assessments are both adaptations of two well-known assessments of attachment: the Maternal Behavior Q-Set (Pederson et al., 1990) and the AQS, version 3 (Waters, 1987).

**Functional Assessment Rating Scales (FARS)**

The FARS (Ward & Dow, 1998) is made up of a group of scales that were designed to allow a trained clinician to score each mother on a number of separate variables. These variables included anxiety and depression.

**Data Collection**

The data analyzed in this study were previously collected in the SBARC data collection project (SDCP) from 16 years of archival client information. The SDCP,
yielded over 100 data items concerning each of SBARC’s 828 clients. (See Appendix A for more information about the SDCP.) Although the vast array of data contained in these 828 historical client records was similarly compelling, this study examined only three aspects of the clients’ experiences: 1) evidence of change in dyadic attachment; 2) evidence of change in levels of maternal anxiety; and 3) evidence of change in levels of maternal depression.

As previously stated, one purpose of the current study was to add to previous work on attachment and to increase knowledge and understanding of maternal depression and maternal anxiety as they may or may not relate to attachment. Another purpose was to test a theory that as dyadic attachment increases, maternal anxiety and maternal depression will tend to decrease.

To accomplish this goal, I chose a nonexperimental quantitative research design.

**Nonexperimental Quantitative Research**

The research design used in this study follows the description found in Johnson and Christensen (2014) and is called Retrospective-Longitudinal Explanatory. According to Belli (2009), Johnson defined retrospective explanatory research as nonexperimental research in which the primary focus for the research is to explain how some phenomenon works or why it operates. The objective is often to test a theory about the phenomenon. Hypotheses derived from a given theoretical orientation are tested in attempts to validate the theory. (p. 65)

(See the Nonexperimental Research Categories section in Chapter II for more information about the Retrospective-Longitudinal Explanatory and other nonexperimental research designs suggested by Johnson & Christensen, 2014.)
Archival Data

The data used in this study are archival. These data were taken from the archived client records of women (and their resident children) who had been discharged after having participated in the SBARC program. I collected the data over a two-year period in a data-collection project that was designed, implemented, and completed by me. [See Appendix A for additional information concerning the SBARC Data Collection Project (SBCP).] Each of these archived records represented the SBARC history—from intake to discharge—of a single client mother-infant/child dyad. The record for each client dyad was contained in an expanding-width file folder wallet (that is, client record). The complete data set for each client record ranged from about 1 inch to, in some cases, 8 inches or more, depending on the client dyad’s length of stay in treatment and the complexity of the services offered. Occasionally, the client record was contained in multiple expanding folders. All archived records were housed in a locked file room, stored on shelves, and ordered sequentially by client identification number. (See Appendix B for a description of the processes, database entry screens, and exemplars of the de-identified source documents used in this data collection project.)

Since this study used only archived, de-identified, historical data, which represented dyads for whom treatment services were provided from 1995 through the end of 2010, there were no live subjects and, therefore, no consent by study participants was necessary. All client records from which data was obtained for use in this study remain the property of SBARC.
Research Design

In addition to examining SBARC’s archival data (hence the retrospective portion of the retrospective-longitudinal nomenclature) for evidence of change in dyadic attachment, maternal anxiety, and maternal depression, and to further previous work on attachment and increase knowledge and understanding of maternal depression and maternal anxiety, I also tested a theory concerning maternal depression and maternal anxiety with respect to dyadic attachment (the explanatory portion of the nomenclature) (Johnson, 2001). Furthermore, I compared and analyzed the results collected from intake and discharge evaluations of women who (with their children) completed the SBARC residential program treatment at SBARC (whether they were Successful or Unsuccessful). This is a two-group pretest-posttest design. The two groups are Mother-Infant and Mother-Child. The pretests are intake scores on the assessments of strength of attachment and levels of maternal anxiety and levels of maternal depression. The intervention is the SBARC experience, whatever that was at the time that a particular dyad was in residence at SBARC. (In this study, the intervention is the independent variable and dyadic attachment, maternal anxiety, and maternal depression are the dependent variables.) The posttests are the scores on same assessments for strength of attachment and levels of maternal anxiety and levels of maternal depression.

Research Procedure

The subject inclusion criteria for this study rely exclusively on the completeness of the paper files, scores on the Intake Evaluation (Pretest), evidence of the SBARC Residential Program Participation (Intervention), and scores on the Discharge Evaluation (Posttest), which were obtained from the data were collected during the SDCP, which
preceded this study. (See Appendix A for more information on the SDCP.) The following subsections describe how and when the archival SBARC data, which was originally collected in paper files, was digitized to become the SDCP data. It was the SDCP data that subsequently formed the pretest, intervention, and posttest for this study.

**Pretest Source: SDCP Intake Evaluation Data**

This intake evaluation measured variables before a treatment was administered (Gall et al., 2007, p. 381). The SBARC clinicians conducted a formal intake evaluation of each mother and each mother-infant/child dyad for several variables, which included an assessment of the degree of dyadic attachment, an assessment of the level of maternal anxiety, and an assessment of the level of maternal depression. Each of these assessments yielded a numerical score, which I used as the pretest.

The client record for each member of the sample population contained a complete set of intake evaluation data, which included scores for maternal depression (FARS), scores for maternal anxiety (FARS), and scores for dyadic attachment (Mother-Infant Interaction Scale or Mother-Child Interaction Scale, depending upon the age of the child). (See the Assessments section in this chapter for more information about these tests.) As part of the intake evaluation, the Mother-Infant Interaction Scale or the Mother-Child Interaction Scale was administered to all SBARC participants during their first two weeks at SBARC. This evaluation is an adaptation of two attachment Q-sort assessments: Pederson et al. (1990) and Waters (1987), Version 3.0.

The Mother-Infant Interaction Scale (see Appendix C), a 58-item assessment, was administered by a trained clinician (Master’s or Ph.D. degree). The Mother-Child Interaction Scale (see Appendix D) is a similar 62-item assessment. These assessments
measure the same characteristics; the difference between the two is their age appropriateness. The infant version was given to children less than 15 months old; the child version was given to children 15 months and older. In both cases, the clinician observed interactions between mother and child and rated each question on a 3-point scale (1= Rarely or Never, 2=Sometimes, 3=Always or most of the time). After assigning point responses to each of the items, the clinician summed the scores. I used this score as the pretest.

**Intervention: SBARC Residential Program Participation**

For the purposes of this research design, the SBARC program as a whole—however it changed over 16 years—was considered the intervention.

At a minimum, the SBARC residential treatment program included the state-mandated, county-administered Healthy Start infant and child parenting skills training program (Teti & McGourty, 1996) as well as a customized, one-on-one parenting skills training program. All SBARC program participants were required to participate in these classes.

Oftentimes, the Healthy Start Program was court-mandated for the participants at SBARC. These services were free of charge to pregnant woman and to those with children up to age 3. Healthy Start included services relevant to this study, such as education and support in childbirth and parenting, nutrition counseling, tobacco cessation counseling and support, and breastfeeding education and support ("Healthy Start Coalition," n.d.). Since this analysis was of archived historical records, and since program interventions have varied during the 16 years of data under analysis, evaluating specific parenting interventions at SBARC was beyond the scope of this study.
**Posttest Source: SDCP Discharge Evaluation Data**

The assessments performed in the intake evaluation (an assessment of the degree of dyadic attachment, an assessment of maternal anxiety, and an assessment of maternal depression) were repeated just prior to discharge. As with the Intake Evaluation, each of these assessments yielded a score, which I used as the posttest.

At the end of the SBARC program, and after each dyad had been exposed to the various parenting interventions, the dyad was evaluated by an SBARC clinician who used the Mother-Infant Interaction Scale or the Mother-Child Interaction Scale. This assessment was the same version of the AQS that they received within two weeks of beginning treatment at SBARC. In addition, the FARS assessment was repeated, which yielded final scores for maternal anxiety and maternal depression. Both types of assessments were administered by a trained Master’s- or doctoral clinician and were scored in the same fashion as the intake assessment. Again, these were considered the posttest.

Also at discharge, the SBARC staff therapist prepared a Discharge Summary and determined whether the outcome was Successful or Unsuccessful. Each Successful outcome was a story of a mother-infant/child dyad who managed to perform a series of personal improvement tasks, such as getting a GED, learning to use a computer, or learning to read, while remaining clean and sober. At this point, SBARC considers the resident to be Successful and to have graduated. (A limitation of this study was that because SBARC tailored each client’s program to her unique needs, the number of weeks or months needed to complete each program varied.) A resident who left the SBARC program prematurely was deemed Unsuccessful and did not graduate. Although
graduation rates are important to governmental or charitable funding sources, they were not considered relative to this study. However, the presence of a written Discharge Summary in the client file, whether Successful or Unsuccessful, was an essential part of the criteria for inclusion in the study sample.

Internal Validity

Anything that can affect outcome, other than the SBARC experience itself, is an extraneous variable. The presence of extraneous variables can jeopardize internal validity. Internal validity is the “extent to which extraneous variables have been controlled by the researcher, so that any observed effect can be attributed solely to the treatment variable” (Gall et al., 2007, p. 383). Van Bakel and Riksen-Walraven (2004) identify 12 types of extraneous variables (eight of which were originally identified by van Dam and van Ijzendoorn (1988) as follows:

1. **History**—Other events that may have occurred during the time that the study was underway. Because this study involved retrospective data, which could not be manipulated for this research in any way, and because many things may have changed during the 16 years being studied, history was not an extraneous variable that was subject to manipulation. Although the SBARC program has always included parenting classes, individual and group therapy, substance abuse classes, and more, those elements have not necessarily stayed the same over the 16 years of this study. For example, although the assessments have been administered by the same clinician for 6 of the 16 years under study, one (or more) different clinicians administered them during previous years. As
with any long-term study, the program evolved to include new ideas of efficacy and approaches to practice.

2. Maturation—The physical or psychological changes in the research subjects during the experimental treatment. This study assumed that each mother and each mother-infant/child dyad in this study would change; in fact, that was what was being studied. Therefore, this extraneous variable was not applicable to this study.

3. Testing—The mother or mother-infant/child dyad may become too familiar with the tests. Neither mother nor mother-infant/child dyad knew what attribute was being assessed at any given time during any of the tests. Therefore, this extraneous variable was not applicable to this study.

4. Instrumentation—Observers who assessed mothers and mother-infant/child dyads “before and after an experimental treatment might be disposed to give more favorable ratings the second time, simply because they expect—consciously or subconsciously—a change to have occurred” (Gall et al., 2007, p. 385). Given the number of assessments SBARC clinicians administered every month, it was highly unlikely that the trained clinician who administered the assessments remembered what score a particular mother or mother-infant/child dyad received some months ago. In addition, the clinician not only scored intake and discharge assessments on separate test blanks, but he or she may not have been the same assessor. Therefore, this extraneous variable was not applicable to this study.
5. Statistical regression—“The tendency for research participants whose scores fall at either extreme on a measure to score nearer the mean when the variable is measured a second time” (Gall et al., 2007, p. 385). To control for errors of statistical regression, this study simply subtracted the low score from the high score. This extraneous variable was not applicable to this study.

6. Differential selection—This study included all mothers and mother-infant/child dyads who enrolled at SBARC during a 16-year period who had complete documentation of test results and a Discharge Summary present in their client files, so this extraneous variable was not applicable to this study.

7. Mortality—This is the normal attrition of any program. A key selection criterion of this study was that it included all mothers and mother-infant/child dyads who completed treatment (with complete test results and a Discharge Summary in their client files), whether or not they were deemed Successful. Therefore, this extraneous variable was not applicable to this study.

8. Selection-maturation interaction—Similar to No. 6, this extraneous variable was not applicable to this study.

9. Treatment diffusion—This occurs only when a control group exists. In this study, no control group existed; therefore, this extraneous variable was not applicable to this study.

10. Compensatory rivalry by the control group—Because this study does not include a control group, this extraneous variable was not applicable to this study.
11. Compensatory equalization of treatments—Again, with no control group, this extraneous variable was not applicable to this study.

12. Resentful demoralization of the control group—Once again, with no control group, this was not an applicable extraneous variable for this study.

**External Validity**

The degree to which the findings from this study could be generalized to “individuals and setting beyond those . . . studied” is external validity (Gall et al., 2007). An assumption of this study was that its findings might be generally applicable to similar populations of mother-infant/child dyads who might receive treatment for substance abuse, mental health, or co-occurring disorders in residential treatment. In addition, because this was a nonexperimental analysis of archived historical data and not a controlled experiment, any ability to generalize findings beyond this study was assumed to be limited at best.

**Statement of the Problem**

A preponderance of behavioral and psychological developmental research has long established correlations between early childhood interactions in the child/primary-caregiver dyad and later behavioral, developmental, and mental health issues for the child (Gray, 2011; Greco, 2010; Somech & Elizur, 2012; Sonthalia & Dasgupta, 2012). The AQS (Waters, 1987) and its derivatives (Pederson et al., 1990) are established instruments for measuring levels of attachment between mother and child (Davis & Michelle, 2011; Pittman et al., 2009; van Ijzendoorn, 1995). In addition, conventional wisdom, supported by a host of outcomes research, supports the proposition that reductions in depression and anxiety over the course of treatment may be related to better
outcomes, such as a lowered probability of relapse in abuse treatment programs (Grant et al., 2004; Hasin et al., 2002; Willinger et al., 2002).

In this case, the problem was that the 828 client records spanning 16 years had never been examined for evidence of anything. This study constitutes the first review and analysis of much hitherto untouched data.

**Research Questions**

This study reviewed 16 years of historical data collected about women who underwent a comprehensive substance abuse and mental health treatment program at SBARC from 1995 through 2010. Intake and discharge assessments (Pederson et al., 1990; Waters, 1987) of levels of dyadic attachment were analyzed to measure changes. Intake and discharge assessments using the Functional Assessment Rating Scales (FARS) (Ward & Dow, 1998) were used to assess changes in levels of maternal anxiety. Intake and discharge assessment using the FARS (Ward & Dow, 1998) were also used to measure changes in levels of maternal depression.

As suggested by Johnson (2001), the specific research questions (RQn) for this study were both descriptive and predictive:

RQ1. What was the relationship among dyadic attachment, maternal depression, and maternal anxiety? (Descriptive)

RQ2. What effect did dyadic attachment have on maternal anxiety and maternal depression at time of discharge from SBARC? (Descriptive)

RQ3. Does an increase in dyadic attachment predict a decrease in maternal anxiety and maternal depression at discharge? (Predictive)
Furthermore, Johnson and Christensen (2014) suggested that the overarching research question for this type of retrospective explanatory research must always be “Does the relationship we predict really exist?” (p. 82).

**Hypotheses**

All hypotheses in this study were directional because each made a prediction about a particular outcome (Creswell, 2009). Gay, Mills, and Airasian (2012), p. 536, stated that “All hypotheses logically follow the review of related literature and are based on the implications of previous research.” Using a format suggested by Johnson and Christenson (2014), the hypotheses for this study were:

HA1: It was predicted that there would be a statistically significant \((p \geq .05)\) increase in dyadic attachment as measured by the Mother-Child Interactional Scale for women who completed the SBARC treatment program (RQ1).

HA2: It was predicted that there would be a statistically significant \((p \leq .05)\) decrease in maternal anxiety as measured by the FARS for women who completed the SBARC treatment program (RQ2).

HA3: It was predicted that there would be a statistically significant \((p \leq .05)\) decrease in maternal depression as measured by the FARS for women who completed the SBARC treatment program (RQ3).

**Data Analysis**

In this study, I used two statistical analyses. First, I used a Multivariate Analysis of Variance (MANOVA) to test the overall difference between intake and discharge scores in a linear combination of the three (dyadic attachment, maternal anxiety, and
maternal depression). The MANOVA analysis provided the hypothesis testing for this study. Second, I used the univariate Analysis of Variance (ANOVA $F$ test), which is part of MANOVA, to test for discrete significance when comparing the intake and discharge scores for each of the same three variables, dyadic attachment, maternal anxiety, and maternal depression.

The data collected at SBARC was contained in a Microsoft Access 2010 (version 14) database on my secure computer system. The plan was to extract the maternal anxiety, maternal depression, and dyadic attachment assessment scores from this corpus and use the Statistical Package for the Social Sciences (SPSS) Statistics Base 20 (2011) software suite to conduct statistical analyses associated with this study. To augment SPSS in the data analysis, I also used Minitab 16 (version 16) and Microsoft Excel 2013.

The approach to analyzing the data collected for this project consisted of a three-step process, the goals of which were to establish the sample population, describe key characteristics of the population, and, finally, conduct an exploratory data analysis to determine relationships between measures of dyadic attachment, maternal anxiety, and maternal depression as they relate to the treatment experience.

Step 1—Creating the Study Sample: The entire collection of 828 client records was examined to establish the sample for this study. Every file that did not indicate the presence of at least one infant or child in residence at SBARC was excluded from the study. Then, each of the included files was examined for the presence of AQS and FARS tests. Any files that did not contain both tests were excluded. Next, any files that did not contain both intake and discharge scores on the AQS and FARS tests were excluded. Then, any files that were missing intake and discharge Anxiety and Depression scores on
the FARS tests were excluded. Finally, any files that did not contain a Discharge Summary were excluded. Finally, a statistical process to identify outliers (cases to exclude) was conducted that left 268 dyads, which became the study sample.

Step 2—Once the study sample was established, a summary of the sample demographics was created, which included the following characteristics of the population:

1. Age of Mother at Intake
2. Race/Ethnicity of Mother
3. Marital Status of Mother at Intake
4. Education Level of Mother
5. Intake Reports of Violence, Abuse, and Suicide Ideations or Attempts
6. Arrests and Criminal Justice System Involvement of the Mother
7. DSM Diagnosis of Mother at Intake
8. Status of Mother at Discharge

Step 3—Significance Testing: MANOVA and ANOVA *F* tests were used to analyze the scores at intake and at discharge for the three variables (dyadic attachment, maternal anxiety, and maternal depression) of interest in this study. The paired samples were the evaluation scores for each case taken at the beginning of treatment and just prior to discharge.

**Expected Findings**

The treatment at SBARC includes education (GED classes, for example), parenting skills development (Healthy Start, for example), substance-abuse-related psychoeducational classes, individual psychotherapy, and other programs. As a result, I
expected to find significant changes in the measures of dyadic attachment as well as significant changes is the levels of maternal anxiety and maternal depression reported by the women in the sample.

Although the data displays and statistical tools may provide general indications of treatment effects, the chief aim of this study was to provide a quantitative recapitulation of the program outcomes at SBARC over a 16-year period concerning measures of dyadic attachment, maternal anxiety, and maternal depression. The findings may provide both foundation and direction for future experimental studies at SBARC.

Confidentiality, Privacy, and Storage

During the earlier data collection project (the SDCP), each client record was assigned a number and care was taken to de-identify all data, thereby ensuring that each subject’s privacy was protected. No identifying data were taken from any client records or test results during the data collection phase of that project. Because I used the SDCP data for this subsequent study, identifying data no longer existed. (See Appendix A for more information on the SDCP.)

Although using historical data reduces the risk of disclosure, every precaution was taken to protect private information. Following the SDCP, I retained numbered data sets for each of the 828 client records. These numbered data sets resided on my personal password-protected laptop. With the exception of client records older than seven years, which SBARC destroyed after the data was collected, the actual client records remain at SBARC in their locked file room.
Written authorization to conduct this research, to identify the organization by name, and to include names of key staff members was obtained from Marsha L. Currant, the former Chief Executive Officer of SBARC. (See Appendix J for a copy of this consent letter.)

**Ethical Considerations**

In any research, the most important concern is the safety of the study participants. In this case, by using de-identified historical records, the risk to subjects was minimal. Also, because historical records were used, there was no need for informed consent and assurance of volunteerism documents. No identifying information was part of the data. By prior agreement, I will provide all data and findings from this study to representatives of SBARC.
CHAPTER IV: DATA ANALYSIS AND RESEARCH FINDINGS

In this study, I used a nonexperimental retroactive-longitudinal explanatory research design to analyze an archival data sample \((N = 268)\) of mother-infant/child dyads, who completed residential treatment with their children at the Susan B. Anthony Recovery Center (SBARC) from 1995 through 2010 (16 years). Specifically, this study was designed to examine changes in dyadic attachment as well as to examine changes in levels of both maternal anxiety and maternal depression. I compared scores on assessments of dyadic attachment, maternal anxiety, and maternal depression that SBARC measured at the beginning of treatment (at intake) with scores measured on the same tests at the end of treatment (at discharge).

After the SBARC Data Collection Project (SDCP) concluded, I analyzed each of the 828 SBARC case files for possible inclusion in this study. At a minimum, to be included in this study, the archived record had to contain the following for the dyad represented by the case file:

1. A completed face sheet,
2. A completed in-depth psychosocial evaluation,
3. Intake and Discharge copies of the FARS with the Depression and Anxiety ratings completed,
4. Intake and Discharge copies of completed Mother-Infant Interaction Scale (see Appendix C), or Mother-Child Interaction Scale (see Appendix D) assessments, and
5. A completed copy of the Treatment Program Discharge Summary that included the date of discharge from the program and the client’s status
(Successful, Unsuccessful, or Other) at time of discharge. (Note: If a client record contained complete Intake and Discharge data, I included it in the sample, even if the client’s status at discharge was Unsuccessful.)

Since the aim of the study was to analyze the archived records for change over the course of treatment in the key areas of dyadic attachment, maternal anxiety, and maternal depression, I excluded from the sample all case files that did not meet the criteria outlined in items 1 through 5. After excluding client files that contained incomplete or missing data, 274 cases remained.

**Description of Study Sample Subjects**

I then conducted an analysis for outliers on the remaining sample of 274 case files, which left a total of 268 dyads in the sample population ($N = 268$). (See the Cases Excluded Based on z Values Data section in this chapter for information on how I identified and eliminated these cases.) Mother-infant dyads, where the infants were under 15 months old, made up 126 cases in the sample ($n = 126$); mother-child dyads, where the children were 15 months or older, made up the remaining 142 dyads ($n = 142$). (See Appendices F and G, respectively, for summaries of the assessment scores from the mother-infant and mother-child subpopulations that made up this sample.) Note that in cases where a mother was evaluated with more than one child, I repeated her associated identification number in the results.

**Age at Intake**

The average age of women in the sample at intake was 28.35 years. At intake, the youngest woman was 18 and the oldest was 44, an age range of 26 years. The median age of women in the sample population was 27.
Race/Ethnicity

As shown in Figure 1, of the 268 women represented in the sample, 130 (48.51%) reported their race/ethnicity as Caucasian. Ninety-five (35.45%) women reported their race/ethnicity as African American, and 26 women (9.70%) reported themselves to be Hispanic. Of the 268 women in the sample, 15 identified themselves as Native American (5.60%). Two women in the sample (0.75%) were unidentified with regard to race or ethnicity in the archived case file.

![Reported Race/Ethnicity (N = 268)](image)

*Figure 1.* Reported race/ethnicity.
Marital Status at Intake

Figure 2 shows the reported marital status of the women in the study. At intake, 176 (65.67%) of the 268 women represented in the sample reported their relationship status as single. Thirty-four women (12.69%) reported they were married; 26 women (9.70%) reported being divorced; and 11 women (4.10%) reported that they were separated. Only one woman reported being a widow, and the relationship status for 22 women (7.46%) in the sample was not noted in the archived case files.

![Marital Status](image)

*Figure 2. Marital status at intake.*

Educational Level

The Referral Screening Form listed the highest level of education achieved by each of the women in the study sample. Of the 268 women in the sample, the highest
grade achieved was available in the client file for only 169 cases. The form was incomplete or missing from the file for the remaining 99 cases.

As shown in Figure 3, only 71 (42.01%) of the 169 women reported completing grade 12. Thirty-two (18.93%) reported completing grade 11, 29 (17.16%) completed grade 10, and 21 (12.43%) completed grade 9. Six (3.55%) of the 169 women reported completing grade 7 and one woman (0.59%) reported completing grade 6. No information was reported on the education level of nine (5.33%) of the 169 women. Although some women reported having some college experience, none reported completing their college education.

Figure 3. Highest grade completed. (Note that the archived record contained educational data on only 169 of 268 women in the study sample.)
Violence, Abuse, and Suicide Ideations or Attempts

As illustrated in Figure 4, 143 (53.28%) of the 268 women in the sample reported being involved in a relationship in which there was domestic violence. Of the 268 women in the sample, 132 (49.25%) reported being sexually abused. In fact, 98 (36.57%) of the women reported being sexually abused as a minor, and 67 (25.00%) women reported being physically abused. Finally, 193 (72.01%) of the 268 women in the sample reported prior incidents of suicidal ideations or attempts.

![Women Reporting Violence, Abuse, and Suicide Ideations or Attempts](chart)

*Figure 4. Violence, abuse, and suicide ideations or attempts.*

Arrests and Criminal Justice System Involvement

Many of the women in the sample population reported involvement in criminal activity (see Figure 5). Of 268 women in the sample, 136 (50.75%) reported having been incarcerated prior to coming to SBARC. Questions about four types of arrests appear on
the Referral Screening Form (see Appendix L): arrests for possession or sales of drugs; behavior under the influence of drugs or alcohol; theft; and assault.

Of 268 women in the sample, 132 (49.25%) reported having been arrested for possession or sales of illicit drugs.

Of 268 women in the sample, 70 (26.12%) reported having been arrested for theft of some kind. In most cases, the theft was related to selling stolen goods to obtain drugs. Of the 268 women in the sample, 53 (19.78%) reported having been arrested for behavior under the influence of drugs or alcohol. Frequently, the arrest was associated with a driving under the influence (DUI) charge, but also included public intoxication charges. Finally, of the 268 in the sample, 41 (15.30%) reported having been arrested for assault.

![Women's Criminal Justice System Involvement (N = 268)](image)

*Figure 5. Criminal justice system involvement.*
Mental Health Diagnosis at Intake

See Figure 6 for a breakdown of the primary diagnoses of the women in the sample. Of the 268 women in the sample, 148 (55.22%) had a primary diagnosis of substance abuse or addiction at intake. Another 53 women (19.78%) had a primary diagnosis of bipolar or major depressive disorder. Of the 268 women in the sample, 18 (6.72%) had a primary diagnosis of anxiety, and 8 (2.99%) had a primary diagnosis of adjustment disorder. The primary diagnosis for the remaining 41 women (15.30%) was not noted in the case files.

Figure 6. Primary mental health diagnoses.
Status at Discharge

Figure 7 shows the program success rate. Of the 268 dyads in the sample, 159 successfully completed the treatment program. This represents a success rate of 59.33% over the 16-year period of cases comprising the sample.

![Bar chart showing Women's Status at Discharge (N = 268)]

Of the 268 dyads in the sample, 74 (27.61%) were unsuccessful in completing treatment. There were myriad reasons that contributed to being unsuccessful in completing the program, such as being caught at SBARC with contraband, violent or disruptive behavior on the SBARC premises, and, in general, being noncompliant with the rules of the SBARC program.

The remaining 35 dyads (13.06%) represented cases where administrative or medical factors prevented successful completion. Examples of administrative causes included situations where the client was remanded back to the criminal justice system to
complete a sentence or the client opted to pursue treatment at another facility. Examples of medical causes included situations where the woman’s need for medical treatment precluded her from fully participating in the SBARC program.

**Statistical Approach**

To address the research questions, this study first used IBM SPSS to perform a test procedure called Multivariate Analysis of Variance (MANOVA). (See Chapter III, for a list of the research questions.) Then, I examined MANOVA for the ANOVA $F$ test statistic. The ANOVA $F$ test is most appropriate for comparing the means of two or more independent groups. In addition, ANOVA is appropriate when the response variable is metric and the independent variable is categorical. This study focused the analysis on the comparison of the intake and discharge scores of three variables—dyadic attachment, maternal anxiety, and maternal depression. Furthermore, the scores for all the response variables are interval. Although both intake and discharge scores come from the same set of respondents, the response of different individuals at intake and discharge is considered independent and, therefore, the use of ANOVA is justified. ANOVA is appropriate for testing dependent variables individually (meaning a separate ANOVA is performed for each dependent variable).

In this study, there are three dependent variables: dyadic attachment, maternal anxiety and maternal depression. (Note: The treatment received by each dyad is the independent variable in this study.) Clearly, the three dependent variables may be correlated. To examine the possible correlation structure among the dependent variables, I used MANOVA.
In MANOVA, the associated multivariate $F$ test and Wilks’ lambda test the significance of the difference in mean scores of the combination of the three dependent variables at intake and discharge. If MANOVA shows significant difference, then univariate ANOVA $F$ tests are performed to determine whether there is a significant difference in each of the three dependent variables from intake to discharge.

Before the main data analysis, however, the study sample was first examined to exclude cases on the basis of $z$ values (i.e., outliers). Then, the remaining cases were subjected to assumption testing. These procedures are described in the next two sections.

**Cases Excluded Based on $z$ Values**

Swanson and Holton (2005) stated that cases excluded on the basis of $z$ values “can have a substantial influence on the results of predictive discriminant analysis and outlier detection should be a part of every discriminant analysis” (p. 130). In keeping with this view, I used the two-step method recommended by Field (2009) and Rasch, Kubinger, and Yanagida (2011) to identify cases to exclude. First, I generated a standardized score (that is, a $z$ score) for each observation.

Note: Standardized scores reflect the number of standard deviation units a given score is distant from the mean of the entire distribution (that is, from the entire group).

Second, I considered all scores that were greater than or less than 3.10 as cases to eliminate. I chose ±3.10 because both Field (200) and Rasch et al. (2011) suggested it as an acceptable and reasonable distance from the mean of the entire distribution.
Table 3 lists the cases excluded on the basis of $z$ values. Based on this examination of the standardized scores, these cases were eliminated from the raw scores leaving a study sample of 268 dyads ($N = 268$).

Table 3

*Cases Excluded Based on z Values*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Case Number</th>
<th>$z$-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyad Attachment (Intake)</td>
<td>599</td>
<td>(4.59)</td>
</tr>
<tr>
<td>Dyad Attachment (Discharge)</td>
<td>623</td>
<td>(4.82)</td>
</tr>
<tr>
<td></td>
<td>482</td>
<td>(4.73)</td>
</tr>
<tr>
<td></td>
<td>479</td>
<td>(3.97)</td>
</tr>
<tr>
<td></td>
<td>487</td>
<td>(3.87)</td>
</tr>
<tr>
<td>Depression (Discharge)</td>
<td>242</td>
<td>(3.11)</td>
</tr>
</tbody>
</table>

**Assumption Testing (Skew and Kurtosis)**

Assumption testing for normality of distribution of scores was conducted to determine the skew and kurtosis coefficients of the three main variables (that is, the normality of the score distributions).

Table 3 shows the standardized skew and kurtosis coefficients. The typical rule for interpreting these values is that skew should not exceed ±2, while kurtosis should not exceed ±5 (Field, 2009a). However, according to Corty (2014) and Howell (2011), with relatively large sizes, minor violations are inconsequential. In the case of the current data, anxiety (discharge) and depression (discharge) have statistically moderate positive skewed scores. This could be an indication of a slight violation of the normality of
distribution score assumption for ANOVA (Field, 2009a). Considering the sample size of 268 and the nature of the ANOVA, which is relatively robust to minor violations of assumptions, this should not be an issue in the succeeding analyses (Corty, 2014).

Table 4

*Mean (M), Standard Deviation (SD), Skew, and Kurtosis*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Standardized Skew</th>
<th>Standardized Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment (Intake)</td>
<td>69.97</td>
<td>9.58</td>
<td>1.35</td>
<td>-0.53</td>
</tr>
<tr>
<td>Attachment (Discharge)</td>
<td>78.74</td>
<td>8.96</td>
<td>-1.57</td>
<td>2.35</td>
</tr>
<tr>
<td>Anxiety (Intake)</td>
<td>4.35</td>
<td>1.80</td>
<td>0.05</td>
<td>-1.19</td>
</tr>
<tr>
<td>Anxiety (Discharge)</td>
<td>3.63</td>
<td>1.87</td>
<td>4.36</td>
<td>-0.35</td>
</tr>
<tr>
<td>Depression (Intake)</td>
<td>4.67</td>
<td>1.84</td>
<td>1.02</td>
<td>-1.94</td>
</tr>
<tr>
<td>Depression (Discharge)</td>
<td>3.50</td>
<td>1.74</td>
<td>2.77</td>
<td>-1.80</td>
</tr>
</tbody>
</table>

\[ N = 268 \]

**Correlations Among Variables**

Correlations among the variables were computed as part of the basic descriptive statistics. As expected, the intake and discharge scores were statistically significant when correlated across the three variables. The relationships were moderately positive, with *r* values ranging from .501 to .639. Note that there were statistically significant positive correlations between anxiety (intake and discharge) and depression (intake and discharge). Table 5 summarizes the pairwise correlations among the variables.
Table 5

*Correlation Matrix*

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Attachment (Intake)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Attachment (Discharge)</td>
<td>.639**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Anxiety (Intake)</td>
<td>.106</td>
<td>.075</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Anxiety (Discharge)</td>
<td>.094</td>
<td>-.080</td>
<td>.584**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Depression (Intake)</td>
<td>.000</td>
<td>.037</td>
<td>.391**</td>
<td>.224**</td>
<td></td>
</tr>
<tr>
<td>6 Depression (Discharge)</td>
<td>.003</td>
<td>-.097</td>
<td>.347**</td>
<td>.617**</td>
<td>.501**</td>
</tr>
</tbody>
</table>

**p < .01, ***p < .001
N = 268

**Main Analysis**

To test the three hypotheses of the study, I analyzed the overall difference between intake and discharge scores using MANOVA in a linear combination of the three dependent variables—dyadic attachment, maternal anxiety, and maternal depression. The first analysis combined both mother-child and mother-infant dyad data. Then, the second analysis separated the two dyads’ data into two subgroups, mother-infant dyads and mother-child dyads.

Table 6 summarizes the results of the MANOVA analysis of the overall data.
Table 6

*Mean Comparisons by MANOVA Multivariate Test (Overall Data)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>Wilks’λ</th>
<th>df</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
<td>69.97</td>
<td>9.58</td>
<td>78.74</td>
<td>8.96</td>
<td>.757</td>
<td>(3, 532)</td>
<td>56.78</td>
<td>.243</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4.35</td>
<td>1.80</td>
<td>3.63</td>
<td>8.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>4.67</td>
<td>1.84</td>
<td>3.50</td>
<td>1.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7 reports the summary of results for univariate ANOVA F tests of overall data.

Table 7

*Mean Comparisons by MANOVA—Univariate ANOVA F Test (Overall Data)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
<td>69.97</td>
<td>9.58</td>
<td>78.74</td>
<td>8.96</td>
<td>119.698</td>
<td>(1, 534)</td>
<td>&lt;.001</td>
<td>.183</td>
</tr>
<tr>
<td>Anxiety</td>
<td>4.35</td>
<td>1.80</td>
<td>3.63</td>
<td>8.96</td>
<td>20.715</td>
<td>(1, 534)</td>
<td>&lt;.001</td>
<td>.037</td>
</tr>
<tr>
<td>Depression</td>
<td>4.67</td>
<td>1.84</td>
<td>3.50</td>
<td>1.74</td>
<td>56.567</td>
<td>(1, 534)</td>
<td>&lt;.001</td>
<td>.096</td>
</tr>
</tbody>
</table>
Table 8 reports the MANOVA multivariate test for two dyads’ data.

**Table 8**  
*Mean Comparisons by MANOVA Multivariate Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>Variables</th>
<th>Intake M</th>
<th>Intake SD</th>
<th>Discharge M</th>
<th>Discharge SD</th>
<th>Wilks λ</th>
<th>df</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother-Infant (n = 126)</td>
<td>Attachment</td>
<td>71.01</td>
<td>9.46</td>
<td>79.28</td>
<td>9.69</td>
<td>.815</td>
<td>(3, 248)</td>
<td>18.72</td>
<td>.185</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>4.19</td>
<td>1.70</td>
<td>3.63</td>
<td>9.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>4.51</td>
<td>1.94</td>
<td>3.50</td>
<td>1.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother-Child (n = 142)</td>
<td>Attachment</td>
<td>69.04</td>
<td>9.63</td>
<td>78.25</td>
<td>8.27</td>
<td>.681</td>
<td>(3, 280)</td>
<td>43.78</td>
<td>.319</td>
</tr>
<tr>
<td></td>
<td>Anxiety</td>
<td>4.49</td>
<td>1.87</td>
<td>3.62</td>
<td>8.27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>4.81</td>
<td>1.75</td>
<td>3.51</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9 reports the summary of results for univariate ANOVA F tests of two dyads’ data.

**Results of Study**

To test for differences in intake and discharge scores among overall combinations of dyadic attachment, maternal anxiety, and maternal depression, I used Multivariate Analysis of Variance (MANOVA) and Levene's test, which allowed me to determine whether the error variance remained homogeneous across time. Levene’s test reported a p value greater than .05 for the overall data. In addition, Levene’s test also reported a p value greater than .05 for each of the dependent variables associated with the two dyads’
data groups. Interestingly, this means that we cannot reject the null hypothesis of homogeneity of variance across time at a .05 significance level. This finding, in turn, confirms that this MANOVA analysis satisfies the assumption of homogeneity of variance.

Table 9

*Mean Comparisons by MANOVA—Univariate ANOVA F Test*

<table>
<thead>
<tr>
<th>Group</th>
<th>Variables</th>
<th>Intake</th>
<th>Discharge</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother-Infant</td>
<td>Attachment</td>
<td>71.01</td>
<td>79.28</td>
<td>46.97</td>
<td>(1, 250)</td>
<td>&lt;.001</td>
<td>.158</td>
</tr>
<tr>
<td>(n = 126)</td>
<td>Anxiety</td>
<td>4.19</td>
<td>3.63</td>
<td>6.18</td>
<td>(1, 250)</td>
<td>&lt;.001</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>4.51</td>
<td>3.50</td>
<td>18.16</td>
<td>(1, 250)</td>
<td>&lt;.001</td>
<td>.068</td>
</tr>
<tr>
<td>Mother-Child</td>
<td>Attachment</td>
<td>69.04</td>
<td>78.25</td>
<td>74.82</td>
<td>(1, 282)</td>
<td>&lt;.001</td>
<td>.210</td>
</tr>
<tr>
<td>(n = 142)</td>
<td>Anxiety</td>
<td>4.49</td>
<td>3.62</td>
<td>15.04</td>
<td>(1, 282)</td>
<td>&lt;.001</td>
<td>.051</td>
</tr>
<tr>
<td></td>
<td>Depression</td>
<td>4.81</td>
<td>3.51</td>
<td>41.08</td>
<td>(1, 282)</td>
<td>&lt;.001</td>
<td>.127</td>
</tr>
</tbody>
</table>

MANOVA reported significant difference in overall mean score (that is, a combination of dyadic attachment, maternal anxiety, and maternal depression) between intake and discharge periods. For overall data, a multivariate test—again part of MANOVA—reported a significant result using Wilks’ lambda and the associated $F$ test ($Wilks’ \lambda = 0.757, F(3532) = 56.78$, and $p = <.001$).
A statistically significant result was also reported for a multivariate test of two dyads’ data (that is, Wilks’ $\lambda = 0.815, F (3, 248) = 18.72, \text{ and } p = <.001$ for the mother-infant group and Wilks’ $\lambda = 0.681, F (3, 280) = 43.78, \text{ and } p = <.001$ for the mother-child group). In addition, effect size, as measured by partial eta squared value reports, was statistically moderate. Results of the multivariate test for the overall score indicate that there was a statistically significant difference between intake and discharge.

**Hypothesis 1: Difference in Dyadic Measures of Attachment**

It was hypothesized that completion of the SBARC treatment program would lead to increased attachment in the mother-infant/child dyads. Results of univariate ANOVA $F$ test indicated that discharge attachment scores were significantly higher compared to intake scores. This was noted for the overall data ($F (1, 534) = 119.698, p = <.001$) as well as for the subgroup analysis: mother-infant dyads ($F (1, 250) = 46.97, p = <.001$) and mother-child dyads ($F (1, 282) = 74.82, p = <.001$). Thus, the findings provided support for the first hypothesis.

**Hypothesis 2: Difference in Maternal Anxiety**

It was hypothesized that women who completed SBARC treatment program would experience decreased levels of anxiety. The results indicated that anxiety scores were significantly lower at discharge than at intake. This was noted for the overall analysis ($F (1, 534) = 20.715, p < .001$) as well as for the subgroup analysis: mother-infant dyads ($F (1, 250) = 6.18, p = .018$) and mother-child dyads ($F (1, 282) = 15.04, p < .001$). Thus, the findings provided support for the second hypothesis.
Hypothesis 3: Difference in Maternal Depression

It was hypothesized that women who completed the SBARC treatment program would experience decreased levels of depression. Results indicated that depression scores were significantly lower during discharge when compared to the scores at intake. This was noted for the overall analysis ($F(1, 534) = 56.567, p < .001$) as well as for the subgroup analysis: mother-infant dyads ($F(1, 250) = 18.16, p < .001$) and mother-child dyads ($F(1, 282) = 41.08, p < .001$). Thus, the findings provided support for the third hypothesis.

In conclusion, the findings provided support for all three hypotheses. These results provided additional support (within the context of a nonexperimental design) that the SBARC experience may have or tended to have (Johnson & Christensen, 2014) a measurable impact on these treatment variables.
CHAPTER V: DISCUSSION AND IMPLICATIONS OF THIS STUDY

This study focused on three variables: dyadic attachment, maternal anxiety, and maternal depression. I sought to discover, through careful analysis of the archival client records, whether measurements of these three treatment variables would change by the time that the clients were discharged from treatment.

The key evaluation tools—the Mother-Infant Interaction Scale (see Appendix C), the Mother-Child Interaction Scale (see Appendix D), and the Functional Assessment Rating Scale (FARS), Florida Version (see Appendix E)—were used consistently over the 16-year period from which the sample population for this study was drawn. From the first evaluations conducted in 1995 through the end of 2010, these rating instruments were used without any revisions or modifications.

A Masters or doctoral level clinician administered each of these standard assessments within two weeks of intake to residential treatment and repeated the same assessments shortly before the end of the treatment episode. Each test was completed by the clinician and relied primarily on the clinician’s judgment of functioning, based on direct observation of the mother-infant/child dyad (with regard to dyadic attachment) and of the mother (with regard to maternal depression and maternal anxiety).

Table 10 summarizes the results of this study. Furthermore, Table 10 separates the total sample ($N = 268$) into two subgroups: mothers with infants ($n = 126$) and mothers with children ($n = 142$). As shown in Table 10, the analysis measured statistically significant increases in dyadic attachment and statistically significant decreases in maternal anxiety and maternal depression in both subgroups.
Table 10

**Summary of Results**

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women with Infants ($n = 126$)</td>
<td>HA1: Women and infant dyads who completed SBARC treatment would experience increases in measures of dyadic attachment</td>
<td>Statistically significant difference</td>
</tr>
<tr>
<td>Women with Children ($n = 142$)</td>
<td>HA1: Women and children dyads who completed SBARC treatment would experience increases in measures of dyadic attachment</td>
<td>Statistically significant difference</td>
</tr>
<tr>
<td>Mothers of Infants ($n = 126$)</td>
<td>HA2: Women who completed SBARC treatment would experience decreases in measured levels of anxiety.</td>
<td>Statistically significant difference</td>
</tr>
<tr>
<td>Mothers of Children ($n = 142$)</td>
<td>HA2: Women who completed SBARC treatment would experience decreases in measured levels of anxiety.</td>
<td>Statistically significant difference</td>
</tr>
<tr>
<td>Mothers of Infants ($n = 126$)</td>
<td>HA3: Women who completed SBARC treatment would experience decreases in measured levels of depression.</td>
<td>Statistically significant difference</td>
</tr>
<tr>
<td>Mothers of Children ($n = 142$)</td>
<td>HA3: Women who completed SBARC treatment would experience decreases in levels of depression.</td>
<td>Statistically significant difference</td>
</tr>
</tbody>
</table>
The statistical analyses for the first hypothesis (HA1) dealt with measures of attachment in the mother-infant and mother-child dyads. For both subgroups, the analyses indicated that I might be seeing a positive change that could be related to the residential treatment program. In the case of the mother-infant dyads (subgroup $n = 126$), the average discharge evaluations were 8.9 points higher than the initial intake evaluations. Similarly, mother-child dyads (subgroup $n = 142$) showed an average improvement of 9.8 points when the intake evaluation score was compared with the discharge evaluation score.

The statistical analysis for the second hypothesis (HA2) was related to measures of anxiety of all women in the sample ($N = 268$). In both the overall and subgroup analyses, I found a small, but nevertheless statistically significant ($d$ values ranged from .10 to .17), decrease in anxiety over the course of participation in the treatment program.

The statistical analysis for the third hypotheses (HA3) was related to measures of depression of all mothers in the sample ($N = 268$), as measured once at the beginning of treatment (intake) and again just before discharge. Results indicated statistically medium-to-large effect sizes ($d$ values ranged from .54 to .76) for the overall sample and the individual subgroups, which suggested that observed levels of maternal depression were significantly lowered by the end of treatment in the program.

Finally, the correlational analyses, which examined the intercorrelations among all three variables, were moderately positive ($r$ values ranging from .501 to .639). This suggests the possibility of a dynamic interaction among these variables that may be contributing to a better outcome and possibly to the overall success rate of the program. Since this study is a nonexperimental, retrospective explanatory analysis of the historical
case data, and since precise descriptions of the various forms of the treatment programs employed during the times when treatment was obtained were not preserved in the historical record, I can only conjecture which element of the treatment experience at SBARC most directly contributed to the treatment effects observed and analyzed in this study.

**Findings and Methodological Implications**

Clearly, the findings of this nonexperimental, retrospective explanatory study are very encouraging. From this analysis of the sample population taken from 16 years of case history, I conclude that maternal depression and maternal anxiety seem to have been lowered during the residential treatment, while dyadic attachment has been significantly strengthened.

**Methodological Implications of Dyadic Attachment**

The design and administration of the two attachment test instruments—the Mother-Infant Interaction Scale (see Appendix C) and the Mother-Child Interaction Scale (see Appendix D)—are very similar. The trained clinician observes the dyad over an extended session and rates the number and quality of generative characteristics observed. Because these scores represent ordinal data (in this case, the clinician ranks attachment characteristics on a three-point scale: 1=Rarely; 2=Sometimes; and 3=Always or most of the time), this study can only tell us that positive change (that is, an improvement) was measured when the discharge evaluation scores were compared with those of the intake scores for the sample population. I cannot make any further empirically significant claims about the value of each “point” of improvement in attachment scores. However, there is a
long and substantial history of research (see Chapter II) where these and similar instruments have been used to evaluate the quality of the dyadic attachment.

**Methodological Implications of Maternal Anxiety and Maternal Depression**

The analyses revealed what might be significant treatment effects for both maternal anxiety and maternal depression. Reductions in maternal anxiety showed small effect sizes ($d$ values ranging from .10 to .17) when measured at the beginning of treatment and just prior to discharge. Levels of maternal depression in the sample decreased more dramatically over the course of treatment yielding medium-to-large effect sizes ($d$ values ranging from .54 to .76). Again, since the treatment records contain no clear description of the treatment program as it existed throughout the 16 years, I can only speculate as to what elements of the total program may have contributed most significantly to the results presented here.

**Findings Relative to the Literature**

As the preponderance of literature suggests (see Chapter II), a holistic treatment milieu for women seeking treatment for co-occurring conditions ranks high in both effectiveness and outcome success. A somewhat unusual aspect of the SBARC treatment approach is that they enable women to keep their young children in residence with them while undergoing treatment.

The results of this study are encouraging in that they demonstrate the existence of a statistically positive treatment effect, which supports the anecdotal improvement in dyadic attachment observed by the clinicians in the sample population. In addition, the results indicate that women completing treatment at SBARC have experienced significant decreases in observed levels of maternal anxiety and maternal depression. Furthermore,
the results of the MANOVA analysis (see Chapter IV) point to possible evidence of a
dynamic relationship among dyadic attachment, maternal anxiety, and maternal
depression (that is, an increase in dyadic attachment may indicate a likelihood of
decreased maternal anxiety and maternal depression and vice versa).

Public charities, such as SBARC, depend heavily on contributions and grants
from various corporate and government institutions and programs. In most cases, overall
program success rate is measure by the percentage of patients successfully completing the
residential portion of the treatment program. This success rate percentage becomes a key
performance measure upon which continued and future funding is based (M. Currant,
personal communication, July 27, 2010). Based on the results of this study, I found that
the women in this sample successfully completed treatment in nearly 60% of the cases.

Since it can be argued that these three treatment variables are probably closely
related to treatment outcomes in general, I believe that future SBARC studies dealing
more directly with attachment-theory-inspired interventions may lead to greater gains in
dyadic attachment and in lowered levels of maternal anxiety and maternal depression.

**Findings and the Main Question**

This nonexperimental, retrospective explanatory study provided an effective and
rigorous method for examining the SBARC historical record. A key motivation for doing
this study was to understand whether the clinical record could provide any evidence that
these key treatment variables—dyadic attachment, maternal anxiety, and maternal
depression—were positively affected by the various treatment interventions provide at
SBARC over the years. From a preliminary standpoint, I am encouraged that the analysis
revealed the possibility of statistically significant relationships for each of the three
variable studied as well as possibly statistically significant relationships among the three variables when analyzed together.

Over the 16 years comprising this study, the SBARC treatment program (see Appendices J and K) has consisted of a rich and varied offering of therapy, effective living programs, and the like. While this outstanding offering has grown over time, I believe that infrastructural limitations, including scarce funding and lack of research personnel, have prevented the organization from performing basic empirical research activities that would greatly help them determine what types of program interventions will lead to the most beneficial results.

**Conclusions and Future Implications**

Much of the addiction literature—and certainly the attachment literature—closely relates the importance of increased attachment in the mother-child dyad and decreased maternal anxiety and maternal depression in the mother dealing with a co-occurring condition. I believe that future tracking of these three treatment variables would be of enormous benefit to SBARC.

One useful and cost-effective way to elevate the attention given to issues of dyadic attachment might be to use a simple self-evaluation to determine the adult attachment style of each woman at the beginning of the treatment episode. For over two years now, I have used one such evaluation, the Revised Adult Attachment Scale (Collins, 1996), in my private psychotherapy practice (see Appendix M) to determine the dominant attachment styles of the individuals and couples with whom I work. An individual can complete this easy-to-score scale in just a few minutes. In my practice, I have found this scale to be a useful tool for collaboratively identifying areas on which to
focus treatment. In addition, in family work, whether we treat the evaluated attachment style as measurement or metaphor, I have experienced how clients readily embrace and use attachment styles as a scaffolding on which to strive for more effective outcomes.

I believe that by matching measurements of adult attachment style with long-established treatment approaches informed by attachment theory (Beck, 2011; Greenberg & Johnson, 2004; Hughes, 2007; Johnson, 2001; Mikulincer & Shaver, 2010; Wallin, 2007), it may be possible to better target each woman’s treatment plan in such a way as to increase attachment outcomes with the infant/child and decrease feelings of maternal anxiety and maternal depression over the course of treatment. In fact, many of the leading attachment-informed therapy approaches (especially Hughes, 2007; Johnson, 2001; and, to a somewhat lesser extent, Wallin, 2007) focus primarily on the systemic, relational, and interactional contexts of the client’s experience, which makes them very well suited for use by marriage and family practitioners, thus expanding the knowledge of the therapist with regards to the treatment modality.

Over the years, SBARC has successfully helped hundreds of women and their children build healthy lives and brighter futures. The results they have achieved in serving some of the surrounding community’s most desperately needy families has been and continues to be—in many instances—nothing short of miraculous. Their long-established and continuing efforts to improve the quality and effectiveness of their services ensure that they will continue to provide Help, Hope, and Healing to mothers and children in the community for many years to come.
References


Appendices
Appendix A

Susan B. Anthony Recovery Center (SBARC) Data Collection Project

In February of 2009, I embarked upon a voluntary research project that, unbeknownst to me, was the beginning of an odyssey that would last for over two years. It would consume most of my weekends and free time. It would take me into a world in which I would otherwise never have had the opportunity (and as I later realized, the privilege) to spend time. The project, which many times seemed daunting and most of the time seemed without end, was to create a strategy whereby I would examine the paper records of over 800 women had that been created by Susan B. Anthony Recovery Center (SBARC) clinicians over a 15-year period. In addition, I would carefully and systematically collect over 100 items from each case.

Each case represented the story of a woman's journey through residential treatment with her children—from intake to discharge—at SBARC, where women were able to reside with their minor children while they were in treatment. A key mission of SBARC, therefore, was to provide a treatment service milieu that kept mothers and their children together during the treatment episode. This data collection project concluded in May of 2011.

In 1994, SBARC received its charter and opened its doors to its first families in late 1995. The first clients (called persons served or P/S) graduated from treatment in 1996. That year, there were six graduates. Over the years, SBARC experienced significant growth in the number of persons served and, consequently, its physical plant underwent significant expansion, as did the array of services offered. By the end of 2010 (the final year of the data collection project), SBARC had graduated 92 women. I
remember our initial meeting in early 2009. I met with then head of SBARC, Marsha Currant, Chief Executive Officer. We discussed the work that we might do to collect and organize the data they had collected in all the years since 1995. After our sit-down meeting, Marsha provided a tour of the main administrative building located in the center of the 5-acre campus. Near the main entrance to this building, she unlocked a room containing the archived records for all persons served since SBARC opened its doors.

The records archive was a room about 12 feet wide, 20 feet deep, and 15 feet high. In front of the wall at the far end of the room stood a high-end photocopier and sorter. Next to it was an industrial-strength paper shredder. These machines were dwarfed by floor-to-ceiling bookcases containing the case folders for each of the clients seen and discharged over the years. The shelves were constructed of rough pine boards supported on the ends by two-by-fours. Each set of bookcases, which fully covered the left and right long walls of the room, contained six shelves. All shelves were jammed packed with dark brown accordion folders, each one containing the complete paper record memorializing the entire treatment experience for an individual mother and her children. Depending on the length of stay and extensiveness of the treatment, the accordion case files ranged in width from an inch or two to eight inches thick. Some clients—especially those who had relapsed and returned for treatment—consumed two or three accordion files.

On entering the room, I looked up toward the left top shelf. I noticed the outward facing surface of each accordion file contained a self-stick file folder tag on which was written the number for that client. I noticed that the file folder numbers started at 04 on the left side of the left-hand side of shelves and ended at 800 and something on the bottom right side of the shells located to my right.
Earlier in our meeting, we discussed with Marsha and her clinical team how useful it would be to go through over a decade's worth of client files and to make sense of the data contained in them. At the time, we did not discuss overarching research questions, long-term study design, or really anything to do with making sense of the data. I think we were all somewhat cowed by the enormity of the data collection task that lay ahead. I remember at the time staring at the hundreds of archived files to my left and to my right in that very small room and wondering indeed what sense we might make of all of this data. Admittedly, I found the challenge of the project both exciting and intimidating (see Figure A-1).

**Data Collection**

I started visiting SBARC regularly in January of 2009. I spent the first few months poring over the contents of these brown accordion files to get a sense of what data was contained in each. My approach to designing the data collection project was to first start making lists of the kind of data contained in the record. I knew that I would not be interviewing live subjects in any part of this project. It was, therefore, important to me to choose data to collect that would help me to see each case as a multidimensional human being and not just a story reduced to numbers.

After a number of sessions spent reviewing client files and familiarizing myself with their contents, I began to chart a course for the data collection. At one point in the project, my university advisor and I had discussed the idea of bringing in a team of graduate students to assist in transferring the data from each client file to a Microsoft
Access database that I designed to contain the data. In support of this, and as a way for me to understand better the challenges of the project, I created a manual that contained redacted samples of each the common paper records with callouts showing the location of the data to be collected. In addition, each callout, for example, contained the same sequence number located on the access database input field.

**Data Entry Instruction Manual**

In the first iteration of the database, the data entry instruction manual showed 27 facsimile pages from the file and required 96 separate data items. Subsequent iterations of the database made small alterations to this original collection scheme, but ultimately collected the same data. (See Appendix B for the manual that describes the data
collection project and shows the data entry screens and facsimiles of the actual paper records from which the data was taken.)

The first 81 items identified in the manual and the database extracted key data from the:

1. Face Sheet (questions 1 through 4),
2. Bio-psychosocial (questions 5 through 40),
3. Referral Screening Form (questions 41 through 62),
4. In-Depth Assessment (questions 63-81).

Questions 82 through 96 were extracted from a variety of other documents in the client record including:

1. Mother-Infant/Child Interactional Scale, Pretest (question 82),
2. Mother-Infant/Child Interactional Scale, Posttest (question 83),
3. Parenting Skills Rating Scale, Mother-Infant/Child, Pretest (question 84),
4. Parenting Skills Rating Scale, Mother-Infant/Child, Posttest (question 85),
5. FARS Pretest Depression Score (question 86),
6. FARS Pretest Anxiety Score (question 87),
7. FARS Pretest GAF Score (question 88),
8. FARS Posttest Depression Score (question 89),
9. FARS Posttest Anxiety Score (question 90),
10. FARS Posttest GAF Score (question 91),
11. Treatment Program Discharge Summary (questions 92 through 95), and
12. ASAM Adult 65D-16 (question 96: Discharge Date).
Depending on the length of stay and the complexity of the treatment, the accordion file for a client could range from one half inch thick to, in some cases, over eight inches thick when fully extended. This presented a significant challenge during the data collection process. Our collection protocol dictated that we find 20 or 25 pages that contained the key data in a file that sometimes contained hundreds of pages. The protocol for the processing of each client folder was to separate and inventory the pages that contain the data to be entered into the Microsoft Access database at a later time. In order to ensure quality and accuracy, we established a single page cover sheet. (See Appendix B for a copy of the Cover Sheet.) This cover sheet served as a checklist guide for quickly determining whether or not the key pages containing data were present in the client file. In addition to providing a quality control point, the cover sheet provided the person entering data into the access database with a convenient summary of all intake and discharge evaluation scores for the client.

My original design for the Microsoft Access database was based on the idea that multiple two-person teams would identify, organize, and provide data entry for all the relevant client data in the archive. I envisioned using the multiuser capabilities of the Microsoft Access 2007—and ultimately Microsoft Access 2010—database software, which would enable the data entry person on each team to take the client packet that the data collector had prepared and enter the key data into the database. The Susan B. Anthony Recovery Center had a multiuser network of Windows operating system-based workstations on which it provided GED classes and vocational training for residents during the week. I originally estimated that we might use six or eight two-person teams so as to complete the data collection relatively quickly. However, because our access to
the computer systems was restricted to evenings and weekends, because of the difficulties associated with attracting volunteer labor for protracted project such as this, and because of technical issues I ran into associated with implementing the multiuser version of the software, I ultimately abandoned the idea of performing the data collection using multiple teams. Instead, we completed the bulk of this project using myself and another volunteer—my wife, Robin. The data collection project concluded in May of 2011.
Appendix B

Process Flow, Data Entry Screens, and Source Documents

Archive File Data Collection Initiative (AFDCI)

Process Flow, Data Entry Screens & Source Documents

Main Process Flowcharts, Data Entry Screens and Samples of the Corresponding Source Documents (with Call-Outs) Showing the Locations for All Data Collected

Gary M. Forrest, LMFT

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Introduction

In February 2009, I embarked upon a research project of my design to collect useful information from the paper records of hundreds of women who had been treated at a local women’s residential treatment center.

Each of these archived records represented the treatment history — from intake to discharge — of a single client. The record for each client was contained in an expanding width, file folder wallet (“client record”). Each client record ranged from about 1 inch to, in some cases, 8 inches or more, depending on the client’s length of stay in treatment and the complexity of the services offered. Occasionally, the client record would be contained in multiple expanding folders. All archived records were housed in a locked file room, stored on shelves, and ordered sequentially by client identification number.

The data collection project, which ran from February 2009 through May 2011, consisted of two processes:

- Packet Assembly
- Source Data Entry

Packet Assembly – This was the first process in the project (see flowchart on page 4). During Packet Assembly, each client record was unpacked and examined to identify and extract key source documents from the client record. The extracted documents were then placed in a particular order in a separate pile (“packet”). A document clip placed at the top of each packet kept the documents together. We used a custom cover sheet (see sample on page 9) as the first page for each packet. The cover sheet provided the following:

- Client identification number and basic client demographic data
- A checklist by which each packet was inventoried to ensure that key documents had been located.
- Locations to enter key pre- and post-test scores associated with the client

Once the packet was assembled, it could proceed to the second process in the project:

Source Data Entry — During this process (see flowchart on pages 5-7), each packet was scanned by the data entry technician and key data was copied from the packet into the research database. The Source Data Entry flowchart lists the physical documents from which the data was copied during data entry. It also shows the eight actual data entry screens used in the database program.

The remainder of this document presents the eight data entry screens (used in the database) and the physical source documents (from the client packet). Note that each of the sample source documents contains callouts, which show the exact location of the data item that was copied into the research database.
Source Data Entry: Main Process Flowchart

Data Entry Screen & Abuse Data

Abuse Data

- [ ] Direct indication of forced labor
- [ ] Direct indication of forced prostitution
- [ ] Direct indication of forced recruitment/employment
- [ ] Direct indication of forced sexual abuse
- [ ] Direct indication of forced sexual abuse from the client

Inter Key Data on Physical and Sexual Abuse

Return Packet to Archival if Process Loader

Processed All Packets?

Page 2

Flow 1

End

June 1, 2010

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Page | 7
Data Entry Screen 1: Cover Sheet

Enter all Data in this Box Directly from the Cover Sheet

Client ID Number:  Date of Birth:  Race/Ethnicity:  
Date of Admission:  Pregnant:  Enter the number of months: 

Mother-Infant Interaction Scale, Pre-test Score:  
Mother-Infant Interaction Scale, Post-test Score:  
Parenting Skills Rating Scale, Mother-Infant, Pre-test Score:  
Parenting Skills Rating Scale, Mother-Infant, Post-test Score:  
Mother-Child Interactional Scale, Pre-test Score:  
Mother-Child Interactional Scale, Post-test Score:  
Parenting Skills Rating Scale, Mother-Child, Pre-test Score:  
Parenting Skills Rating Scale, Mother-Child, Post-test Score:  
FARS Pre-test Depression Score:  FARS Post-test Depression Score:  
FARS Pre-test Anxiety Score:  FARS Post-test Anxiety Score:  
FARS Pre-test GAF Score:  FARS Post-test GAF Score:  

The data entry screen shown above is the first database screen used to collect data from the client record. As shown in the Packet Assembly: Main Process Flowchart (page 4), the client record is searched for the key documents used for collecting the data. The sample Cover Sheet (see page 9) contains all of the data copied from certain documents.

Client ID Number, Date of Birth, Race/Ethnicity, and Date of Admission, are all data taken from the client Face Sheet (see page 10).

Pregnant and Enter the number of months (if pregnant) are taken from page 1 of the Bio-Psychosocial Evaluation (see page 11).

The data values for all pre- and post-test scores are taken from their respective forms, as follows: Mother-Infant (Child) Interactional Scale (see pages 12-13, 16-17), Parenting Skills (see pages 14-15, 18-19) and FARS Depression & Anxiety (pages 20 & 21), and FARS GAF scores (pages 22 & 23)
This file was audited on _______ and contains the aforementioned documents from which data will be entered into the archived client database.

DOB: ____________ Race: ____________ Admission Date: ____________

Pregnant? ____________ How many months: ____________

NOW ENTER DATA FROM THE FOLLOWING DOCUMENTS IN THIS PACKAGE:

☐ Treatment Program Discharge Summary
☐ Indepth Assessment or Bio-Psychosocial
☐ Referral Screening Form/Application

Assessment | SCOReS:
☐ Mother-Infant Interaction Scale (Pre-Test) ____________
☐ Mother-Infant Interaction Scale (Post-Test) ____________
☐ Parenting Skills Rating Scale, Mother-Infant (Pre-Test) ____________
☐ Parenting Skills Rating Scale, Mother-Infant (Post-Test) ____________
☐ Mother-Child Interaction Scale (Pre-Test) ____________
☐ Mother-Child Interaction Scale (Post-Test) ____________
☐ Parenting Skills Rating Scale, Mother-Child (Pre-Test) ____________
☐ Parenting Skills Rating Scale, Mother-Child (Post-Test) ____________
☐ FARS Pre-Test – Depression: ____________ Anxiety: ____________ GAP: ____________
☐ FARS Post-Test – Depression: ____________ Anxiety: ____________ GAP: ____________
Source Document: Bio-Psychosocial Page 1

Bio-Psychosocial Evaluation

Person Served Name: [Redacted] Chart #: [Redacted]

Address: [Redacted]

SSN: [Redacted]
Interview date: 5-20-07
D/C Date: [Redacted]

Emergency Contact and Phone: [Redacted]

What are your goals at The Susan B. Anthony Center, Inc.? Be drug-free. Single parent. Go back to school.

A. Medical/Physical History:
1. Date of last physical exam:
   Sept. 06
2. General Health Status: Poor
3. Current medical conditions: [Redacted]
4. Current medications:

5. Past hospitalizations: None
6. Most recent: None

7. Primary Physician:
8. Previous or disability payments: [Redacted]

9. Serious head trauma resulting in loss of consciousness:
   Length of unconsciousness: [Redacted]
10. Pregnant?

Risk Assessment:
1. Have you ever used a needle to take drugs IV, IM, skin-popping? Date:
   [Redacted]
2. Have you ever shared needles? Date:
   [Redacted]
3. Have you ever shared needles with someone known to be infected with the HIV virus? Date:
   [Redacted]
4. Have you received a blood transfusion since 1977? Date:
   [Redacted]
5. In the past five years have you had sex with: [Redacted]
Mother-Infant Interaction Scale* 

Circle one: Pre-Test       Post-Test 

*This scale is an adaptation of the Maternal Behavior Q-Set (Pederson, Moran, Stice, Campbell, Chesapeake, & Acton, 1990) and the attachment Q-Set, Version 3.0 (Waters, 1987) 

Person Served Name: ____________________________
Person Served Number: ____________________________
Infant's Name: ____________________________
Infant's DOB: ____________________________ Age: 1w 4d
Completed By: ____________________________
Date: ____________________________

Score: ____________________________
Percent: ____________________________
**Mother-Infant Interaction Scale**

Circle one: Pre-Test  Post-Test

*This scale is an adaptation of the Maternal Behavior Q-Set (Pederson, Moron, Stika, Campbell, Ghesquiere, & Acton, 1990) and the attachment Q-Set, Version 3.0 (Waters, 1987)*

<table>
<thead>
<tr>
<th>Field</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Served Name</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Person Served Number</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Infant's Name</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Infant's DOB:</td>
<td>9/12/85</td>
</tr>
<tr>
<td>Age</td>
<td>10 weeks</td>
</tr>
<tr>
<td>Completed By:</td>
<td>[Redacted]</td>
</tr>
<tr>
<td>Date</td>
<td>9/23/99</td>
</tr>
<tr>
<td>Score</td>
<td>12/174</td>
</tr>
<tr>
<td>Percent</td>
<td>74%</td>
</tr>
</tbody>
</table>

Source Document: Mother-Infant Interaction Scale Post-Test
Parenting Skills Rating Scale

Based on the Family Teaching Model

Mother-Infant

Circle one: Pre-test Post-test

Client's Name: [Redacted]

Client Number: 436

Child's Name: [Redacted]

Child's Age: 7m 6d

Completed By: [Redacted]

Date: 8/10/10

Total Score: 96

Scoring:
1 = Rarley or never
2 = Sometimes
3 = Always or most of the time
Parenting Skills Rating Scale (Based on the Family Teaching Model)

Mother-Infant

Circle one: Pre-test □ Post-test □

Client's Name: ____________________________________________

Client Number: ________

Child's Name: ____________________________________________

Child's Age: ________ mos

Completed By: ____________________________________________

Date: ________________

Total Score: ________

SCORING:
1 = Rarely or never
2 = Sometimes
3 = Always or most of the time
Mother-Child Interactional Scale

Circle One: Pre-Test  Post-Test

This scale is an adaptation of the Maternal Behavior Q-Set (Pederson, Morin, Stalio, Campbell, Cheska, & Azan, 1990) and the Attachment Q-Set, Version 3.0 (Waters, 1987).

Client's Name: [Redacted]
Child's Name: [Redacted]  Boy
Child's Age: 6 months
Completed By: [Redacted]
Date: 02/2007

Score: 78%
This scale is an adaptation of the Maternal Behavior Q-Set (Pederson, Moron, Silva, Campbell, Ghesquière, & Acton, 1990) and the Attachment Q-Set, Version 3.0 (Watson, 1987).

Client's Name:
Child's Name:
Child's Age:
Completed By:
Date:

Score: 150/188 = 79.7%
Parenting Skills Rating Scale
(Based on the Family Teaching Model)
Mother-Child

Circle one: [Pre-test] [Post-test]

Client's Name: [Redacted]
Client Number: [Redacted]
Child's Name: [Redacted]
Child's Age: [Redacted]
Completed by: [Redacted]
Date: 8/10/07

Total Score: 90

SCORING:
1 = Rarely or never
2 = Sometimes
3 = Always or most of the time.
Parenting Skills Rating Scale

(Based on the Family Teaching Model)

Mother-Child

Circle one: Pre-test Post-test

Client’s Name: [Redacted]

Client Number: 436

Child’s Name: [Redacted]

Child’s Age: [Redacted]

Completed By: [Redacted]

Date: 2/8/08

Total Score: 108

SCORING:
1 = Rarely or never
2 = Sometimes
3 = Always or most of the time
# Functional Assessment Rating Scale, Pre-Test, Page 1

## Social Security Number

<table>
<thead>
<tr>
<th>Gender of Person Being Rated</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
</table>

## Date of Birth

<table>
<thead>
<tr>
<th>Mth</th>
<th>Day</th>
<th>Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>15</td>
<td>2017</td>
</tr>
</tbody>
</table>

## Provider Security Tax ID

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Today's Date

<table>
<thead>
<tr>
<th>Mth</th>
<th>Day</th>
<th>Yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>16</td>
<td>2017</td>
</tr>
</tbody>
</table>

## Purpose of Evaluation

- (Fill in circle next to answer):
  - An evaluation to add to patient chart
  - A planned discharge from care
  - An annual evaluation

## Current Level of Care from this Provider or any other provider, indicate admission level of care:

- (Circle one):
  - Crisis (acute) problem
  - Outpatient
  - Residential
  - Partial Hospitalization
  - Intensive Care Unit

## Primary Diagnoses:

- (Circle one):
  - Mood disorder
  - Adjustment disorder
  - Personality disorder
  - Substance/Alcoholism disorder

## Problem-Severity Ratings

Use the scale below to rate the individual's current short-term level of severity for each category. To rate a category, fill in the number circle on the line next to the category. Keep in the circle next to each word or phrase to describe the person's problems or assets.

### Depression

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Anxiety

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Hyper Affect

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Thought Processes

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Memory or Thinking Difficulty

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Substance Use

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem

### Other

- No Problem
- Less than Slight Problem
- Slight to Moderate Problem
- Moderate to Severe Problem
- Severe to Extreme Problem
Source Document: Functional Assessment Rating Scale, Post-Test, Page 1
### Functional Assessment Rating Scale (FARS) Post-Test

#### FARS Post-Test (GAF Score):

<table>
<thead>
<tr>
<th>Section</th>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>60</td>
<td>No Impairment</td>
</tr>
<tr>
<td>2</td>
<td>65</td>
<td>Impaired but not Disabled</td>
</tr>
<tr>
<td>3</td>
<td>70</td>
<td>Probable Impairment</td>
</tr>
<tr>
<td>4</td>
<td>75</td>
<td>Significant Impairment</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
<td>Severe Impairment</td>
</tr>
<tr>
<td>6</td>
<td>85</td>
<td>Extreme Impairment</td>
</tr>
</tbody>
</table>

#### Current Level of Disability and Functioning:

- **Disability** is defined by the Social Security Administration as the inability to engage in any substantial gainful activity because of a medically determinable physical or mental impairment which can be expected to last for a continuous period of not less than 12 months. Based on this definition, fill in the circle next to the category that best describes your estimate of the individual's current level of disability:
  - None
  - Mild
  - Moderate
  - Severe
  - Extreme

- **Functioning** is rated on a scale ranging from 0 to 100. Use 80 or less for "markedly impaired."
Data Entry Screen 2: Referral Screening Form

Locating the data in the client's paper file:

Funding Source data is taken from page 1 of the Referral Screening Form (see page 25).

All Arrests data is taken from page 4 of the Referral Screening Form (see page 26).

Any academic or vocational training and If yes, please describe data is taken from page 6 of the Referral Screening Form (see page 27).
Source Document: Referral Screening Form, Page 1

Person Served Name: [Redacted]  Chart #: 7205

Referral Screening Form/Application

This application must be filled out in its entirety. It is used to apply for transitional housing services for women with children who are recovering from substance abuse and homelessness. Please be sure to complete this form and attach a copy of all the information that is required on the enclosed checklist.

For all Yes or No questions, please circle the appropriate answer and fill in all explanations if applicable.

Screening Date: [Redacted]  Tentative Admit Date: [Redacted]

Person Served Name: [Redacted]  [Redacted]

DOB: 2-22-64  Sex: [Redacted]

Race: [Redacted]  Ethnicity: [Redacted]

Current Address: [Redacted]  FL 33068

Referred by: [Redacted]  Title: [Redacted]  Phone: [Redacted]

Agency Making Referral: [Redacted]

Date and Length of Treatment: [Redacted]  Where: [Redacted]

Funding Source: DOR  DCF  HIP  HUDWA  Self-Pay

If applying for substance abuse services please fill out the following, if not please skip this portion of the application.

Substance Abuse History:

Drug(s) of Choice: [Redacted]

Frequency of use: [Redacted]  Length of Sobriety: [Redacted]

Date of last use: [Redacted]

Any failed attempts to stop using? Yes or No? If yes, how many times? [Redacted]

What is the longest period of time the person served has remained substance free? [Redacted]

Please list any previous treatment programs the person served has participated in and what caused her to use again? [Redacted]
Person Served Name: [redacted] Chart #: 306

Next Scheduled Court date: ____________________________

For: ___ Arraignment ___ Trial ___ Other

Does the person served have any history of violence? (Not necessarily involving the law)
Yes or No
If yes please describe: _______________________________

Educational/Vocational Information:

What is the highest grade level completed? [redacted]

Does she have any academic or vocational training? Yes or No
If yes please describe ______________________________

FOR SBA STAFF ONLY

Reviewed by (print name): [redacted]

Criteria for Admission

It is Court-ordered to _______ be released from Prison. D.O.B. is April 20th, 1983, height 5'8" well proportioned. Was in 3rd grade at school.

Based on the above described criteria, I recommend that the Person Served be scheduled for a Biopsychosocial assessment to further determine appropriateness for potential admission to the program.

9/30/04

Date
Locating the data for this form in the client’s paper file:

Marital Status?, Religious Affiliation, DCF, DOC, Is client court ordered?, and How many times has client been in treatment: data is taken from page 1 of Indepth Assessment (see page 29).

All Suicide data is taken from page 2 of Indepth Assessment (see page 30).

Sexual Orientation data is taken from page 3 of Indepth Assessment (see page 31).
<table>
<thead>
<tr>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. PSYCHIATRIC HISTORY (Age &amp; circumstances of 1st contact with a mental health professional, outpatient treatment, evidence of an eating disorder, self-mutilating behavior)</td>
</tr>
<tr>
<td>II. HISTORY OF SUICIDAL/HOMICIDAL IDEATION/ATTEMPT</td>
</tr>
<tr>
<td>III. SIGNIFICANT MEDICAL HISTORY</td>
</tr>
<tr>
<td>IV. MEDICATIONS (PRESENT)</td>
</tr>
<tr>
<td>V. MEDICATIONS (PAST)</td>
</tr>
</tbody>
</table>

In-depth Assessment Page 2 of ___
VI. SUBSTANCE ABUSE HISTORY
(Age of first use, how much, progression of use, current abstinence period, past abstinence (how long), drug of choice, prior substance abuse treatment, overdose, legal problems associated with use, peer involvement)

[Handwritten text]

VII. PSYCHOSOCIAL HISTORY

[Handwritten text]

A. DEVELOPMENTAL MILESTONES
NORMAL ___________________ DELAY ___________________

RAISED BY: [Handwritten text]
RESIDES WITH: [Handwritten text]

SIBLINGS (sex & age)

B. SEXUAL ORIENTATION
Heterosexual [ ] Gay [ ] Lesbian [ ] Bisexual [ ] Transgender [ ]

C. CHILDREN
Specify if Biological (B), Step-Children (S), or Adoptive (A)
Age: [Handwritten text], Sex: [Handwritten text], Biological: [Handwritten text], Step: [Handwritten text], Resides: [Handwritten text]

D. EDUCATION HISTORY:
Highest Grade Completed: [Handwritten text], Diploma: [Handwritten text], Degree(s): [Handwritten text]

If none, is this a goal you would like to achieve? [Handwritten text]

In depth Assessment Page 3 of ?
Data Entry Screen 4: In-Depth Assessment (Part 2)

"C. CHILDREN" FROM PAGE 3 OF THE IN-DEPTH ASSESSMENT

<table>
<thead>
<tr>
<th>Child 1 Age:</th>
<th>Sex:</th>
<th>Biological:</th>
<th>Step:</th>
<th>Resides with client:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child 2 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 3 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 4 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 5 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 6 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 7 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
<tr>
<td>Child 8 Age:</td>
<td>Sex:</td>
<td>Biological:</td>
<td>Step:</td>
<td>Resides with client:</td>
</tr>
</tbody>
</table>

Locating the data for this form in the client’s paper file:

All data for this form is taken from page 3 of the In-depth Assessment (see page 33).
VI. SUBSTANCE ABUSE HISTORY
(Age of first use, how much, progression of use, current abstinence period, past abstinence (how long), drug of choice, prior substance abuse treatment, overdose, legal problems associated with use, peer involvement)

AGE 13: alcohol caused a lot of stress (age 13 was not a party drinking type character)
AGE 15: began drinking heavily, 3-4 times a week, do not drink with others
AGE 21: started drinking heavily, 6-7 days a week, then 2-3 days with others

VII. PSYCHOSOCIAL HISTORY
Every day not my drugs, not my food
Spent the day with husband

A. DEVELOPMENTAL MILESTONES
NORMAL

RAISED BY
Mother

RESIDE WITH
Mother

SIBLINGS
Sex & ages

B. SEXUAL ORIENTATION
Heterosexual

C. CHILDREN
Specify if Biological (B), Step-Children (S), or Adoptive (A).
Age: 4, Sex: F, Biological: 4

D. EDUCATION HISTORY:
Highest Grade Completed: 9th
Diploma (G): Yes
Degree(s): 
If none, is this a goal you would like to achieve? Yes

In-depth Assessment Page 3 of 7
Data Entry Screen 5: In-Depth Assessment (Part 3)

DATA LOCATED ON PAGES 3 OF IN-DEPTH ASSESSMENT

<table>
<thead>
<tr>
<th>Highest Grade Completed:</th>
<th>Diploma/GED:</th>
<th>Degree(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If none, is this the goal you would like to achieve:

Locating the data for this form in the client's paper file:

All data from this form is taken from page 3 of the In-depth Assessment (see page 35).
VI. SUBSTANCE ABUSE HISTORY
(Age of first use, how much, progression of use, current abstinence period, past
abstinence [how long], drug of choice, prior substance abuse treatment, overdose,
legal problems associated with use, peer involvement)

Age 15, alcohol, started drinking illegally during 10th grade
Age 18, started drinking more heavily, attended parties with 21
Age 20, drug use (heroin) more than 20 days a week
Illicit drug use began 1/97
Crack use began 7/97
Clean date: 2/1/99

VII. PSYCHOSOCIAL HISTORY

Broke up and lived with her parents

A. DEVELOPMENTAL MILESTONES

RAISED BY: Mother
RESIDED WITH: Father
SIBLINGS (sex & ages)

B. SEXUAL ORIENTATION

Heterosexual, Gay, Lesbian

C. CHILDREN

If Biological (B), Step (S), Adoptive (A), or Adoptive (A)
Age: ________ Sex: ________ Biological: ________ Step: ________ Resides: ________

D. EDUCATION HISTORY

Highest Grade Completed: ________ Diploma/GED: ________ Degree(s): ________

If none, is this a goal you would like to achieve? ________

In-depth Assessment - Page 3 of
Data Entry Screen 6: Program Discharge

Locating the data for this form in the client’s paper file:

Type of Discharge, Is client receiving any form of aftercare following discharge?, and Is client planning on attending school after discharge: were taken from the Treatment Program Discharge Summary (see page 37).

Discharge date: was taken from the Adult 65-D (see page 38).
TREATMENT PROGRAM DISCHARGE SUMMARY

Client Name: ___________________________ Chart #: ___________
Admission Date: 1/2/08 Date of Report: 2/3/08
Type of Discharge: □ Successful □ Unsuccessful
□ Medical □ Other
1. Was the client free of alcohol/substance at least thirty days prior to discharge? Yes □ No □
2. Is the client employed? □ Yes □ No □ Seeking Employment
3. If not employed, how will the client support herself and her children?
□
4. What is the new address: ___________________________ Phone: ___________________________
5. Does the client have a savings account? □ Yes □ No □ Balance: _______

This client has successfully completed the residential component of treatment. She has completed over 80% of her treatment plan goals and has had negative drug screens since 2/14/07. She attended individual sessions and group sessions as scheduled as well as AA/NA meetings. She was prescribed medication by the ARNP that she requires to stay stable. She continued to contact her sponsor and appears to be motivated to stay abstinence.

While in treatment she regained custody of her twins. She was compliant with all appointments for them.

She learned to respond to others without acting out and has learned to express her feelings in a nonviolent manner. She demonstrated the knowledge and skills necessary to develop healthier relationships with others. She has acknowledged her previous lack of anger control and developed healthy alternatives to aggressive reactions to stress. She has identified a pattern in repeatedly having destructive relationships with others and explored feelings of hurt, rejection and abandonment.

Although obtaining employment, it was difficult to ultimately find employment through an agency that assisted ex-felons. She was prescribed medication by the ARNP that she required to stay stable. She continued to contact her sponsor. She appears to be motivated to stay abstinence and address her issues both in individual and group sessions.

While in treatment, she attended parenting classes, anger management trauma groups, and art therapy groups as well as other therapeutic groups and recovery groups.

Due to her work schedule and the demands of parenthood, she is unlikely to attend aftercare, therefore her case will be closed at this time.

Therapist: ___________________________ Date: 2/1/08
Clinical Director: ___________________________ Date: 2/3/08
Data Entry Screen 7: DSM-IV Data

Locating the data for this form in the client’s paper file:

All data on this form was taken from page 7 of the Indepth Assessment. (see page 40).
Locating the data for this form in the client’s paper file:

All data for this form was taken from page 4 of the In-depth Assessment.
Person Served Name: [Redacted]

Future goals for Vocational and educational training:

[Blank]

History of Scholastic Problems (school refusal, truancy, expulsions, special education, learning disabled, severely emotionally disturbed, Emotionally, handicapped, regular grades) _____ yes _____ no

Specify if yes

[Blank]

E. EMPLOYMENT HISTORY

Currently Employed _____ yes _____ no

Unemployed _____ yes _____ no

Disabled _____ yes _____ no

F. LEGAL HISTORY (dates, charges, and disposition)

[Blank]

G. HISTORY OF PHYSICAL OR SEXUAL ABUSE, NEGLECT, DOMESTIC VIOLENCE, TRAUMAS

[Blank]

H. FAMILY HISTORY OR SUBSTANCE OR MENTAL ILLNESS

[Blank]

I. ARE YOUR PARENTS LIVING OR DECEASED? HOW OLD ARE THEY AND WHERE DO THEY RESIDE? RELATIONSHIP WITH THEM NOW AND AS A CHILD

[Blank]

J. SIBLINGS, NAMES AND AGES, WHEREABOUTS, AND CURRENT RELATIONSHIPS WITH THEM.

[Blank]

In-depth Assessment Page 4 of 7
Appendix C

Mother-Infant Interaction Scale

Mother-Infant Interaction Scale*

Check one: □ Pre-Test        □ Post-Test

*This scale is an adaptation of the Maternal Behavior Q-Set (Pederson, Moron, Sitko, Campbell, Ghesquire, & Acton, 1990) and the attachment Q-Set, Version 3.0 (Waters, 1987)

Person Served's Name: ________________________________

Person Served's Chart #: ______________________________

Child's Name: ________________________________

Child's Age: ________________________________

Completed By: ________________________________

Date: ________________________________

Cumulative total divided by 174 (the maximum score a person can achieve)

Qualitative analysis of results = Total Percent: ________________

Mother-Infant Interaction Scale  Rev. 11-03-11
Mother-Infant Interaction Scale

Place a rating from 1 - 3 on each statement, using the following as a guide:

1 = Rarely or never
2 = Sometimes
3 = Always or most of the time

- **Reverse scoring**

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mother notices when her baby smiles and vocalizes.</td>
</tr>
<tr>
<td>2</td>
<td>* Mother is unaware of or is insensitive to her baby's signs of distress.</td>
</tr>
<tr>
<td>3</td>
<td>Mother notices when the baby is distressed, cries, fusses or whimpers.</td>
</tr>
<tr>
<td>4</td>
<td>* Mother responds only to frequent, prolonged, or intense signals.</td>
</tr>
<tr>
<td>5</td>
<td>Mother responds consistently to baby's signals.</td>
</tr>
<tr>
<td>6</td>
<td>Mother greets baby when re-entering a room</td>
</tr>
<tr>
<td>7</td>
<td>* Mother is sometimes aware of baby's signals of distress, but ignores or does not respond immediately to those signals.</td>
</tr>
<tr>
<td>8</td>
<td>* Mother is irritated by demands of the baby.</td>
</tr>
<tr>
<td>9</td>
<td>Mother is aware of how her moods affect the baby.</td>
</tr>
<tr>
<td>10</td>
<td>* Mother perceives the baby's negative behavior as rejection of her.</td>
</tr>
<tr>
<td>11</td>
<td>* Mother seems to resent the baby's signals of distress or bids for attention.</td>
</tr>
<tr>
<td>12</td>
<td>Infant smiles easily with a lot of different people.</td>
</tr>
<tr>
<td>13</td>
<td>Mother resolves negative feelings about the baby; that is, has some negative feelings about baby but can set these aside in interacting with the baby.</td>
</tr>
<tr>
<td>14</td>
<td>Mother respects baby as an individual, that is, she is able to accept baby's behavior even if it is not consistent with her ideal.</td>
</tr>
<tr>
<td>15</td>
<td>* Mother idealizes baby - does not acknowledge negative aspects.</td>
</tr>
<tr>
<td>16</td>
<td>* Mother is critical in her description of her baby.</td>
</tr>
<tr>
<td>17</td>
<td>Mother plays games with baby such as peek-a-boo or patty cake.</td>
</tr>
<tr>
<td>18</td>
<td>Mother provides age appropriate toys.</td>
</tr>
</tbody>
</table>
19. When upset or injured, infant will accept comforting from adults other than mother.

20. Mother seeks face-to-face interactions.

21. Mother makes an effort to take baby on "outings" such as shopping, visiting friends.

22. * Mother uses flat affect when interacting with baby.

23. Mother waits for cues form baby before feeding.

24. Mother has a predominantly positive attitude about her baby.

25. Mother points to and identifies interesting things in the baby's environment.

26. Infant cries when mother leaves him/her with another adult.

27. Mother displays affection by touching.

28. * Mother kisses baby on head as the most frequent means of expressing affection.

29. Comments are generally positive when the mother speaks about the baby.

30. Mother is aware of baby's mood.

31. When holding, mother cuddles baby as a typical mode of interaction.

32. * When baby is in a bad mood or cranky, mother often will place him/her in another room so that she will not be disturbed.

33. * Mother seems overwhelmed or depressed.

34. Mother is animated in social interaction with baby.

35. * Mother responds accurately and promptly to signals of distress, but often ignores (is unresponsive to) signals of positive affect.

36. When infant is in a happy mood, he/she is likely to stay that way all day.

37. When baby is distressed, mother is able to quickly and accurately identify the source.

38. Praise is directed toward baby.

39. * Mother will sometimes break off from her child mid-interaction to speak with a visitor or attend to some other activity that suddenly comes up.

40. Mother/infant's room is safe and baby proofed.

41. * Mother is very concerned that baby is well dressed and attractive at all times.

42. Infant tried to get mother to imitate him/her or quickly notices and enjoys when mom imitate him/her on her own.

43. Mother seems to be aware of the baby even when not in the same room.

Mother-Infant Interaction Scale  Rev. 11-03-11
44. * Mother is not skillful in dividing her attention between baby and competing demands; thus, she misses baby's cues.

45. * Nap times are determined by the mother's convenience rather than the immediate needs of the baby.

46. Mother encourages interaction of the baby with visitors, for example, she may invite visitor to hold the baby.

47. Mother monitors and responds to baby even when engaged in some other activity such as cooking or having a conversation with a visitor.

48. * Mother seldom speaks of the baby directly.

49. Mother leaves the room without any sort of "signal" or "explanation" to the baby (i.e.: "I'll be back in just a minute").

50. Mother responds immediately to cries/whimpers.

51. Mother is very alert to "dirty diapers"; she seems to change diapers as soon as indication of need.

52. If held in mother's arms, baby stops crying and quickly recovers after being frightened or upset.

53. Mother often brings a toy or other object within baby's reach and attempt to interest him/her in it.

54. * Mother seems awkward and ill at ease when interacting directly with the baby face to face.

55. Mother arranges her location so that she can perceive the baby's signals.

56. * Mother often seems to forget that her baby is present in the room during interaction with a visitor.

57. Infant is strongly attracted to new activities and new toys.

58. Infant enjoys being hugged or help by people other than his/her mother.

Areas of strength: ____________________________
Areas of special attention:

Observations:

Staff signature and Credentials
Appendix D

Mother-Child Interaction Scale

Place a rating from 1 – 3 on each statement, using the following as a guide:

- **1** = Rarely or never
- **2** = Sometimes
- **3** = Always or most of the time

- **Reverse scoring**

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child readily shares with mother or lets her hold things if she asks to.</td>
</tr>
<tr>
<td></td>
<td>When he/she is upset or injured, child will accept comforting from adults other than mother.</td>
</tr>
<tr>
<td></td>
<td>Child is careful and gentle with toys and infants.</td>
</tr>
<tr>
<td></td>
<td>Child laughs and smiles easily with a lot of different people.</td>
</tr>
<tr>
<td></td>
<td>Child is lighthearted and playful most of the time.</td>
</tr>
<tr>
<td></td>
<td>Child often cries or resists when mother takes him/her to bed for naps or at night.</td>
</tr>
<tr>
<td></td>
<td>Child often hugs mother without her asking or inviting him/her to do so.</td>
</tr>
<tr>
<td></td>
<td>Child quickly gets used to people or things that initially made him/her shy or frightened.</td>
</tr>
<tr>
<td></td>
<td>Mother is irritated by demands of her child.</td>
</tr>
<tr>
<td></td>
<td>Mother is aware of how her moods affect her child.</td>
</tr>
<tr>
<td></td>
<td>Child is willing to talk to new people, show them toys, or shows them what he/she can do if mother asks him/her to.</td>
</tr>
<tr>
<td></td>
<td>When mother tells child to bring or give her something, he/she obeys. (Do not count refusals that are playful or part of a game unless they clearly become disobedient).</td>
</tr>
<tr>
<td></td>
<td>Mother perceives child’s negative behavior as a rejection of her.</td>
</tr>
<tr>
<td></td>
<td>Child follows mother’s suggestions readily, even when they are clearly suggestions rather than orders.</td>
</tr>
<tr>
<td></td>
<td>Child keeps track of mother’s location when he/she plays around the house. Calls to her now and then; notice her go from room to room; notices if she changes activities.</td>
</tr>
</tbody>
</table>
16. Child acts like an affectionate parent toward dolls or infants.

17. Mother resolves negative feelings about her child; that is, has some negative feelings about him/her, but can set these aside in interacting with the child.

18. * When mother sits with other family members or is affectionate with them, child tries to get mom's affection for himself/herself.

19. Mother respects her child as an individual; that is, she is able to accept child's behavior even if it is not consistent with her ideal.

20. * Mother idealizes child - does not acknowledge negative aspects.

21. * Mother is critical in her description of her child.

22. Child cries when mother leaves him/her at home with another adult.

23. Mother provides age-appropriate toys.

24. * Child wants to be the center of mother's attention. If mom is busy or talking to someone, he/she interrupts.

25. Mother plays games with the child.

26. When mother says "no", or punishes him/her, child stops misbehaving (at least at that time). Doesn't have to be told twice.

27. Child is independent with mother. Prefers to play on his/her own; leaves mother easily when he/she wants to play.

28. Mother makes an effort to take child on "outings", such as shopping, visiting friends.

29. Mother has a predominantly positive attitude about her child.

30. Child clearly shows a pattern of using mother as a base from which to explore. Moves out to play; returns or plays near her; moves out to play again, etc.

31. Mother displays affection by touching.

32. Comments are generally positive when the mother speaks about her child.

33. * Child is often serious and businesslike when playing away from mother or alone with his/her toys.

34. * Child is demanding and impatient with mother. Fusses and persists unless she does what he/she wants right away.
35. Child recognizes when mother is upset. Becomes quiet or upset himself.
    Tries to comfort her; asks what is wrong.

36. Child asks for mother and enjoys having her hold and hug him/her.

37. Praise is directed toward her child.

38. Child readily lets new adults hold or share things he/she has, if they ask
    to.

39. * Mother kisses/pats/rubs child on head as the most frequent means of
    expressing affection.

40. Child runs to mother with a shy smile when new people visit the home.

41. When child finishes with an activity or toy, he/she generally finds
    something else to do without returning to mother between activities.

42. * Mother is very concerned that child is well-dressed and attractive at all
    times.

43. When child is in a happy mood, he/she is likely to stay that way all day.

44. * Child is easily upset when mother makes him/her change from one
    activity to another.

45. Mother is aware of child's moods.

46. When the family has visitors, child wants them to pay a lot of attention to
    him/her.

47. Child easily grows fond of adults who visit his/her home and are friendly
    to him/her.


49. Mother monitors and responds to child even when engaged in some other
    activity, such as cooking or having a conversation with a visitor.

50. Child quickly greets his mother with a big smile when she enters the
    room. (Shows her a toy, gestures or says "Hi Mommy.")

51. If held in mother's arms, child stops crying and quickly recovers after
    being frightened or upset.

52. * When given a choice, child would rather play with toys than with adults.

53. When mother asks child to do something, he/she readily understands
    what she wants. (May or may not obey).
54. * Mother seems overwhelmed or depressed.

55. * Child easily becomes angry at mother.

56. * Child is strongly attracted to new activities and new toys.

57. * Mother responds accurately and promptly to signals of distress, but often ignores (is unresponsive to) signals of positive affect.

58. When child is bored, he/she goes to mother looking for something to do.

59. * Mother will sometimes break off from her child in mid-interaction to speak to a visitor or attend to some other activity that suddenly comes to mind.

60. Child makes at least some effort to be clean and tidy around the house.

61. * Child cries as a way of getting mother to do what he/she wants.

62. * When mother doesn’t do what child wants right away, he/she behaves as if mom were not going to do it at all. (Fusses, gets angry, walks off to other activities, etc.)

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---

Areas of strength:

---

Areas of special attention:

---
Observations:


Staff signature and Credentials
Appendix E

Functional Assessment Rating Scale, Florida Version

(Nelson-Zlupko et al., 1995, p. 6)
Use the following 1 to 9 scale to rate the individual’s current (within last 3 weeks) problem severity for each functional domain listed below. Place your rating on the line to the right of the Domain name. Also, using the list below each domain rating, place an "X" mark next to the adjectives or phrases that describe symptoms or assets. (Refer to FARS User’s Manual for specific examples of use of this scale, available at http://autism.nimh.nih.gov.)

<table>
<thead>
<tr>
<th>No Problem</th>
<th>Less than Slight</th>
<th>Slight</th>
<th>Slight to Moderate</th>
<th>Moderate</th>
<th>Moderate to Severe</th>
<th>Severe</th>
<th>Severe to Extreme</th>
<th>Extreme Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Depressed Mood</td>
<td>Wordless</td>
<td>Lonely</td>
<td>Anti-Depression Meds</td>
<td>Anxious</td>
<td>Calm</td>
<td>Guilt</td>
<td>Anti-Anxiety Meds</td>
</tr>
<tr>
<td></td>
<td>Anhedonic</td>
<td>Hopeless</td>
<td>Sleep Problems</td>
<td>Anti-Anxiety Meds</td>
<td>Tense</td>
<td>Fearful</td>
<td>Anti-Anxiety Meds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sad</td>
<td>Happy</td>
<td>Ant-Manic Meds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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Adapted from the Coleman's Client Assessment Record (CCAR)
http://autism.nimh.nih.gov

(Ward & Dow, 1998, p. 7)
Appendix F

Test Results from Mother-Infant Study Sample ($n = 126$)

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<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix H

Susan B. Anthony Recovery Center Letter Of Support

July 10, 2011
Mr. Gary M. Forrest, M.S., LMFT
3011 NW 28th Lane
Fort Lauderdale, FL 33311

Re: Letter of Support for Your Doctoral Dissertation: Identifying SBARC

Dear Gary:

It is my pleasure to write this letter in support of the dissertation topic you are pursuing for your doctoral studies in Marriage and Family Therapy at Nova Southeastern University. I understand that your dissertation will be focused on the ongoing work done at the Susan B. Anthony Recovery Center (SBARC) of which I am the Chief Executive Officer.

From our conversations, you and I both agree that the research we have collaborated on to date and the information you are developing for your dissertation form a valuable set of resources from which SBARC may derive support and benefit in the future.

Because of this, you have our support in identifying the actual SBARC name and certain staff members within the dissertation itself. While we understand that it is customary to de-identify research subjects in projects of this nature, we feel that since the SBARC will be the main research subject of your dissertation—and we believe deeply in the benefits of getting the word out about the work we do—we are extending our consent for you to use the actual organization name and identifying details about SBARC in your work. Also, we will consent on a case-by-case basis to allow the names of actual staff and administration members of SBARC to be identified in your dissertation. In all cases, the appropriate individual consent will be obtained from each staff or administration member whose is identified in the final work product.

In conclusion, I fully support your identifying the name of our organization and describing details of its operation as part of your dissertation. We are proud of any research effort focused on our organization’s mission, history, and ongoing work and we appreciate your efforts and commitment to tell our story.

Sincerely,

Marsha L. Currant, MSW
Founding Chief Executive Officer
Appendix I

Susan B. Anthony Recovery Center Authorization for Research

October 11, 2012

Patricia Cole, Ph.D.
Institutional Review Board Center Representative
Nova Southeastern University
Graduate School of Humanities and Social Sciences
3301 College Avenue
Fort Lauderdale-Davie, FL 33314-7796

Re: Approval for Gary M. Forrest’s Dissertation Research Study: Attachment, Anxiety, and Depression: A 15-Year Study of Women in Residential Treatment with their Children at the Susan B. Anthony Recovery Center (SBARC)

Dear Dr. Cole:

Please accept our approval for Mr. Gary M. Forrest to research, analyze, and document the findings derived from the de-identified data on the women and children who received services at SBARC from 1995 through 2010. The data on which this study will be based was collected over a 2.5-year period as part of a community outreach collaboration between Nova Southeastern University (Graduate School of Humanities and Social Sciences, Department of Family Therapy) and SBARC. The project (“Archive File Data Collection Initiative (AFDCI”), which was initiated and supervised by Dr. Tommie V. Boyd, was designed to systematically capture and organize key information from our archives for more than 800 women who received our services. The project was successfully completed in May of 2011.

After that, Mr. Forrest approached us and suggested that a dissertation study to examine how (or if) the treatment program offered at SBARC affects measures of attachment between the mother and child, and how the treatment program concurrently affects measures of anxiety and depression in the mothers. We have been informed of Mr. Forrest’s research approach and are glad to offer our assistance in this important effort. We, therefore, are pleased to inform you that SBARC is approved as a research site for this purpose.

Sincerely,

Marsha L. Currant, MSW
Founding Chief Executive Officer
Appendix J

Susan B. Anthony Recovery Center Program Description (Currant, 2012)

PROGRAM DESCRIPTION

Susan B. Anthony Center, Inc. (also does business as Susan B. Anthony Recovery Center), is a 501(c)(3) private non-profit organization that was founded by the Junior League of Greater Fort Lauderdale in response to the critical lack of supportive services including access and availability of essential residential substance abuse and mental health treatment services for recovering women with children in Broward County. In September of 1995 the first house was opened with five (5) mothers and six (6) children. In October of 1996, the Junior League officially turned the project over to the newly formed Susan B. Anthony Center’s Board of Directors. Today, the Center has the capacity to serve sixty-two (62) families in its new facilities in Pembroke Pines, Florida.

This unique program gives the mothers an opportunity to reside with their children while receiving the comprehensive treatment services they need to enter into and remain in recovery from substance addiction and/or move into and remain in permanent housing. The families reside in our 5.5 acre campus where they also receive the comprehensive services needed to successfully move into the community. The services provided to the moms include intensive substance abuse and mental health services, nursing services, psychiatric assessments and ongoing medication management, acupuncture, case management, GED preparation, educational/vocational training, job placement services, parenting skills training, and continuing care services. The services provided to the children include play and individual therapy, age-appropriate group therapy, family therapy, developmental intervention services, and on-site child care. The Center has provided essential help to eight-hundred and sixteen (816) mothers and over 1100 children since opening fifteen (15) years ago.

The Center provides a warm and caring environment for women and their children to recover from the ill effects that occur from a life in addiction and/or homelessness. These mothers arrive at our doorstep impaired in their ability to take adequate care of themselves and their children due to the overwhelming stress from the consequences of the disease of addiction (HIV/AIDS, lack of adequate medical care, poverty, lack of education, involvement with the criminal justice system, etc.) and/or the ill effects of homelessness. The overall goal of the Center is to help families become healthy and to stop the cycle of substance addiction, family dysfunction, and homelessness by keeping the family together and fostering healthy relationships.

Our mission: “Susan B. Anthony Recovery Center transforms families by providing help, hope and healing for mothers and their children to live responsible drug-free lives.”

Susan B. Anthony Recovery Center is a replication of a “best practices model” developed by the Substance Abuse and Mental Health Services Administration (SAMHSA), part of the Federal Department of Human Services. The Center addresses the critical needs of the entire family through comprehensive treatment and support services for both the mothers and children. The families can reside in our residential treatment program for up to eighteen (18) months. The following is a description of primary services provided by the Center.
Residential Program: The Center provides a warm, caring, and safe environment for women and their children to recover from the ill effects of the disease of addiction and homelessness. Women and their children may remain in the residential component for a maximum of 18 months. Services include: 24 hour supervision; transportation services; 12-step meetings; spiritual groups; exercise classes; & family bonding activities.

Funding: Services are funded by DCF for moms only for housing & treatment (Level 2 at $125/day); DOC housing only for Moms ($45.25/day); HOPWA housing only (at $30 per person including the children); HIP housing and case management only ($59/day); Seminole Tribe ($300/day for moms for housing & treatment and $100/day for housing and treatment); private insurance – Residential Level 2 at the private insurance rates for Residential Treatment services for the Mom only.

1. Residence is supervised by a FT Program Supervisor who also supervises two FT Case Managers (One does Admissions and the other is a Peer who does Discharge Planning).

2. Currently staffed by Residential Managers working 12 and 24 hour shifts. They work two 24 hour shifts and two or three 12 hour shifts depending on if they work a four or five day week. We are in the process of checking to ensure this meets the Labor law requirements so it may change slightly. We currently have ___ FT staff in these positions.

3. We have two PT Overnight Awake staff who work at night at the residence and cover all 7 days of the week.

4. One PT LPN who works from 4-8 to assist in distributing medication

Adult Treatment Services: The mothers served by the Center benefit from a comprehensive approach that addresses the complex issues affecting the entire family. The vast majority of these women experienced childhood sexual or physical abuse and/or domestic violence. The goal is to prepare the whole family for successful re-entry in the community as productive citizens. These services include:

- Individual, family and group counseling for the women (up to 53 groups per week)
- Psychiatric evaluation and medication services when indicated
- Substance addiction educational groups & relapse prevention groups
- Individualized case management and discharge planning services
- Trauma, Art Therapy, Hypnotherapy, and other women focused groups

Funding: Only sources of funding currently are DCF Residential Level 2 (contract is currently $757,000 for both housing and Treatment. (We get $125.56/day/person and we apply $68.81/day/person to residential and the remainder to treatment); Seminole families (We received $300/day/Mom and $100/day/child and we apply $49/day to residential and the remainder to treatment) –we do not have Seminole clients at this time; and Private insurance (We apply $49/day to residential and the remainder to treatment). We have four women here today under this category.

1. FT Clinical Director is over the Adult Services program.
2. Currently we have three FT employees (1 Licensed Psychologist who has been here since 1998, 1 Licensed Mental Health Counselor and one Master’s level Therapist who will be sitting for her licensing test very shortly.

3. Part-time Per Diem staff that fills in doing individuals and groups for both adults and children. $25 per hour for billable unit.

4. Part-time Children’s Program Supervisor/Art Therapist (LMHC & Certified Art Therapist has been with the Agency since 1998).

5. We contract with Dr. D who is our Medical Director who supervises the Psychiatric ARNP who works about 6 hours a week to do the Medication services at the Center.

6. We contract with an Acupuncturist for her services three hours a day for two days a week. She provides services to the clients for 4 hours and staff for 2 hours each week.

**Children’s Treatment Services:** The majority of the children residing in our program suffered psychological and emotional damage due to their homelessness and/or their mother’s addictive lifestyle. Addressing their emotional issues gives these children an increased chance of being successful in school, establishing healthy relationships, and avoiding an addiction problem of their own. These services include:

- Assessment with the Battelle and CFARS to screen for mental health concerns.
- Individual, play, family and group counseling by a Therapist specializing in working with children.
- Age appropriate play therapy utilizing the Cognitive Behavioral Therapy Model.
- Parenting instruction and groups designed to meet the needs of these at risk families.

**Funding:** This program is funded by Jim Moran Foundation $90,000, CSB $110,000 (starting 10/2012) and by Medicaid.

1. Supervised by a PT Children’s Program Supervisor who also does Art Therapy and supervises Student Interns (currently 4) who has worked for the Agency since 1998.
2. One FT Therapist and one PT Per Diem Therapist making $25/hour per billable hour.

**Health Care Services:** All families receive on-site health care including nursing services, psychiatric assessments, physical assessments, medication management, maternal & fetal assessments, well baby care, nutritional courses, acupuncture and linkage to other medical services.

1. Clinical Director supervises one PT Registered Nurse who works 20 hours per week at $30/hour.

**Funding:** Funded by United Way $113,000.

**Children’s Developmental Intervention Program:** designed to increase developmental milestones of all the children served:

- An in-depth assessment and individualized intervention plan is provided for each child that enters the program.
• A developmental intervention specialist works individually and in groups with the mothers to improve the children’s developmental milestones. Mothers are also taught parenting skills that will help them parent their children successfully to adulthood.

**Funding:** Funded by AD Henderson grant ($40,000)

1. One FT Developmental Intervention Specialist – MSW.

**Educational/Vocational Services:** It is critical that the clients be readied to re-enter the workforce for their own future success. Having gainful employment assists these families to live substance free in our community. Vocational Training & Employment Services include:
   • Pre-employment training classes that teach basic vocational skills including job search skills, computer job searching skills, interviewing techniques, and resume preparation.
   • Educational programs including GED classes.
   • Referrals to community partners such as Vocational Rehabilitation and WorkForce One that provide funding for clients to go back to school or attend vocational educational programs.
   • Job Placement Services (funded by United Way).

**Funding:** United Way grant $60,000 pays for the Voc/Ed Coordinator (Job Coach) and JM Families grant $36,633.

1. The CEO supervises this Department
2. The Ed/Voc Coordinator – FT supervises this program. She oversees the FT Teacher who oversees the PT Workstudy students who do educational/Vocational groups. She also performs the duties of the Job Coach. We only pay the Workstudy Students $3/hr as Nova pays the other $9/hr.

**Child Care Services:** On-site child care services are available for all residents of the Center.

We rent the facility at this time and the Childcare Center is run by Dr. Wendi Siegel.

**Continuing Care:** We work diligently with the women and children to prepare them for life after Susan B. Anthony Recovery Center, but recognize that the life-line we attached to these at-risk families must be maintained as they transition to independent living. Women and their children may participate in aftercare services for up to 3 years after leaving the residential program.

1. These services are group once a week and weekly in home services of a Master’s level Per Diem Therapist. We bill Medicaid for these services as the women do not fall under the IMD issue after they move out of the facility.

**Funding:** Medicaid

**DOC Outpatient Program:** New contract starting in 2012. We provide Intake and Assessment, Develops an Individual Treatment Plan and Life skills and education groups.

**Funding:** DOC contract for Outpatient services
1. These services are provided at the Agency by a Per Diem Therapist at $25/hour.

The Center’s capacity to provide quality services are best reflected by its receipt of a three year National Accreditation from CARF and its receipt of an Exemplary Program Award from CARF for the SURF Program that is funded by the United Way.

The Susan B Anthony Recovery Center is also the winner of the 2010 Sapphire Award of Excellence from The Blue Foundation for a Healthy Florida (philanthropic affiliate of Blue Cross and Blue Shield of Florida). The Sapphire Award is designed to recognize and promote organizations that have demonstrated excellence and impact in improving the health-related outcomes of Florida’s at-risk populations. The Sapphire Award recognizes community health organizations that have demonstrated success and high merit. Award winning organizations have demonstrated effective strategies that are built on community assets, enhance organizational capacity, foster systemic change, and/or lead to lasting policy changes that improve health-related outcomes of Florida’s at-risk populations and communities.
# Appendix K

## Weekly Meetings and Activities Offered at Susan B. Anthony Recovery Center

<table>
<thead>
<tr>
<th>Activity</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA/NA</td>
<td>Mind/Body Connection</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>Mindful About Money</td>
</tr>
<tr>
<td>Art Therapy</td>
<td>Motivation</td>
</tr>
<tr>
<td>Art Therapy/ Psychodrama</td>
<td>Movement/Meditation</td>
</tr>
<tr>
<td>Arts and Decorating</td>
<td>Newsletter</td>
</tr>
<tr>
<td>Big Book</td>
<td>Nutrition and Wellness</td>
</tr>
<tr>
<td>C.O.D.A.</td>
<td>Omega</td>
</tr>
<tr>
<td>Case Load</td>
<td>On-Line</td>
</tr>
<tr>
<td>Community Meeting</td>
<td>Orientation</td>
</tr>
<tr>
<td>Computer Skills</td>
<td>Parenting</td>
</tr>
<tr>
<td>Co-Occurring Disorders</td>
<td>Parenting (pregnant - 2 months)</td>
</tr>
<tr>
<td>Developmental Intervention</td>
<td>Parenting (3-10 months)</td>
</tr>
<tr>
<td>Dialectical Behavior Therapy</td>
<td>Parenting (11 months-2 years)</td>
</tr>
<tr>
<td>Domestic Violence</td>
<td>Parenting (3-4 years)</td>
</tr>
<tr>
<td>Emotion Regulation</td>
<td>Physiology of Addiction</td>
</tr>
<tr>
<td>Family Developmental Intervention</td>
<td>Positive Living</td>
</tr>
<tr>
<td>Family Group</td>
<td>Prevention of Violence</td>
</tr>
<tr>
<td>Gardening and Beautification</td>
<td>Quilting/Art Therapy</td>
</tr>
<tr>
<td>GED Language Arts</td>
<td>Reading for Success</td>
</tr>
<tr>
<td>GED Math</td>
<td>Recovery Toolbox</td>
</tr>
<tr>
<td>GED Reading</td>
<td>Reducing Stress</td>
</tr>
<tr>
<td>GED Science</td>
<td>Relapse Prevention</td>
</tr>
<tr>
<td>GED Social Studies</td>
<td>Relapse Prevention</td>
</tr>
<tr>
<td>Grief and Loss</td>
<td>SBA Thrift</td>
</tr>
<tr>
<td>Guilt and Shame</td>
<td>SBA Wakeup Call</td>
</tr>
<tr>
<td>Healthy Brain - Healthy Mind</td>
<td>Self-Expression</td>
</tr>
<tr>
<td>Healthy Relationships &amp; Sexuality</td>
<td>Self-Esteem</td>
</tr>
<tr>
<td>Healthy Start</td>
<td>Sister-to-Sister</td>
</tr>
<tr>
<td>HIP Group</td>
<td>Smoking Cessation</td>
</tr>
<tr>
<td>Individual Assessment</td>
<td>Special Events</td>
</tr>
<tr>
<td>Individual Therapy</td>
<td>Spirituality</td>
</tr>
<tr>
<td>Individual Tutoring</td>
<td>Spirituality/Process</td>
</tr>
<tr>
<td>Job Readiness</td>
<td>Step Review/Inspirational</td>
</tr>
<tr>
<td>Jobs &amp; Careers Exploration</td>
<td>STEP Team</td>
</tr>
<tr>
<td>Journaling</td>
<td>Storytelling for Adults</td>
</tr>
<tr>
<td>Language Arts for Success</td>
<td>Thinking for Change</td>
</tr>
<tr>
<td>Leadership</td>
<td>Transitional/Aftercare</td>
</tr>
<tr>
<td>Let Your Garden Grow</td>
<td>Trauma</td>
</tr>
<tr>
<td>Life Organized</td>
<td>Vocational Orientation</td>
</tr>
<tr>
<td>Living Skills</td>
<td>Welcoming/Caring and Outreach</td>
</tr>
<tr>
<td>Math for Success</td>
<td>Women's Way/12 Steps</td>
</tr>
<tr>
<td>Meditation/Relaxation</td>
<td>Yoga</td>
</tr>
</tbody>
</table>
Appendix L

Battelle Developmental Inventory, 2nd Edition: BDI-2 Screening Record Form

**BDI-2 Screening Record Form**

**Name:**

**Sex:** M | F | IDA

**Examiner:**

**School/Program:**

**Teacher:**

**Classroom/Grade:**

### Date of Testing

- **Year:**
- **Month:**
- **Day:**

**Date of Birth:**

**Chronological Age:**

**Age in Months:**

*Note: Number of years (Y) x 12 = number of months (M). Ignore all days.*

### Screening Score Summary

<table>
<thead>
<tr>
<th>Domain</th>
<th>Raw Score</th>
<th>Standard Deviation (-2.0, -1.5, -1.0)</th>
<th>Cut Score</th>
<th>Pass/Refer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal-Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Screening Score</td>
<td></td>
<td>Age Equivalent:</td>
<td>Date of Report:</td>
<td></td>
</tr>
</tbody>
</table>

### Test Session Validity

### Notes and Observations (Dev/Physical, Bio/Medical/Environmental)

### Recommendations

---

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# Test Session Behavioral Observations

Provide additional information for each item under Notes & Observations if needed.

## Test Session Validity
- **Yes** & **No** All test items were administered using the standard Structured, Observation, or Interview procedure, as appropriate, for the item.
- **Yes** & **No** Only used standard administration procedures during item administration. (Accommodations were not used when items were administered.)

### Structured Items
- **Yes** & **No** Child's English proficiency was sufficient for testing.
- **Yes** & **No** Child understood instructions.
- **Yes** & **No** Child's vision was within normal range or corrected.
- **Yes** & **No** Child's hearing was within normal range or corrected.
- **Yes** & **No** Child's motor functioning was conducive to valid and reliable results.
- **Yes** & **No** Child's health was good, and was conducive to valid and reliable results.
- **Yes** & **No** Child was cooperative.
- **Yes** & **No** Testing environment (e.g., ventilation, temperature, lighting, etc.) was satisfactory.
- **Yes** & **No** Testing session is considered a valid representation of child's current functioning.

## Observation Items
(Examiner has observed the child in the relevant activities.)

- **Yes** & **No** Child was observed _____ times over _____ days (approximately _____ minutes total).
- **Yes** & **No** Observations were adequate to make reliable and valid scoring judgments.

## Interview Items
(Parent(s), caretaker, or teacher familiar with the child was interviewed by the examiner)

- **Yes** & **No** Interview items were presented in English.
- **Yes** & **No** Person understood the questions asked.
- **Yes** & **No** Person provided information sufficient for scoring test items.
- **Yes** & **No** Information about the child's abilities provided from interview items is generally consistent with information obtained through Structured or Observation procedures.
- **Yes** & **No** All test items that needed to be assessed using the Interview procedure were administered.

## Notes & Observations

- **Child's Physical Appearance** (health, nutrition, dress):
- **Testing Situation** (rapport, environment, attitude toward testing):
- **Mood and Activity Level** (affection, interest, off-task behaviors):
- **Attention and Concentration** (focus, distractibility, sustained effort):
- **Problem-Solving Behaviors** (persistence, forethought, organization):
- **Language Usage** (preferred language, spontaneous verbalizations, second language):
- **Accommodations Used During Administration of Items**:
- **Current Medications**:
- **Other Information**:

---

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### Adaptive (ADP) Domain

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–11 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 1</td>
<td>Sucks with smooth, coordinated movements.</td>
<td>2</td>
<td>1 0</td>
<td></td>
</tr>
<tr>
<td>ST 2</td>
<td>Places both hands on a bottle or breast during feeding.</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12–17 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 3</td>
<td>Takes strained food from a spoon and swallows it.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 4</td>
<td>Eats semi-solid food when it is placed in his or her mouth.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>18–23 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 5</td>
<td>Helps dress himself or herself by holding out his or her arms or legs.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 6</td>
<td>Asks for food or liquid with words or gestures.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 7</td>
<td>Uses a spoon or other utensil to feed himself or herself.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 8</td>
<td>Removes his or her shoes without assistance.</td>
<td>2</td>
<td>1 0</td>
<td>1</td>
</tr>
<tr>
<td>3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 9</td>
<td>Feeds himself or herself with a spoon or fork without assistance.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 10</td>
<td>Puts away toys when asked.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 11</td>
<td>Blows his or her nose with assistance.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 12</td>
<td>Washes and dries his or her hands without assistance.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 13</td>
<td>Chooses the appropriate utensil for the food he or she is eating.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 14</td>
<td>Responds to instructions given in a small group and initiates an appropriate task without being reminded.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>6–7 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 15</td>
<td>Cuts soft foods with the side of a fork.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 16</td>
<td>Answers &quot;what-to-do&quot; questions involving personal responsibility.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>You are smoke and fire.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Pass ○ Fail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A stranger asked you to go for a ride.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 17</td>
<td>Chooses clothing that is appropriate for the weather.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 18</td>
<td>Knows his or her own phone number.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 19</td>
<td>Goes to bed without assistance.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
<tr>
<td>ST 20</td>
<td>Uses emergency phone numbers.</td>
<td>2</td>
<td>0 1</td>
<td>0</td>
</tr>
</tbody>
</table>

*Boxed ages indicate suggested starting points for typically developing students.

**Mark one score per item.
### PERSONAL-SOCIAL (P-S) DOMAIN

<table>
<thead>
<tr>
<th>Screened Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-11 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 21</td>
<td>Shows awareness of other people.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 22</td>
<td>Smiles or vocalizes in response to adult attention.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>12-17 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 23</td>
<td>Shows a desire for social attention.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 24</td>
<td>Is aware of his or her feet.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>18-23 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 25</td>
<td>Discriminates between familiar and unfamiliar people.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 26</td>
<td>Displays independent behavior.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 27</td>
<td>Greets familiar adults spontaneously.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 28</td>
<td>Initiates social contact with peers in play.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 29</td>
<td>Responds positively when familiar adults or adults in authority initiate social contact.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 30</td>
<td>Responds differently to familiar and unfamiliar children.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 31</td>
<td>Allows others to participate in his or her activities.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 32</td>
<td>Engages in adult-on-adult play and imitation.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 33</td>
<td>Follows adult directions with little or no resistance.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 34</td>
<td>States his or her first and last names.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>6-7 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 35</td>
<td>Recognizes an adult’s feelings.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 36</td>
<td>Cooperates in group activities.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 37</td>
<td>Discriminates between socially acceptable and unacceptable behavior.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 38</td>
<td>Treats familiar adults and accepts explanations from them.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 39</td>
<td>Waits his or her turn for a teacher’s or adult’s attention.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ST 40</td>
<td>Devises gratification until a task is completed.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

*Don't check a box for a score of 0 on these consecutively numbered items administered to the first item in the domain if a floor cannot be established.*

*Ceiling* a score of 0 on these consecutively numbered items administered to the last item in the domain if a ceiling cannot be established.
### Communication (COM) Domain

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–11 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 41</td>
<td>Is soothed by a familiar adult’s voice</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 42</td>
<td>Produces differentiated cries</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12–17 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 43</td>
<td>Responds to different tones of a person’s voice</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 44</td>
<td>Produces one or more single-syllable consonant-vowel sounds</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–23 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 45</td>
<td>Identifies family members or pets when named</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 46</td>
<td>Uses variations in his or her voice</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 47</td>
<td>Follows 3 or more familiar verbal commands</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 48</td>
<td>Spontaneously initiates sounds, words, or gestures that are associated with objects in the immediate environment.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 49</td>
<td>Responds to the prepositions out and on,</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Out ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 50</td>
<td>Uses 2-word utterances to express meaningful relationships.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 51</td>
<td>Responds to who and what questions,</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Who ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 52</td>
<td>Uses words to relate information about other people, their actions, or their experiences.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 53</td>
<td>Responds to where and when questions,</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When ○ Pass ○ Fall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 54</td>
<td>Repeats familiar words with clear articulation.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6–7 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 55</td>
<td>Converses on topics for more than 5 turn-taking exchanges.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 56</td>
<td>Identifies a word from its definition.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 57</td>
<td>Follows 3-step verbal commands.</td>
<td>2 1 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## COMMUNICATION (COM) DOMAIN (Cont.)

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 58</td>
<td>Uses plural terms ending in the /z/ sound.</td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 59</td>
<td>Recalls events from a story presented orally.</td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td></td>
<td>Morning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eggs, least,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>and juice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pears</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 60</td>
<td>Describes what is happening in a picture.</td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
</tbody>
</table>

## MOTOR (MOT) DOMAIN

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–11 months</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 61</td>
<td>Maintains an upright posture at adult's shoulder without resistance for at least 2 minutes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 62</td>
<td>Holds hands in an open, face-listed position when not grasping an object.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12–17 months</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 63</td>
<td>Retrieves a small object by taking it with his or her fingers and putting it into the palm of the hand.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 64</td>
<td>Transfers an object from one hand to the other.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–23 months</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 65</td>
<td>Moves from a sitting position to a standing position without support.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 66</td>
<td>Intentionally propels or throws an object.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 years</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 67</td>
<td>Maintains or corrects his or her balance when moving from a standing position to other, nonvertical positions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 68</td>
<td>Removes form from a form board.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 years</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 69</td>
<td>Runs 10 feet without falling.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 70</td>
<td>Scribes linear and/or circular patterns spontaneously</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 years</td>
<td></td>
<td>2</td>
<td>1</td>
<td>0 S O I</td>
</tr>
<tr>
<td>ST 71</td>
<td>Walks forward 2 or more steps on a line on the floor, alternating feet.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Baseline — a score of 2 on three consecutive lowest-numbered items administered on the first form in the domain if a baseline cannot be established.
Ceiling — a score of 8 on three consecutive highest-numbered items administered on the last item in the domain if a ceiling cannot be established.*
<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 89</td>
<td>Finds an object hidden under one of two cups.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 90</td>
<td>Nest objects inside one another.</td>
<td>3  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 91</td>
<td>Locates hidden items in a picture scene—Level 1.</td>
<td>2  1  0  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time: ___ min. ___ sec.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Items found within 3 minutes:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drill bit</td>
<td>Ice cream cone</td>
<td>Fish</td>
<td>Bird</td>
</tr>
<tr>
<td>ST 92</td>
<td>Names the colors red, green, and blue.</td>
<td>3  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 93</td>
<td>Locates hidden items in a picture scene—Level 2.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time: ___ min. ___ sec.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Items found within 2 minutes:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ball</td>
<td>Red crayon</td>
<td>Glue bottle</td>
<td>Unicorn</td>
</tr>
<tr>
<td>ST 94</td>
<td>Recognizes visual differences among similar numerals and letters.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6–7 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 95</td>
<td>Identifies the picture that is different.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tree</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dog</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td>ST 96</td>
<td>Categorizes familiar objects by function.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 97</td>
<td>Matches simple words.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mo</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blue</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rate</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td>ST 98</td>
<td>Knows the right and left side of his or her body.</td>
<td>2  1  0  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 99</td>
<td>Repeats sequences of 3 and 4 objects from memory.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 100</td>
<td>Groups objects by shape and color.</td>
<td>2  1  0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shape</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color</td>
<td>Pass</td>
<td>Fail</td>
<td></td>
</tr>
</tbody>
</table>

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9-24598
### Motor (MOT) Domain (Cont.)

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 72</td>
<td>Stacks 6 cubes vertically.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 73</td>
<td>Hops forward on one foot without support.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 74</td>
<td>Puts a sheet of paper.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6–7 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 75</td>
<td>Touches the fingertips of each hand successively with the thumb of the same hand.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 76</td>
<td>Draws a person with 6 parts.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 77</td>
<td>Walks a 5-foot line on the floor, heel-to-toe, with eyes open.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST 78</td>
<td>Copies the numerals 1 through 5.</td>
<td></td>
<td></td>
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<tr>
<td>ST 80</td>
<td>Skips on alternate feet for 20 feet.</td>
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<tr>
<td>ST 81</td>
<td>Ties a single overhand knot around a crayon with a string.</td>
<td></td>
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<td></td>
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</tbody>
</table>

### Cognitive (COG) Domain

<table>
<thead>
<tr>
<th>Screener Number</th>
<th>Item Description</th>
<th>Score</th>
<th>Procedure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–11 months</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ST 81</td>
<td>Visually attends to a light source moving in a 180-degree arc.</td>
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<tr>
<td>ST 82</td>
<td>Turns his or her eyes toward a light source.</td>
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<tr>
<td>12–17 months</td>
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<td></td>
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<tr>
<td>ST 83</td>
<td>Attends to an ongoing sound or activity for 15 or more seconds.</td>
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<tr>
<td>ST 84</td>
<td>Feeds and explores objects.</td>
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<tr>
<td>18–23 months</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ST 85</td>
<td>Attends to a game of peekaboo for 1 minute.</td>
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<tr>
<td>ST 86</td>
<td>Uncovers a hidden toy.</td>
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<tr>
<td>2 years</td>
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<tr>
<td>ST 87</td>
<td>Looks at, points to, or touches pictures in a book.</td>
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<td></td>
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<tr>
<td>ST 88</td>
<td>Imitates simple facial gestures.</td>
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</tbody>
</table>
Appendix M

Revised Adult Attachment Scale

Gary M. Forrest, LMFT, CHT
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www.garymforrest.net

Revised Adult Attachment Scale (Collins, 1996*)

Please read each of the following statements and rate the extent to which it describes your feelings about romantic relationships. Please think about all your relationships (past and present) and respond in terms of how you generally feel in these relationships. If you have never been involved in a romantic relationship, answer in terms of how you think you would feel.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Not at all</th>
<th>Very</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>characteristic</td>
<td>characteristic</td>
</tr>
<tr>
<td>of me</td>
<td>of me</td>
<td></td>
</tr>
</tbody>
</table>

1) I find it relatively easy to get close to people. 
2) I find it difficult to allow myself to depend on others. 
3) I often worry that romantic partners don't really love me. 
4) I find that others are reluctant to get as close as I would like. 
5) I am comfortable depending on others. 
6) I don't worry about people getting too close to me. 
7) I find that people are never there when you need them. 
8) I am somewhat uncomfortable being close to others. 
9) I often worry that romantic partners won't want to stay with me. 
10) When I show my feelings for others, I'm afraid they will not feel the same about me. 
11) I often wonder whether romantic partners really care about me. 
12) I am comfortable developing close relationships with others. 
13) I am uncomfortable when anyone gets too emotionally close to me. 
14) I know that people will be there when I need them. 
15) I want to get close to people, but I worry about being hurt. 
16) I find it difficult to trust others completely. 
17) Romantic partners often want me to be emotionally closer than I feel comfortable being. 
18) I am not sure that I can always depend on people to be there when I need them.

Biographical Sketch

Gary Miles Forrest is from Acton, Massachusetts. In 1976, Gary received his Bachelor of Arts degree from Norwich University in Northfield, Vermont. His first job was working as a technical writer for Digital Equipment Corporation in Marlboro, Massachusetts. This is where he developed a keen—and what would turn out to be a lifelong—interest in computer technology, systems architecture, and communications.

Next, Gary became a systems programmer for a German computer manufacturer, Nixdorf Corporation. While providing technical support to a number of large-scale client installations in Germany and in the U.S., Gary became interested in applying his technical knowledge to sales and marketing.

In 1983, Gary relocated from Massachusetts to Northern Virginia where he opened the first federal sales office for Charles River Data Systems. He continued to pursue his interest in business and in leading-edge hardware, software, and communications technologies. In 1987, Gary became the Eastern Regional Sales Manager for Systech Corporation, a supplier of high-tech connectivity solutions. Soon afterward, he became National Sales Director and relocated to the company’s headquarters in San Diego, California. In this position, Gary managed a diverse group of sales, marketing, and technical support professionals and was responsible for nearly 95% of the company’s revenues. After Systech, Gary moved to northern California where he applied his senior business skills in the service of two Silicon Valley start-ups. In 1997, Gary and his wife, Robin, relocated to South Florida so that Robin could provide caregiver support to her ailing mother. Gary took a position as Vice President of Business Development for a San Diego-based data-mining company. Days after the terrorist
attacks of 2001, Gary joined with other high-tech professionals in the first version of the Joint Terrorist Task Force authorized by then-Attorney General John Ashcroft. This assignment took Gary back to the District of Columbia for what turned out to be a 1-year extended assignment. Later, Gary accepted a position with a small Fort Lauderdale high-tech company, Savvy Data, and eventually took the helm as its President and Chief Executive Officer. He retired from that position in 2003.

At that time, Gary became a volunteer at a friend’s outpatient substance abuse practice. Although he had never experienced anything related to substance abuse treatment or psychotherapy, he found himself enchanted. Gary enrolled in Nova Southeastern University’s Marriage and Family Therapy Master’s program. After receiving his Master’s in 2007, he enrolled in the Ph.D. program. Gary currently maintains a private practice in Fort Lauderdale, Florida, where he sees adult individuals and couples and specializes in issues surrounding communications, anxiety, depression, anger management, domestic violence, and substance abuse. In addition, Gary has performed extensive voluntary research at agencies in the area, including the Susan B. Anthony Recovery Center. He and Robin now reside in Fort Lauderdale.