Training Infant Mental Health Therapists:

Characteristics Related to Outcomes

BY

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DISSERTATION

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To former and future families served by IMH therapists.
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the field of infant mental health.

I hope in my professional career that I can not only contribute to the field of social
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pray that I will generously provide meaningful assistance to others I encounter who are
also trying to push forward educational goals and professional contributions while
managing the tasks of daily living that include negotiating family life with young
children.

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<td>CA- IPFMHI</td>
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<td>PCIT</td>
<td>Parent Child Interaction Therapy</td>
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SUMMARY

This is an outcome evaluation of a professional continuing education program. Each academic year beginning in 2002-2003 through 2007-2008, the Florida State University (FSU) Harris Institute for Infant Mental Health (IMH) Training trained seven cohorts of licensed mental health professionals in IMH principles and therapy. In total, 117 licensed mental health professionals completed training. In addition, 17 of these graduates also participated in a less structured advanced training to support their implementation of IMH practice. This study measures program graduates’ self reported outcomes, and is guided by Cervero’s (1988) conceptual framework for the evaluation of continuing education programs for professionals.

Fifty-nine graduates of the FSU Harris program completed an online survey; 16 of these respondents had completed advanced training. Respondents’ made retrospective self-assessments of their baseline IMH knowledge, skills, and attitudes as well as use of recommended IMH practices. This retrospective baseline was compared to respondents’ retrospective self assessment of knowledge, skills, and attitudes as well as recommended IMH practices after training. Respondents rated themselves significantly higher in all IMH competency areas after training as compared to before training. Further they reported significantly greater use of IMH practices after training. And, 90% of the sample had increased service provision to children under 6 years. Several program and participant variations were measured to assess potential links to outcome. Only one, therapists’ completing the additional, advanced training, was linked to significant increases in outcome.
I. INTRODUCTION

A. Background

The field of infant mental health (IMH), also previously referred to as infant psychiatry, has been steadily growing over the past 40 years (Fitzgerald & Barton, 2000; Emde & Spicer, 2000). Its growth has accelerated over the last 20 years in part because federal funding for early intervention services created a demand for a wide range of professionals including mental health clinicians who are knowledgeable about early childhood development (Eggbeer, Mann & Gilkerson, 2003).

Additionally, advances in development science have provided an impetus for arguments advocating further expansion of early intervention efforts to treat and prevent emotional and behavioral disorders (National Scientific Council on the Developing Child [NSCDC], 2004b; NRC IOM, 2009). Genetic vulnerability in conjunction with sustained early exposure to stress has been shown to deleteriously affect brain development (NSCDC, 2005). Without intervention, ongoing adverse experiences in early childhood may result in diminished cognitive capacity and mental health problems that can endure into adulthood (NSCDC, 2004b; 2008). Early interventions targeting the social-emotional development of infants, toddlers, and preschoolers have the potential to be more effective than mental health treatment at later developmental periods (Fonagy, 1998; NSCDC, 2007).

Vulnerable young children are most likely to experience excessive early stress and adversity in the context of their primary relationships with caregivers. Yet, it is primary caregiving relationships that can be most protective and have the greatest potential to facilitate positive cognitive and social-emotional development (Jones Harden...
Emerging evidence suggests that relationship-based IMH interventions may be helpful in improving parent child relationships which in turn improves developmental trajectories and diminishes risk for future mental health problems in young children (Zeanah, Stafford, & Zeanah, 2005). As such, advocates of IMH have been steadily promoting an integration of IMH principles into training for all professionals who work with families having very young children (e.g. pediatric health care, early intervention, child care, and child welfare settings) for early detection of risk and intervention with infants, toddlers, and their families nationwide (Heffron, 2000). Several state IMH organizations have taken steps towards increasing the availability of IMH services in their own states and local communities (Korfmacher & Hilado, 2008a; Meyer, 2007; Weatherston, Dowler Moss, & Harris, 2006).

**1. Florida’s initiative to advance infant mental health training**

In the late 1990’s, a coalition of organizations in Florida cooperated in the development of the Florida Strategic Plan for Infant Mental Health (Florida State University Center for Prevention and Early Intervention Policy [FSU CPEIP], 2000; 2001; 2008). The overarching goal of the plan was to:

Develop a comprehensive system to effectively prevent, identify and treat emotional and behavioral disorders in children birth to age 5. The system will include appropriate training, screening and assessment, intervention, funding, public awareness and policies (p. 11)
One goal of the strategic plan specifically called for building a training infrastructure for IMH service providers (FSU-CPEIP, 2000). The FSU-CPEIP, with help from the Chicago-based Irving B. Harris Foundation, founded the FSU Harris Institute for Infant Mental Health Training hereafter referred to as the “FSU Harris training program.”

B. **Statement of the Problem**

There is a broad consensus in the IMH field that there is a shortage of IMH therapists and IMH training programs (Harmon, 2002; Jones-Harden, 2007, Knitzer, 2000; Meyers, 2007; NRC IOM, 2000; NSCDC, 2005, 2008; Osofsky, 2005; Zeanah, Larrieu, & Zeanah, 2000). IMH therapists are clinicians having at least a master’s degree, a clinical license, and specialized training in early childhood development and IMH. IMH therapists generally provide dyadic (caregiver-child) therapeutic interventions to infants, toddlers and preschoolers with a primary caregiver when there is a diagnosable mental health concern. IMH therapists also provide consultation to programs serving families with young children in how to support parent-child relationships, promote social-emotional growth, and manage challenging behaviors.

Programs aiming to better integrate IMH knowledge and principles into their work have difficulty finding personnel and consultants who have expertise in both mental health and early childhood development (Meyer, 2007). With a few exceptions, the specialized knowledge required for IMH practice is not generally available within degree

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1 IMH therapists generally use: Diagnostic and Statistical Manual, 4th edition, revised (DSM IV TR), the International Classification of Diseases, 10th edition ([ICD-10], 2009), and the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood; Revised Edition ([DC: 0-3R] Zero to Three, 2005) In Florida, IMH therapists use the ICD-9 codes for reimbursement of services to Medicaid.
granting university programs (Hinshaw-Fuselier, Doyle Zeanah & Larrieu, 2009; Meyer, 2007; Zeanah, Larrieu & Zeanah, 2000). While there are a growing number of post-graduate training programs throughout the country (Fisher & Osofsky, 1997; Harmon, 2002; Harris Network, 2004; Zeanah, Larieuu, & Zeanah, 2000), several of these programs serve only a small number of post-doctoral psychologists, and child psychiatric residents (Harris Network, 2004). Those that serve a broader range of practicing mental health clinicians (e.g., social workers, marriage and family therapists, psychiatric nurses) can be expensive and require substantial time commitments including coursework and supervised internships (Birch, Mennet, & Zorrah, 2005; Pawl, St. John, & Pekarsky, 2000; Weatherston, 2000). Clinicians wanting IMH training but residing in locales distant from available training programs must make significant independent effort to identify and seek out educational resources and opportunities (Maarse Delahooke, 2005). Expanding the workforce of IMH therapists is at least in part dependent upon increasing the availability of IMH training programs.

C. **Significance of the Problem**

The lack of IMH therapists and IMH training programs is significant in two respects. First, the lack of IMH practitioners limits the expert help available for young children, their families, and primary service providers when a very young child exhibits mental health problems. Second, while training efforts are expanding nation-wide, there is minimal evidence based literature to guide program developers, educators, and funders regarding effective means for providing specialized training to practicing clinicians to work with the birth to 5 population.
1. **Public need for IMH therapists**

Improving survival rates of biologically vulnerable low or very low birth weight babies (Child Trends Data Bank, 2006), many of whom are substance exposed infants (Kim & Klein, 2006; Substance Abuse and Mental Health Services Administration, Office of Applied Studies [SAMHSA OAS], 2008), increases the number of young children at risk for more complex developmental (e.g., sensory integration and self regulatory functions) and behavioral challenges.

Many families struggle with the adaptations required with the birth of a new infant regardless of whether an infant has special needs. Developmental challenges, caregiving deficits, or the pressure of environmental risks can effect the caregiver-child relationship potentially compromising a child’s social emotional development (NRS IOM, 2000).

The child welfare system in particular has need for professionals knowledgeable in IMH principles and practice (Osofsky & Lieberman, 2011). More than 40% of children entering foster care are infants and toddlers (USDHHS, 2006). Children in care have higher rates of developmental delay as compared to children from similar socio-economic backgrounds (Jones Harden, 2007). In response, federal law has mandated wards to receive comprehensive medical and developmental screening (Pub. L. No. 108-36). Some states include, and several experts recommend, mental health screening as well (Jones-Harden, 2007). Mental health screening seems prudent given that developmental science indicates that the nature of the caregiving relationship is a primary factor affecting IMH, and experiences of abuse and/or neglect certainly indicate caregiver-child relationship
disturbance (Jones Harden, 2007). Placement of young children in substitute care while likely improving a child’s physical safety, may or may not provide the attachment security young children require for healthy social-emotional development particularly given that many foster or kinship placements are temporary (Dozier, 2005).

Efforts to manage particularly challenging behaviors exhibited by very young children seems to have resulted in a disturbing trend of increased “off-label” use of psychotropic medications for increasingly younger children (Luby, 2006). Medication alone is unlikely to alter problematic familial relationship patterns that can compromise social-emotional development (Karr-Morse & Wiley, 1997).

2. **Guidance for program planners**

Although there are a number of similarities between IMH therapist training programs, there is no established national consensus regarding how IMH therapists should be trained (Hinsahaw-Fuselier, Doyle Zeanah, Larrieu, 2009; Korfmacher & Hilado, 2008b). Evidence based information regarding training outcomes and factors related to training outcomes could be useful to various entities establishing training competency guidelines, therapist endorsement systems, and academic curricula.

Seven different state IMH organizations (California, Connecticut, Florida, Indiana, Michigan, and Vermont) have fashioned competency guidelines intended to shape training and professional development efforts in their states (Korfmacher & Hilado, 2008a). The first competency guidelines to be developed, Michigan’s (MI-AIMH, 2002), is being used to structure an endorsement system in that state. The endorsement system is intended to provide some degree of quality control and verify that IMH clinicians have a certain level of IMH knowledge, skill, and experience. Several other state IMH
organizations (Arizona, Kansas, Minnesota, New Mexico, Oklahoma, and Texas) have purchased rights to use the Michigan competency guidelines (Korfmacher & Hilado, 2008a). California recently revised their guidelines and plans to develop an endorsement system (CA-IPFMHI, 2008). All these programs could benefit from increased evidence based information regarding the development of IMH therapists.

Michigan’s competency system also provided Wayne State University with a design for graduate and post-graduate academic course work (Kaplan-Estrin & Weatherston, 2005). Florida (FSU CPEIP, 2008) and California (CA IPFMHI, 2008) are expecting their competency guidelines might inform the design of academic courses to be offered in their state university systems so that an increased number of practitioners will be exposed to IMH as a part of graduate study. Developing academic programs might similarly apply information relating factors effecting IMH training outcomes in shaping curricula and instructive methods.

D. **Purpose of the Study**

This study is an outcome evaluation for one of the FSU Harris training program’s initiatives. Annually, between the academic years of 2002-2003 and 2007-2008, the FSU Harris Training program provided training for licensed mental health clinicians in six locations throughout the State of Florida. Between twelve to thirty participants attended a monthly weekend workshop series for a period of 10 months (about 140 hours of training per cohort) to learn about the principles of IMH and IMH therapy. In all, 117 licensed mental health professionals completed training and were invited to participate in this study. Fifty-nine respondents completed the full survey.
This study compared trainees’ retrospective self-ratings of competence in knowledge, skills, and attitudes (Quay, Hogan, & Donohue, 2009) in IMH principles and therapy as remembered before and after training. In addition, respondents’ retrospective self-reports of the extent to which they recalled practicing or promoting IMH principles and therapy before and after the training were reviewed. Measurable factors that could hypothetically be related to study outcomes were then correlated to help explain outcomes. Finally, respondents were asked to explain in a qualitative manner how the training affected their professional practice.

E. **Significance of the Study**

The study has local, national, and theoretical relevance. First, the study will provide useful information to the FSU Harris training program and its funders for program improvement. Second, on a national level, while the literature provides descriptions of various training programs (Harmon, 2002; Knitzer, 2000; Osofsky, 2005; Meyers, 2007; Zeanah, Larrieu, & Zeanah, 2000), there are few known training evaluations; this researcher found only two (CA-IPFMHI, 2003b; Hogan & Quay, 2008). This study will add to the limited literature providing evidence-based information for the developers of IMH training programs nationally. Last, this evaluation is guided by Cervero’s (1988) conceptual framework for the evaluation of continuing education programs for professionals and will attempt to relate characteristics of the program and participants to outcomes.

F. **Conceptual Framework**

Below is a description of Cervero’s (1988) conceptual framework for the evaluation of professional continuing education as well as a description for how the
conceptual framework guided this outcome evaluation. Next, a logic model for the FSU Harris training program served as a pictorial representation of outcomes measured as recommended for program evaluation by Rossi, Lipsey, and Freeman (2004).

1. **Conceptual framework for evaluating continuing education**

Cervero’s (1988) conceptual framework for the evaluation of continuing professional education consists of seven evaluation categories: program design and implementation; learner participation; learner satisfaction; learner knowledge, skills, and attitudes; application of learning after the program; the impact of application of learning; and, program characteristics associated with outcomes. Each evaluation category provides different information depending on the goal of the evaluation. Turnbull and Holt (1993) note that some of Cervero’s evaluation categories had previously been more easily and frequently used, while other areas are challenging to measure and less often applied. Various critical analyses of continuing education programs call for evaluations to target more levels of evaluation (Tian et. al., 2007).

Cervero (1988) describes how the first three evaluation categories (program design and implementation; learner participation; learner satisfaction) relate to program implementation and provide information about what happened before and during a training. He identifies the next three evaluation categories (change in learner knowledge, skills & attitudes, application of learning after the program; impact of application of learning) as relating to outcomes describing what resulted after the training. The final evaluation category (program characteristics associated with outcomes) evaluates the relationships between the implementation categories (program design and implementation; learner participation; learner satisfaction) and the outcome categories.
(change in learner knowledge, skills and attitudes, application of learning after the program; impact of application on learning). He argues that for evaluation results to provide useful information for program improvement, evaluation of implementation should be linked with evaluation of outcome data.

Cervero (1988) notes that it is not always possible to assess all seven categories in any one evaluation. He identifies five criteria to guide evaluators in deciding on which categories to focus:

First, what is the purpose of the educational program? Second, who needs the information and for what purpose? Third, what are the practical and ethical constraints related to the evaluation effort? Fourth, what resources are available to conduct the evaluation? Fifth, what values and preferences of the educator impinge on the evaluation? (p. 146)

The five questions above will be used to explain how this study incorporates six of Cervero’s seven evaluation categories. Each of the seven categories will be briefly described followed by an explanation of the how the category applies to this study.

a. **Program design and implementation**

Here Cervero (1988) describes evaluations that assess training plans and compares training plans to what was actually delivered.

The FSU Harris training had one program design developed out of the IMH literature and whose format included several elements consistent with what the literature of continuing medical education programs has found to be most effective [e.g., combining didactic and interactive educational methods, and offering multiple sessions over time (Mansouri & Lockyer, 2007)]. Variations in FSU Harris training program
delivery between cohorts appears to have been primarily related to accommodations made to funders and participants regarding the number of training hours offered and the number of participants included in each cohort (see Appendix A). When fewer training hours were available, three elements could have been eliminated. First the training sessions on infant mental health diagnosis was removed as this topic would be available throughout the state on other occasions. The second session to be removed was the presentation of final projects where participants shared plans for applying IMH principles in their current work setting; the participant presentations were time intensive. Finally, to shorten particular weekend training sessions, some of the case studies illustrating concepts were eliminated. It is possible removing some of these elements from the training may have decreased learning. Decreased numbers of training hours could decrease training efficacy (Robertson, Umble, & Cervero, 2003; Mansouri & Lockyer, 2007). Removing case study materials might diminish affective learning (Simpson, 1972) and not requiring a plan for implementation might diminish the likelihood that participants would apply what they learned after training (Perkins et al, 2007).

b. **Learner participation**

According to Cervero (1988), the most common means of evaluating a program is by assessing program attendance and participation. Any program must include a certain number of participants to justify efforts to provide the training. The FSU Harris training has had a sufficient number of trainees to justify repeating training for seven cohorts. Participant attendance data is provided in Table 1 in the results section.
Characteristics of participants can also influence training outcomes. As is the case in most IMH training programs, in the FSU Harris training, participating mental health professionals came from a range of professional disciplines (social work, mental health counseling, marriage and family therapy, and psychology). There is limited evidence available to know whether training outcomes could be affected by the multidisciplinary nature of the participants (Hammick, 2000). Participants also had varying professional roles as clinicians, supervisors, administrators, or trainers. It is unknown whether learners professional discipline or professional roles could affect training outcomes. Data regarding participant professional discipline and roles was collected and available in the Methodology section III C.

Some participants were exposed to IMH training before attending the FSU Harris training; it was unknown whether this had had an effect on learning. After training, 17 participants attended additional advanced IMH training sponsored by the FSU Harris training program. Advanced training participants differed in change in knowledge, skills, and attitudes from those who had not participated in advanced training.

c. **Learner satisfaction**

According to Cervero (1988), the second most common means of evaluating programs is by assessing learner satisfaction. While learner satisfaction is not necessarily related to attained knowledge, satisfaction data can provide information about how a training was received, and Cervero notes that program participants are in a unique position to determine the quality of training provided to them.
Overall learner satisfaction in the FSU Harris training program was assessed in this study by reviewing workshop satisfaction surveys completed at the time of training and also by asking participants retrospectively about their satisfaction with training.

d. **Learner knowledge, skills, and attitudes**

In this category, Cervero (1988) describes how changes in knowledge, skills, and attitudes are widely used in many educational settings to measure program effectiveness. Changes in knowledge are generally measured by stating program objectives in behavioral terms and providing participants with pre and post tests to measure change.

The FSU Harris training program administered posttests to each participant for each workshop series. These records provided a measure of knowledge gained at the time of training completion. A large component of the survey devised for this study measures change in participants’ self-ratings of competence in core elements of IMH practice (Quay, Hogan, & Donohue, 2009) as remembered by participants before and in the year after training (see Table 2).

e. **Application of learning after the program**

Cervero (1988) describes how formal educational environments, removed from professionals’ usual work setting, are artificial. As such, there is always a question as to whether professionals will apply what they learn. Data regarding application of learning must be collected some time after a training program has been completed. Tian and associates (2007) recommend a minimum time period for follow up to detect changes in behavior to be 12 months. Application of learning can be measured by self-report, observation, or archival analysis.
For this study, application of learning after the program was one of the most important evaluation categories as a major reason for the creation of the FSU Harris training program was in hope of increasing the availability of IMH services to children under 6 years and their families (see Figure 1). This study relies on self-report to measure application of learning. While self-report may be a less valid means of measurement than observation or archival analysis, it is the only feasible means of assessing the application of learning for the FSU Harris training program given the limited resources for this study, the broad geographical span of graduates’ work sites, and diverse employment roles and work sites of graduates.

f. Impact of application of learning

The impact of application of learning essentially refers to whether there would be improved outcomes for clients with whom the training participants intervened. Cervero (1988) notes that this may be the most important evaluation category, yet it can be the most difficult to study.

Assessing the impact of application of learning is beyond the scope of this study. To date, there has no systematic effort to collect outcome data directly from the clientele of program graduates. Graduates work in many different settings throughout the state of Florida. This study lacks the resources required to gather data from graduates’ clientele.

g. Program characteristics associated with outcomes

Cervero (1988) argues that if evaluation results are to provide information that can be used for program improvement, “...program characteristics should be associated with program outcomes (p. 145).” He identifies four sets of factors that can aid in determining program characteristics associated with outcomes: “characteristics of
the continuing education program itself, individual professionals, the nature of the proposed change, and the social system in which the professional works (p. 145).”

This study considered how measurable program characteristics could have an effect on change in learner knowledge, skills, and attitudes as follows.

This study considered how some measurable program characteristics (i.e. number of training hours per cohort and number of participants per cohort), professional characteristics of training participants (e.g., professional discipline, prior IMH training, and post IMH training) and learner satisfaction were related to change in learner knowledge, skills, and attitudes.

The nature of proposed change for this study is magnitude of the change in learners’ level of knowledge, skills, and attitudes. This study evaluated whether there is a relationship between the nature of change in participants’ knowledge and their application of learning after the program.

There are likely to be effects of the social system affecting training outcome (e.g., program and policy changes in learners work settings), however, the effect of societal factors are beyond to scope of this study.

2. **Logic model**

Rossi (2004) recommends program evaluation outcome studies include a description of the program theory that defines and provides a rationale for expecting desired outcomes. He recommends use of a causal diagram, a logic model, to depict connections between program activities and expected outcomes. The implicit program theory for the FSU Harris training program as described below was elicited through regular conversations with FSU Harris faculty and a review of program documents.
Reviewed documents included the Florida strategic plan for infant mental health (FSU CPEIP, 2000; 2001; 2008), informational brochures (FSU CPEIP, n.d.), application for participation in the FSU Harris training program (Appendix C), review of the FSU Harris website (http://www.cpeip.fsu.edu/index.cfm), FSU Harris training program produced materials for participants (FSU HICPEIP, 2006; FSU HICPEIP, 2007), recommended reading lists for participants (FSU CEIPP, 2004; FSU HICPEIP, 2002, 2003, 2005, 2006), FSU Harris training program reports to funders (FSU CPEIP, 2003, 2004; FSU HICPEIP, 2006, 2008), and FSU related publications (Hogan & Quay, 2008; Quay, Hogan, & Donohue, 2009; Osofsky et al., 2007).

The logic model describing the FSU Harris training program (Figure 1) depicts the program design leading to the output, that is the training that was implemented, which then leads to the intended proximal outcomes (learner satisfaction, change in knowledge, skills, and attitudes) and distal outcomes (application of learning after the program, increased services to children <6 years). In evaluating the logic model, numbered research questions addressing the hypothesized causal links between the implemented training and intended outcomes are provided above arrows depicting those links.

The program design of the FSU Harris IMH training program was first guided by the Florida Strategic Plan for IMH which called for the development of a statewide program. The program design incorporated IMH principles as articulated in the IMH literature to include the following concepts: spirit of multi-disciplinary cooperation, system orientation/ family centered/ culturally sensitive intervention, prevention orientation, developmentally focused practice, attachment theory, psychoanalytic theory,
relationship based intervention, reflective practice, and evidence based practice. These elements of IMH philosophy, theory and values are described in the literature review.

The design draws from the limited literature regarding requisite knowledge for IMH therapists (e.g., McDonough, 2000; Paul, St. John, & Pekarsky, 2000; Weatherston, 2000; Weider & Greenspan, 1997; Zeanah, Larrieu, & Zeanah, 2000), the IMH specialist competency system developed in Michigan (MIAIMH, 2002), unpublished training outlines from existing training programs [e.g., Louisiana State University (LSU) Medical School, Infant Parent Institute at University of California San Francisco (UCSF)], and expert consultation from Dr. Joy Osofsky of LSU.

The training design included coordination of agency funding. FSU, the Harris Foundation, Florida Medicaid, the United Way, local county child development funds, and human service agencies wanting to train employees funded the program. Only in rare cases were fees paid by a participant. This is in part because the design aimed to train professionals serving economically disadvantaged children and families most vulnerable to the development of emotional and behavioral disorders.

Practicing mental health clinicians were to be provided not only with training free of cost, but also materials (text books and article reprints) and Continuing Educational Units (CEU’s) applicable for license renewal. Yet, participants would have to make a substantial commitment of time, 10 monthly 2 full day weekend sessions over the course of an academic year; this is similar to the amount of time traditionally required in IMH training programs.

The design elements above led to the successful delivery of the FSU Harris training program for seven cohorts between 2002 and 2008. In all 117 professionals were
trained in IMH principles and therapy. Training was held in six different locations throughout the Southern, Central, Northern, and Pan Handle regions of the state.

Instruction methods depended upon training content and varied to include lecture, video clips, group discussion, case discussion, and homework (readings and practice case diagnostic and treatment planning exercises). A final course project was required in most cohorts. Participants were to make a presentation to the cohort describing ways that they would integrate IMH principles into their worksites. In this way it was hoped that participants could have a specific plan for using what they learned.

Much of the FSU Harris training was provided by national experts who would not otherwise be accessible to trainees. Most significantly involved was Joy D. Osofsky, PhD from the Louisiana State University Health Sciences Center. Dr. Osofsky edited the World Association for Infant Mental Health (WAIMH) Handbook of Infant Mental Health (Osofsky & Fitzgerald, 2000), was the editor of the Infant Mental Health Journal, and a past president of the IMH policy organization, Zero to Three. Dr. Osofsky presented a number of the training sessions each academic year (FSU CPEIP 2003, 2004 FSU HICPEIP 2005, 2006, 2008). The FSU Harris training also utilized the services of Robert Harmon, M.D. from the University of Colorado Health Sciences Center. Dr. Harmon had administered several IMH programs (Harmon, 2002) and had been involved in the Zero to Three task force that developed the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (Harmon, 2003; Zero to Three, 2005). Dr. Harmon conducted sessions on IMH diagnosis.

The ultimate number of training hours delivered accommodated the needs of funding agencies and participants. Sessions were held on weekends for minimal
interference with weekday work hours. One cohort had only six weekend sessions instead of the usual ten because of limited funding. One cohort had fewer training hours because participants needed shortened training periods as they had to travel long distances from rural areas to attend. One training included non-clinical personnel in some sessions as requested by a funder.

Upon completion of training, a number of proximal outcomes were expected to include participant satisfaction and increased knowledge of IMH principles and therapy.

Distal outcomes included the hope that trainees’ increased IMH knowledge, skills, and attitudes would lead them to have an increased ability to recognize the needs of young children, to an increased comfort level in applying IMH practices recommended in training, and to then serve a greater number of children younger than 6 years. Given that employers funded and supported employees in participating in the training program, it was expected that employers would support graduates in serving more children under 6 years and also support the implementation of recommended IMH practices.
Figure 1. Logic model for the FSU Harris Institute for Infant Mental Health Training of infant mental health therapists.
G. **Research Questions & Hypotheses**

The research questions for this study are organized according to the evaluation areas articulated by Cervero (1988), program implementation, learner participation, learner satisfaction, change in learner knowledge, skills, and attitudes, application of learning after the program, and program characteristics associated with outcomes. For the research questions about changes in learner knowledge, skills, and attitudes there are seven directional hypotheses specific to the core competencies of IMH practice identified by Quay, Hogan, and Donohue (2009).

A chart aligning research questions, variables, data sources, analysis and power analysis is available in Appendix L.

1. **Program Implementation**
   a. What was the range and mean number of training hours for each training cohort?
   b. What were the number of participants in each training cohort?

2. **Learner participation**
   a. What was the range and mean of participant attendance?
   b. What are the professional disciplines of learners?
   c. What were the professional roles of learners at the time of training?
   d. How many learners participated in IMH training before participating in the FSU Harris training?
e. How many learners participated in the FSU Harris advanced clinical training?

3. **Learner satisfaction**

   a. What was the level of learner satisfaction immediately after training?
   
   b. What is the level of learner satisfaction since completing training?
   
   c. What is the relationship between learner satisfaction immediately after training and since completing training?

4. **Change in learner knowledge, skills & attitudes**

   a. What was the level of learner knowledge immediately after completing training as reported retrospectively?
   
   b. What is the change in learner self-ratings of competence regarding knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training as reported retrospectively?

   1) Training increased learners’ KSA’s related to typical development of children younger than 6 years.
   
   2) Training increased learners’ KSA’s related to atypical development of children younger than 6 years.
3) Training increased learners’ KSA’s related to emotional/behavioral disorders of children younger than 6 years.

4) Training increased learners’ KSA’s related to assessment of children younger than 6 years.

5) Training increased learners’ KSA’s related to intervention with children younger than 6 years.

6) Training increased learners’ KSA’s related to the community resources and referrals for children younger than 6 years.

7) Training increased learners’ KSA’s related to organization, communication, and collaboration with parents of children younger than 6 years and other service providers.

c. What is the relationship between learner knowledge at the time of training completion and change of learners self-ratings of KSA’s of IMH core competencies since training?

5. **Application of Learning after Program**

a. Since training, have graduates increased the amount of services they provide to children younger than 6 years?

b. Since training, have graduates adopted recommended IMH practices?
6. **Program characteristics associated with outcomes**

*Characteristics of the program*

a. Is there a difference between change of learner KSA’s in cohorts having more training hours and change of learner KSA’s in training cohorts having fewer training hours?

b. Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?

c. What is the relationship between learner satisfaction and learner change in KSA’s.

d. What changes in their professional practices do graduates attribute to their participation in the FSU Harris training?

*Characteristics of learners*

e. Is there any difference in learners’ self ratings of KSA’s between learners of different professional disciplines?

f. Is there any difference in change in learners’ KSA’s between learners who had prior training in IMH and learners who had no prior training in IMH?

g. Are there any differences in change of learner KSA’s between learners who participated in advanced training and learners who had not?

*Nature of the proposed change*

h. Is there a relationship between change in overall KSA’s and overall application of learning.
II. RELATED LITERATURE

The literature first referenced here provides the general content of IMH training programs in general and the FSU Harris Training program in particular. This is the literature basis for the questionnaire content devised for this study. Included are: a definition for IMH, identification of levels of IMH practice, articulation of IMH principles, and a description of the IMH therapy intervention primarily taught in the FSU Harris training. It should be noted that there are other evidence based interventions for working with families with young children. Contrasting interventions will be briefly described to offer context.

Thereafter, the literature related to continuing professional education is explored to include the following: (1) a description of what has been found to be successful in professional continuing medical education programs, (2) a review of training evaluations specific to mental health therapists, (3) highlights from surveys of psychotherapists describing factors salient to their development, and (4) a history of training in IMH therapy. Finally, the training literature will be compared to elements of the FSU Harris training program.

A. **Infant Mental Health Training Content**

The following will provide context for broader efforts to create, implement, evaluate and improve training programs for IMH practice as well as describe the content of the FSU Harris training. Provided below, in brief, are: the generally accepted definition of IMH; a description of how IMH is usually promoted on three levels of care; a summary of main IMH principles; a limited discussion of the evidence base for the
model of IMH therapy promoted by the FSU Harris training program; and lastly a summary of core competencies identified for IMH therapists.

1. **Definition of infant mental health**

   IMH generally refers to the social-emotional well-being of very young children. The national IMH policy organization, Zero to Three (2002), defines IMH as follows:

   The developing capacity of the young child to: (a) form close and secure relationships; (b) experience, regulate, and express emotions; and (c) explore the environment and learn.

   The period of infancy is usually defined as the period between the ages of 0 to 24 months, yet the philosophy of IMH intervention is often applied to intervention with children from birth through 5 years of age and some even extend it to work with children up to age 8 (Korfmacher & Hilado, 2008). As such, some IMH professionals have sometimes altered the term, IMH, to more accurately reflect the populations with which they work [e.g., Early childhood mental health (Perry, Kaufmann, & Knitzer, 2007), Preschool mental health (Luby, 2006)]. IMH services are described as occurring primarily on three different levels of care (CIPFMHI, 2008; Fox & Dunlap, 2007; FSU CEIPP, 2008; Heffron, 2000; MI-AIMH, 2002; NRC IOM, 2009; Weston, 2005; Zeanah, Stafford, & Zeanah, 2005) as described below.

2. **Three levels of infant mental health practice**

   Promotion of IMH is considered integral to the work of all professionals serving families with young children, not just mental health professionals. An IMH perspective recognizes that all practitioners can influence the mental health of the children and
families they serve (Costa, 2006). IMH is described as operating through a wide range of service providers on three levels of care: promotion, prevention, and treatment (Fox & Dunlap, 2007; Heffron, 2000; MI-AIMH, 2002; NRC IOM, 2009; Weston, 2005, Zeanah, Stafford & Zeanah, 2005).

Infant Mental Health promotion services are universal services to any family expecting or having very young children. Professionals providing these types of services include child care providers, health care providers, case workers, and parent educators who interact with families in ways that support and strengthen the caregiver/child relationship.

Infant Mental Health preventative services are services to be integrated with early intervention services. Social workers, child development specialists, early interventions, occupational, physical, speech therapists, maternal and child health nurses, and developmental pediatricians serving families that include children with developmental delays or disorders and provide developmental services that are sympathetic to the emotional challenges facing families when they learn that their child has a serious illness or disability. Such services are “relationship-based.” The term relationship based will be defined in the next section describing IMH principles.

Treatment services are provided by IMH therapists (i.e. masters or doctoral level licensed mental health clinicians with training in IMH). As previously mentioned, IMH therapists work with children and/or primary caregivers who have severe mental health problems; IMH therapists may also provide guidance and support via supervision or consultation to professionals providing promotion and prevention IMH services.
Although emphases may vary depending upon the level of IMH practice, for all three service levels the IMH literature identifies IMH principles to guide practitioners in working with infants, toddlers, preschoolers and their families (Costa, 2006). Given that this study focuses on the training IMH therapists to provide treatment services, the IMH principles below are described as they would apply to IMH therapists.

3. **Infant mental health principles**

   The IMH principles identified below were identified by FSU Harris faculty as informing the development of their training program. While identified by this particular program, the principles below are well discussed in the IMH literature and are generally consistent with IMH principles identified by other localities having and developing IMH training programs (Krofmacher & Hilado, 2008). IMH principles in intervention with families include the following: valuing and drawing from multi-disciplinary contributions to knowledge and services to families; having a systemic, family centered, culturally sensitive orientation to service provision; having a prevention orientation; taking a developmental perspective; referencing attachment theory; drawing from psychoanalytic theory; emphasizing “relationship based” practice; engaging in reflective practice; and, incorporating evidence based practice.

   a. **Multi-disciplinary contributions and cooperation**

   Varying disciplines have contributed to the knowledge base of IMH to include medicine, psychology, neurobiology, genetics, and ethology. The field in practice has been described as “shared” by several clinical disciplines to include mental health, health care, early intervention, education, and child welfare (Zeanah, Larrieu, & Zeanah, 2000).
Federally funded early intervention services are required to have multidisciplinary teams developing service plans with families (Meisels & Shonkoff, 2000). Disciplines recognized in early intervention include speech and language therapy, occupational therapy, physical therapy, special education, and mental health. McCollum (1988) suggests that multi-disciplinary cooperation in working with families in some ways reflects the interrelatedness of developmental domains in infancy. “Thus, it is difficult to separate motor learning from speech learning from conceptual learning (p.57).”

From the beginning of IMH practice, IMH therapists have come from several disciplines to include pediatric health care, social work, clinical psychology, and child psychiatry. Historically, IMH therapists have assisted families not only with developmental guidance and psychotherapy, but also with concrete assistance (Shapiro, Adelson & Tableman, 1978; Weatherston, 2000a). As such, IMH therapists promote networking with providers of other developmental, health, and legal services as needed (Harris, Lieberman & Marans, 2007; Lieberman, 2009; Osofsky et al. 2007).

b. **Systems orientation/family centered/culturally sensitive**

IMH has an ecological systems perspective (Bronfenbrenner, 1979) of social emotional well-being. Although the biogenetic endowment of very young children certainly affects IMH, IMH also reflects the care giving and socio-cultural environment in which infants, toddlers, and preschoolers are embedded (NSCDC, 2004). The trajectory of a child’s development is intimately affected by the quality of the primary caregiving a child receives and the balance of environmental risks and resources available to her and her family (Garbarino & Ganzel, 2000; National Research Council
Recognizing the importance of caregiver-child relationships as sources of protection and resiliency and/or vulnerability and risk for early development is now considered core knowledge not only for professionals specializing in mental health, but also for professionals in the broader fields of prevention (NSCDC, 2004) and early intervention (Costa, 2006; Emde, 2001; Meisels & Atkins-Burnett, 2000).

Best practice in early intervention is for services to be “family centered” (Meisels & Shonkoff, 2000; NSCDC, 2008). Family centered intervention is mandated by PL 99-457 the Education for All Handicapped Children Act Amendments of 1986 and its reauthorization PL 105-17 the Individuals with Disabilities Education Act (IDEA) of 1997-98 (Meisels & Shonkoff, 2000). Family centered often refers to the manner in which services are provided. Specifically, family members are considered partners in devising and implementing all service plans. Services should be responsive to the expressed concerns of the family as well as respect the decisions of families (Klein & Gilkerson, 2000).

Family centered practice requires service providers to consider cultural, and in particular, explanatory models families reference to understand their situation, its cause, and possible solutions (Christensen, Emde, & Fleming, 2004; Garcia Coll & Magnuson, 2000; Lewis & Ghosh Ippen, 2004). Sensitivity to the influence of various cultures in child rearing practices is generally advocated throughout the IMH literature (Korfmacher & Hilado, 2008; NSCCD, 2008). Christensen, Emde and Fleming (2004) have adapted the Outline for Cultural Formulation offered by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM IV; American Psychiatric Association, 2000) for
use with infants and toddlers. The outline guides clinicians to consider five areas of cultural influence: 1. the cultural identity of the child and caregivers; 2. the cultural explanations of the child’s presenting problem; 3. the cultural factors related to the child’s psychosocial and caregiving environment; 4. cultural elements of the relationship between the parents/caregivers and the clinician; and 5. overall cultural assessment for child’s diagnosis and care.

The focus of IMH intervention is primarily to support and strengthen the relationship between a young child and her primary caregiver(s) (Sameroff, McDonough & Rosenblum, 2004; Weatherston, 2005; Weston, 2005; Zeanah, Stafford, & Zeanah, 2005) who could be facing risk factors in the child, the caregiver, and/or the environment. It is theorized, and there is emerging evidence to suggest (NRC IOM, 2000), that providing supportive interventions targeting the caregiver-child dyad may improve caregiving interaction patterns such that risk for abuse and neglect are diminished, and more nurturing, mutually satisfying interaction patterns can emerge (Heinicke, Fineman, Ponce, & Guthrie, 2001). Increasingly nurturing interaction patterns could ultimately optimize the positive developmental trajectory of the young child (Fonagy, 1998).

Risk factors within the child could include bio-genetic conditions affecting the young child’s developmental capacity, taxing immediate environmental circumstances, and/or normal developmental transitions. Bio-genetic conditions affecting infants and young children include having a difficult temperament (Thomas & Chess, 1977), developmental disorders (e.g., pervasive developmental disorder, autism), disabilities (e.g., Down syndrome, spina bifida, cerebral palsy), any of the complications that are associated with prematurity or low birth weight [e.g., intraventricular hemorrhage (IVH);
respiratory distress, vision impairment], or effects of in-utero exposure to alcohol and/or other drugs [e.g., fetal alcohol effects or syndrome (FAE or FAS), learning and/or attention deficits, (e.g., ADHD)]. Taxing immediate environmental circumstances include poor nutrition and health problems, exposure to trauma such as domestic violence (e.g., hypervigilence, difficulties with self regulation, aggression, withdrawal), and/or early loss of an attachment figure (NRC IOM 2000; NSCDC, 2006; Leiberman & Van Horn, 2005; 2008; Shonkoff & Marshall, 2000). In addition to these bio-genetic conditions and taxing immediate environmental circumstances, normal developmental transitions and challenges such as colic, normal negativism, toilet training resistance (Schmitt, 1987) can sometimes make infants, toddlers, or preschoolers more challenging to care for particularly when caregivers are themselves socially vulnerable.

Risk factors within the caregiver include circumstances that make it more difficult for the caregiver to attend to a child’s signals indicating biological and emotional needs. Risk factors most studied include teen parenthood, exposure to violence, parental mental illness, parental substance abuse, social isolation, and a parental history of childhood abuse and/or neglect (Belsky, 1980; NRC IOM, 2000; Ostler, 2008; Weston, 2005).

Finally, caregiver-child dyads can be supported or compromised within their larger families and communities depending upon the socio-cultural opportunities and/or risks present (e.g., level of violence or safety in their neighborhood; quality of schools, hospitals, services; availability of social supports such as helpful neighbors) (Garbarino & Ganzel, 2000; Osofsky & Thompson, 2000).
c. **Prevention oriented**

IMH intervention is considered to be prevention oriented in that it is hoped that work with young children and families early in development can preclude greater more treatment resistant difficulties at later stages of development. Some have argued that even treatment in the form of IMH therapy can be considered preventative in that intervention in early childhood might prevent later delinquency and conduct problems (Fonagy, 1998).

d. **Developmental perspective**

Several models of development serve as a backdrop for IMH theory and practice. Hofer’s model, (as cited in Emde, Everhart, & Wise, 2004) explains how individuals develop the ability for self-regulation. Initially, the caregiver provides external regulation for the infant’s nourishment, temperature, state maintenance, sensorimotor experiences, and opportunities for learning. Over time, in the context of the caregiving relationship, the young child is increasingly able to internally regulate many of her own functions and needs including her ability to manage emotions and interact in social situations.

Other models describe developmental transitions suggesting that development occurs in a stepwise fashion (Erikson, 1963). For example, Emde (1998) describes seven developmental transitions in the first 5 years of life (birth, 2-3 months, 5-8 months, 10-13 months, 18-22 months, 3-4 years, 5-7 years). In each transitional period, a child’s increasing developmental capacities changes how she interacts with her environment. These transitions can be challenging periods of adjustment for the child and her
caregivers. Brazelton (1992) developed educational resources to help families expect and adjust to these periods that he calls “Touchpoints.”

Bowlby (1973) adapted ideas from Waddington (1957), describing developmental pathways. Their model suggested that children develop along trajectories that can be influenced positively or negatively by significant environmental factors such as the presence of a nurturing caregiver, or death of an attachment figure. In all these models, there is an appreciation for the inner developmental thrust of the child to learn and grow, seek mastery of skills, and relate to her caregivers. A commonly cited IMH adage from Selma Fraiberg (1980) described this innate developmental striving as “a little bit like having God on your side.”

In practice, a developmental perspective implies that IMH therapists have knowledge about the rapid developmental physical and behavioral changes that occur in the first 5 years of life across communicative, cognitive, motor, socio-emotional domains as well as a recognition of how these domains are interrelated (Zeanah, Larrieu, & Zeanah, 2000).

1) **Assessing development**

Beyond having a general understanding of when various developmental milestones could be expected and what typical and atypical behaviors in children of various ages might look like, IMH practitioners have been encouraged to rely not only on their own judgment but also on formal standardized developmental instruments (Weatherston, 2000a) as well as diagnostic classification systems to assist them in recognizing when a child might be experiencing atypical developmental delay or
behavioral challenges (Carter, Briggs-Gowan & Ornstein-Davis, 2004; Meisels & Fenichel, 1994).

IMH therapists can use quick developmental screening tools to help them assess whether a child generally meets developmental milestones outside their expertise. One widely used tool now in its third revision is the Ages and Stages Questionnaires (ASQ-3; Bricker & Squires, 2009). Such instruments can suggest that a child might be experiencing developmental delays, the child could be referred for more in depth developmental evaluation by early childhood specialists (e.g. speech and language therapist, physical therapist, occupational therapist). When a child seems not to meet developmental expectations in the personal-social areas of development, more comprehensive personal social instruments could be applied.

IMH therapists may refer to various formal assessment instruments to help them differentiate between typical behavioral patterns at various developmental periods and those behavioral patterns that might be indicative of a social-emotional developmental concern. There are a number of social emotional and behavioral screening and assessment instruments to assist practitioners in screening children younger than six years (Carter, Briggs-Gowan, Ornstein Davis, 2004). A few widely used examples include, the Ages and Stages: Social Emotional (ASQ:SE; Squires, Bricker, & Twomby, 2002), the Child Behavior Checklist/ 1.5 to 5 (CBCL/ 1.5-5; Achenbach, 2002), the Devereux Early Childhood Assessment: Clinical (DECA-C; Devereux, 2002).

IMH therapists also rely on diagnostic classification systems for guidance in identifying social emotional developmental abnormalities. The DSM-IVTR does not always capture clinical syndromes for children younger than 6 years (Egger & Emde,
IMH therapists can also reference the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition (DC 0-3-R; Zero to Three, 2005). The DC 0-3R is considered provisional as the knowledge base regarding manifestations, etiology and developmental course of early mental health disorders will continue to grow (Egger & Emde, 2011; Lieberman, Barnard & Wiedner, 2004). The DC 0-3R includes five axes as follows: 1. primary diagnosis; 2. relationship disorder classification; 3. medical and developmental disorders and conditions; 4. psychosocial stressors; and 5. functional emotional developmental level.

Recognition of potential social-emotional concerns requires observation of infant, toddler & preschooler behavior (Weatherston, 2000a). A developmental perspective recognizes that although infants, toddlers and preschoolers cannot express their needs with verbal acumen, they do communicate their needs and feelings (Tronick, 1989; Tronick, Als, Adamson, Wise & Brazelton, 1978; Weinberg & Tronick, 1994). Young children’s bids to communicate with others, particularly their caregivers, are the precursors of later verbal communication (Prizant, Wetherby & Roberts, 2000).

Clinicians ought to be familiar with how very young children might indicate distress possibly indicative of depressive syndromes or trauma which at present is not sufficiently accounted for in the DSM-IV (Luby et al., 2002; Luby et al. 2003; Scheeringa et al. 2003). Infants, for example, may cry inconsolably despite efforts to soothe them; they may show unusual movement such as flailing, agitation, restlessness, or muscular rigidity. Toddlers may appear reckless and accident prone, show inhibition of exploration, or precocious self-care. Toddlers and preschoolers may have unusual eating
or sleeping patterns or experience night terrors. Both toddlers and pre-schoolers may lose previously acquired developmental skills (e.g., speech or toileting), have extreme temper tantrums, show new onset of aggression, defiance, or noncompliance. Distressed preschoolers may frequently appear sad, apathetic, anhedonic, and withdrawn. They may have less interest in play, play may repeatedly include themes of death, or they may become excessively fearful of separation (Luby et. al., 2002; Luby et. al., 2003; Osofsky, 2004; Scheeringa et. al. 2003).

Given that the well being of young children is context specific to their immediate care giving environment, it is also important to notice how young children present in interactions with others, particularly primary caregivers (Weatherston, 2000a). Attachment theory has guided the IMH practitioners in identifying and recognizing patterns of interaction with which young children may present with caregivers.

e. **Attachment theory**

A developmental perspective in IMH is often paired with the application of attachment theory (Bowlby, 1969, 1973, 1980) and research (Ainsworth et al, 1978; Cassidy & Shaver, 1999; Karen, 1998). Attachment theory suggests that infants are biologically endowed with appealing social characteristics and use specific behaviors (smiling, crying, and locomotion) to engage and maintain proximity to caregivers for the purpose of protection and survival. The primary caregiver’s availability to the child dramatically affects the nature of cyclical caregiver-child interaction patterns that develop overtime. Children adapt to their caregiver’s availability in order to maintain as much protective proximity as possible. The transactional nature of attachment patterns may affect children’s ultimate development of emotional regulation (Hofer, 1987; Cole,
Michel, & O’Donnell Titi, 1994). It is theorized that the early experiences with caregivers shape a child’s internal representations of relationships and thereby his expectations for all future relationships (Main & Hesse, 1990; Stern, 1985; Toth, Maughan, Todd Manly, Spagnola & Cicchetti, 2002).

Four attachment patterns (secure, insecure-anxious, insecure-avoidant, disorganized) have been observed, described, and studied (Ainsworth et al., 1978; Main & Solomon, 1990; Karen, 1998). The attachment pattern considered to be optimal is a “secure” attachment which develops when the caregiver is more often than not available and is generally able to recognize and respond appropriately to her infant’s cues signaling the infant’s physiological and psychological care needs. Children classified as secure generally develop a more positive view of self as worthy of care and concern. There is some evidence indicating that securely attached children are better liked by peers and teachers (NSCDC, 2004). Secure attachment is hypothesized to be developmentally optimal as it is from a secure base that a child can explore her environment and develop various life skills and abilities. In the general population, it is estimated that most children in the U.S. (65%) are securely attached (Lamb, Bornstein & Teti, 2002; Thompson, 1998).

Less optimal attachment patterns are insecure patterns described as either anxious or avoidant. When the caregiver is inconsistently available yet sporadically sensitive in caregiving, a child may cling to the caregiver out of fear of abandonment and a caregiver’s attempts to soothe such a child can become more challenging. When a caregiver generally rebuffs a child’s bids for care, the child can become avoidant in that she tries to maintain proximity to her caregiver without being overly demanding and thus
appears precociously self-sufficient. The prevalence of insecure attachment in the general U.S. population is estimated at about 35% (15%, anxious and 20% avoidant; Lamb, Bornstein & Teti, 2002; Thompson, 1998). These attachment patterns are considered less optimal as a child must expend more time and energy monitoring the availability of her caregiver and therefore use less time and effort in exploring and developing new skills and aptitudes. Nevertheless, both types of insecure attachment allow children to have an organized adaptive strategy for interacting with a primary caregiver. Much less organized behavior can be observed in young children having a disorganized/disoriented attachment pattern described and codified by Main and Solomon (1990).

Disorganization/disorientation generally occurs when a caregiver has been highly unpredictable as may occur when a parent is severely mentally ill, abusing illicit drugs, and/or abusive (van Ijzendoorn, Schuengel & Bakermans-Kranenburg, 1999); as such the child may be caught in a paradoxical dilemma of whether to seek proximity or distance from a caregiver who is supposed to be a source of protection but may be frightening and/or dangerous. As such, the child has difficulty developing a consistent strategy for interaction that can result in unusual behaviors such as freezing. The disorganized attachment pattern in infancy has been linked to aggressive behavior disorders in middle childhood (Carlson, 1998; Lyons-Ruth, 1996; van Ijzendoorn, Schuengel & Bakermans-Kranenburg, 1999), and appears to be a marker for vulnerability in the development of self-concept, emotional regulation, dissociation and psychopathology (Carlson, 1998; Green & Goldwyn, 2002; van Ijzendoorn, Schuengel & Bakermans-Kranenburg, 1999).
Given a developmental/attachment perspective, assessment of very young children includes not only observing a child’s behaviors, but also formally observing how a child interacts particularly with her caregiver(s) and the nature of a child’s relationship with her primary caregivers (Clark, Tluczelk, & Cranley Gallagher, 2004; Gleason, 2009). This practice originated with the strange situation (Ainsworth et. al., 1978) which codes how toddlers react to a brief separation from a primary caregiver. The “Still Face Paradigm” (Tronick, Als, Adamson, Wise & Brazelton, 1978; Weinberg & Tronick, 1994) reveals how younger infants react when a primary caregiver maintains an affectless still face. A number of assessment procedures have been developed for research. Many research tools appear to be overly complex for general clinical use, but the guiding principles of several assessment tools have been adapted for use in clinical practice (Crowell & Feldman, 1988; Crowell, Feldman & Ginsberg, 1988; Crowell & Feldman, 1991; Crowell, 2003; Gleason, 2009). One aspect of assessing the nature of the child-parent relationship includes the meaning that both attribute to interactions with the other. Psychoanalytic theory has guided the IMH field regarding the potential content of representations parents have of their children.

f. **Psychoanalytic theory**

Historically, IMH developed out of the psychoanalytic tradition of its founders, Selma Fraiberg and Rene Spitz (Fitzgerald & Barton, 2000). Many of the foremost proponents of IMH were schooled in psychoanalytic thought, traditions, and practices, which continue to influence many of the core IMH principles promoted in the literature.
One of the contributions of psychoanalytic theory is the idea that relationship patterns can be passed down to subsequent generations (Emde, Everhart & Wise, 2004; Korfmacher & Hilado, 2008; Weatherston, 2000b). Fraiberg (1980) described this in her seminal article, “Ghosts in the Nursery.” The general idea is that individuals internalize the patterns of relating developed within their families of origin (Pawl, St. John & Pekarsky, 2000). When this individual becomes a parent, she may unwittingly repeat these patterns of interaction with her own offspring. Such patterns can be nurturing, enriching, and developmentally supportive, but some may be neglectful, coercive, or abusive (Lieberman, 2009). In some cases, a caregiver might make misattributions of a young child’s behavior, leading the caregiver to misread the child’s signals and possibly react inappropriately (e.g., a child reaching to be picked up could be perceived by a traumatized caregiver as the child attempting to hit his mother). It is theorized that negative patterns of interaction can be altered with intervention as an IMH therapist might assist a caregiver in learning to more accurately identify a young child’s signals by learning to recognize her own tendencies to interpret events according to her history.

Also stemming from psychoanalytic tradition, the caregiver’s opportunity to experience a different more nurturing manner of relating in a therapeutic relationship with the IMH therapist may enable the caregiver to in turn to relate in a more nurturing way with her child. This idea is emphasized in discussion within the IMH field regarding “relationship based” intervention.

g. **Relationship based**

IMH intervention is frequently described as being relationship based. This refers to the idea that intervention targets the caregiver-child relationship. It
is expected that an enhanced caregiver-child relationship can bolster child development. Improvement of caregiver-child relationships is hypothesized to work through the relationship of the interventionist with the caregiver (Emde, Everhart, & Wise, 2004; Heinicke et al., 1999; Heinicke, Fineman, Ponce, and Gurthrie, 2001; Lieberman & Van Horn, 2005; Weston, 2005).

This concept is frequently described in the IMH literature as the “influence of relationships on relationships” (Fraiberg, 1980) and “parallel process.” The idea is that a practitioner responds to parents in a supportive, accepting and sensitive manner so that the parent will in turn have increased capability of providing sensitive care to her infant. A frequently cited adage for IMH practitioners is, “Do unto others as you would have them do unto others (Pawl & St. John, 1998).”

Many families who are experiencing IMH difficulties are multi-problem families. Program drop out rates have been noted to pose a significant challenge for the provision of and evaluation of early intervention services (Zeanah, Stafford, & Zeanah, 2005). As such, IMH intervention often emphasizes recognizing and commending the strengths with which families present (McDonough, 2004; Weatherston, 2000a). That is, making concerted efforts to affirm the positive parenting practices, behaviors, and intentions that a caregiver demonstrates in part to build a trusting relationship and engage families (Korfmacher & Hilado, 2008; McDonough, 2004). In order to build such alliances, IMH practitioners are encouraged to engage in reflective practice and supervision.

h. **Reflective practice/ supervision**

Many proponents of IMH practice promote reflective practice and supervision (Fenichel, 1992; Heffron, Ivins & Weston, 2005, Knitzer, 2000; Korfmacher
& Hilado, 2008; Meyers, 2007; Weatherston, 2000a) to help practitioners better engage families. The concept of reflective practice is adapted from Schön (1983), in which practitioners are reflective and mindful in the course of interactions with families and also actively reflect about the nature of their interactions with families with a supervisor, mentor, consultant, or peers. Reflective practice is recommended because of the intense feelings that can be aroused in practitioners working with very young children and their families (Costa, 2006; Fenichel, 1992; Seligman, 1993).

In brief, reflective practice encourages IMH professionals, while in the presence of families, to constantly consider one’s own reactions to a family, and recognize when one’s own personal, cultural, or professional biases could affect one’s reactions to a given situation. The IMH practitioner is counseled to hold her own reactions at bay while inquiring and learning about a family, their perspective, the community and cultural influences affecting an individual’s behavior (Heffron, Ivins & Weston, 2005; Weatherston, 2000b). In the presence of families, a reflective IMH professional would also carefully consider how her own behavior, statements, and questions could be experienced by family members.

Reflective practice is to be collaborative in that reflection should also occur with other professionals in regularly scheduled supervision, consultation, or peer support groups. Proponents of reflective practice advocate that programs budget for and protect time for regular reflection in supervision or consultation (Costa, 2006; Fenichel, 1992).

Reflective practice as a means of processing professional experience can also be a means of processing how to incorporate recent research and theory in addressing presenting problems (Buysse & Wesley, 2006; Stott & Gilkerson, 2000).
Evidence-based practice

Particularly because of the need to reference developmental research, IMH practice has generally aimed to be aware of research in providing the best possible assessment and treatment services for young children and families. Often cited resources for the IMH field are Zeanah’s Handbook of Infant Mental Health (1993, 2000, 2009), the WAIMH Handbook of Infant Mental Health (Osofsky & Fitzgerald, 2000) and the comprehensive compendium of early childhood research distilled by the National Research Council’s Institute of Medicine (NRC IOM, 2000), Neurons to Neighborhoods.

Despite a large body of research, the IOM noted that, in many areas, evidence can be weak or conflicting. There may also be a lack of specificity to guide practitioners in developing practical recommendations for clients and therefore practitioners must also rely on their judgment (NRC IOM, 2000). Buysse and Wesley (2006) account for this in their definition of EBP for the early childhood field, “Evidence-based practice is a decision-making process that integrates the best available research evidence with family and professional wisdom and values (p.12).”

Buysse and Wesley’s approach also acknowledges the gap frequently cited between established research, policy, and actual practice (Bickman, 1999; Hoge, 2002; Robert-Tissot & Cramer, 2000). Such a gap can be concerning as professionals who interact with young children and their families could ignore evidence supported intervention practices and operate out of personal anecdotal child rearing beliefs that may or may not promote child welfare.

At the same time, Buysse and Wesley (2006) posit that empirically supported practice or randomized controlled trials are important but not exclusive elements of EBP.
EBP must have social and ecological validity; that is, it needs to be effective not only in well controlled research settings, but also applicable for use with the types of complex problems practitioners encounter in clinical populations. Integrating research with professional knowledge and values increases the possibility that knowledge from research will be used by clinicians and the families with whom they intervene.

The primary therapeutic intervention used by IMH therapists, Parent Child Psychotherapy (Lieberman & VanHorn, 2008) has a growing evidence base documented in a number of controlled studies with infants, toddlers, and preschoolers. Several of these studies appear to have ecological validity with the multi-problem ethnically diverse families IMH therapist commonly encounter (Zeanah, Stafford, & Zeanah, 2005). As previously stated, Parent Child Psychotherapy was a primary focus in the FSU IMH Training. There are a number of evidence based treatments described below as contrasting approaches that were referenced in the FSU Harris training but no specific training in these treatments were provided.

4. **Infant mental health therapy and its evidence base**

The primary intervention described in the IMH literature, the most studied, and the main focus of the FSU Harris training, was initially called infant-parent psychotherapy (Freiberg, 1980; Lieberman, Silverman, & Pawl, 2000; Cicchetti, Rogosch & Toth, 2006). Infant parent psychotherapy has also been referred to as mother-infant psychotherapy (Cohen et al. 1999; Cramer et al., 1990; Robert-Tissot et al., 1996). Use of the intervention adapted to work with toddlers has been called toddler-parent psychotherapy (Cicchetti, Toth, Rogosch, 1999; Cicchetti, Rogosch, & Toth, 2000; Toth et. al., 2006) and with preschoolers, it has been referred to as preschooler-parent
psychotherapy (Toth, Maughan, Todd Manly, Spagnola, & Cicchetti, 2002). At this time, however, whether with infants, toddlers, or preschoolers, this form of dyadic therapy is generally referred to as child-parent psychotherapy (CPP; Lieberman & Van Horn, 2005, 2008; Lieberman, Van Horn, & Ghosh Ippen, 2005; Lieberman, Ghosh Ippen, & Van Horn, 2006).

Lieberman and Van Horn (2005, 2008) explain that CPP is an extension of the original infant-parent model, integrating psychoanalytic and attachment theories while using behaviorally based techniques drawn from developmental theory, cognitive behavioral approaches, and social learning theories (Patterson, 1990; Speltz, 1990; Webster-Stratton & Herbert, 1993). CPP is a longer-term intervention generally conducted weekly for 25 to 35 sessions. Six key elements of CPP (Lieberman and Van Horn, 2005; 2008) are: 1) Relatively unstructured dyadic sessions wherein the child plays freely with therapeutic toys related to the child’s experience; individual collateral sessions with the parent can be added as needed. 2) The therapist translates the developmental and emotional meaning of a child’s behavior to the parent possibly by “Speaking for the Baby” (Carter, Osofsky & Hahn, 1991) to increase empathy. 3) Intervention targets patterns of parent-child interaction that reflect mistrust and misunderstanding of each other’s developmental agendas. 4) Intervention fosters joint parent-child activities that promote mutual pleasure and the child’s trust in the parent. 5) Therapist applies varying intervention strategies to include developmental guidance, role modeling, emotional support, crisis intervention, assistance with problems of living, and insight-oriented intervention depending upon the needs of the dyad. 6.) Therapists first implement the most simple and direct intervention strategies and reserve the more
complex modalities such as insight-oriented interventions only when simpler interventions are not successful.

To date, there have been five randomized controlled trials of infant/toddler/CPP by two different investigative teams (Cichetti, Toth, Rogosch, 1999; Cicchetti, Rogosch, & Toth, 2000, 2006; Gosh Ippen, Harris, Van Horn & Liberman, 2011; Lieberman, Ghosh Ippen, & Van Horn, 2006; Lieberman, Van Horn, & Ghosh Ippen, 2005; Lieberman, Weston, & Pawl 1991; Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002; Toth, Rogosch, Todd Manly & Cicchetti, 2006).

Pulling from a sample of 100 Spanish speaking immigrant mother and infant dyads, Lieberman, Weston and Pawl (1991) compared an intervention group of 34 anxiously attached dyads who participated in infant parent psychotherapy, to two control groups. The first control group included 24 anxiously attached infant-mother dyads who did not receive the intervention. The second control group included 34 securely attached dyads. There were statistically significant differences between the intervention group and the anxiously attached control group with regard to maternal empathy, and interaction with the child, decreased toddler avoidance, resistance, and anger, and increased “goal corrected partnership” (a measure of the dyad’s eagerness and reciprocity in resuming interaction after a separation). Cicchetti, Rogosh, and Toth (2006) demonstrated that infant-parent psychotherapy was effective in increasing rates of secure attachment among maltreated infants living with their formerly maltreating parent with whom attachments were initially classified as either insecure or disorganized as determined by the Strange Situation procedure (Ainsworth et al., 1978).
Toddler-parent psychotherapy also increased the rate of attachment security with toddlers who were previously classified as having insecure (Cicchetti, Toth & Rogosh, 1999) and disorganized (Toth et. al. 2006) attachments to their mothers who had major depressive disorder. The intervention also prevented cognitive declines documented in a control group of socioeconomically similar toddlers also having depressed mothers but who did not receive the intervention (Cicchetti, Rogosch & Toth, 2000). Preschooler-parent psychotherapy was effective in improving the self representations of maltreated preschoolers and their caregivers as compared to controls (Toth et. al., 2002). CPP has been shown to be effective in reducing the trauma symptoms and behavioral problems of ethnically and socioeconomically diverse preschool aged witnesses of domestic violence as compared to a control group receiving case management and individual psychotherapy (Lieberman, Van Horn, & Ghosh Ippen, 2005). This same intervention also significantly reduced the symptoms of Post-Traumatic Stress Disorder and general distress of the preschoolers’ mothers. The intervention reduced depression and trauma symptoms for children who had experienced four or more traumatic or stressful events (Gosh Ippen et al, 2011). Treatment gains for both children and mothers were sustained in a six-month follow up (Liberman, Ghosh Ippen, & Van Horn, 2006).

Proponents of CPP note that the intervention has been shown to have ecological validity as many of the aforementioned studies have been conducted with socially vulnerable populations such as low income Spanish-speaking families and families with child welfare system involvement.
The main limitations of this research are that these studies have relatively small sample sizes, sometimes insufficient description of how the intervention was actually implemented, and lack of checks to ensure clinician fidelity to the model.

Although not a randomized controlled study, there has been one pilot project implementing CPP with families identified by the child welfare system in three locations in Florida (Osofsky et al., 2007). The Florida legislature commissioned a 3-year multisite (Miami, Sarasota, Pensacola) Infant and Young Child Mental Health Pilot Project to serve children age 0 to 48 months in foster care or at risk for out of home placement as a result of neglect or abuse. Most families (59%) were court referred. Although only one half of those referred completed treatment, those who did complete treatment (fifty caregiver child dyads) had no recurrent incidents of abuse during the three year study period, all of the children were granted permanency either with their parent or another family member. Parents showed increased responsiveness and positive discipline with their children as well as decreased intrusiveness. Children showed increased positive affect in play. The children’s health and developmental status improved and caregivers reported decreased depressive symptoms. While there was no untreated control group the pre-post findings were encouraging as to the potential value of CPP. The findings supported initiatives aimed at training IMH therapists in Florida, such as the FSU Harris Training Program.

It should also be noted, that CPP is not the only model for IMH therapy. In the FSU Harris training, an overview of some other IMH interventions (Watch Wait and Wonder and Interaction Guidance) were provided. However, specific training in how to execute these interventions was not offered.
Watch, Wait, and Wonder (WWW) helps parents more deliberately observe and reflect about their infant’s behaviors. Cohen et al. (1999) compared WWW to “mother-infant psychotherapy.” They found both interventions to be effective in reducing presenting infant problems, decreasing parenting stress, and reducing maternal intrusiveness as well as mother-infant conflict. Infants in the WWW group showed larger improvements in attachment security, cognitive development, and emotional regulation.

McDonough (2004) describes Interaction Guidance (IG) as an intervention that includes regular therapist-parent discussion of videotapes of parent-child interaction. Unless noted by the parent, the therapist ignores problematic parenting strategies and complements positive parenting elements in order to build confidence and reinforce positive parenting techniques. Cramer et. al. (1990) and Robert-Tissot et. al. (1996) compared brief forms (10 or fewer sessions) of IG to brief infant-parent psychotherapy in treating functional and behavioral disturbances (e.g. eating and sleeping disturbances, excessive crying, agitation, and aggression) of children younger than 30 months. In an initial analysis of 38 cases, Cramer et al. (1990) found that both interventions were effective in eliminating infant symptoms, increasing infant cooperation and expression of positive affect. Both interventions increased maternal sensitivity, increased the mother’s positive representations of herself and her infant, and decreased maternal intrusive behavior. Improvements were sustained after six months. In a later analysis of 75 cases, Robert-Tissot et. al. (1996) similarly found that both interventions diminished sleeping problems, improved dyadic interaction during bed and meal time routines, increased infant cooperation, and improved maternal sensitivity and self-esteem.
5. **Core competencies for infant mental health therapists**

Several state IMH organizations (California, Connecticut, Florida, Indiana, Michigan, Vermont, and Wisconsin) fashioned competency guidelines intended to facilitate training and professional development of IMH professionals in their localities. While these competency systems are similar and borrow content from one another, there was no consensus on essential knowledge and skills for IMH therapists (Hinshaw-Fuselier, Doyle Zeanah, & Larrieu, 2009; Korfmacher & Hilado, 2008). The FSU Harris Institute made the first systematic effort to devise nation-wide agreement among experts in establishing a ranked list of core competencies desired for IMH therapists (Quay, Hogan & Donohue, 2009).

Quay, Hogan, & Donahue (2009) initially identified 99 competencies from a review of the state IMH competency guidelines developed by California, Michigan and New Jersey, a review of the IMH training literature, and the experience of FSU Harris faculty in the provision of their first two years in training IMH therapists. Subsequently, 23 experts were identified by the following criteria: membership on the Board of Directors of Zero to Three; editors or associate editors of the Infant Mental Health Journal; or, authors of recently published controlled research on IMH therapy. The 23 experts added to the list of competencies expanding it to a total of 143 competencies. Each competency was then rated by each expert according to the following Likert scale: 1 = probably not necessary; 2 = desirable but not a “must”, 3 = very desirable, 4 = highly desirable, 5 = essential competency. Each item was rank ordered from highest to lowest mean of all expert ratings; when scores were tied, items were ordered from smaller to larger standard deviations. The 143 competencies were then grouped conceptually by the
researchers into seven conceptual areas: (a) Typical infant and toddler development, (b) Atypical development, (c) Emotional/behavioral disorders in infants and young children, (d) Assessment, (e) Intervention, (f) Community resources and referrals, and (g) Organization, communication, and collaboration.

It must be noted that some in the academic community contend that therapist competencies should be determined by evidence-based practices rather than assembled according to expert consensus. However, given that there is only limited evidence based information regarding competencies for IMH therapists at this time (Hinshaw-Fuselier, Doyle Zeanah, & Larrieu, 2009), a national expert consensus provides that most complete and accurate information available.

At the same time, Hogan and Quay (2008) acknowledge that the competencies complied by this expert panel may have some inherent bias. IMH experts generally and this panel in particular tend to promote a less structured relational approach to intervention traditionally associated with psychoanalysis. Other experts having a more task-oriented approach more often associated with behavioral intervention models could have identified other competencies and/or ranked these competencies differently.

6. **Contrasting Approaches**

Contrasting approaches include primarily cognitive-behavioral and parent-training interventions (Korfmacher & Hilado, 2008). It should be noted that these types of interventions are acknowledged and referenced as useful in the IMH literature (e.g., Osofsky et al., 2007). The IMH approach to cognitive behavioral/parent training interventions appears to be as a means for individualizing treatment and providing modular-type treatment elements for use within the framework of IMH principles.
described above (e.g., Maldonado-Duran & Lartique, 2002). Behavioral interventions are encouraged to be tried first before more complex insight oriented interventions (Lieberman & Van Horn, 2008; Osofsky et al., 2007). Use of behavioral and manualized parenting interventions are included in the intervention competencies identified by IMH experts [e.g., “Can implement simple behavioral techniques for problems in sleeping, eating, and self-control (e.g. charting, positive reinforcement, extinction, time-out) and knows their strengths and limitations” and “Can implement cognitive-behavioral techniques with children at least 3 years of age.” And “Can implement ‘manualized’ parent training programs” (Quay, Hogan & Donahue, 2009)]. However, the specifics of how to implement and integrate behavioral interventions appear not to be well described in the literature specifically identified as IMH.

Some proponents of a more exclusively cognitive-behavioral orientation might describe their approach to intervention in a manner that is different from how IMH adherents describe their application of cognitive-behavioral interventions. Presenting problems may be identified primarily in behavioral terms, mostly targeting children at risk for or demonstrating behavioral problems and their parents. Proponents of a stricter cognitive behavior approach may place less emphasis on contributing developmental idiosyncrasies, relational dynamics between family members, and meanings families might attribute to behaviors.

The behavioral intervention most similar to CPP is Parent-Child Interaction Therapy (PCIT) in that it is a dyadic intervention including parents and children together; there is also emphasis on building the relationship between the parent and child. PCIT includes both teaching parents to better follow their children’s lead in play, as well as
teaching them how to effectively set limits and direct children’s behavior. PCIT is generally used with children meeting diagnostic criteria of Oppositional Defiant Disorder. It has been shown to be successful in reducing problematic child behaviors and improving parenting skills even with some maltreating families (Chaffin et al., 2004; Timmer, Urquiza, Zebell & McGrath, 2005; Urquiza, & Bodiford-McNeil, 1996). Evaluations of this model have generally targeted school aged children but have included preschoolers and children as young as 2 years of age (Nixon et. al. 2004; Shanley & Niec, 2010). PCIT has been tested with three different cultural groups (Kaminsky, Valle, Filene & Boyle, 2008).

A strength of cognitive-behavioral and parent training approaches is that some of them, like PCIT, have a more established tradition of developing an evidence base particularly with preschool children having behavioral disorders. Weisz and Simpson Gray (2007), in their review, identify that some of the documented randomized controlled trials of therapeutic interventions for children have a cognitive behavioral theoretical base and have been for children older than 4 years. Weisz and Simpson Gray (2007) note, however, that some empirically supported interventions have not done as much research exploring how interventions would perform under real world settings where clients have co-occurring disorders that are complex and severe.

Some cognitive behavioral and parent training interventions promoting the social emotional development of young children include implementing social-emotional curriculums that teach pro-social skills to children in childcare and preschool settings (Joseph & Strain, 2003) some of these programs also include parenting education programs. Parent training programs teach parents how to play with their children, use
positive reinforcement, natural consequences, and positive disciple (time out & ignoring). Two examples include *The Incredible Years* training series (Webster-Straton, 1992; Webster-Stratton & Hammond, 1997; Webster-Stratton & Reid 1999; Webster-Stratton, Hollinsworth, & Klpacoff, 1989) and the Triple P (Positive Parenting Program; Sanders, Markie-Dadds, & Turner, 2003).

In the area of preventative interventions, Olds, Sadler and Kitzman (2007) advocate for more rigorous intervention research for infant-parent programs. They argue for carefully designed interventions that consider specific characteristics of the targeted population and applying a theory of the causal mechanisms of change. Interventions should be refined “…in an ongoing cycle of research and program improvement, p. 357.” They compare development of their Nurse Family Partnership program to other home visiting programs that were less carefully developed and less rigorously evaluated. The Nurse Family Partnership (Olds, Sadler, & Kitzman, 2007) program provides home visiting nurses to at risk first time parents. This program has been successful in improving pregnancy outcomes and decreasing rates of child abuse, and even reduced behavioral problems in adolescence. Some promising preventive home visiting programs, such as the Hawaii Healthy Start program (Duggan et al., 1999), may have been expanded before there was sufficient evidence of program success and clear identification of the effective and ineffective program elements. Evaluation results later suggested that families receiving that intervention did not benefit as expected. It should be noted that Olds Sadler & Kitzman (2007) identified one infant mental health program, the UCLA Family Development Program (Heinicke, Fineman, Ponce, & Guthrie, 2001) that met criteria for intervention development and rigorous evaluation.
In conclusion, there are some contrasting approaches to intervention with very young children to include parent training and cognitive behavioral interventions. Many of these interventions could be adapted and incorporated under the umbrella of IMH by adherents of IMH. However, proponents of many of the parent training and cognitive behavioral interventions may not identify their interventions as IMH. A strength of some of these approaches is a more established and rigorous evidence base.

B. Continuing Education and Training Literature

The education and training literature can provide some evidence based standards for training, some theoretical guidance for promoting adult education, exploratory research regarding how mental health therapists learn, findings of a few evaluations for training of mental health therapists, and finally, descriptions of how IMH therapists have been trained in the past. After outlining this literature, these elements will be compared to the FSU Harris training program as described in the logic model presented in chapter one. A chart comparing the evidence, theory, exploratory studies, evaluations of other mental health trainings and historical IMH training precedents for training to the FSU Harris training program is provided in Appendix M.

1. Continuing education and evidence based training

Most of the literature regarding the effectiveness of continuing education has focused on continuing medical education for physicians. There have been many thorough reviews of that literature. Reviews overall conclude that continuing education has a positive effect on physician knowledge, skills, & attitudes, at least a small effect on application of learning (physician behavior), and a smaller effect on the impact of application of learning (patient health)(Bloom, 2005; Davis et al., 1999; Forsetlund et. al.,
Beyond identifying an overall effect, there is less understood about the factors that contribute to the magnitude of outcomes under varying circumstances. A number of authors point out limitations regarding the conclusions that can be drawn because of the heterogeneity of education programs, variable quality of reporting studies and reviews, as well as a lack of valid and reliable evaluation tools (Grimshaw, Eccles, Walker & Thomas, 2002; Grimshaw et al., 2001; Marinopoulos et al., 2007; Ratanawongs et al., 2008; Tian et al., 2007; Umble & Cervero, 1996). Nevertheless, some studies are now attempting to identify specific factors that may influence the effectiveness of continuing education programs. There is some evidence to suggest that more effective programs pair didactic teaching strategies with interactive training techniques and are more intense with regard to the number of training sessions, number or training hours and group size. Training programs that promote simpler interventions, and those promoting services that have more serious client consequences (e.g., health outcomes) also appear to be more effective in the short term.

Until recently, earlier reviews suggested that passive, didactic teaching strategies (e.g. lectures & dissemination of printed materials alone) were ineffective, while active or interactive training strategies (e.g., role plays, case discussions, audits with feedback) were effective (Bloom, 2005; Davis et al., 1999; Grimshaw et al., 2001; O’Brien et al., 2001; Oxman et al., 1995). However, the most recent review by the Cochrane Collaborative which included 81 trials and 11,000 health professionals concluded that...
didactic training strategies (e.g. lectures, conferences) can have an effect when compared to no intervention. Effectiveness increases when didactic teaching is paired with interactive training strategies (Bloom, 2005; Forsetlund et. al, 2009; Institute of Medicine, 2010; Mansouri & Lockyer, 2007; Marinopoulos et al., 2007).

In identifying differences between more and less effective programs, the Cochrane collaborative review used an “intensity” variable that included number of training sessions, hours of training, and group size. They found a trend towards more intensive interventions being more effective, although most of their studies were rated as non-intensive and the rest rated as moderately intense. No studies in their review were rated intense (Forsetlund et al., 2009). There is some support for the choice of features associated with the Cochrane Collaborative’s intensity variable from other reviews.

A few studies have found that larger effect sizes were associated with educational programs that were lengthier involving multiple sessions over time (Davis et al., 1999; Mansouri & Lockyer, 2007; Minopoulos et. al, 2007), suggesting that a learn, work, learn pattern might increase effectiveness.

Mansouri and Lockyer (2007), comparing 31 studies that included randomized controlled studies and also before and after experimental design studies, found group size to be negatively correlated with effect size. However, Davis and colleagues (1999), comparing 7 randomized controlled studies, could find no relationship between group size and positive outcomes.

The type of training content may also influence learning. The Cochrane review concluded that effects were greater for continuing education programs promoting less complex behaviors and also for those behaviors having more serious outcomes for
patients (Forsetlund et al., 2009). This is significant with respect to the FSU Harris training.

There is some support that use of credible instructors may be an efficacious training strategy (Chow, Cichocki, & Leff, 2009). Credible instructors would be those having extensive practice experience, known in their particular field via publications, presentations, and affiliation with respected professional organizations or academic institutions (Chow & Cichocki, 2009).

Some training reformers argue that training should reflect the reality of the present behavioral health care delivery, which requires greater cooperation between disciplines (Hammick, 2000; Greiner & Knebel, 2003). Camp (1996) has suggested that multidisciplinary problem based learning may be an upcoming training innovation. Thus far, there is disagreement among reviewers regarding the effects that a multidisciplinary audience might have on outcomes. Mansouri and Lockyer (2007) found that continuing education programs targeting one specific profession were more successful than more inclusive programs. Meanwhile, Marinopoulos et al. (2007) was unable to determine any influence of audience characteristics on educational intervention.

The lasting effects of continuing education and factors contributing to the sustainability of effects are undetermined at this time. Mansouri and Lockyer (2007) found the longer the interval between the intervention and follow up evaluation, the smaller the effects. A number of authors are calling for evaluators of continuing education programs to conduct follow up at longer intervals (more than 12 months) after completion of programs to measure sustainability of interventions (Chow, Cichocki, & Leff, 2009; Hoge, Huey & O’Connell, 2004; Tian et al., 2007).
There is also increased discussion about the need to teach evidence based practice (EBP) using evidence based teaching practices (Chow & Cichocki, 2009; Chow, Cichocki, & Leff, 2009; Harden & Lilley, 2000; Hart & Harden, 2000; Stuart, Tondora, & Hoge, 2004; Van Der Vleuten, Dolmans, & Scherpbier, 2000). However, the effectiveness of educational strategies appears to be context specific varying according to the audience, the educational intervention, and the targeted outcomes (Oxman et al., 1995). Given that there is limited evidence to help determine factors moderating the effectiveness of continuing education strategies, we can also assess adult learning theories, exploratory research and evaluations specific to the training of mental health professionals.

2. **Adult learning theory**

Below are brief summaries of some of the basic theoretical ideas often linked to adult continuing education. This includes an overview of ideas about how adult learning is distinguished from general learning, discussion of the learning domains (knowledge, skills & attitudes), theories predicting how learning will be applied, and finally ideas regarding determining learning success.

Malcom Knowles has been credited with being one of the first to describe how adults may learn differently from children (Knowles, 1975). He contrasted his ideas of adult learning, andragogy, to traditional pedagogy. Knowles portrayed children as dependent learners receiving unfamiliar information identified for them by instructors. Adult learners, however, would require a different approach. Adults should be assumed to have past experiences to bring to learning; they would have internal motivation to learn in order to solve real world problems they face. Critics have argued that Knowles’ ideas
were too simplistic (i.e., children sometimes have experiences to bring to learning and adults are sometimes needing basic information they do not have). Nevertheless, Knowles and colleagues (Knowles, Holton & Swanson, 1998) expanded and refined his ideas over time. They elaborated six core principles about adult learning:

a. Adult learners *need to know* the importance of what they will learn. Why learning content is relevant to them and what could occur if they do not acquire this specific information.

b. Adult learners have a *self-concept* of being responsible for themselves and a need to be seen by others as capable of self-direction.

c. Adult learners are heterogeneous having wide ranges of prior experiences to bring to learning. The *role of learners’ experiences* can be applied in experiential educational techniques such as group discussions, simulation exercises, problem solving, and case studies.

d. Adult learners have a *readiness to learn* things pertinent to what they need to know when they need to know them. For example, a young professional may be learning how to operate as a professional in her field may seek out education related to techniques that improve her performance. After sufficient experience, she may be ready to learn supervision skills so that she could supervise others.

e. Adults are task or problem-centered in their *orientation to learning.* They are motivated to learn things that will help them deal with real problems they face. Therefore, learning is most effective in real life contexts.
f. While adults can be motivated by external factors (e.g., licensure requirements), adults are primarily *internally motivated* to learn. Improving job satisfaction, self-esteem, or quality of life are more salient motivators for adults.

There are many “constructivist” models of adult education that draw from Knowles ideas (Merriam & Brockett, 2007). Generally, these models describe ways a learner builds his own knowledge through interactions with the environment over time. The learner attends to new information in which he is interested. The learner relates the new information to his past experience and his overall worldview and compares his evaluation of the information to others in his social network. A learner’s body of knowledge is constantly reshaped and adapted as a result of new experiences and the meanings one attaches to such experiences (Kolb, 1984; Savery & Duffy, 1995; Schon, 1983). Learning is also thought to be best in-situ (Wilson, 1993). That is, it is easier to recall information when we are situated in an environment similar to where one first learned the information, therefore, it is optimal to facilitate learning in the environment where knowledge, skills, and attitudes are ultimately to be applied (Van der Vleuten, Dolmans & Scherpbier, 2000.) Many of these ideas also tend to be very “democratic”, in that ideally learners would be intimately involved in determining learning content (Stuart, Tondora, & Hoge, 2004).

In identifying which methods of presenting new information in which situations, one can consider the description of learning domains. Educational theory identifies three learning domains: cognitive, psychomotor, and affective. Teaching strategies should vary depending on the targeted learning domain (Bloom, 1977; Krathwohl, Bloom & Masia,
Cognitive learning, which primarily includes acquiring new knowledge, could be taught through lecture. Psychomotor learning has to do with building skills and would be taught through performance and practice. Affective learning involves internalizing attitudes and values. This can be taught through questioning, case studies, role-play, and group discussion. Ultimately, students must integrate knowledge, skills, and attitudes in performing professional duties (Van Der Vleuten Dolmans & Scherpbier, 2000).

To predict how adult learners will ultimately behave after acquiring new knowledge, skills, and attitudes, the theories of reasoned action (TRA) and the theory of planned behavior (TPB) have been applied. TRA and TPB are based on the idea that individuals are likely to do what they intend to do. As such, behavioral intentions are good predictors of future behavior. The strength of behavioral intentions are purported to be modified by three factors: first, a person’s attitude, that is, the subjective value to the individual of the expected outcome of the behavior; second, subjective norms, what a person believes others think she or he should do and the degree to which a person tends to act in accordance with these expectations; third, perceived behavioral control which is the degree to which a person perceives that he can effect change in a situation. Perkins and colleagues (2007) suggest that to effect behavioral change in clinicians, interventions should target the clinicians’ behavioral intentions and the three identified modifying factors (attitude, subjective norms, and perceived behavioral control). This could suggest that altering clinician behavior may include training clinicians and their peers as well as removing barriers and/or offering mechanisms to ease use of new interventions.
In assessing the success of training, behaviorally based theories promote performance based or competency-based models of learning. After training, a learner’s ability to perform a certain competency can be observed. In critiques of the current behavioral health care system, several authors argue for identification of sets of core and specialty competencies for behavioral health practice that can provide a basis for educational curricula and can also be used as outcome measures for training (Chow & Cichocki, 2009; Corrigan et al., 2003; Daniels & Walter, 2004; Hoge, Huey, & O’Connell, 2004; Stuart et al., 2009).

In sum, ideas about adult learning generally identify how characteristics of adults should be acknowledged and accommodated in the learning process. Active involvement of trainees in learning processes implies use of active learning strategies (e.g. role play) and also involvement in decisions determining the relevance of content to the adult learner’s needs. Adult learning can be thought of as occurring overtime as adults incorporate new ideas and practices into their accumulated knowledge base. Adult learning can include assimilating knowledge, building skills, and shaping attitudes. In predicting whether adult learners will apply new knowledge, their intentions can be surveyed while considering how supportive the professional environment may be to implementation of innovations. Behavioral theories call for identification of competencies to measure learners’ abilities to apply learning. In addition to consulting adult learning theory, exploratory surveys of therapists as well as evaluations of training for mental health therapists can be instructive.
3. **Training mental health therapists**

There have been a few surveys of psychotherapists inquiring how they have learned their craft, continued to develop throughout their careers, and what influences them to implement new practices. There are also some evaluations of training specifically for mental health practitioners assessing the implementation of evidence-based practices.

a. **Surveys of mental health therapists**

The Society for Psychotherapy Research (SPR), Collaborative Research Network developed an extensive survey instrument to make inquiries regarding the professional development of psychotherapists (Orlinsky et al., 1999). They collected descriptive self-report data from psychotherapists from various countries, professional backgrounds, stages of career development, and theoretical orientations beginning in 1991. More than 4000 survey responses were aggregated into a single database. It has been noted, however, that the information collected by the SPR is not representative of all therapists because survey respondents self-selected to participate in the survey which required one to two hours to complete (Orlinsky et al., 1999). Thus, survey respondents may have been more highly motivated therapists who could be contacted for participation through professional networks known to the SPR. Nevertheless, the study does include a broad spectrum of psychotherapists that offers some potentially useful insights.

In terms of their formation, therapists reported generally that interpersonal professional experiences such as the experience of working directly with patients, formal supervision, and personal therapy primarily influenced their professional development. Didactic experiences such as academic training and reading were identified as influential
but secondary to interpersonal experiences (Orlinsky, Botermans, & Rønnestad, 2001). Also of note, participating therapists reported actively seeking out learning opportunities. They indicated having a strong motivation to further their development throughout their careers. Respondents related that a sense of ongoing learning and improvement was largely considered essential to maintaining their motivation and morale in providing therapy (Orlinsky et al, 1999).

Skovholt and Ronnestad (1992) conducted semi-structured interviews of psychotherapists who resided in Minnesota. One hundred psychotherapists, 20 from each of 5 different stages of career development (first-year graduate students, advanced doctoral students, five years post doctoral experience, 15 years post-doctoral experience, and 25 years post-doctoral experience), participated. In this way, the authors tried to develop a sense for how therapists might develop over time. The more salient themes revealed that psychotherapists reported continuing development over the course of their careers. Sources of influence included professional elders (supervisors, professors, mentors, therapists & experts), peers, clients, theories and research, one’s own personal life, and the socio-cultural environment. “Accumulated wisdom” came through the process of having a reflective stance where one asked for and received feedback. Respondents reported that over time there was movement from reliance on external expertise toward reliance on internal knowledge.

In a web-based survey (Cook, Schnurr, Biyanova & Coyne, 2009), 2,600 U.S. and Canadian psychotherapists rated factors influencing their practice, factors that could influence their likelihood to adapt new therapies, and also factors contributing to psychotherapists’ sustained use of a new therapy. Overall, psychotherapists indicated that
their practice was most affected by significant mentors, books, graduate school training, and informal discussions with colleagues. Surveyed psychotherapists were most likely to adapt new therapies if the intervention could be integrated with what they were already doing and was endorsed by therapists they respected. They were more likely to continue to use a new therapy if it was enjoyable for the psychotherapist, clients liked it, and clients reported improvement.

Palinkas and colleagues (2008) used ethnographic methods to interview therapists about their intentions to continue to use evidence based treatments with children after participating in a controlled trial of four manualized evidence based treatments, modular elements of evidence based treatments, or treatment as usual. Clinicians reported that they would either continue to use manualized treatments, use some elements of the manualized treatments, or would not use the manualized treatments. Factors influencing these intentions included the lag time between initial training and use of treatments with clients, the commitment of the clinician to participation in the trial, and the clinician-treatment fit.

From these exploratory studies, it appears that regardless of career stage, many therapists are internally motivated to continually revise and improve their therapeutic knowledge, skills, and attitudes. Innovations are also more likely to be implemented if there is support for them expressed in interpersonal interactions with clients, supervisors, and peers. Psychotherapists may be more likely to try something new if the innovation can be integrated with what the therapists had been doing. Theoretical ideas and research findings may also be integrated into therapists’ armamentarium, but will likely need to be
integrated with knowledge and skills already solidified, and supported by others in one’s professional work life.

b. **Evaluations of training programs for mental health therapists**

As previously mentioned, most of the literature regarding the effectiveness of continuing education has focused on continuing medical education for physicians. However, there may be differences in what is effective for changing the practice behavior of medical doctors (e.g., prescribing patterns) and what is effective for changing behavior applied in the therapeutic interventions of mental health therapists. Therefore, I sought out evaluations of training programs specifically for practicing mental health therapists. Seven were identified.

Gauntlett (2005) surveyed 21 graduates of a 2-year advanced training program in evidence-based interventions for community mental health practitioners working with severely mentally ill clients in England. Overall, respondents indicated that they had acquired and applied many interventions included in the program. However, some respondents reported not getting enough information and supervised practice to implement some of the more complex interventions (e.g., motivational interviewing, cognitive behavioral therapy). Respondents reported that the factors most helpful to their learning included the recruitment strategy targeting a critical mass of practitioners from the same workplace, and the employment of expert trainers having professional credibility. A portion of trainees had a more intensive training that included homework assignments. Participants that completed homework assignments largely reported that the homework helped them apply what they learned.
The creators of Motivational Interviewing (MI; Miller & Rollnick, 1991, 2002) have conducted three evaluations of MI training for licensed mental health clinicians treating substance abuse (Miller & Mount, 2001; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Rubel, Sobell, & Miller, 2000). Each successive evaluation had improved research methods and more specific findings. Overall, it appears that more intensive MI training strategies (training plus feedback and coaching) has the greatest potential for catalyzing change in practice behavior and potentially improving outcomes for clients.

In the first evaluation, forty-one MI training participants completed pre and post tests (Rubel, Sobell, & Miller, 2000). Overall, participants showed improvement on a 15-item questionnaire measuring knowledge of MI. Participants also improved in responding to 3 clinical vignettes asking what the respondent would do next. There was statistically significant improvement providing MI consistent responses and decreases in MI inconsistent responses. Interestingly, there was no difference in scores between participants that had read the text on MI (Miller & Rollnick, 1991) before the workshop and those who had not read in advance.

In the second evaluation of MI, Miller and Mount (2001) improved outcome measures in evaluating the effects of a 2-day training to 22 probation officers. They compared not only pre and post workshop self-report questionnaires, they also compared pre-workshop audiotaped work samples to post training interviews with a standard actor. Pre and post training measurements were also compared to a 3 month follow up questionnaires and a work sample with an actual client. There were significant increases in MI-consistent therapist responses that were maintained at follow up. But there was no decrease in MI-inconsistent responses. Nor was there a decrease in the amount of
therapist talk time in session. Responses of clients in taped sessions that had previously been found to be associated with positive outcomes were coded (Miller, Benefield, & Tonigan, 1993). This proxy variable for improved client outcomes did not indicate potential changes in clients.

In the third evaluation, Miller and colleagues (2004) compared five training conditions for 140 MI trainees: (1) a 2-day workshop [workshop included 50% lecture and demonstration & 50% direct practice of skills]; (2) workshop and written practice feedback [feedback provided a comparison of therapist performance in video taped sessions to ideal practice]; (3) workshop and 6 individual telephone coaching sessions [coaching included positive reinforcement for effective performance and for successive approximations as well as advice for improvement]; (4) workshop, feedback, and coaching; or, (5) a waitlist control group that was provided written materials and watched a training video for self-study. The outcomes measured for the study assessed therapist skill and also a proxy variable for client outcomes. After training, all training groups showed improvement immediately after training. However, only the group that received the workshop, feedback and coaching showed significant change in the proxy variable for client outcomes (change talk and resistance) at follow up (Amrhein et al., 2003).

In a controlled partially randomized trial of training in cognitive behavioral therapy (CBT) for treatment of substance abuse, 78 practicing therapists participated in one of three training conditions: (1) use of a training manual alone; (2) use of the training manual and use of web-based training; or, (3) use of the manual, participation in a 3 day workshop, and up to 3 supervision sessions (Sholomskas et al., 2005). Outcome measurements included ratings of clinicians participating in structured role-plays to
practice three different CBT skills, a test of CBT knowledge, and a survey of participants’ self-reported implementation of the CBT post training. Clinicians in all three conditions improved their skills in CBT with the group receiving the manual only making the smallest gains and the group receiving the workshop and supervision making the greatest gains. Gains made by the group having the manual and the web-based training fell in between the other two conditions but were not statistically different from the manual only group. Only the group receiving the workshops and supervision achieved fidelity to the CBT method typically deemed acceptable for certification in clinical efficacy trials. Evaluation of change in knowledge and self-reports of implementation of CBT in clinical practice after the trial suggests those receiving the more intensive training were more likely to use CBT in their clinical work and reported fewer barriers to use of CBT.

Herschell and colleagues (2009) conducted an evaluation of training for practicing mental health clinicians in the provision of Parent Child Interaction Therapy (PCIT), the dyadic intervention for child behavior problems described previously. Forty-one therapists were provided a treatment manual and a 2-day workshop in PCIT. Participants were divided into two groups, one that received only didactic training, and one group that also practiced PCIT skills. In this evaluation there were no differences found between the two groups. All the clinicians showed increased knowledge of PCIT. Interestingly, trainees having a masters degree in social work showed greater increases in PCIT knowledge and skills as compared to clinicians with an MA or MS degree in psychology or counseling. However, only 4 individuals (5%) demonstrated mastery of PCIT skills at
a level similar to more experienced practitioners of PCIT. It seems more intensive training strategies may be required for trainees to adequately learn PCIT skills.

Simons and colleagues (2010) trained 12 therapists in a community mental health clinic in Cognitive Behavioral Therapy (CBT) for the treatment of depression and anxiety. Training consisted of a 2 day 12 hour training followed by 16 one-hour phone consultations that occurred every three weeks over the course of a year. Video tapes of therapists conducting therapy at three different times (before having been trained in CBT, 6 months after first training, and 12 months after first training) were coded to measure intervention skill. Therapists had significantly improved abilities in CBT at both 6 and 12 months after training as compared to their CBT abilities before training. There was, however, no significant difference between therapists’ CBT abilities at 6 months and their abilities at 12 months after training. This study was remarkable in that it also measured patient outcomes. Outcomes for patients who received ‘treatment as usual’ (N=74) before the therapists received CBT training were compared to patients who received treatment after the same therapists received CBT training (N=42). Patients treated prior to therapist training were compared to patients treated after therapist training. Depression in both groups of patients improved. Patients in the CBT group, however, had greater levels of improvement in their depression as well as decreased levels of anxiety, whereas patients in the treatment as usual group had no change in levels of anxiety.

In conclusion, there have been a few evaluations of training for practicing mental health clinicians. Conducting mental health therapy is a complex task that seems to require more intensive training periods and techniques such as the provision of feedback,
coaching, or consultation. These limited findings suggest that more intensive training to include in person training, feedback, and coaching has the greatest chance of changing learner knowledge, skills, and attitudes, influencing learner application of learning, and increasing impact of the application of learning.

c. **Tradition of training therapists in infant mental health**

Shapiro, Adelson and Tableman (1978) describe what is credited with being the first IMH training program. In 1973, the Michigan Department of Mental Health (MDMH) commissioned the University of Michigan Child Development Project (CDP), under the leadership of Selma Fraiberg, to provide clinical training to 24 mental health clinicians (in 2 cohorts of 12 clinicians each). Trainees represented 12 different community mental health agencies throughout the state. The trainees were then to develop IMH programs in their respective agencies. The professionals to be trained were nurses, social workers, psychologists, and counselors. Weatherston (2000a) reports that the CDP’s year long training program consisted of four elements: seminars; individualized learning; clinical experiences; and, clinical supervision. Seminars included discussion of typical and atypical development, human bonding and attachment, assessment and intervention. Individualized learning referred to the recognition that trainees came from varying disciplines and may thus have need of tutorials in different areas of practice. Clinical experience included trainees intervening with families referred by their agencies while also observing one low risk infant and family for comparison purposes over the course of the training year. Finally, clinical supervision was intensive (one hour of supervision per hour of intervention) including review of video of families and detailed process notes.
Upon completion of the training, Shapiro, Adelson and Tableman (1978) reported that trainees not only provided infant parent psychotherapy in their respective agencies, but they also developed IMH programs funded by MDMH grants, provided case consultation, seminars and workshops to public health and child welfare agencies, and, in 1976, formed the Michigan Association of Infant Mental Health. Weatherston (2000b) noted that several of the original trainees continued to be leaders in the field of IMH 25 years later. One of the most well known trainees is Alicia Lieberman who is currently considered to be one of the foremost authorities on CPP. Pawl, St. John, and Pekarsky (2000) note that after training the first set of 24 trainees, the University of Michigan CDP funded by the National Institutes of Mental Health and the Grant Foundation continued promoting IMH practice and training IMH professionals in Michigan through 1979.

The University of California San Francisco (UCSF) IMH program appears to have been the second IMH therapist training program. According to Pawl, St. John and Pekarsky (2000), in 1979 Fraiberg and two colleagues from the University of Michigan began the Infant-Parent Program at UCSF where they promoted IMH practice and trained IMH therapists. The current Infant-Parent Institute (IPI), directed by Alicia Lieberman, trains approximately 8 IMH therapists annually. Components of training are similar to training elements described above. Weekly seminars provide didactic information regarding development, attachment and psychoanalytic theory as well as clinical case discussions. Trainees gain clinical experience intervening with four local families. Clinical supervision is one hour per week.
In the late 1980’s, a graduate certificate program in IMH was established at the Merrill Palmer Institute at Wayne State University in Detroit, MI (Kaplan-Estrin & Weatherston, 2005). It was fashioned after Fraiberg’s original training model and offers a certificate in IMH for students admitted to the graduate school (in education, psychology, social work, nursing, or allied health) at Wayne State, but also offers course work and continuing education to working professionals in the community. The certificate program includes 12 graduate academic credits of multidisciplinary course work in infant behavior and development, infant assessment, and family systems. A 10 credit year long internship includes observation of one low risk family, experiences with at risk infants and families, weekly 90 minute reflective supervision, and bimonthly clinical seminars. As of August 2005, 85 professionals had graduated from the certificate program (Meyers, 2007).

A number of IMH training programs have been established, enabled and/or provided on-going support by the Irving Harris Foundation (Stott & Gilkerson, 2000). In the 1960s Irving Harris initially provided funding for an early childhood personnel training institute in Chicago later renamed the Erikson Institute. Harris’ support for early childhood training programs expanded over time. In 1994, Harris established the Harris Professional Development Network (HPDN), which at that time included eight infant-family professional training programs most of which were associated with various universities. As of 2004, there were 15 different US programs located in 12 different states (Harris Network, 2004; Meyers, 2007). The HPDN has aimed to expand the number of trained professionals specializing in infancy in the US and Israel. Several of these programs have focused specifically on training IMH therapists either as a part of a
degreed education program, certificate program, or in continuing education for mental health clinicians.

While the number of IMH therapy training programs has been growing, there are currently no widely published evaluations of any IMH training program (Hinshaw-Fuselier, Doyle Zeanah, & Larrieu, 2009). This author found two evaluations conducted by two different training programs (CAIPFMHI, 2003b; Hogan & Quay, 2008).

An outcome evaluation was completed for the California Infant, Preschool & Family Mental Health Initiative (CA-IPFMHI) of 2001 and 2003 this evaluation was not published in a peer reviewed journal but is available on the organization’s website (CA-IPFMHI, 2003b); the evaluation was primarily a satisfaction survey. The initiative provided IMH training in 8 counties largely for mental health providers but included a wide range of professionals in efforts to build capacity for IMH services across all three levels of IMH practice, promotion, prevention, and treatment. The overall evaluation provides very general information about a wide range of activities.

Only one county, Alameda, held intensive training series (referred to as seminars in their materials) for the purpose of developing IMH therapists. Three seminar levels were offered, introductory, intermediate, and advanced. Each seminar included weekly meetings of unspecified length for a period of 16 to 20 weeks. Content of the training included videotapes, articles, didactic presentations and case based supervision. The number of participants ranged from 3 for the advanced seminar to 20 for an introductory group. A total of 61 therapists participated in 5 seminar series. However, outcome data from the seminars is combined with outcome data from other types of training provided by the project.
Other CA-IPFMHI training activities included topical trainings (1-3 days), ongoing reflective supervision (monthly or biweekly), case consultation (monthly or biweekly), learning labs (weekly for 5 weeks), statewide county meetings (2-3 programs/year) and local meetings. CA-IPFMHI reportedly provided 125 training activities covering a very wide range of topics [e.g., infant massage, car seat safety, substance exposed infants, Parent-Child Interaction Therapy (PCIT), and Diagnostic Classification (DC 0-3R), attachment (CA-IPFMHI, 2003a).]

The evaluation included three web-based surveys sent to all participants who had provided an e-mail address. The first survey (n = 1,645) asked respondents to provide an assessment of their own general IMH knowledge and skills in 12 areas. The second one page questionnaire (n = 1606) used scaled questions to ask participants to give their opinions of the value of the training, which was largely positive. The third survey (n = 604) asked participants to rate the IPFMHI training impact on individuals, agencies, and the community. Most participants indicated increased awareness, availability, and demand for IMH services in their counties. It may be that having such a wide array of programs available to a large range of professionals on a wide range of topics was helpful in raising awareness of the special needs of young children generally. However, given the wide range of trainings included, and the general nature of outcome information gathered, the CA-IPFMHI evaluation provides minimal guidance for the developers of more specific targeted training programs.

FSU Harris faculty devised a rating scale from the list of core competencies for IMH therapists referenced above (Quay, Hogan & Donohue, 2009). The Florida State University Infant Mental Health Therapist Competency Rating Scale (FSU IMH
Therapist Competence Scale) encourages respondents to rate their knowledge of 143 specific practice items grouped into 7 conceptual areas (typical development; atypical development; emotional/behavioral disorders; assessment; intervention; community resources and referrals; organization, communication, and collaboration) on a five point Likert scale: 1= not at all competent; 2= very limited competency; 3= generally competent; 4= an area of strength for me; 5= at my best in this area. Hogan and Quay (2008) describe how FSU faculty asked two training cohorts to complete the FSU IMH Therapist Competence Scale pre and post training. One of the training cohorts (Group 1; n = 14) was newly exposed to IMH therapy. The other cohort (Group 2; n = 17) included FSU Harris graduates who participated in advanced training. Group 1 indicated statistically significant increases in knowledge in all conceptual areas except for community resources and referrals. Group 2 indicated statistically significant increases in four areas: typical development, atypical development, emotional/behavioral disorders, and intervention.

4. **Comparison of literature to FSU Harris Training program**

This section will compare the literature described above to the FSU Harris training. Overall, there are a number of training elements supported in the literature that are included in the FSU Harris training. However, the literature is limited with regards to providing information regarding trainings that are similar in intensity and delivering complex training content similar to that included in the FSU Harris training. A chart identifying how the FSU Harris Training program was consistent and inconsistent with

1 The citation date of the FSU Harris evaluation of their most recent trainees using the FSU IMH Therapist Competence Scale (Hogan & Quay, 2008) precedes the date of publication of the list of IMH core competencies (Quay, Hogan & Donohue, 2009) on which the scale is based because the list of core competencies was in-press.
training literature is available in Appendix M. The logic model in chapter I provides an overview description of the FSU Harris training program that will not be repeated here. Appendix A describes differences between the seven IMH training cohorts and also the advanced training. A sample training agenda is provided in Appendix B.

The reported format of the FSU Harris training program is in many regards consistent with the available evidence and theory with regard to training elements that are efficacious for less intensive continuing education for physicians. Multiple reviews indicate that combining interactive training elements with didactic training increases training efficacy (Bloom, 2005, Forsetlund et al, 2009, Mansouri & Lockyer, 2007, Minopoulos et al, 2007). This is consistent with some ideas from adult learning theory. Primarily, the idea that adults come to educational situations with past experiences and have contributions to be made through more interactive learning exercises such as case discussion (Knowles, Holton & Swanson, 2005). The FSU Harris training did use combined training elements to include lecture, video, class discussion, case discussion, and homework. It also appears that the FSU Harris training program applied these varying training techniques according to the learning domain addressed. For example, the knowledge domain (Bloom, 1977) was taught through lecture, the skills domain (Krathwohl, Bloom & Masia, 1969) was practiced through homework exercises and a year-end project, and the attitude domain (Simpson, 1972) was addressed via class and case discussion. Use of Expert trainers is also thought to increase program effectiveness (Chow, Cichocki & Leff, 2009); the FSU Harris Training used expert trainers, Joy Osofsky, PhD and Robert Harmon, MD.
There is some support for the idea that more intensive training may be more effective particularly for more complex training content (Forsetlund et al, 2009; Gauntlett, 2005). The Cochrane review of the continuing medical education literature showed a trend in this direction, although it did not include any intensive trainings in their review (Forsetlund et al., 2009). Nevertheless, training elements that would increase intensity such as smaller group sizes, more training hours, and multiple sessions providing a longitudinal sequenced approach to learning appears to be supported in the literature (Davis et al., 1999; Mansouri & Lockyer, 2007; Minopoulos et al., 2007). In the few evaluations of mental health training, when training conditions were compared, the most intensive conditions were more efficacious (Miller & Mount, 2001, Miller et al., 2004, Rubel, Sobell, & Miller, 2000, Sholomskas, 2005). The FSU Harris Training program provided an intensive training allowing for longitudinal sequenced training experience. Training intensity was beyond any study reviewed as it included fewer than 30 participants per cohort, provided about 140 hours of training over the course of 10 months. These elements could increase chances for increased efficacy of training (Orlinsky et al., 1999; Orlinsky, Botermans, & Ronnestad, 2001; Skovholt & Ronnestad, 1992).

While the FSU Harris training was more intense than many of the studies reviewed in the medical literature, it was less intensive than some of the other IMH training programs. It did not include some elements (feedback, coaching, supervision) that has seemed to be helpful in training clinicians in MI and CBT and are supported by adult learning theory. While the training content of the FSU Harris program is quite similar to other IMH training programs, there is a significant experiential difference.
Many IMH therapy training programs are associated with clinical treatment programs as in San Francisco (Pawl, St. John, & Pekarsky, 2000), Seattle (Birch, Mennet, & Zorrah, 2005), Denver (Harmon, 2002), and New Orleans (Fisher & Osofsky, 1997). Trainees in those programs participate in an internship providing in-home and/or clinic based IMH therapy while receiving regular reflective supervision. This provides the in-situ learning recommended by constructive learning theories (Wilson, 1993) as well as interpersonal experiences therapists have reported to be most influential in their development (Orlinsky, Botermans, & Ronnestad, 2001). The FSU Harris program does not administer clinical services to allow in situ interpersonal learning situations. It seems likely that programs providing an internship experience and supervision could have greater learning outcomes.

There is another in situ experiential training component often included with other IMH training programs but was not provided in the FSU Harris training. Trainees have often observed a typically developing low-risk infant with her family over the course of a training year. Such observations have historically been included in various IMH training programs to provide trainees with an understanding of normative infant-family interactions and development that can be a reference to compare with families that present clinically. Such developmental observations were attempted with the first training cohort in 2002-2003. Trainees in the 2002-2003 cohort did not make the recommended observations, reporting difficulty in identifying a family with an infant willing to participate. Therefore, the exercise was not attempted with subsequent cohorts.

There is a disagreement in reviews about whether a multidisciplinary audience affects continuing medical education training outcomes (Davis et al. 1999; Mansouri &
Lockyer, 2007). It is unknown what kind of effect the multidisciplinary nature of the FSU Harris training participants will have affected training outcomes.

The aspect of constructive adult learning theories suggesting that training should be democratic (Merriam & Brockett, 2007) in that trainees should be involved in determining the content of training is not necessary included in the basic training but was the basis of the advanced training. The basic training had an agenda and while it would have been adjusted to the needs of different cohorts in terms of adjusting meeting times, the faculty determined training content. However, the advanced training would have been considered entirely democratic in that there was no set agenda and participants brought cases with which they were working for group discussion.

It must be noted that the time between training and evaluation can contribute to findings of diminished effectiveness (Mansouri & Lockyer, 2007). In this evaluation, for most training cohorts, a number of years have passed.

In sum, the FSU Harris training program included a number of the training elements indicated to be efficacious in the literature for continuing medical education. However, the continuing medical education programs evaluated is dissimilar from the FSU Harris training in terms of the complexity of the content and the intensity of the training. The few evaluations of other training for mental health counselors available support the hypothesis that more intensive trainings tend to more efficacious for training in a particular therapeutic intervention. When compared to other IMH training programs, there is a training element that is missing from the FSU Harris training that has been provided in other IMH training programs that is supported by adult learning theories and
surveys of psychotherapists. That is the inclusion of specific clinical experiences, reflective supervision, and developmental observations.
III. METHODOLOGY

A. Design

This outcome program evaluation includes two research design types, non-experimental and quasi-experimental.

1. Non-experimental
   a. Descriptive

      Many of the research questions are descriptive in nature. The research questions ask for one-time information about the FSU Harris program [Q1a (number of training hours); Q1b (number of participants)] and about characteristics of FSU Harris program graduates [Q2a (attendance); Q2b (professional discipline); Q2b (professional role); Q2c (having had prior IMH training); and Q2d (having additional advanced IMH training)].

   b. X O

      Some of the questions ask for post-training data. These questions have a non-experimental X O design and include Q4a (level of learner knowledge after training], Q3a & Q3b [satisfaction levels of FSU Harris program graduates immediately after training and in retrospect], and Q5a [change in volume of services to children younger than 6 years].

   c. Qualitative

      A non-experimental exploratory method was also used to help answer Q5b (Since training, have graduates adopted recommended IMH practices?). Open-ended questions allowed respondents the opportunity to describe in their own words what changes they have made.
in their professional practice that they attribute to their experience in the FSU Harris Training.

d. Correlational

Several research questions asked about possible relationships between variables such as the two different satisfaction variables (Q3c ‘Learner Satisfaction Real Time’ and ‘Learner Satisfaction Retrospective’) and the two different knowledge variables (Q4c ‘Learner Knowledge Real Time’ and ‘Overall change in all KSA’s’). Research question 6 includes multiple parts inquiring about how descriptive data above (Q6a ‘Training Hours’; Q6b ‘Number of Participant’; Q6c ‘Learner Satisfaction’; Q6e ‘Professional Discipline’; Q6f ‘Prior IMH Training’; Q6e ‘Post IMH Training’), might be associated with the outcome variable, ‘Overall Change in all KSA’s’. And finally, in Q6e, two outcome variables (‘Overall Change in all KSA’s’; and, ‘Overall Application of Learning after Training’) were correlated to explore any possible relationship.

2. Quasi-experimental

Two research questions Q4b [What is the change in learner retrospective self-ratings of competence regarding knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?] and Q5b [Since training, have graduates adopted recommended IMH practices?] were investigated using a quasi-experimental pre-post design, O X O, where the base line was retrospective. In research question 4b [What is the change in learner retrospective self-ratings of competence regarding knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?]
respondents made self-ratings of their KSA’s as they remember them before training and as remembered in the year after training. These two ratings were then compared to see if there was any difference between them. Similarly, in research question Q5b [Since training, have graduates adopted recommended IMH practices?], respondents’ retrospective self-ratings of their implementation of specific IMH practices before training was compared to their retrospective self-ratings of their implementation of specific IMH practices after training.

B. Setting/Procedure

1. Program summary

The FSU Harris training program provided training annually between 2002 and 2008 for seven cohorts of licensed mental health professionals. The training usually included ten monthly weekend sessions over the course of an academic year. Training cohorts were held in six different locations throughout the state of Florida. The content of the training is detailed in the chapter I and illustrated in the logic model (Figure 1). The seven cohorts varied in the total number of training hours offered and in the number of participants included (see Appendix A). In addition, a sub-group of graduates of the FSU Harris training subsequently participated in an advanced 40-hour training. The advanced training provided an opportunity for clinicians to discuss their efforts to apply what they had learned in the FSU Harris training in their work with families. There was no set curriculum; FSU Harris faculty facilitated discussion and provided specialized information relevant to cases brought for discussion by participants.
2. **Study Setting/ Procedure**

There were two settings for the study. Some data was gathered from records kept at the FSU Harris office, and some data was gathered via an on-line survey.

First, data gathered from the FSU Harris offices included archival data and data that was generated in the course of the FSU Harris trainings. Archival data refers to the participants’ initial applications to the FSU Harris program (Appendix C). Data generated within the context of the training included: posttest knowledge scores for each workshop, participant’s workshop satisfaction surveys (Appendix D) and FSU Harris records of continuing education units earned by participants. Data from these various sources were recorded on a data extraction form (Appendix J) for each respondent and then entered into the database. In addition, pre-and post FSU Harris IMH Therapist Competency Scales (Hogan & Quay, 2008) that had been completed by just one cohort (Orlando 2007-2008) were referenced in order to be able to conduct power analyses. The FSU Harris IMH Therapist Competency Scale is described in the measurement section below.

Last, respondents provided on-line responses via the Survey of IMH Training Outcomes (Appendix E). The on-line format of the Survey of IMH Training Outcomes was convenient for respondents and allowed for ease of use, particularly with regards to skip patterns. The survey was constructed using Adobe ColdFusion software. Survey data were directed into a database. The electronic format helped minimize error in data entry and increased the speed with which results were computed.

Respondents were offered incentives to complete the survey. Respondents who completed with survey within the first three weeks of the data collection period received a copy of a clinical resource, *Hope and Healing: A caregiver’s guide to helping young
children affected by trauma (Fitzgerald Rice & McAlister Groves, 2005) donated by the FSU Harris Institute (value $18.95). All respondents were also entered in a raffle to win an Apple iPod Nano 16GB (value $200) provided by the researcher.

The five-week data collection period for the on-line survey follows and is outlined in Appendix J. The director of the FSU Harris training program sent potential respondents correspondence (Appendix G) to their last known e-mail. When an e-mail was returned or when no e-mail address was available, respondents were sent a letter to their professional address identified using the public state database of licensed mental health professionals. The mailed letters (Appendix G) included the same text as the invitation e-mail and provided a link and password to access the on-line survey (Appendix E). In week two, a follow up e-mail or letter (Appendix H) was sent to non-responders. Upon completion of the survey, a thank you e-mail was sent. Respondents in the first few weeks were asked where they would prefer to have their copy of Hope and Healing mailed. A scripted phone call had been planned, but not made because there was no updated list of phone numbers for respondents. In the fifth week the survey was closed. The raffle was drawn and the iPod Nano 16MB was sent to the raffle winner.

C. Sample

Although it was initially thought there were potentially 122 possible respondents, when it came time to cull contact information for FSU Harris graduates, it was found that there were actually only 117 potential study participants. Four persons were found not to have completed training and one person was not a licensed mental health clinician. Of the 117 possible respondents, 65 (55%) consented to participate, entered, and completed some portion of the survey. Sixty respondents completed the full survey. One of these
respondents indicated she may have incorrectly responded to a serious of items. This respondent’s data was eliminated. Complete data was available for 59 (50%) respondents. Additional description of the respondents is available in the results section.

D. Variables and their Measurement

1. Variables

Overall there were 20 variables in this study: one independent variable, five potential moderating variables, and 13 outcome variables. The variables, their conceptual definitions, and measurement source is described below. This information is also available in table form in Appendix N.

a. Independent and Moderating Variables

The main independent variable was the FSU Harris IMH training, which was generally a series of monthly 2-day trainings over the course of 10 months in IMH therapy and principles. The training is described in detail in Chapter I and diagramed in the logic model, Figure 1.

There were five potential moderating variables. Two potential moderating variables related to the training itself. First, ‘Training Hours’ was the number of training hours attended by the respondent. ‘Training Hours’ offered varied between cohorts (see Appendix A) and, the number of ‘Training Hours’ for each participant also varied according to their attendance. ‘Training Hours’ were gathered from continuing education records held by FSU. Second, ‘Number of Participants’ refers to the number of learners in a cohort. ‘Number of Participants’ varied by cohort (see Appendix A) and was gathered from FSU continuing education records.
There were three potential moderating variables related to participant characteristics ‘Professional Discipline,’ ‘Prior IMH Training,’ and, ‘Post IMH Training.’ ‘Professional Discipline’ referred to the discipline in which the learner was trained and held a state license for professional practice to include Licensed Clinical Social Workers (LCSW’s), Licensed Mental Health Counselors (LMHC’s), Licensed Marriage and Family Counselors (LMFC’s), and Licensed Psychologists (Psych). Respondents provided this information in the on-line survey. ‘Prior IMH Training’ referred to whether a respondent indicated in the initial program application having had any previous training in IMH. ‘Post IMH Training’ referred to whether the respondent was part of the subgroup of learners from various cohorts that participated in the FSU Harris advanced training described above.

b. **Outcome variables**

There were 13 outcome variables for this study, 11 proximal outcome variables and 2 distal outcome variables.

The 11 proximal outcome variables included ‘Learner Satisfaction Real Time,’ ‘Learner Satisfaction Retrospective,’ ‘Learner Knowledge Real Time,’ ‘Change in KSA’s-Typical Development,’ ‘Change in KSA’s- Atypical Development,’ ‘Change in KSA’s- Emotional and Behavioral Disorders,’ ‘Change in KSA’s- Assessment,’ ‘Change in KSA’s- Intervention,’ ‘Change in KSA’s- Community Resources and Referrals,’ ‘Change in KSA’s- Organization, Communication, and Collaboration,’ and ‘Overall Change in all KSA’s.’ Definition of theses proximal outcome variables follows.

‘Learner Satisfaction Real Time’ was respondents overall satisfaction with training workshops at the time of training. The variable was measured by the Learner
Satisfaction Scale (see Appendix D) completed after each workshop. ‘Learner Satisfaction Retrospective’ was learners’ self-rating of satisfaction with training in retrospect years after completion of training. This data was gathered on the Retrospective Satisfaction Scale (see item #119 in Appendix E). ‘Knowledge Real Time’ was a measure of learners’ knowledge achieved immediately after completing workshops. The variable was calculated by taking a mean of all a participant’s FSU Harris training workshop post-test scores. The post-test scores were the percentage of correct answers for each workshop post-test. ‘Overall Change in All KSA’s’ refers to the difference in learners’ IMH KSA’s for all seven areas after training as compared to before training. Retrospective before and after KSA self-ratings were measured using the FSU Harris IMH Therapist Competence Scale (Quay, Hogan & Donohue, 2009), which is described in greater detail below. There was a measure of, ‘Overall Change in all KSA’s,’ and there was a change variable for each of seven different areas of KSA’s. ‘Change in KSA’s - Typical Development’ is the change in respondents’ retrospective self-assessment of knowledge, skills, and attitudes related to the typical development of children under 6 years of age. ‘Change in KSA’s - Atypical Development’ refers the change in respondents’ retrospective self-assessment of knowledge, skills, and attitudes related to the atypical development of children under 6 years of age. ‘Change in KSA’s - Emotional and Behavioral Disorders’ refers to the change in respondents’ retrospective self-assessment of knowledge, skills, and attitudes related to the emotional and behavioral disorders of children under 6 years of age. ‘Change in KSA’s - Assessment’ refers to the change in respondents’ retrospective self-assessment of knowledge, skills, and attitudes related to the clinical assessment of children under 6 years of age, ‘Change in KSA’s -
Intervention’ refers to the change in respondents’ retrospective self assessment of knowledge, skills, and attitudes related to intervening with children under 6 years of age, ‘Change in KSA’s -Community Resources and Referrals’ refers to the change in respondents’ retrospective self assessment of knowledge, skills, and attitudes relating to the community resources and referrals appropriate for children under 6 years of age and their families, ‘Change in KSA’s - Organization, Communication, and Collaboration’ refers to the change in respondents’ retrospective self assessment of knowledge, skills, and attitudes related to the organization, communication, and collaboration required to work with children under 6 and their families.

Finally, the distal outcome variables were ‘Change in Services to Children under 6’; and, ‘Overall Application of Learning.’ ‘Change in Services to Children Under 6’ referred to respondents self-report of any increase in the volume of services learners provided to children under six and their families after training. This was measured via the Change in Services Inventory (item #10) on the Survey of IMH Training Outcomes. ‘Overall Application of Learning’ is the degree to which learners reported they implemented specific recommended practices from the FSU Harris training. It was measured by the Application IMH Learning Scale.

2. **Measurement**

There were three data sources for this study: archival data, data generated at the time of training, and data gather via the on-line Survey of IMH Training Outcomes. This data contained a number of inventories and scales.
a. **Archival data**

One piece of information for this study was obtained from the initial applications to the FSU Harris training program [Appendix C page 3, section III]. Applicants were asked about previous training in infant mental health. An earlier version of the application did not ask participants to list the specific trainings they had. Given the lack of uniformity of applications for all trainees, no details about previous training were collected for this study. If a trainee had previous training in IMH, it was coded yes = 1; otherwise, no previous IMH training was coded no = 0. Data were entered onto the data extraction form (Appendix J) and then into PASW. This data helped answer research questions 2d (How many learners participated in IMH training before participating in the FSU Harris training?) and 6f (Is there any difference in change in learners’ KSA’s between learners who had prior training in IMH and learners who had no prior training in IMH?).

b. **Data generated in the course of training**

Data generated in the course of training included workshop knowledge post-test scores, satisfaction surveys, continuing education records, and the FSU Harris IMH Competency Scale.

1) **Post test scores**

Pre and posttests related to the content of each workshop had been administered for each session. However, there were fewer pre-test scores in the FSU data files, likely because late-comers may not have completed the pre-test. As such, change scores would have been unreliable. Therefore, only post-test scores were used as an indicator of participants’ level of knowledge immediately after training, ‘Knowledge
The means of all post-test scores had been previously calculated by the FSU Harris training program. These scores were entered onto the data extraction form (Appendix J) and then into PASW. This data helped to answer research question 4a (What was the level of learner knowledge immediately after completing training?) and 4c (What was the relationship between learner knowledge at the time of training completion and change of learners retrospective self-ratings of KSA’s of IMH core competencies since training?)

2) **Satisfaction surveys**

Workshop satisfaction surveys (Appendix D) were completed by participants for each workshop series. Surveys varied for each workshop, however, there was one consistent feature. On each survey, participants rated their overall ‘Satisfaction Real Time’ on a scale of 1 (low) to 10 (high). Depending upon their cohort, participants would have 6-10 satisfaction scores from which a mean satisfaction score was calculated. Scores were placed on the data collection form (Appendix J) and entered into PASW.

3) **Continuing education records**

Continuing education records for each learner were collected to gather a total number of training hours (continuing education credits) earned, the respondent’s cohort, the number of participants in each cohort, and whether respondents had participated in the advanced training. The total number of advanced training hours was not available and not included in the total number of training hours. The aforementioned data was placed on the data extraction form (Appendix J), and entered into PASW. This data helped answer research questions 1b (What were the
number of participants in each training cohort?), 6b (Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?), 2e (How many learners participated in the FSU Harris advanced clinical training?), and 6g (Are there any differences in change of learner KSA’s between learners who participated in advanced training and learners who had not?).

4) **FSU Harris IMH Therapist Competency Scale**

The FSU IMH Therapist Competence Scale (Hogan & Quay, 2008; Quay, Hogan & Donohue, 2009) was devised from a list of core competencies for IMH therapists identified by 35 IMH experts across the United States (Quay, Hogan & Donohue, 2009). The FSU IMH Therapist Competence Scale asks respondents to rate their knowledge of the specific IMH practice items which Quay, Hogan & Donohue (2009) grouped into seven conceptual areas (typical development; atypical development; emotional/behavioral disorders; assessment; intervention; community resources and referrals; organization, communication, and collaboration). Respondents rated their sense of competence for each of 143 items according to a five point Likert scale: 1 = not at all competent; 2 = very limited competency; 3 = generally competent; 4 = an area of strength for me; 5 = at my best in this area. Participants in one cohort (Orlando, 2007-2008) completed the FSU Harris IMH Therapist competence scale before and then after training (Hogan & Quay, 2008). Correlations among these scores were computed to be used in the calculation of the power analysis for this study.

c. **Survey of IMH Training Outcomes**

The Survey of IMH Training Outcomes (Appendix E) included 119 items. Although lengthy, many items could be answered quickly, and there were
several skip patterns so that respondents passed over questions not related to their particular experience. The electronic format showed only a few questions at a time so the respondents’ task would not seem overwhelming. There was a progress bar that showed respondents how much more they had to go. Appreciative and encouraging comments (e.g., Thank you for your effort. You’re half way through.) prompted respondents to continue on. Respondents could also exit the survey and return to it at a later time if they could not complete it in one sitting.

The Survey of IMH Training Outcomes was pre-tested by eight persons familiar with IMH practice, but who were not participants in the FSU Harris training. They provided feedback about the ease of use, clarity, and the time it took to complete the survey on-line. The survey took approximately 45 minutes to complete. This feedback was incorporated into the Survey of IMH Training Outcomes to reduce error.

The Survey on IMH Training Outcomes included two inventories (the Professional Characteristics Inventory, the Change in Services Inventory), three scales (the Application of IMH Learning Scale, the FSU Harris IMH Therapist Competence Scale (abridged), and the Retrospective Satisfaction Scale), and open-ended description.

1) **Professional Characteristics/ Role Inventory**

The Professional Characteristics/ Role Inventory (items #1-9) inquired about respondents’ clinical discipline, professional role and how these roles may have changed since training completion.

2) **Change in Services Inventory**

Change in services inventory (item #10) asked respondents to indicate whether services they provided to children under 6 years of age and their
families has increased, decreased or remained the same in their professional clinical activities, supervisory activities, administrative activities, and training activities.

3) **Application of IMH Learning Scale**

The Application of IMH Learning scale (items #11-68) inquired whether learners engaged in specific practices covered in the FSU training before and since training. These questions were divided into four subsections according to four professional capacities in which respondents may have worked: clinical activities, supervisory activities, administrative activities, and training activities.

4) **FSU IMH Therapist Competence Scale - abridged**

The complete 143 item FSU IMH Therapist Competence Scale would have been too lengthy to include on the Survey of IMH Training Outcomes. I devised an abridged version that included 50 items from the FSU IMH Therapist Competence scale for this study (items #69 to 118 on the Survey of IMH Training Outcomes, Appendix E). To ensure that each of the seven competency areas were included (typical development, atypical development, emotional/behavioral disorders, assessment, intervention, community resources and referrals, and organization, communication and collaboration) the top five ranked items in each of these areas were chosen. However, given that intervention was a core aspect of the FSU Harris training, the top 20 items in that competency area were included.

On the survey of IMH Training Outcomes, respondents were asked to rate their sense of competence on each item on a scale of 1 to 5 twice, first, as they remembered it before training, and second as they remember it in the year after training. Before training item scores were added and averaged to provide an overall before training mean score as
well as before training mean scores for each of the seven core competency areas. Similarly, after training scores were added and averaged generating both an overall after training mean score as well as after training mean scores for each of the seven core competency areas. The before training scores were then compared to the after training scores producing a change in learner knowledge, skills, and attitudes (KSA’s) score.

5) Retrospective Satisfaction Scale

The Retrospective IMH Training Satisfaction Scale included one item (# 119). This item simply asked graduates to rate, on a scale from 1 to 10, how valuable the training was for them.

6) Application of learning description

There were four open-ended questions asking graduates to describe changes in their professional activities within their various roles (clinical, supervision, administration, and training) that they attributed to their participation in the FSU Harris training. Respondents could provide responses of any length. Generally, respondents offered a few sentences. The researcher subsequently devised a simple coding scheme and tallied up responses to get an overall sense of respondents’ experiences.

E. Reliability

1. Professional Characteristics/ Role Inventory

The Professional Characteristics/ Role Inventory (items #1 to 9 on the Survey of IMH Training Outcomes) was devised for the purpose of this study. Test retest reliability has not been evaluated given the limited resources of the study. It seems that the reliability of this inventory should be high, however. The characteristics and roles of
the respondents would have been consistent (e.g., an LCSW is unlikely to indicate that she has a different type of license). This inventory does not involve subjective opinion that would change in varying circumstances.

2. **Change in Services Inventory**

   The Change in Services Inventory (item 10 on the survey of IMH training outcomes) was devised for the purpose of this study. Test retest reliability has not been evaluated given the limited resources of the study. Because this scale requires respondents to make an overall retrospective estimation of change in volume of their services that is not quantifiable, there is some subjectivity in responses that might affect test-retest reliability. Response items were coded along a Likert scale, so a cronbach’s alpha for internal reliability could not be computed.

3. **Application of Infant Mental Health Learning Scale**

   The Application of IMH Practices Learning Scale was devised for the purpose of this study. Test retest reliability has not been evaluated given the limited resources of this study. An internal reliability test was not done because items do not have consistently similar Likert scale response options.

4. **FSU IMH Therapist Competence Scale – abridged**

   Quay, Hogan and Donohue (2009) conducted internal consistency reliability calculations for their full list of 143 IMH core competencies. They found a high level of internal consistency within each of seven competency areas. Values for Cronbach’s $\alpha$ ranged from .79 to .95.

   Internal consistency reliability calculations were calculated for the abridged version of the FSU IMH Therapist Competence Scale. For the overall 50 item scale the
values for Cronbach’s α was .97 (scores before training) and .95 (scores after training) indicating a high degree of internal consistency for the scale as a whole. For each of the seven competency areas, values for Cronbach Alphas ranged between α = 0.65 and α = 0.93. Below is a table of the alpha values as measured before and since training. For most areas there is a high degree of internal consistency.

**TABLE I**

<table>
<thead>
<tr>
<th>Competency Area</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Development</td>
<td>0.70</td>
<td>0.65</td>
</tr>
<tr>
<td>Atypical Development</td>
<td>0.88</td>
<td>0.78</td>
</tr>
<tr>
<td>Emotional and Behavioral Disorders</td>
<td>0.85</td>
<td>0.69</td>
</tr>
<tr>
<td>Assessment</td>
<td>0.86</td>
<td>0.80</td>
</tr>
<tr>
<td>Intervention</td>
<td>0.93</td>
<td>0.92</td>
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<tr>
<td>Community Resources and Referrals</td>
<td>0.86</td>
<td>0.81</td>
</tr>
<tr>
<td>Organization Communication and Collaboration</td>
<td>0.83</td>
<td>0.81</td>
</tr>
</tbody>
</table>

5. **Infant Mental Health Training Satisfaction Scale**

The IMH Training Satisfaction Scale (item 119) on the Survey of IMH training outcomes) was devised for the purpose of this study. Test retest reliability has not been evaluated given the limited resources of the study. As a single item Likert scale that tries to quantify opinion, however, there is a certain amount of subjectivity that may affect the reliability of the scale.
6. **Application of IMH learning description**

To help establish reliability for the coding of the open-ended questions (items # 32, 51, 60, 68), an independent rater coded one third of responses. The second coder was a person familiar with the FSU IMH training content and therefore knowledgeable about the particular terms and vocabulary specific to IMH practice in Florida. The researcher had identified seven coding headings (New Knowledge, New Practice Skills, New Program/Policy Initiated, Reflective Supervision Started, Quality Improvement, Increased Training, or Implementation Problems). Each heading had a list of subcategories (See Table V). In comparing coding between the two raters, a point system was devised to weight differences in opinion. Coding a portion of content identical to the researchers’ coding scored 1 point. Coding that was in the same category but not the same subcategory was coded .5. Coding in a different category altogether, or not coding content coded by the researcher, or coding content that the researcher had not coded, got -1 point. After coding was compared, a ratio of the total number of points for matching coded content, to the total number of portions of all content coded was calculated. There was consistency of coding between the two raters across all qualitative data of 78.84%. Because the coding consistency approached 80%, there was no adjustment of coding methods or headings. However, it should be noted that the consistency was much higher for the responses related to changes in clinical role, (85%). The consistency in coding responses in the other three areas was lower, supervision (72.5%), administration (72%), and training (76%). Consistency calculations have been noted to at times overestimate levels of agreement between coders, therefore, it seems
that results, especially with regards to the areas of supervision, administration, and training should be considered with caution.

F. **Validity**

1. **Professional Characteristics/ Role Inventory**

   The validity of the Professional Characteristics/ Role Inventory is untested. However, the validity of the inventory should be high, however. The characteristics and roles of the respondents would have been consistent (e.g., an LCSW is unlikely to indicate that she has a different type of license). This inventory does not involve subjective opinion that would change in varying circumstances.

2. **Change in Services Inventory**

   The validity of the Change in Services Inventory (item #10 on the Survey of IMH Training Outcomes) is untested. There is some subjectivity in that respondents were asked only whether the volume of their services to children under 6 increased, stayed the same or increased. There was no precise measurement of quantity of amount of change. This particular inventory may be subject to error in that there could be some social desirability bias affecting responses. This will be discussed further in the discussion section. Also respondents who participated in the study may be different than those that did not complete the survey; this will be discussed in the discussion section.

3. **Application of IMH Learning Scale**

   The Application of IMH Learning Scale has content validity in that the IMH practices included in scales’ items were reviewed and commented upon by FSU Harris faculty. The items were confirmed to have been included in the training content of all cohorts.
4. **FSU Infant Mental Health Therapist Competence Scale**

The FSU IMH Therapist Competence Scale had high content validity given that they were the top scoring items rated in a nation-wide survey of 23 IMH experts. Quay, Hogan & Donohue (2009) found modest levels of association between ratings given by pairs of experts for items in each competency area (interrater correlations), and modest levels of consistency between ratings of rating among any two experts (intraclass correlations). It should be noted, however, that there was a very limited range in the ratings attenuating any correlation obtained. Of the 50 items chosen for this survey, all but one item (# 108; M= 3.96) had a mean rating of 4.0 or higher (3 = desirable competency; 4 = highly desirable; 5 = essential competency). Therefore, nearly all items included in this survey had a mean rating of at least “highly desirable” as determined by 23 experts.

Items within the FSU IMH Therapist Competence Scale were grouped into seven areas by Quay, Hogan and Donahue (2009). Because of a limited amount of data they had, factor analysis had never been run to determine whether these grouping were indeed seven distinct factors. A factor analysis was attempted with data from this study. Because of the correlation between factors a direct oblimin rotation was used. Initial results suggested 10 factors having Eigen values greater than 1.0. However, it appears that most of these possible factors had Eigen values only slightly larger than 1.0 that may have resulted because of multicolinearity of the data rather than indicating the presence of 10 distinct factors. After conducting a scree plot, there appeared to be only one or possibly two factors clearly delineated in the data. It is possible that the scale does not capture 7
distinct factors. However, it may also be that there were not enough respondents included to determine whether there are clearly different factors in this data.

5. **Infant Mental Health Training Satisfaction Scale**

The IMH training satisfaction scale (item #119 on the Survey of IMH Training Outcomes) could be subject to social desirability bias. This will be described further in the discussion section.

6. **Application of IMH learning description**

The descriptions by respondents of changes in their services that they attribute to their participation in the FSU IMH training have a certain level of validity in that respondents were able to use their own words. In addition, the responses generally seem to be consistent with the quantitative results of the Application if IMH Practices Scale. For example, there were multiple references to specific practices recommended in the training that were also included on the Application of IMH Practices Scale.

G. **Data Analysis**

Quantitative data was analyzed using PASW Statistics 18.0 software (SPSS). Most analyzed data were not normally distributed so nonparametric tests were required. To assess associations between variables, Spearman rho correlations were used. To compare measures of central tendency Wilcoxon tests were used. Repeated measures MANOVA’s, which are considered robust to deviations from normality, were frequently used because many of the research questions had seven dependent variables (the seven core competency areas). MANOVA allowed multiple comparisons while minimizing risk of type I error. The research questions generally sought to determine differences between groups for which MANOVA was well suited.
Given that there was only a limited number of potential respondents, power analysis had been conducted prior to conducting the study using a power analysis program, G*Power 3.1 (Faul, Erdfelder, Lang & Buchner, 2007) to determine the number of respondents required to produce meaningful results. The power analyses below indicated that medium to large sized effects would likely be detected with even a small number of respondents (e.g. 10 < n < 30). In several cases (research questions 5b, 6a, 6b, 6e, 6f & 6g), a small effect would not be detected even with the maximum possibly expected sample size (N=122). However, it should be noted that a small effect would not have had practical significance. The amount of resources required to produce this particular training would be questionable if only small effects were achieved. Overall, a large effect of training was expected. Hogan and Quay (2008) measured very large effect sizes of d >1 in their pre and post administration of the FSU IMH Therapist Competence Scale.

Qualitative data (items # 32, 51, 60, 68) were analyzed by applying a simple quantitative coding scheme. The researcher reviewed the responses for each question and identified seven apparently relevant headings and subheadings (See Table V). Once sorted, the researcher manually counted the number of responses for each category and subcategory. A second coder coded one-third of the data with in each category to determine inter-rater reliability. The method of calculating inter-reliability is described above in the reliability section. Overall, inter-rater reliability for responses to all questions was 78.8%. 
A table linking each research question with variables, data sources, data analysis, and power analysis is available in Appendix M. The analysis for each research question follows.

1. **Program design and implementation**
   
   a. What was the range and mean number of training hours for each training cohort?
   
   b. What was the number of participants in each training cohort?

   Frequency counts and percentages calculated the number of respondents completing the survey, the year respondents participated in training, the number of participants in each training year. All frequency counts and percentages are displayed in Table 1. This information was used to address research questions 6a (Is there a difference between change of learner KSA’s in cohorts having more training hours and change of learner KSA’s in training cohorts having fewer training hours?) and 6b (Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?).

2. **Learner participation**
   
   a. What was the range and mean of participant attendance?
   
   b. What were the professional disciplines of learners?
   
   c. What were the professional roles of learners at the time of training?
   
   d. How many learners had participated in IMH training before participating in the FSU Harris Training?
e. How many learners participated in the FSU Harris advanced clinical training?

A range and mean of attendance as well as participation in advanced clinical training were calculated from continuing education records; participation in the advanced clinical training was coded yes=1 and no=0. Frequency counts and percentages were used to present the professional disciplines (LCSW, LMHC, LMFT, Psychologist) and professional roles of learners (Clinical, Supervisory, Administrative, Training) at the time of training from the Survey of IMH Training Outcomes (items #3 & 6). Prior exposure to IMH training before participating in the FSU Harris training was identified from participant applications to the program (Appendix C; coded yes=1; no=0).

3. **Learner satisfaction**

   a. What was the level of learner satisfaction immediately after training?

   b. What is the level of learner satisfaction since completing training?

   c. What is the relationship between learner satisfaction immediately after training and since completing training?

   A range and mean score of learner satisfaction real time for each participant was calculated from evaluations completed at the end of each workshop series. An overall retrospective satisfaction score for each respondent was identified from item #119 of the Survey of IMH Training Outcomes. A Spearman’s rho correlation was used to determine any relationship between the two satisfaction scores.
4. **Change in learner knowledge, skills & attitudes**

   a. What was the level of learner knowledge immediately after completing training?

      For each participant, a mean score was calculated from post-tests completed after each workshop. A mean post-test score and standard deviation for all participants was obtained.

   b. What was the change in learner self-ratings of knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?

      To determine whether the FSU Harris training increased graduates’ knowledge, skills, and attitudes (KSA’s) related to the seven core competency areas of IMH therapy, the difference between pre and post training mean scores for each competency area on the Survey was calculated. The pre and post mean scores for the seven core competency areas were computed by collapsing participants self-ratings on all items within a competency area as follows: typical development (items 69-73); atypical development (items 74-78); emotional and behavioral disorders (items 79-38); assessment (items 84-88); intervention (items 89-108); community resources and referrals (items 109-113); organization, communication and collaboration (items 114-118). To calculate whether there were any differences between pre and post scores in the seven areas, a repeated measures MANOVA test was conducted. Competency area and time (before and after training) were within subject variables. When the MANOVA was found to be significant, then post hoc analyses were conducted to help identify which changes in specific competency areas accounted for findings.
Power analysis had been conducted before data collection using G*Power 3.1 (Faul et al., 2009). Factors entered into the program to calculate the number of respondents required to generate significant results were as follows: $\alpha = .05$; power (1-$\beta$) = .80; Effect sizes measures for small ($f = .20$), medium ($f = .50$), and large effects ($f = .80$) as recommended by Cohen (1988); number of groups = 2 (before & after); number of measurements = 7 (competency areas), correlation of representative measures = .78.

The correlation of representative measures (.78) had been determined by finding an average correlation among the seven competency scores as rated by participants in the most recent FSU Harris training (Orlando). Fourteen participants had completed the 143 item FSU Harris IMH Therapist Competency Scale before and after their training. Using their pre-training scores, a correlation matrix was generated in PASW. Correlations among the seven competency areas ranged from .43 to .80. The 21 raw correlation scores were then converted to z-scores (.46 to 1.99) and then averaged generating a z-score of .78.

Using these settings, a large effect ($f = .80$) could be detected with $N = 10$ respondents and a medium effect ($f = .50$) with $N = 12$ respondents and a small effect ($f = .20$) with $N = 20$ respondents.

c. What is the relationship between learner knowledge at the time of training completion and change in learners self-ratings of KSA’s of IMH core competencies since training?

Seven Spearman rho correlations were calculated to determine the strength of relationships between level of posttest knowledge measured at the time of
training and change in KSA’s in each of the seven IMH core competencies in the year after training.

5. **Application of learning after the program**

   a. Since training, have graduates increased the amount of services they provide to children younger than 6 years?

   This research question was answered by data gathered in item #10 of the Survey of IMH Training Outcomes. Respondents indicated whether the level of services they provide children under 6 (e.g., amount of time or number of children served) increased, remained about the same, or decreased. This estimation was repeated four times for each professional area: clinical, supervisory, administrative, and training. A response indicating that a respondent’s level of services to children under 6 years increased was coded, “increased” =1. Response indicating that the amount of services a respondent provided remained about the same or decreased was coded, “remained about the same” = 0; “decreased” = 0. The number of respondents indicating that the amount of services was tallied in a frequency count.

   b. Since training, have graduates adopted recommended IMH practices?

   This question was answered by summing respondents’ endorsed scores for items # 5, 11- 68 in the Survey of IMH Training Outcomes. The 43 yes/no questions were coded no =0 and yes =1. The 11 frequency questions were coded one of three ways. Questions requesting percentage estimates were coded 0 = none; 1= <25%; 2=25-49%; 3 = 50-75%; 4=>75%. Questions requesting estimates of how often something was done was coded 1= irregularly; 2 = quarterly; 3 = monthly; 4 = weekly.
Questions requesting estimates of how many times something was done was coded 0 = 0 times; 1 = 1-5 times; 2 = 6-10 times; 3 = 11-15 times; 4 = 16 or more times. Finally, one question provided up to six IMH service program categories for survey respondents to indicate where they had worked.

A ratio of the score a respondent endorsed to the maximum possible score (93) was calculated. Each participant had two ratio scores, one for before and one for after training. A matched pairs Wilcoxon related samples test was then done to determine whether there was any difference between the pre and post training median scores of all participants.

Before data collection began, it was expected that a matched pairs t-test would have been done and power analysis was done for a t-test. The power analysis using G*power 3.1 (Faul et al., 2007) with \( \alpha = .05 \) and power (1-\( \beta \)) = .80 had indicated that a large effect (\( f = .8 \)) could be found with a total N of 12 and a medium effect (\( f = .50 \)) could be found with a total N of 27. A small effect would not be able to be detected with a maximum N =122. However, a small effect would not have practical significance.

6. **Program characteristics associated with outcomes**

   a. Is there a difference between change of learner KSA’s in training cohorts having more training hours and change of learner KSA’s in training cohorts having fewer training hours?

   b. Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?

   The analysis for these two questions is similar. Repeated measures MANOVA’s were used to determine if there were any differences between learners’
KSA’s scores (in each of the seven competency areas) after respondents were split into two groups according to whether their training cohort had a high or low number of training hours (high =1; low =0) and then a high or low number of participants (high =1; low = 0). Groups were split at the median number of training hours (>112 hours; ≤112 hours) and at the median number of participants (≥20 participants; <20 participants). Participants who participated in the advanced clinical training were removed from both analyses.

Power analyses for these two questions were identical. Two power analyses were done. The first for between factors variables (high & low training hours/ cohort numbers) and the second for the within subjects variables (7 competency areas). It had been found to be likely that there would be enough respondents (N=28) to detect a medium to large effect for the between subjects factors (high & low training hours/ cohort numbers). A small effect would not be detected with the available number of respondents (<117). For the within subjects factors (7 competency areas) even small difference could be detected with N=20. Factors entered into the power analysis program G*Power 3.1(Faul et al., 2009) were as follows: $\alpha = .05$; power (1- $\beta$) = .80; Effect sizes measures for small (f = .20), medium (f = .50), and large effects f = .80) as recommended by Cohen (1988); number of groups =2 (high & low number of training hours; larger or smaller cohort size); number of measurements =7 (competency areas), correlation of representative measures = .78. The correlation of representative measures (.78) was determined, as described above, by finding an average correlation among the seven competency scores as rated by participants in the most recent FSU Harris training (Orlando).
c. What is the relationship between learner satisfaction and change in learner KSA’s?

To answer this question, the results of research question 3c was considered and a decision as to whether the two satisfaction measures (real time satisfaction and retrospective satisfaction) were different. If there was no difference between these numbers, the real time satisfaction score was to be used. If the two numbers were different, then two Spearman’s rho correlation matrices would have been conducted for each satisfaction score with the seven core competency area scores.

d. What changes in their professional practices do graduates attribute to their participation in the FSU Harris training?

The four open ended questions of the Survey of IMH Training Outcomes asked what changes respondents made in their professional practices that they attributed to their participation in the FSU Harris training for each of four professional roles [clinical (item#32), supervision (item#51), administration (item #60), training (item #68)].

A simple quantitative coding scheme was applied. After reading through all responses, the researcher identified seven categories of responses. These categories were assigned a number, labeled, and color-coded [i.e., 1. New Knowledge (yellow), 2. New Practice Skills (green), 3. New Program/ Policy Change (blue), 4. Started Reflective Supervision (purple), 5. Quality Improvement (gray), 6. Increased Training/ Supervision of others (red), and 7. Implementation Problems (brown)]. Within each of the seven headings several subheadings were also identified. Subheadings were assigned when more than one respondent identified similar details in their response. The researcher
attempted to ensure all response elements were included. Each subheading was assigned an identifying letter. Coded text was highlighted with its respective color, numbered according to its category, and if specific to a subcategory also given a subcategory letter. For example, one respondent wrote, “I have increased knowledge about trauma…” This section of text was highlighted yellow and labeled with a ‘1’ for new knowledge and a ‘b’ for trauma. Every response was also labeled to decrease error in counting. For example, each response was labeled with the letter and a number (e.g., C1 is clinical response #1, A2 is administrative response #2). After coding all the data, the researcher entered the labeled for each response on a large chart similar in layout to Table V. The chart had rows for each subject category and subcategory and a column for each of the open questions (item #32, clinical; item #51 supervision; item #60 administration; item #68 training). A check was done to ensure no respondents had put identical text in more than one open response category.

After responses such as, “am not doing administrative work” were discarded, 51 (86%) respondents provided information for the clinical question; 24 (41%) responded to the supervision question; 17 (29%) responded to the administrative question; and 36 (61%) responded to the training questions. Table V lists coding labels, subcategories and response frequencies. It should be noted that respondents offered varying degrees of response. While one respondent might have offered a brief general statement that would fit in just one of the larger categories (e.g., new knowledge, new skill), other respondents provided greater detail and had several specific responses (e.g., knowledge about the effect of trauma on young children and knowledge about attachment). As such, the total number responses far exceeded the number of respondents that completed this
section. Also of note, some respondents answered all four open questions, while others responded to one, two, or three of the open questions.

A second rater coded one third of responses in each of the seven response categories to determine inter-rater reliability. Inter-rater agreement was 78.8%.

e. What is the difference in learners’ self-ratings of KSA’s between learners of different professional disciplines?

A repeated measures MANOVA was used to determine whether respondents from varying disciplines differed with respect to changes in their KSA’s. There were only 3 LMFTs and 2 psychologists so these respondents were left out of the analysis. MANOVA requires that each group must have an n larger than the number of dependent variables (Tabachnick & Fidell, 2001), which in this case, n would be 8. The MANOVA was run with the two remaining groups LCSW’s (n = 35) and LMHC’s (n = 19) to determine whether there was any change in KSA’s between these two professional disciplines.

Two power analyses were conducted before data was collected. One for the between subject variables (professional discipline) and one for the within subjects variables (7 competency areas) using G*Power 3.1 (Faul et al., 2007). When power analysis was done, it was expected that there would be three groups = 3 (LCSW’s; LMHC’s & LMFT’s). It was assumed that psychologists would have to be left out of the analysis as there were only a two in the total possible n. Power analysis determined that MANOVA would not be able to detect small differences between the professional disciplines, but would detect medium (N = 36) to large (N = 18) differences. Small differences between the within subjects variables (7 competency areas) could be detected
with N=27. The following settings were entered into G*Power: $\alpha = .05$; power $(1-\beta) = .80$; Effect sizes measures for small ($f = .20$), medium ($f = .50$), and large effects ($f = .80$) as recommended by Cohen (1988). When power analysis was done, it was expected that there would be three groups $=3$ (LCSW; LMHC; LMFT); number of measurements $=7$ (competency areas), correlation of representative measures $= .78$. The correlation of representative measures (.78) was determined, as described above, by finding an average correlation among the seven competency scores as rated by participants in the most recent FSU Harris training (Orlando).

f. Is there any difference in change in learners’ KSA’s between learners who had prior training in IMH and learners who had no prior training in IMH?

g. Are there any differences in change of learner KSA’s between learners who participated in advanced training and learners who did not?

The analysis for these two questions were similar. Repeated measures MANOVA’s compared the within group variables (learners KSA’s in the seven competency areas) to between subject variables (Prior IMH training & Post IMH training). The learners with prior IMH training were coded 1; participants with no prior IMH training were coded 0. Learners having advanced clinical training were coded 1; and those who did not have advanced clinical training were coded 0.

Two identical power analyses had been done before data collection. The first for between factors variables (prior IMH training/ post IMH training) and the second for the within subjects variables (7 competency areas). It was found to be likely that there would
be enough respondents (N=28) to detect a medium to large effect for the between subjects factors (prior or post IMH training). A small effect would not be detected with the available number of respondents (<122). Even a small difference for the within subjects factors (7 competency areas) could have been detected with N=20. Factors entered into the power analysis program G*Power 3.1 (Faul et al., 2009) were as follows: \(\alpha = .05\); power (1-\(\beta\)) = .80; Effect sizes measures for small (\(f = .20\)), medium (\(f = .50\)), and large effects (\(d = .80\)) as recommended by Cohen (1988); number of groups =2 (high & low number of training hours; larger or smaller cohort size); number of measurements =7 (competency areas), correlation of representative measures = .78. The correlation of representative measures (.78) was determined, as described above, by finding an average correlation among the seven competency scores as rated by participants in the most recent FSU Harris training (Orlando).

h. Is there a relationship between change in overall KSA’s and overall application of learning?

To answer this question, first, a change in participants’ overall KSA scores was computed. Overall KSA scores for before and after training were calculated by averaging all self-ratings of competency from the Survey of IMH Training Outcomes items #64-112. Overall application of learning scores were calculated in research question 5b. A Spearman’s rho correlation was done to determine whether a positive, negative, or no relationship existed between these two variables.
E. **Application of Learning after Program**

1. **Research questions**

   Research question 5 had two parts related to application of learning after the program ended.

   Question 5a was, "Since training, have graduates increased the amount of services they provide to children younger than 6 years?" This question was investigated using the Change in Services Inventory included in the Survey of IMH Training Outcomes.

   Question 5b was, "Since training, have graduates adopted recommended IMH practices?" This question was investigated using the Application of IMH Learning Scale included in the Survey of IMH Training Outcomes.

2. **Assumptions and analysis**

   Visual inspection of the stem and leaf plot suggested that application of IMH practices before training data had a positive skew. The standardized measurement of skew, $z_{skewness} = 3.20$ was $>2$ indicating that the skew could be problematic for analysis. The standardized kurtosis score, $z_{kurtosis} = 2.12 < 2.5$ was within limits of normality. The Shapiro Wilks statistic was significant indicating that the data were not normally distributed.

   Visual inspection of the stem and leaf plot for the application of IMH practices after training showed a flatter curve. The standardized kurtosis score, $z_{kurtosis} = 1.30 < 2.5$ did not exceed an acceptable level to violate the assumption of normality. The Shapiro Wilks statistic was not significantly different from a normal distribution.
Because the before training data was not normally distributed, a non-parametric test, the matched pairs Wilcoxon related samples test was run to compare the two groups.

3. **Key findings**

Out of the 59 respondents completing the Change in Service inventory (item #10 on the Survey of IMH Training Outcomes), 53 (90%) reported that their provision of services to children younger than six years and/or their families in various professional roles increased. Of those respondents who said that one of their current or most recent professional roles included clinical work (n=50), 30 (60%) said that their services to children under 6 years of age and their families increased. Of those who reported that one of their current or most recent professional roles included provision of supervision (n = 34), 33 (97%) said that their supervisory activities for services to children younger than 6 years and/or their families increased. Of those reporting that one of their current or most recent professional roles included administration (n = 30), 25 (83%) indicated that their administrative activities for programs targeting children younger than 6 years and/or their families increased. Finally, of those who reported that one of their current or most recent professional roles included training (n = 45), 33 (73%) reported that their training activities for the provision of services to children younger than 6 years and/or their families increased.

The measure of ‘Application of Learning’ before training had a mean of 0.25 (SD=0.18) and a median of 0.22. The ‘Overall Application of Learning after training had a mean of 0.48 (SD=0.26) and a median of 0.46. The Wilcoxon test found statistically significant differences between median scores of IMH practices before and after training,
Z = -6.27, p<.001. The effect size of the mean differences would be large based on the calculation of Cohen’s d = 0.98.

F. **Program Characteristics Associated with Outcomes**

In research question 6, there are a number of similar analyses run to determine whether various differences in the training cohorts or trainee characteristics could have been associated with outcomes. The investigation of multivariate normality and outliers has been described above and will not be repeated here.

1. **Number of training hours**

   a. **Research question**

   Research question 6a was, “Is there a difference between change of learner KSA’s in cohorts having more training hours and change of learner KSA’s in training cohorts having fewer training hours?” This question was investigated using data gathered by the FSU Harris IMH Competency Scale. To assess whether the number of ‘Training Hours’ may have affected ‘Overall Change in all KSA’s,’ respondents were divided into two groups, a group having ‘Training Hours’ higher than the median number of hours offered (>112 hours, n=32) and respondents who had the median or fewer numbers of ‘Training Hours’ offered (≤112 hours, n=11).

   b. **Assumptions and analysis**

   Assumptions of normality and sphericity and also outliers are addressed in research question 4b above. It was noted that the cell sizes are unequal. Cell sizes in MANOVA should generally not have a ratio difference greater that 1:1.5. In this case the ratio is 1:2.9. However, PASW would automatically adjust for this and the power of the statistical test would diminish. Even with uneven cell sizes, however, as
long as there is at least one cell with an n of at least 20, MANOVA retains its robustness to violations of multivariate normality (Tabachnick & Fidell, 2001). Respondents who had completed advanced training after the FSU Harris training were excluded from the analysis. In running the repeated measures MANOVA, the overall test and the within subjects factors were statistically significant similar to the findings of research question 4b (What is the change in learner retrospective self-ratings of competence regarding knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?) Given that these results do not pertain to this research question they are not repeated here.

c. **Key finding**

The between subject effect for high or low numbers of ‘Training Hours’ was not statistically significant, F (1, 41) = 2.31, p=.14. The interaction of ‘Training Hours’ with ‘Overall Change in all KSA’s’ was also not significant Λ =.829, F(4.4, 182) = 1.23, p = .29. Thus, variations in number of ‘Training Hours’ were not related to outcomes.

2. **Number of participants per cohort**

a. **Research question**

Research question 6b was, “Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?” To determine whether cohort size, ‘Number of Participants,’ may have an effect on ‘Overall Change in all KSA’s’, respondents were divided into two groups, those whose training cohorts had less than the median number of participants (<20 participants, n = 26) to those respondents whose training cohorts had equal to or more than the median
number of participants ($\geq 20$, $n = 17$). Respondents who had participated in advanced training were removed from the analysis.

b. Assumptions and analysis

Assumptions of normality and sphericity and also outliers are addressed in research question 4b above. The ratio of the cell sizes of the two groups was close to the acceptable limit for MANOVA (1:1.52). In running the repeated measures MANOVA, the overall test and the within subjects factors was statistically significant similar to the findings of research question 4b (What is the change in learner retrospective self-ratings of competence regarding knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?). Given that these results do not pertain to this research question they will not be repeated here.

c. Key findings

The between subjects effect (‘Number of Participants’) was not statistically significant $F (1, 41) = .34$, $p=0.56$. There was no interaction effect of ‘Number of Participants’ per cohort with ‘Overall Change in all KSA’s’, $\Lambda = .83$; $F (6, 178) = .99$, $p=.42$. Thus, variations in training group size were not related to outcomes.

3. Learner satisfaction and learner change in KSA’s.

a. Research question

Research question 6c was, “What is the relationship between learner satisfaction and learner change in KSA’s.” There were two satisfaction scores, real time satisfaction, and retrospective satisfaction. No significant difference was found
between the medians of the two sets of scores. Both scores were compared to an overall KSA change score and also the seven KSA competency area change scores.

b. **Assumptions and analysis.**

As described above, satisfaction scores were not normally distributed and had restricted range. These scores were ranked and compared to the ranked change in overall KSA scores using a Spearman’s rho. Then they were compared to the change in the 7 KSA areas correlations with a Bonferroni correction (.05/7 = .007).

c. **Key findings**

There were no statistically significant correlations between ‘Learner Satisfaction Real Time’ with ‘Overall Change in all KSA’s.’ ‘Learner Satisfaction Retrospective’, however, was moderately correlated with ‘Overall Change in all KSA’s’ change $r_s=.39$, $p=.009$. In the seven areas, ‘Learner Satisfaction Retrospective’ was correlated with change in one area, ‘Change in KSA’s -Atypical Development’ $r_s =.37$, $p<001$. The correlation of ‘Learner Satisfaction Retrospective’ could be explained in that generally measurements taken in closer proximity tend to be more highly correlated, whereas measurements taken further apart in time tend to have less correlation. ‘Learner Satisfaction Retrospective’s’ correlation with ‘Change in KSA’s-Atypical Development’ might be explained in part because ‘Change in KSA’s -Atypical Development’ had the greatest change mean.

4. **Changes in respondents’ professional practices**

Research question 6d was, “What changes in their professional practices do graduates attribute to their participation in the FSU Harris training? ” Simple quantitative coding was done for four open questions. Each question asked what changes
respondents made in their professional practices that they attributed to their participation in the FSU Harris training for each of the four professional roles (clinical, supervision, administration, training). Fifty-one (86% of the sample) respondents provided information for the clinical question; 24 (41%) of those also responded to the supervision question; 17 (29%) responded to the administrative question; and 36 (61%) responded to the training questions. Table V below lists coding labels and number of responses per label. The table is arranged according to most frequent responses. The number of responses does not signify number of people. Respondents commented about multiple changes they made in their professional practice; sometimes they mentioned multiple subcategory elements within the same broader overall category.

Respondents most frequently (91 times) reported having made changes in the clinical work applying specific IMH practices recommended in the FSU Harris training. They reported that they were intervening (or supervising, managing or training about intervention) with parents and children together (22 mentions of dyadic therapy; 19 mentions of dyadic assessment). They reported using (or supervising, managing or training about) more developmental assessments (14 times) and making more referrals for developmental services (11 times). Seven times respondents also reported that they applied some IMH methods to other clinical modalities they were using (e.g. family therapy, play therapy) or to specific populations they were working with (e.g., teen mothers, process of adoption, child welfare visitation or reunification).

Respondents also reported having new knowledge to inform their professional work (73 times). Subcategories within this included reports of increased knowledge about
child development (16 times), parent-child relationships and attachment (16 times), and
the overall importance of IMH and early intervention (12 times).
Respondents indicated that they were sharing IMH information with others (53 times) via
training, consulting, or teaching. They reported using knowledge and materials from the
training and sharing that with paraprofessionals, e.g. home visitors, child care providers,
early interventionist (13 times), other licensed mental health providers, as well as
university and college students (10 times), and parents (8 times).

Some respondents indicated they were engaging in (or supervising, requiring with
in an organization they administer, or training about) reflective supervision (38 times).

Some respondents indicated that they had started new programs, integrated IMH
principles and practice into existing programs, or affected state policy and funding for
IMH services (30 times). Eighteen times respondents made qualitative statements about
the magnitude of change in their practice using words such as “profound,” “vastly
improved,” and “a whole new world” to describe change to their practice. Finally, ten
times respondents indicated frustration being in areas or in organizations that did not
allow them to work with or implement IMH practice as they would have liked.


**TABLE V**

Practice Changes Attributed to Training

<table>
<thead>
<tr>
<th>Coding</th>
<th>Clinical n= 51</th>
<th>Super n=24</th>
<th>Admin n=17</th>
<th>Train n=36</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. New Intervention Skills—</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
</tr>
<tr>
<td>a. Dyadic therapy</td>
<td>18</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>specific therapy techniques (e.g., floor time, speaking for baby, still face, wait watch &amp; wonder)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Dyadic assessment —</td>
<td>12</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>specific techniques (e.g., Crowell)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Developmental assessment</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>specific tools(e.g., ASQ; CBCL; DC 0-3R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Referrals for early intervention (OT, Speech, PT, sensory integration) – multidisciplinary cooperation</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>e. Non-specific intervention skills</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Coding Label</td>
<td>Clinical</td>
<td>Supervision</td>
<td>Admin</td>
<td>Training</td>
<td>Totals</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
<td>-------------</td>
<td>-------</td>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td>f. Knowledge informing other clinical methods or specific populations – e.g., filial therapy; play therapy; adoption; teens</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>g. Increased volume of work with young children and families</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>h. Increased desire to work with young children</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

3. PRACTICE INFORMED BY NEW KNOWLEDGE

<table>
<thead>
<tr>
<th>Knowledge Category</th>
<th>Clinical</th>
<th>Supervision</th>
<th>Admin</th>
<th>Training</th>
<th>Knowledge Category Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Non specific new knowledge</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>b. Development- includes social-emotional</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>c. Parent-child relationship – attachment –secure base</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>d. Changed perspective – importance of IMH and early intervention</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>e. Sensory integration</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
### TABLE V (continued)

RESPONDENTS REPORTED PRACTICE CHANGES ATTRIBUTED TO TRAINING

<table>
<thead>
<tr>
<th>Coding Label</th>
<th>Clinical</th>
<th>Supervision</th>
<th>Admin</th>
<th>Training</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Professional- parent relationship – interactions – relationship focus</td>
<td>3</td>
<td>1</td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>f. “Ghosts in the nursery” – cyclical relationships – parent projects meaning on to child that may not be accurate – family of origin hx</td>
<td>3</td>
<td>1</td>
<td></td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>g. Effect of trauma on young children</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
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</table>

2. TRAINING/CONSULTATION IN IMH

<table>
<thead>
<tr>
<th>Training Category</th>
<th>Traiining Category Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of subcategories totals below</td>
</tr>
<tr>
<td>a. Training Level I IMH providers: paraprofessionals – home visitors- healthy start, child find, early steps, child care teachers</td>
<td>4</td>
</tr>
<tr>
<td>b. Began training or consulting –non specific</td>
<td>1</td>
</tr>
<tr>
<td>c. Training Level III IMH professionals – includes: supervision, conferences, authorship</td>
<td>3</td>
</tr>
<tr>
<td>d. Training parents: biological, foster, adoptive</td>
<td>6</td>
</tr>
</tbody>
</table>
### TABLE V (continued)

<table>
<thead>
<tr>
<th>Coding Label</th>
<th>Clinical</th>
<th>Super</th>
<th>Admin</th>
<th>Training</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Consulting – non specific</td>
<td>3</td>
<td></td>
<td></td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>f. Teaching university/ college students</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>g. Seeking more knowledge for self- keeping current</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>h. Training other professionals in community – Level II (e.g. pediatricians; court)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. **REFLECTIVE SUPERVISION**

<table>
<thead>
<tr>
<th>ENGAGING IN REFLECTIVE SUPERVISION</th>
<th>Reflective Supervision Total</th>
<th>Sum of subcategories below</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGAGING IN REFLECTIVE SUPERVISION</td>
<td>22</td>
<td>38</td>
</tr>
<tr>
<td>ENGAGING IN REFLECTIVE PRACTICE – MENTION OF PARALLEL PROCESS</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>CONNECTING WITH OTHER IMH PROFESSIONALS FOR SUPPORT</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>
TABLE V (continued)

RESPONDENTS REPORTED PRACTICE CHANGES ATTRIBUTED TO TRAINING

<table>
<thead>
<tr>
<th>Coding Label</th>
<th>Clinical</th>
<th>Supervision</th>
<th>Admin</th>
<th>Training</th>
<th>Totals</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. NEW PROGRAM/ NEW POLICY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Started a new program</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>b. Integrating IMH into programs</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>c. Facilitating/ advocating for training</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>d. Affecting policy- funding for IMH</td>
<td>3</td>
<td></td>
<td>1</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. QUALITY IMPROVEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Substantial positive magnitude of change</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>7. IMPLEMENTATION PROBLEMS -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Unable to implement IMH related to work environment</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>10</td>
</tr>
</tbody>
</table>
G. Characteristics of learners

1. Change in KSA’s according to professional discipline

a. Research question

Research question 6e was, “Is there any difference in learners’ self ratings of KSA’s between learners of different professional disciplines?” A repeated measures MANOVA was used to determine whether there was any difference in ‘Overall Change in all KSA’s’ for LCSW’s (n = 34) as compared to LMHC (n = 19).

b. Assumptions and analysis

Assumptions of normality and sphericity as well as outliers are addressed in research question 4b above. The ratio of LCSW’s to LMHC’s was slightly larger than recommended for MANOVA at 1: 1.8. PASW would adjust for this and statistical power would diminish. The omnibus MANOVA was statistically significant. However, the findings reflect the results for research question 4b and will not be repeated here.

c. Key finding

The test of between subjects effects (‘Professional Discipline’) showed no statistically significant difference between LCSW’s and LMHC with regards to ‘Overall Change in all KSA’s’, $F (52, 1) = .38, p=.54$. The interaction of ‘Professional Discipline’ and ‘Overall Change in all KSA’s’ was not significant $\Lambda = .811$; $F (4, 212) = 1.16, p = .33$. Training outcomes did not vary as a function of the trainee’s ‘Professional Discipline.’
2. **Effect of prior IMH training on change in KSA’s**

   a. **Research question**

   Research question 6f was, "Is there any difference in change in learners’ KSA’s between learners who had prior training in IMH and learners who had no prior training in IMH?" A repeated measures MANOVA allowed us to compare the differences in ‘Overall Change in all KSA’s’ between respondents who had ‘Prior IMH Training’ (n=39) as compared to those who had not had ‘Prior IMH Training’ (n=11).

   b. **Assumptions and analysis**

   Assumptions of normality and sphericity and also outliers are addressed in research question 4b above. The ratio between cell groups was larger than is considered acceptable for MANOVA at 1:3.25. PASW would accommodate this; the power of the test could decrease, however. The within subjects factors in the MANOVA (7 KSA area) were again statistically significant reflecting results from research question 4b and will not be reexamined here.

   c. **Key finding**

   The test of between subjects effects (‘Prior IMH Training’) was not statistically significant, F= .28, df (2, 48) p=.75. There was no interaction effect between ‘Prior IMH Training’ and ‘Overall Change in all KSA’s’, Λ = .905; F (12, 86) = .369, p = .97. Training outcomes did not vary between respondents who had ‘Prior IMH Training’ to the FSU Harris training and those who did not have ‘Prior IMH Training.’
3. **Effect of post IMH training on change in KSA’s**

   a. **Research question**

   Research question 6g was, “Are there any differences in change of learner KSA’s between learners who participated in advanced training and learners who had not?” A repeated measures MANOVA was used to compare the differences in ‘Overall Change in all KSA’s’ between respondents who had ‘Post IMH Training’ (n=15) and those who did not have ‘Post IMH Training’ (n= 43).

   b. **Assumptions and analysis**

   Assumptions of normality, sphericity, and outliers were discussed in research question 4B above. The cell sizes of the two groups were beyond the acceptable ratio for MANOVA 1:2.93; PASW would correct for this and power would be decreased. The within subjects factors in the MANOVA (7 KSA areas) were again statistically significant reflecting findings from research question 4b and will not be reexamined here.

   c. **Key findings**

   The between subjects effect of ‘Post IMH Training’ was statistically significant, F (1, 56) = 8.74, p=.005. There was no interaction effect between ‘Post IMH Training’ and ‘Overall Change in all KSA’s’, Λ = .887; F (6, 51) = 1.08, p = .38. There was greater ‘Overall Change in all KSA’s’ for persons who had ‘Post IMH Training.’ Implications of this finding will be addressed in the Discussion section.
4. Relationship of change in KSA’s and application of learning

a. Research question

Research question 6h was, “Is there a relationship between change in overall KSA’s and overall application of learning?” A Spearman rho correlation was run to assess whether there was a relationship between the variables.

b. Assumptions and analysis

The variables were not normally distributed. The ‘Overall Change in all KSA’s’ score was rank ordered as was the ‘Overall Application of Learning after Training.’ A Spearman rho correlation of the ‘Overall Change in all KSA’s’ with the ‘Overall Application of Learning after Training’ was run.

c. Key finding

The correlation was not statistically significant, $r_s = .26$, $p = .09$, indicating greater ‘Overall Change in all KSA’s’ was not associated with greater ‘Overall Application of Learning after Training.’
V. DISCUSSION

A. Effects of Training

Overall, the study findings support the hypothesis that the FSU Harris IMH Training Program had an effect on the clinical practice of participants. There were an acceptable number of respondents in our sample representing all training cohorts. Respondents reported a high level of satisfaction with training. They indicated having increased knowledge, skills and attitudes (KSA’s) in all seven IMH competency areas. Respondents also indicated that they increased services to children younger than six years of age and their families generally and they also reported implementing many of the specific interventions recommended by the FSU Harris training.

This study had a response rate of (50%). This is close to average range according to meta-analyses of survey response rates for published studies. Baruch and Holtom’s (2008) meta-analysis found an average response rate of 52% (SD 20.4) for both electronic and mail surveys in behavioral science journals; Van Horn, Green and Marinussen (2009) found an average response rate of 49.6% for mail survey research specific to counseling and psychology. There seems to be some variability in the literature with regards to whether electronic surveys have a higher or lower response rates compared to other survey methods. In their meta-analysis of studies that compared electronic to other types of survey research, Manfreda and colleagues (2008) found that generally web surveys had an 11% lower response rate than other survey forms; however Baruch and Holtom (2008) found that electronic surveys tended to have higher response rates than traditional mail surveys.
This study is representative of FSU Harris graduates in that graduates from every cohort residing in several different areas of Florida responded to the survey despite the passage of many years since training. Overall, it did seem that there was a greater response rate from trainings that were more recent. However, this did not hold for the cohort with the highest response rate (81%) in Tallahassee (2003-2004). It seems this higher response rate might be in part because graduates of the program from Tallahassee might have had greater on-going access to FSU Harris faculty whom are also based in Tallahassee. Another group that had a high response rate and on-going contact with the FSU Harris faculty were respondents who participated in the advanced training; 16 (94% response rate) of the 17 persons who completed advanced training participated in this study.

Overall, respondents’ retrospective reports suggested great increases in their retrospective self-assessment of KSA’s. The effect sizes for change in each of the seven KSA areas were unusually large (Cohen’s d >1). In fact, for ‘Change in KSA’s Typical Development’ effect size was greater than 3, which signifies an effect of 3 standard deviations above the mean. It should be noted that in a repeated measures research design, effect sizes tend to be higher because measurements are correlated (Dunlap, Cortina, Vaslow, & Burke, 1996). However, it also seems likely that scores were inflated in part because of the presence of social desirability bias and measurement error.

The pattern of improvement was not consistent across the seven core competency categories. There was greater variability between the areas prior to training as compared to after training. Prior to training there were 17 statistically significant contrasts between areas. After training there were just eight statistically significant contrasts among
respondents’ self ratings of competence. After completing training respondents’ mean ratings for their competency levels for each of the seven areas was above 4, which was defined as, “an area of strength for me.” This could indicate that most respondents achieved high levels of competence regardless of their baseline level of competence. On the other hand, this may also be indicative ceiling effects, where in the scale was unable to provide sufficient range variation to determine differences among respondents after training.

The largest change effects were in ‘Change in KSA’s -Typical Development’ (d=3.04) ‘Change in KSA’s – Atypical Development’ (d = 2.82) and ‘Change in KSA’s- Emotional/ Behavioral Disorders’ (d=2.80). Respondents indicated that they were less familiar with the material introduced in these areas prior to training, accounting for a greater rate of change. Prior to training, most respondents rated themselves between a 2, “very limited competency” and a 3, “generally competent” for typical development [x-bar =2.83 (SD= .58)], emotional behavioral disorders [x-bar =2.58 (SD = .64)] and atypical development [x-bar =2.95  (SD= .66 )]. It is possible that this could be because infant, toddler, and preschool development and their emotional/ behavioral disorders of this age range are subjects seldom included in much detail in graduate programming.

The two areas with the smallest change were the areas of ‘Change in KSA’s- Community Resources and Referrals’ (d=1.34) and ‘Change in KSA’s - Organization, Communication and Collaboration’ (d=1.52). Respondents appear to have assessed themselves as more competent with these skills prior to training. The before training means for these two areas were the highest of the seven competency areas; respondents rated themselves between a 3 which was defined as “generally competent” and a 4,
defined as “an area of strength for me.” Community, Resources and Referrals had a before training mean of X-bar = 3.58 (SD= .72); Organization, Communication and Collaboration had a before training mean of 3.56 (SD=.64). According to faculty, these two competency areas were not addressed directly in the FSU Harris training. Nevertheless, the scores for these areas two areas still increased and had a large effect size. The elevated scores in these areas may also support to possibility that there is a high degree of social desirability bias of the respondents. On the other hand, it is possible that in the course of training, particularly in small group exercises, networking occurred between workshop participants and respondents learned about additional resources among themselves such that they felt that they did gain in the areas of Community, Resources and Referrals as well as Organization, Communication and Collaboration.

In between the highest and lowest rates of change were the two areas, assessment (d=2.72), and intervention (d= 2.38). Prior to training respondents rated themselves as already having familiarity with these three areas; the mean rating for respondents for assessment [x-bar =2.82 (SD = .67)], and intervention [x-bar= 3.34 (SD = .53)]. These scores were all around 3, defined as “generally competent.”

There was also a large increase in the ‘Overall Application of Learning after Training.’ This effect size approached 1 (d = 0.98). The change in ‘Overall Application of Learning after Training’ had a smaller effect size than did the ‘Overall Change in all KSA’s.’ This is consistent with the findings of other studies. Changes in KSA’s tend to be greater than application of learning (Forsetlund et. al., 2009; Davis et al., 1999). However the magnitude in effect size for both change in KSA’s and change in application of learning is much higher than what has been reported in the literature where moderate
increases in KSA’s and small effects in application of learning have been found in randomized controlled studies (Bloom, 2005; Davis et al., 1999; Forsetlund et. al., 2009; Grimshaw et al., 2001; Mansouri & Lockyer, 2007; Marinopoulos et al., 2007; Mazmanian & Davis, 2002; Oxman, Thomson, Davis & Haynes, 1995; Robertson, Umble & Cervero, 2003; Umble & Cervero, 1996). The higher scores in this study may suggest measurement error. Scores may have been inflated in part because of social desirability bias inflating outcome results as well as the retrospective nature of the measure. Studies included in published meta-analyses included only studies having much more rigorous research designs than had this study. However, it can also be noted that the continuing education programs evaluated in the meta-analyses of continuing medical education programs largely evaluated much less intensive training programs than the FSU Harris training.

Respondents’ reported ‘Change in Services to Children under 6’ in this study also supports the hypothesis that the FSU Harris Training program had a positive effect on increasing services to young children and their families. Fifty out of 59 (90%) of respondents indicated increasing services in some capacity to children under six and their families. To get a better understanding for increases in services, we look to the open questions were respondents could indicate what changes they made to their particular professional practices that they attributed to the FSU Harris Training.

Clinically, respondents identified a number of specific changes they made to their professional practices that they attributed to their participation in the FSU Harris Training. They reported assessing and treating parents and children together, assessing and making referrals for developmental services. Respondents reported having greater
knowledge of child development and attachment to bring to their practice. Many are disseminating information to others in training, consultation, and supervision. Some have started new programs or affected policy.

It may be that the limited range of respondents retrospective self-ratings of competence after training could be indicative of a weakness in using of the FSU Harris Competency Scale. The limited amount of variation in scores may have created ceiling effects for the scale decreasing the likelihood of discerning meaningful moderating factors. No specific site effects were identified and most hypothesized moderating effects did not show an effect. In this study, having greater or fewer numbers of ‘Training Hours’ and having greater or fewer ‘Numbers of Participants’ in a cohort did not effect ‘Overall Change in all KSA’s.’ These were factors thought to increase the training intensity. However, all of the FSU Harris training for all cohorts could have been considered intensive by standards of continuing medical education (Forsetlund, et al., 2009).

Most of the measurable factors differentiating training respondents also did not seem to affect the magnitude of ‘Overall Change in all KSA’s.’ ‘Professional Discipline’ was not associated with ‘Overall Change in all KSA’s’; although the only two groups with a sufficient N to compare were social workers (LCSW’s) and counselors (LMHC’s); there were too few marriage and family therapists and psychologists to include in the analysis. Having had ‘Prior IMH Training’ did not make a significant difference. Although, there was no differentiation with regards to the type or amount of previous training respondents may have had. These findings are consistent with the meta-analysis of Marinopoulos and colleagues (2007) that was unable to determine any influence of
audience characteristics on educational intervention. Specific characteristics of learners that affect ‘Overall Change in all KSA’s’ may be difficulty to isolate because there are many unknown factors influencing learners.

The only factor that did make a significant difference in change in KSA’s was ‘Post IMH Training.’ Respondents who participated in the advanced training had a greater ‘Overall Change in all KSA’s’. It is notable that while increased number of training hours within the core IMH training curriculum (range of 80 to 143 hours) did not seem to affect change in KSA’s, participation in advanced training (an additional 41 hours) had a significant effect. This was consistent with the findings of Hogan and Quay (2008). Who compared pre and post self assessments on the FSU Harris IMH Competency Scale for both the 2007-2008 Orlando cohort and the advanced training group. To explain this difference, however, the mean differences of ‘Overall KSA’s Before Training’ and ‘Overall KSA’s After Training’ were compared. There did not appear to be much difference in ‘Overall KSA’s After Training’ means between respondents who had ‘Post IMH Training’ x-bar = 30.67 (SD = 3.02) and respondents not having ‘Post IMH Training’ x-bar = 30.63 (SD = 2.54). The change difference appears to be accounted for largely in the ‘Overall KSA’s Before Training’ scores. Respondents having ‘Post IMH Training’ rated themselves lower, x-bar = 19.68 (SD= 3.37), than respondents who did not have ‘Post IMH Training,’ x-bar =22.21 (SD= 3.54). It is possible that after completing advanced training, graduates had a greater sense of what they did not know at the beginning of training accounting for a greater rate of change. It may be that this awareness could stem from the nature of the advanced training where there was no set curriculum per se. In the advanced training, all participants were
practicing clinicians who brought clinical cases for discussion so that the clinicians could receive support in implementing IMH therapy. Challenges in applying the ideas in practice may have increased respondents’ awareness of what they did not know before. It is also possible, however, that respondents with ‘Post IMH Training’ may have had a higher level of social desirability bias given the additional amount of individualized training they received.

B. Limitations

While the findings above are positive, this study had a number of limitations to be considered. Limitations related to the available data, the design of the study, and measurement.

1. Available data

This study was devised well after training had been conducted. An outcome evaluation had not been planned for in advance. Therefore, some data that would have provided greater methodological rigor was not available, such as standardized real time pre and post tests, data from the actual work site of respondents to include a count of the numbers of young children served, observational data of respondents’ intervention skill, and data from clients to indicate any change in client outcomes.

The study relies primarily on self-report to measure outcomes. This is the least valid means of assessing changes in knowledge, skills, and attitudes as well as application of learning after training. The data included in the study that had been generated at the time of training (i.e., workshop post-tests; satisfaction surveys) were not initially collected for the purpose of research. The knowledge scores were collected to
ensure that training goals were met; the satisfaction scores used were limited in they were only an overall Likert scale score. Results from these measures were extremely limited in range. The restriction in range made it difficult if not impossible to identify correlations between these two variables with other outcome measures.

The data regarding whether respondents had had prior IMH training was also limited. There was no measure of the magnitude of prior training (e.g., number of hours of prior training). Because training applications varied between cohorts, some asking for greater detail than others, only the presence or absence of previous IMH training could be identified.

The study was conducted several years after most respondents had completed training. As such, some respondents could not be reached, some contact information was no longer accurate both e-mails and letters were returned. This diminished the potential response rate.

Much of the data was collected via the on-line Survey of IMH Training Outcomes. Twice respondents alerted the researcher to technical problems that interfered with survey completion. These problems were corrected promptly, however, it is unknown whether some potential respondents experienced problems but did inform the researcher and did not return to the survey.

The most important outcome data that would speak to the potential worth of the FSU Harris Training program would have been data to document whether the children and families served by FSU Harris training graduates benefited from services provided by program graduates. These data was not available. Given the wide geographical area, the range of work sites, the number of employment changes made by graduates, and the
resources of the study, there was no way for this research to measure change in client outcomes.

2. **Design of the study**

   Foremost, this study included no randomization, no control group, and no real-time baseline data so causality cannot be determined.

   There may have been differences between those who participated in the study and those who did not. Non-responders may not have found the training as useful and therefore assumed the survey would not apply to them. It is possible that graduates who did not complete the survey are no longer working with young children and families. Graduates may have changed jobs and their new employer may not support IMH principles in their practice. In contrast, graduates who completed the survey largely reported continued work in the field of IMH. These respondents may have had an interest in contributing to this research, as well as may enjoy considering how their competencies in IMH have changed. It seems probable, given the unusually high effect sizes and uniformly high self-ratings in ‘Overall Change in all KSA’s’ after training that there is social desirability bias inherent in the surveys from respondents who would have recognized that funding for the FSU Harris training program could be influenced by the outcome of the study and may therefore inflate their increases in knowledge, skills and attitudes and/or application of knowledge.

3. **Measurement**

   Most of the scales and inventories included in the Survey of IMH Training Outcomes were developed specifically for this study and did not have previous extensive pilot testing, analysis, revision and validation. In order to retain as much of the limited
sample size as possible, the survey was not pilot tested with actual graduates of the FSU Harris training program. The reliability and validity of most scales included in the survey is unknown.

There were some respondents who entered the survey and did not complete it; it may be because the survey was lengthy increasing respondent burden.

The study also asked respondents to remember their sense of competence in IMH practice at the time of training and in the year after training. It is possible that participants had difficulty remembering their sense of competence accurately. Some participants may remember more easily than others depending upon the year in which they participated in the training. With the passage of time, respondents may also have differing perspectives about the influence of the FSU Harris training program as compared to other experiences they have had since completing training (e.g., practice experiences, clinical supervision).

There was likely error inherent in asking retrospective questions. It was hoped that training content could be remembered in part because participation required a substantial amount of time and effort on the part of trainees making it a salient experience. Nevertheless, it could have been difficult for graduates to rate their sense of competence as they remembered it several years ago. It is possible that respondents, having additional clinical experiences or having participated in additional training since the initial one, may have overestimated what they learned in the FSU Harris training.

Graduates from different years were asked to remember their knowledge at varying time intervals. For example a graduate from the 2002-2003 class had to recall
their sense of competence over a span of 8 years, while a graduate of the 2007-2008 training had to remember back 3 years. Despite this there were no evident site effects.

C. **Human Subjects Protection**

Applications were be made to the Institutional Review Boards (IRB) at both UIC and FSU for review of this study. An application (#2010-0737) was submitted first to the UIC IRB August 2010 and approved November 7, 2010. Once approved, the proposal was submitted to the FSU IRB (#2010-5602) and approved on February 10, 2011; The FSU approval and some minor changes to the instrument resulting from feedback from persons who tried the survey were resubmitted to the UIC IRB in an amendment application. The amendment application was submitted to the UIC IRB and final approval for the study was made on March 2, 2011. The UIC IRB approved an application for continuing review on November 2, 2011 allowing continued data analysis until November 7, 2012. An application for continuing review was approved by the FSU IRB on January 11, 2012.

The study had an expedited review at both UIC and FSU. The study involved only minimal risk to respondents; that is, no more risk than one would be exposed to in daily life or in taking psychological tests. The research was an innocuous survey of adults and a review of existing data.

The confidentiality of study participants was protected in that survey responses were de-identified and code numbers were assigned to survey data. The electronic format of the survey aided in the protecting confidentiality. With regards to the four open questions (items # 32, 51, 60, 68) on the Survey of IMH Training Outcomes, any identifying data (e.g., naming a place of employment) was redacted.
Existing data was extracted from original documents and electronic files using a data extraction form (Appendix K). A list of respondents and their code numbers was temporarily kept separate from the data. With this list, existing data collected on the data extraction form (Appendix K) was linked with data from the electronic survey. The list was maintained until after the data collection period to assist with follow up attempts to obtain full participation and also administration of thank you gifts and the raffle prize.

Respondents were provided information regarding informed consent (see Appendix F). Electronic agreement was required before a respondent could enter into the survey; respondents were encouraged to print the informed consent document for their records.

Data was maintained electronically on a password protected server. The data extraction forms and list of names and identification codes was maintained in a locked file drawer until after the data was cleaned. The extraction forms and list of names and codes was destroyed after all data was analyzed.

There were no direct benefits to respondents. However, respondents may have enjoyed assessing how one’s competence and application of IMH principles changed over time as well as knowing that participating in the survey could contribute to improving training for future IMH practitioners.

Expected risks were minimal. However, respondents could have experienced feelings of discomfort in assessing how one’s competence and application of IMH principles had changed. Feelings of discomfort may have ensued if participants offered negative evaluation of the FSU Harris program. Finally, should identifying information
errantly not be removed from the final report generated from this study, professional embarrassment could ensue.

D. **Implications of the Study**

1. **Practice**

   This study supports the hypothesis that the use of IMH principles and therapy has increased in Florida more than it would have if the FSU Harris program did not exist. Ninety percent of respondents reported increasing services of some type to children under six and their families. Respondents also reported using more IMH recommended practices such as conducting dyadic therapy and making increased developmental referrals. Based on respondent’s retrospective self-report, it appears that the nature and quality of the work of the clinicians who participated in the training changed and was more informed by IMH principles and therapy.

   On a larger scale, respondents in this study also reported disseminating IMH principles to others. Forty (68%) of graduates of the program reported providing consultation to and/or training other infant-family professionals who provide promotion and prevention services. A few graduates reported influencing systems to accommodate IMH practice.

2. **Training**

   The most significant implication of the study is the possibility that the FSU Harris training has been effective. Based on the retrospective self-report of respondents, participants appear to have increased knowledge of and practice of IMH principles and therapy. Thus there is some support for continuation of this particular
training. These results provide only limited information in how to shape future training, however.

At first glance, in considering future IMH training, given, the lack of variation in ‘Overall Change in all KSA’s’ for cohorts having fewer than 112 hours as compared to having more than 112 hours of training a decrease in the number of training hours might be considered to decrease cost without significantly decreasing respondents’ potential improvement in KSA’s. However, given the lack of apparent site effects between cohorts, the apparent level of social desirability bias, and possible ceiling effects in the Survey of IMH Training Outcomes, it is less clear what differences training hours may have had.

In refining training content, links could be made between the FSU Harris competency scale and specific workshop content. By reviewing results, specific training content areas could be targeted as needed and the program and funders could be assured that training content is consistent with the consensus of IMH experts regarding core competencies of IMH practice. In this manner, use of the FSU Harris IMH competency scale as an evaluation tool and measurement of KSA’s would be more clearly established.

Again at first glance, findings regarding the seven competency areas suggest that training content may not need to be altered significantly to ensure that the training is consistent with the consensus of IMH experts regarding core competencies of IMH practice. In all competency areas after training respondents rated themselves above a 4, defined as ‘an area of strength for me’. This is even true for the areas that were largely not specifically included in training content, Community Resources and Referrals and Organization, Communication and Collaboration. However, it is again unclear whether these results suggest that respondents improved in these area because of networking with
other professionals or whether improvement in these areas reflects sizable social desirability bias on the part of respondents.

The only factor significantly increasing ‘Overall Change in all KSA’s’ was participation in advanced training, although the greater change score was accounted for by lower KSA scores before training than those who did not participate in the advanced training. It’s possible persons who participated in the advanced training did start out with lower competency levels, or it could be that they recognize more explicitly what they did not know before training. If this group did learn more, finding could be consistent with the literature in adult learning that suggests that the most interactive, democratic and applicable part of training is most effective. Persons who participated in advanced training seemed to benefit from the format of bringing actual clinical cases to share with FSU faculty and other clinicians to process and discuss how to apply training content. This supports the potential replication of advanced clinical training. Another option might be to incorporate elements of the advanced training to a greater degree within the basic training. This might include smaller reflective practice groups between monthly workshops that are similar in nature the advanced training.

There also seems to be a number of respondents who took the information gained from the training and then went on to provide supervision, consultation, and training to others. It seems that there could be a need to provide some specific elements of training or and advanced training that supports learners as in these roles that go on to disseminate elements of the training to others. There may be need of an advanced training that is specific to supervisors, administrators, and trainers. This might include smaller reflective
practice groups that could meet between monthly workshops to process trainees’ attempts to apply IMH practice into their supervision, administration and training of others.

One interesting finding was that most respondents (60%) had had some IMH training prior to participating in the FSU Harris Training. This could suggest that the availability of less extensive training exposes practitioners to IMH practice and may stimulate interest in more intensive training. Less intensive training that is provided in the community by Harris graduates and by the FSU Harris program itself may feed the more intensive program.

3. **Research**

This study provides a launching point for additional research given that so little evidence-based information is available regarding IMH training (Hinshaw-Fuselier, Doyle Zeanah, & Larrieu, 2009).

A most important follow up for this study would be to conduct a quasi-experimental study having a control group. Professionals from the same agencies as trainees who would not be participating in training could take the same measures (e.g., the FSU IMH Competency Scale and the IMH Application of Learning Scales) before and after training so that a greater degree of causality could be established.

Next, follow up research for this study could include improved ‘real time’ measurements. Rather than relying on subjective pre- and post test workshop quizzes, the more systematic FSU Harris IMH Competency Scale and the IMH Application of Learning Scale could be given to trainees before training, after training, as well as 6 to 12 months after training. This would provide more genuine pre-post measurements, which
could increase accuracy as opposed to relying on the retrospective memory of respondents.

As additional data is gathered via the FSU Harris IMH Competency Scale. Further evaluation of this scale would be of value. In particular, once a greater number of cases is available, factor analysis should be done to determine whether the seven core competency areas are indeed, seven distinct factors and whether some items on the scale are not necessary for factor loading.

Additional measures other than self-report would increase the validity of findings. Since respondents’ employers are often in part funders of the training, employers might consent to participation in research. More specific data could be collected at the work site related to the volume and manner of intervention. The number of very young clients in case loads of clinicians in the training served before and after training could be compared to the number of very young clients in case loads of similar clinicians who were not in training. The number of appropriate referrals that clinicians in training make for developmental assessment could be compared before and after training as well as to the number of assessments/ referrals made by clinicians who did not participate in the training. Also the types of intervention used could be documented, (e.g. seeing children alone for play therapy as compared to working with a child and parent together in dyadic therapy) and compared to clinicians not participating in training.

Performance of tasks taught in the FSU Harris training could be assessed also. For example, in the area of assessment, respondents could be given test cases in a written scenario and the have to develop a formulation and diagnosis according to the DC0-3R. Videos of clinician interventions with families could be coded, scored and compared
from before training, during training, and after training to determine fidelity and success in implementing the intervention model.

Given the multiple setting from which clinicians present. They could collect data from their clients throughout the course of intervention essentially engaging in single subject design research with clients while implementing IMH therapy.

Given that the only difference in change of KSA’s was in the group that participated in the advanced training, future studies could further explore this outcome in greater detail. A quasi-experimental evaluation could be conducted comparing a control group, professionals who participate in the basic FSU IMH training, and professionals who then also participated in advanced training. There could also be a qualitative element to explore this area. Learners completing advanced training could be asked about the advanced training and how participation there affected their sense of competence.
### APPENDIX A

#### Training Cohorts

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Funders</th>
<th>Number of participants</th>
<th>Training hours &amp; variations:</th>
</tr>
</thead>
</table>
| 2002-2003  | Palm Beach County (PBC) | United Way of Palm Beach County, Palm Beach County Children’s Services Council, Medicaid | 30 started  
27 finished | 11 weekend workshops  
22 days training -  
150 training hours  
Infant-family observations. Only a few participants completed assignment. |
| 2002-2003  | Miami             | Local funder Dept. of Children & Families Medicaid | 20                      | 6 weekend workshops  
12 days training -  
84 training hours  
shortening b/c of funding constraints – no DC 0-3; no end projects |
| 2003-2004  | Broward County   | Local funder Harris Medicaid                  | 19 started  
18 finished       | 10 weekend workshops  
20 days training -  
140 training hours |
| 2003-2004  | Tallahassee       | Local funder Harris Medicaid                  | 12 started  
11 finished       | 10 weekend workshops  
20 days training -  
148 training hours |
| 2004-2005  | Tallahassee       | Local funder Harris Employers Medicated       | 12                      | 10 weekend workshops  
20 days training -  
149 training hours |
| 2005-2006  | District 1 Panhandle-Pensacola Four counties | Local Employers Harris Medicaid                | 15 clinical  
15 others         | 10 weekend workshops  
20 days training -  
126 training hours  
Fewer training hours here b/c many participants had to drive long distances to get to the training site so each session was shortened. |
<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Funders</th>
<th>Number of participants</th>
<th>Training hours &amp; variations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>Tallahassee</td>
<td>Harris Medicaid</td>
<td>13</td>
<td>Advanced clinical support:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>All participants had already been through a full training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12 finished</td>
<td>1 day case discussion</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 sessions -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>41 training hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Completed core competency as self evaluation tool pre and post.</td>
</tr>
<tr>
<td>2006-2007</td>
<td>Broward County</td>
<td>Harris Medicaid</td>
<td>9</td>
<td>Advanced clinical support:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 finished</td>
<td>All participants had already been through a previous IMH training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Persons were</td>
<td>1 day case discussions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>included in</td>
<td>6 full day sessions -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>this training</td>
<td>41 training hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>that had not</td>
<td>Completed FSU IMH Therapist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>been through</td>
<td>Competence Scale pre &amp; post</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FSU Harris training</td>
<td>training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>but had IMH</td>
<td>(A few participants may not have completed post test.)</td>
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<td></td>
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<td></td>
<td>training</td>
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<td></td>
<td>elsewhere; these</td>
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<td></td>
<td>accounted primarily</td>
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<td>for those that did</td>
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<td></td>
<td>not complete</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>training.</td>
<td></td>
</tr>
<tr>
<td>2007-2008</td>
<td>Orlando</td>
<td>CHS Medicaid Employers Trainees</td>
<td>15 started</td>
<td>Completed FSU IMH Therapist Competence Scale pre and post training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14 finished</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>10 weekend workshops</td>
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<td></td>
<td></td>
<td></td>
<td>20 days training</td>
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<td></td>
<td></td>
<td></td>
<td>137 training hours</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>124 started</td>
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<td></td>
<td></td>
<td></td>
<td>117 finished</td>
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<td></td>
<td>17 of these</td>
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<td></td>
<td></td>
<td></td>
<td>finished</td>
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<td></td>
<td>advanced</td>
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</tr>
</tbody>
</table>
APPENDIX B

The FSU Harris Level 3 Infant Mental Health Training Program for Licensed Therapists

Training will be held in Orlando and will cover a 10-month period from September 2007-June 2008. Dates are now established for all workshops. The core curriculum is based on a model that FSU has used for five previous programs in Palm Beach and Broward Counties, the District 1 Panhandle area, and at FSU in Tallahassee. Attendance at all workshops is required.

<table>
<thead>
<tr>
<th>DATES</th>
<th>TOPICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 7/8, 07</td>
<td>Orientation &amp; Introductions, Review of Risk &amp; Resilience, Brain Development, Early Development &amp; Relationships, program activities, expectations &amp; timelines</td>
</tr>
<tr>
<td>Oct 12/13, 07</td>
<td>Sensory Integration &amp; Observational Assessment I</td>
</tr>
<tr>
<td>Nov 2/3, 07</td>
<td>Advanced DC:0-3R Training: The system, case review, Axis V &amp; related developmental assessment</td>
</tr>
<tr>
<td>Jan 25/26, 08</td>
<td>Psychoanalytic Approaches &amp; Treatment Techniques I: Speaking for Baby; Floor Time; Watch, Wait &amp; Wonder; Infant-Patient Psychotherapy; Small group case discussions</td>
</tr>
<tr>
<td>Feb 22/23, 08</td>
<td>Psychoanalytic Approaches &amp; Treatment Techniques II: Interventions with Children in Foster Care, Trauma/Violence Exposure; Families surviving natural disasters; Preparing Treatment Plans; Small Group Case Discussions</td>
</tr>
<tr>
<td>Mar 7/8, 08</td>
<td>Observation &amp; Assessment Techniques II: Review of checklists/surveys for IMH; Comprehensive Behavioral Health Assessments; Revisiting the Crowell Procedure for observation &amp; coding interactions; Small Group Case Discussions</td>
</tr>
<tr>
<td>Apr 11/12, 08</td>
<td>Review of Child Psychopathology; Challenges in Parental Psychopathology, Psychopharmacology and IMH; DC:0-3R Case Reviews; Small Group Case Discussions</td>
</tr>
<tr>
<td>May 2/3, 08</td>
<td>Treatment Techniques III; Challenges in Custody Evaluations with Young Children; Preventing &amp; Addressing Compassion Fatigue, Issues in Treatment Termination; Small Group Case Discussions</td>
</tr>
<tr>
<td>June 6/7, 08</td>
<td>Evidence-based Practices in IMH; Behavioral Interventions; the DIR model; documentation and evaluation strategies for IMH treatments &amp; interventions; Small Group Case Discussions</td>
</tr>
<tr>
<td>June 27/28, 08</td>
<td>IMH Consultation in Child Care, Treating children who have been sexually abused; IMH and Fetal Alcohol Effects; Small Group Case Discussions</td>
</tr>
</tbody>
</table>

Primary Training Program Faculty will be Drs. Anne Hogan & Herbert C. Quay of the FSU Harris Institute and Dr. Joy D. Osokley of the LSU Harris Program for Infant Mental Health, LSU Health Sciences Center. Additional faculty will include clinicians who have completed Harris IMH Therapist Training, Florida colleagues with specific expertise, and LSU faculty members in person and by videoconference.

For further information, please contact Anne Hogan (ahogan@cpeip.fsu.edu / 850-922-1312) or Tara Thomas (LTThomas@cpeip.fsu.edu / 850-922-1305)
APPENDIX C

INFANT MENTAL HEALTH SPECIALIST
APPLICATION FOR LICENSED THERAPIST TRAINING PROGRAM

Please read the entire application before filling it out. All information will be kept confidential. When submitting the application, please also submit a current resume. Any information requested on the application that is contained in your resume need not be repeated. Applications should be sent to Dr. Anne E. Hogan, FSU Center for Prevention and Early Intervention Policy, 1339 East Lafayette Street, Tallahassee, FL 32301. Applications must be received by August 10, 2007. You may send the application form and resume electronically to Dr. Hogan at ahogan@fsu.edu; however, we must receive an original signature for the Memorandum of Agreement page (the final page of the application). You may contact Dr. Hogan at 850-922-1312 or ahogan@mailer.fsu.edu for questions or concerns. Be sure to keep a copy of this application for yourself. Thank you very much for your thought and consideration in this process!

This 10-workshop intensive training program is described in a flyer attached with this mailing. Briefly, led by Dr. Anne E. Hogan, our multidisciplinary faculty will work with 20 therapists licensed in social work, mental health counseling, marriage and family therapy, or psychology. The training focuses on concepts and practices in providing infant mental health services, emphasizing typical and atypical development, observation, assessment, diagnosis and treatment techniques. Extensive clinical case discussions are also part of the program. Training will be held in Orlando and will cover a 10-month period from September 2007–June 2008. There will be 10 2-day workshops. Continuing education credits will be provided for licensed clinical social workers, marriage and family therapists and mental health counselors; participants will also receive 3 textbooks and the DC-0-3R manual. Trainees will be required to attend all workshops, and will be asked to report on their provision of infant mental health therapy and training after completing the program. Fee for participation are $6000 per therapist; payment must be arranged prior to beginning the training.
SECTION I: PERSONAL INFORMATION

Name ____________________________
Home Address _______________________
Phone (___) ______ FAX (___) ______ E-mail ___________________________
Social Security Number ___/___/____ Date of Birth ___/___/____ Male__ Female__
Ethnic Background (optional) ______________________________

Please list your professional discipline(s) ________________________________
Florida professional license # __________________
List any other state(s) in which you are licensed ________________________

SECTION II: EDUCATIONAL BACKGROUND

COLLEGES/UNIVERSITIES ATTENDED

<table>
<thead>
<tr>
<th>College/University</th>
<th>City/State/Country</th>
<th>Dates Attended</th>
<th>Degree/Major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

LANGUAGES
Please list all languages and extent of fluency.

SECTION III: CURRENT AGENCY INFORMATION

Current Employer/Name of Agency ________________________________
Address ____________________________
Agency Telephone _________________ Your work email (optional) _________________
Your Position ___________________________ Dates Employed _________________
Your Supervisor _________________________
Age of population served by your agency: _______
Do you currently supervise or provide services for Medicaid children/families?  ___ no ___ yes

Do you bill Medicaid for your services?  ___ no ___ yes

Do you use DSM IV or ICD-10 codes?  ___ no ___ yes

Range of behaviors treated in the social-emotional domain: ________________________________

___________________________________________

What assessment tools are you most familiar with (Specify child, family, adult)?

___________________________________________

What treatment modalities or theoretical frameworks do you use most with children?  ______________

___________________________________________

SECTION III: TRAINING IN INFANT MENTAL HEALTH

Have you attended relevant training in infant mental health such as the DC: 0-3R Training or others?  Please describe.

<table>
<thead>
<tr>
<th>Title of Training</th>
<th>Instructor</th>
<th>Date(s)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION IV: SUMMARY OF WORK EXPERIENCE WITH INFANT MENTAL HEALTH POPULATIONS

<table>
<thead>
<tr>
<th>none/very little</th>
<th>some</th>
<th>quite a bit</th>
<th>extensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>children ages birth to 3 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>children ages 3 to 5 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>school-age children and adolescents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adults</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>families – working with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>parents &amp; children together</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION X: REFERENCES

List below the full names and phone numbers of three people who will provide reference letters, or be available for a telephone reference. These should be people who know you well, preferably current or former instructors, employers or supervisors. Please contact these individuals and make certain that these letters are mailed to:

Dr. Anne E. Hogan
Center for Prevention and Early Intervention Policy
FSU Center for Prevention and Early Intervention Policy
1339 East Lafayette Street, Tallahassee, FL, 32301

Name ___________________________ Phone (_____) ___________

Name ___________________________ Phone (_____) ___________

Name ___________________________ Phone (_____) ___________
**APPENDIX D**

**Workshop #2 Evaluation • October 12-13, 2007**

**Orlando, Florida**

<table>
<thead>
<tr>
<th>Content &amp; Instructional Materials</th>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content extended my knowledge of the topics.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>The content was consistent with overall objectives.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>I will use the readings as a resource in the future.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Overall, the workshop materials were useful and well-organized.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

**Please rate how helpful you found each of the following:**

<table>
<thead>
<tr>
<th>LESS HELPFUL</th>
<th>MORE HELPFUL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handouts</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Videos</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Readings</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training Format</th>
<th>DISAGREE</th>
<th>AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The length of the training was appropriate for the material covered.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>There was enough time for discussion.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

**Workshop Faculty**

| The faculty was effective at presenting the workshop material. | 1 2 3 4 5 | |
| The faculty was responsive to participant questions and concerns. | 1 2 3 4 5 | |

**Overall,** on a 10-point scale, with a 10 the highest rating, I rate this workshop:

1 2 3 4 5 6 7 8 9 10

Please list topics you would like addressed in future sessions:

Additional comments:

Suggested improvements:

Signature: ___________________________  date: ___/___/___
Welcome! Heather Stone

SURVEY OF INFANT MENTAL HEALTH TRAINING OUTCOMES
March 2011

Thank you for taking time to complete the following survey. This study is being conducted by Heather Stone as a part of her doctoral dissertation at the University of Illinois at Chicago. Ms. Stone devised this survey with guidance from faculty of the Florida State University Harris Institute for Infant Mental Health Training. Overall, we hope to ascertain how your training in Infant Mental Health Therapy may have affected your professional practices. The survey takes no more than 45 minutes to complete. Your responses are confidential. However, we will temporarily keep a list of those completing the survey so that we may mail a thank you gift to those completing the survey within the first two weeks (by [enter date here]) and administer our raffle for the Apple iPod Nano 16 GB.

Please note that if you are unable to complete the survey in one sitting, you may log out (button is located in the top right corner) and finish later. Please be sure to log out, so that all your progress will be saved.

Please read the following agreement, check the box and click "Continue."

You are asked to complete an on-line survey that is expected to take 35-45 minutes of your time. The information you provide in the survey would be linked to information contained in records accumulated during your participation in the FSU Harris training. These records would include your training application, workshop post-test scores, satisfaction surveys, and continuing education credit records.

What are the potential risks and discomforts?
To the best of our knowledge, completion of this survey includes no more risk of harm than you would experience in everyday life. However, one risk of participating in this research is a loss of privacy (i.e., revealing to others that you are taking part in this study) or confidentiality (i.e., revealing information about you to others to whom you have not given permission to see this information). Careful precautions will be taken to minimize these risks.

Are there benefits to taking part in the research?
Taking part in this research study may not benefit you personally, but we [researchers] may

I have read the above information, and I agree to participate in this research.

Definitions
The terms below are used throughout this survey. You will be able to click on these terms to see their
definitions as you go.

- Level 1 Infant Mental Health Services
- Level 2 Infant Mental Health Services
- Level 3 Infant Mental Health Services
- Reflective Supervision
PROFESSIONAL CHARACTERISTICS
This section asks about your professional identity.

1. What degree(s) do you have? **CHECK ALL THAT APPLY**
   - ☐ MA or MS
   - ☐ MSW
   - ☐ PhD or equivalent
   - ☐ Other

2. In which year did you earn your first professional graduate degree?  

3. What clinical license(s) do you have? **CHECK ALL THAT APPLY**
   - ☐ LCSW
   - ☐ LMFT
   - ☐ LMHC
   - ☐ Psychologist
   - ☐ Other

4. In which year did you first receive the aforementioned license?  

   *In question #5 please answer both before participation in the FSU Harris training and at any time since completing the FSU Harris training.*

5. Have you been a member of any professional organizations that support the practice of infant mental health (e.g. Florida Association for Infant Mental Health, Zero to Three, a local infant mental health task force)?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
<td>☐ No</td>
</tr>
</tbody>
</table>

6. Which of the following best describes your professional role(s) **at the time you began the FSU Harris training?** **CHECK ALL THAT APPLY**

   **A. Clinical:**
   - ☐ Not a Clinician
   - ☐ Developmental/Clinical Assessor
   - ☐ Clinical program consultant
   - ☐ Psychotherapist
   - ☐ Other
   - Did you serve any medicaid eligible children?  
     - ☐ Yes  ☐ No

   **B. Supervisory:**
   - ☐ Not a Supervisor
   - ☐ Supervisor of Level 1 or Level 2 infant mental health service providers
   - ☐ Supervisor of Level 3 infant mental health service providers
   - ☐ Supervisor of student interns
   - ☐ Other
   - Did you supervise any providers who served medicaid eligible children?  
     - ☐ Yes  ☐ No

   **C. Administration/ Management:**
   - ☐ Not an Administrator/ Manager
   - ☐ Agency Director for programs serving young children
   - ☐ Program Funder serving young children
   - ☐ Manager for programs serving young children
   - ☐ Other
   - Did your agency or program serve any medicaid eligible children?  
     - ☐ Yes  ☐ No
D. Training / Teaching / Consulting:
- [ ] Not a Trainer, Teacher or Consultant
- [ ] Professional trainer
- [ ] Mental Health Consultant
- [ ] Academic
- [ ] Other

Did you train, teach or consult with any providers who serve Medicaid eligible children?
- [ ] Yes  [ ] No
PROFESSIONAL CHARACTERISTICS
Professional Characteristics Questions

7. Which of the following best describes your professional role(s) in your current or most recent employment? CHECK ALL THAT APPLY
A. Clinical:
   ☐ Not a Clinician
   ☐ Psychotherapist
   ☐ Developmental/Clinical Assessor
   ☐ Clinical program consultant
   ☐ Other
   Did you serve any medicaid eligible children?
   ☐ Yes ☐ No

B. Supervisory:
   ☐ Not a Supervisor
   ☐ Supervisor of Level 1 or Level 2 infant mental health service providers
   ☐ Supervisor of Level 3 infant mental health service providers
   ☐ Supervisor of student interns
   ☐ Other
   Did you supervise any providers who served medicaid eligible children?
   ☐ Yes ☐ No

C. Administration/ Management:
   ☐ Not an Administrator/ Manager
   ☐ Manager for programs serving young children
   ☐ Agency Director for programs serving young children
   ☐ Program Funder serving young children
   ☐ Other
   Did your agency or program serve any medicaid eligible children?
   ☐ Yes ☐ No

D. Training/ Teaching/ Consulting:
   ☐ Not a Trainer, Teacher or Consultant
   ☐ Academic
   ☐ Professional trainer
   ☐ Mental Health Consultant
   ☐ Other
   Did you train, teach or consult with any providers who serve medicaid eligible children?
   ☐ Yes ☐ No

8. Has your professional role(s) changed between the time you began the FSU Harris training and now?
   ☐ Yes ☐ No
9. Which of the following best describes your professional role(s) in between the time you began the FSU Harris training and your current or most recent employment?

CHECK ALL THAT APPLY

A. Clinical:
   - Not a Clinician
   - Psychotherapist
   - Developmental/Clinical Assessor
   - Clinical program consultant
   - Other
   Did you serve any Medicaid eligible children?
   - Yes
   - No

B. Supervisory:
   - Not a Supervisor
   - Supervisor of Level 1 or Level 2 infant mental health service providers
   - Supervisor of Level 3 infant mental health service providers
   - Supervisor of student interns
   - Other
   Did you supervise any providers who served Medicaid eligible children?
   - Yes
   - No

C. Administration/Management:
   - Not an Administrator/Manager
   - Manager for programs serving young children
   - Agency Director for programs serving young children
   - Program Funder serving young children
   - Other
   Did your agency or program serve any Medicaid eligible children?
   - Yes
   - No

D. Training/Teaching/Consulting:
   - Not a Trainer, Teacher or Consultant
   - Academic
   - Professional trainer
   - Mental Health Consultant
   - Other
   Did you train, teach or consult with any providers who serve Medicaid eligible children?
   - Yes
   - No

Continue
10. Since completing your training, what changes have occurred in your professional activities specifically directed towards children younger than 6 years and/or their families (e.g., amount of time spent and/or number of clients served)?

   A. My clinical services to children younger than 6 years and/or their families:
      - Increased
      - Remained about the same
      - Decreased

   B. My supervisory activities related to services for children younger than 6 years and/or their families:
      - Increased
      - Remained about the same
      - Decreased

   C. My administrative activities for programs targeting children younger than 6 years and/or their families:
      - Increased
      - Remained about the same
      - Decreased

   D. My training activities for the provision of services to children younger than 6 years and/or their families:
      - Increased
      - Remained about the same
      - Decreased
APPLICATION OF LEARNING
Although you may have a primary area of professional practice identified above, since completing the FSU Harris training, you could have changed jobs or engaged in several different professional roles (e.g. clinical, supervisory, administrative, training, or consulting). We are interested in all the ways in which you may have applied and/or disseminated your knowledge of infant mental health to others.

CLINICAL ACTIVITIES
Please identify whether you have conducted any of the following clinical activities related to infant mental health assessment, referral, treatment or receipt of reflective supervision before training and at any time since completing the FSU Harris Institute Infant Mental Health Training.

FOR PARTICIPANTS IN THE FSU HARRIS ADVANCED CLINICAL TRAINING, “Before training” refers to before participating in any FSU Harris training. “Since training” refers to since completing the advanced training.

11. Have you conducted any direct clinical work (assessment, referral, therapy) with children younger than 6 years of age?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Continue
### APPLICATION OF LEARNING

#### CLINICAL ACTIVITIES

#### ASSESSMENT

12. What percentage of your clientele included children younger than 6 years of age?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>&lt;25%</td>
<td>&lt;25%</td>
</tr>
<tr>
<td>25–49%</td>
<td>25–49%</td>
</tr>
<tr>
<td>50–75%</td>
<td>50–75%</td>
</tr>
<tr>
<td>&gt;75%</td>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

13. Have you conducted any assessments of children younger than 6 years of age?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

14. Have you used any standardized screening or assessment tools [e.g. Ages and Stages Questionnaire (ASQ), Ages and Stages Questionnaire—Social/Emotional (ASQ–SE), Devereux Early Childhood Assessment (DECA), Child Behavior Check List for Children 1.5 to 5 (CBCL 1.5–5; Achenbach)]?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

15. Have you conducted any parent–child interaction assessments?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

16. In what percentage of your assessments of children younger than six years old, have you conducted parent–child interaction assessments?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>&lt;25%</td>
<td>&lt;25%</td>
</tr>
<tr>
<td>25–49%</td>
<td>25–49%</td>
</tr>
<tr>
<td>50–75%</td>
<td>50–75%</td>
</tr>
<tr>
<td>&gt;75%</td>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

17. Have you used the Crowell Procedure?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

18. Have you used the rating scale or forms for the Crowell Procedure?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

19. Have you used the "Still Face" procedure?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
20. Have you used the DC 0–3R?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Continue
### Referral

21. Have you made any referrals for developmental or behavioral services?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

22. Have you made any referrals for developmental assessment and/or services (e.g. occupational therapy; physical therapy; speech and language therapy)?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

23. In what percentage of your assessments of children younger than 6 years old, have you made referrals for developmental assessments (e.g. occupational therapy; physical therapy; speech and language therapy)?

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>&lt;25%</td>
</tr>
<tr>
<td>25–49%</td>
</tr>
<tr>
<td>50–75%</td>
</tr>
<tr>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

### Treatment

25. Have you conducted any therapy with children under 6 years of age?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

26. Have you used the "Speaking for the Baby" technique?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

27. Have you conducted dyadic parent-child therapy (e.g. Child-Parent Psychotherapy)?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

28. What percentage of the therapy you have provided to children younger than six has included dyadic child-parent psychotherapy (e.g. Child-Parent Psychotherapy)?

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>&lt;25%</td>
</tr>
<tr>
<td>25–49%</td>
</tr>
<tr>
<td>50–75%</td>
</tr>
<tr>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

Click **Continue** to proceed.
## REFLECTIVE SUPERVISION

29. Have you received any **reflective supervision**?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

30. Have you participated in any peer reflection groups?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

31. How often have you received **reflective supervision** or participated in peer reflective groups?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregularly</td>
<td>Irregularly</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

### Summary of FSU Training Impact on Clinical Activities

32. Describe any changes you have made in your clinical practice with children younger than 6 years and/or their families that you attribute to your participation in the FSU Harris Training?

Thank you for your effort. You’re half way through!
### SUPERVISORY ACTIVITIES

*Please identify whether you have conducted any of the following clinical activities related to infant mental health assessment, referral, treatment or receipt of reflective supervision before training and at any time since completing the FSU Harris Institute Infant Mental Health Training.*

**FOR PARTICIPANTS IN THE FSU HARRIS ADVANCED CLINICAL TRAINING, “Before training” refers to before participating in any FSU Harris training. “Since training” refers to since completing the advanced training.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. Have you supervised any infant mental health practice (at levels 1, 2 or 3)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Have you supervised any infant mental health practice with <strong>Level 1</strong> or <strong>Level 2</strong> infant mental health service providers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. Have you supervised any <strong>Level 3</strong> infant mental health service providers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Have you supervised assessments of any children younger than 6 years of age?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Have you supervised the use of any standardized screening or assessment tools [e.g. Ages and Stages Questionnaire (ASQ), Ages and Stages Questionnaire – Social/Emotional (ASQ-SE), Devereux Early Childhood Assessment (DECA), Child Behavior Check List for Children 1.5 to 5 (CBCL 1.5-5; Achenbach)]?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. Have you supervised any child–parent interaction assessments?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. What percentage of the infant mental health assessments you’ve supervised included child–parent interaction assessments?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. Have you recommended supervisees use the Crowell Procedure?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Have you recommended supervisees use the rating scale or forms for the Crowell Procedure?</td>
<td></td>
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</tbody>
</table>

### ASSESSMENT

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. Have you supervised assessments of any children younger than 6 years of age?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Have you supervised the use of any standardized screening or assessment tools [e.g. Ages and Stages Questionnaire (ASQ), Ages and Stages Questionnaire – Social/Emotional (ASQ-SE), Devereux Early Childhood Assessment (DECA), Child Behavior Check List for Children 1.5 to 5 (CBCL 1.5-5; Achenbach)]?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. Have you supervised any child–parent interaction assessments?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. What percentage of the infant mental health assessments you’ve supervised included child–parent interaction assessments?</td>
<td></td>
<td></td>
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<tr>
<td>40. Have you recommended supervisees use the Crowell Procedure?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. Have you recommended supervisees use the rating scale or forms for the Crowell Procedure?</td>
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</tr>
<tr>
<td>42. Have you recommended supervisees use the &quot;Still Face&quot; procedure?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Before Training</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Since Training</td>
<td>No</td>
<td></td>
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</tbody>
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<thead>
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<th></th>
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</thead>
<tbody>
<tr>
<td>43. Have you recommended supervisees use the DC 0-3R?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Before Training</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Since Training</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Continue
## REFERRAL

44. Have you recommended supervisees make referrals for developmental assessments (e.g. occupational therapy; physical therapy; speech and language therapy)?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

45. Have you recommended supervisees make referrals for child–parent psychotherapy?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

## TREATMENT

46. Have you recommended supervisees use the “Speaking for the Baby” technique?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

47. Have you supervised dyadic child–parent therapy (e.g. Child–Parent Psychotherapy)?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

48. What percentage of the mental health therapy, for children under 6 years, that you have supervised, included dyadic child parent psychotherapy?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>&lt;25%</td>
<td>&lt;25%</td>
</tr>
<tr>
<td>25–49%</td>
<td>25–49%</td>
</tr>
<tr>
<td>50–75%</td>
<td>50–75%</td>
</tr>
<tr>
<td>&gt;75%</td>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

## REFLECTIVE SUPERVISION

49. Have you provided reflective supervision to supervisees?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

50. How often have you provided reflective supervision to supervisees?

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregularly</td>
<td>Irregularly</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td>Weekly</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

Summary of FSU Training Impact on Supervisory Activities
51. Describe any changes have you made in your supervisory activities related to services for children younger than 6 years and/or their families that you attribute to your participation in the FSU Harris Training?
<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>52.</strong> Have you managed or overseen any programs providing infant mental health services (Levels 1, 2, or 3)?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>53.</strong> Have you overseen any program(s) providing <strong>Level 1</strong> or <strong>Level 2</strong> infant mental health services?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>54.</strong> Have the infant mental health program(s) you’ve overseen included the use of standardized developmental assessments [e.g., Ages and Stages Questionnaire (ASQ), Ages and Stages Questionnaire—Social/emotional (ASQ-SE), Devereux Early Childhood Assessment (DECA), Child Behavior Check List for children 1.5 to 5 (CBCL 1.5–5; Achenbach)]?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>55.</strong> Have you overseen any program(s) providing <strong>Level 3</strong> infant mental health services?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>56.</strong> Have the infant mental health program(s) you have overseen conducted parent–child interaction assessments?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>57.</strong> Have the infant mental health program(s) you have overseen provided any dyadic parent–child therapy</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>58.</strong> Do the infant mental health program(s) you’ve overseen implement reflective supervision?</td>
<td>Yes  No</td>
<td>Yes  No</td>
</tr>
<tr>
<td><strong>59.</strong> How often does reflective supervision occur in the programs you oversee?</td>
<td>Irregularly</td>
<td>Irregularly</td>
</tr>
<tr>
<td></td>
<td>Quarterly</td>
<td>Quarterly</td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
<td>Monthly</td>
</tr>
<tr>
<td></td>
<td>Weekly</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

**Summary of FSU Training Impact on Administrative Activities**

60. Describe any changes you have made in your administrative...
activities for programs targeting children younger than 6 years and/or their families that you attribute to your participation in the FSU Harris Training?
### TRAINING / CONSULTATION ACTIVITIES

Please identify the Infant Mental Health training and/or consultation activities which you have provided both before participating in the FSU Harris training and since completing the FSU Harris Training.

**FOR PARTICIPANTS IN THE FSU HARRIS ADVANCED CLINICAL TRAINING, "Before training" refers to before participating in any FSU Harris training. "Since training" refers to since completing the advanced training.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. Have you provided any infant mental health training?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>62. Have you provided any training related to infant mental health for Level 1 – 2 audiences?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>63. How many infant mental health trainings have you provided for Level 1 – 2 audiences?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>64. Have you provided any Level 3 infant mental health trainings?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>65. How many infant mental health trainings have you provided for Level 3 audiences?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

### CONSULTATION

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>66. Have you provided any infant mental health training or consultation?</td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>67. To which program-types have you provided infant mental health consultation? – <strong>CHECK ALL THAT APPLY</strong></td>
<td>Yes/No</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

- Primary health care/ pediatrics
- Early care & education – center wide
- Early care & education – classrooms
Describe any changes you have made in your training or consultation activities for the provision of services to children younger than 6 years and/or their families that you attribute to your participation in the FSU Harris Training?

Summary of FSU Training Impact on Training and Consultation Activities

68. Describe any changes you have made in your training or consultation activities for the provision of services to children younger than 6 years and/or their families that you attribute to your participation in the FSU Harris Training?
### CORE COMPETENCIES OF INFANT MENTAL HEALTH THERAPY

The 50 questions below inquire about your understanding of core competencies of infant mental health therapy both before and after participating in the FSU Harris training. The questions are divided into 7 areas: Typical Development; Atypical Development; Emotional and Behavioral Disorders; Assessment; Intervention; Community Resources and Referrals; and Organization, Collaboration and Communication.

Please rate your sense of competence on each item as you remember it before participating in the FSU Harris training program and in the year immediately after graduating from the FSU Harris training program:

FOR PARTICIPANTS IN THE FSU HARRIS ADVANCED CLINICAL TRAINING, "Before training" refers to before participating in any FSU Harris training. "Year after training" refers to the year after completing the advanced training.

#### Typical Development

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>69. Understands the construct of attachment and attachment behavior in infants and young children, including parental behaviors that predict secure attachments</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
</tr>
<tr>
<td>70. Can recognize the behavioral manifestations of these normative anxieties, including separation anxiety, clinginess, and fear of exploration</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
</tr>
<tr>
<td>71. Understands limit-setting and other parenting strategies that foster behavioral self-regulation and how to support, develop, and discuss these with parents</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
</tr>
<tr>
<td>72. Understands the timeline of the major transitions in cognitive, social, emotional capacities that typically occur at 2–3 months, 7–9 months, 18–20 months, and 36 months</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
</tr>
<tr>
<td>73. Am knowledgeable about the child’s development of self-regulation and the wide range of normal individual differences for this capacity</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
<td>1: not at all, 2: very limited, 3: generally, 4: strength, 5: at my best</td>
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<tr>
<td>74.</td>
<td>Understands the impact of both acute (e.g., post-partum depression) and chronic maternal mental illness (e.g., major depressive disorder and/or psychosis)</td>
<td><strong>Before Training</strong></td>
</tr>
<tr>
<td></td>
<td>before training</td>
<td>before training</td>
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<tr>
<td></td>
<td>not at all</td>
<td>not at all</td>
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<tr>
<td></td>
<td>very limited</td>
<td>very limited</td>
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<tr>
<td></td>
<td>generally</td>
<td>generally</td>
</tr>
<tr>
<td></td>
<td>strength</td>
<td>strength</td>
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<tr>
<td></td>
<td>at my best</td>
<td>at my best</td>
</tr>
<tr>
<td>75.</td>
<td>Recognizes the early emergence of behaviors indicative of anxiety and depression and when these are likely to become problematic</td>
<td><strong>Before Training</strong></td>
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<tr>
<td></td>
<td>before training</td>
<td>before training</td>
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<tr>
<td></td>
<td>not at all</td>
<td>not at all</td>
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<tr>
<td></td>
<td>very limited</td>
<td>very limited</td>
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<tr>
<td></td>
<td>generally</td>
<td>generally</td>
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<tr>
<td></td>
<td>strength</td>
<td>strength</td>
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<tr>
<td></td>
<td>at my best</td>
<td>at my best</td>
</tr>
<tr>
<td>76.</td>
<td>Am aware of the potential negative impact of multiple separations and/or multiple family placements on early development</td>
<td><strong>Before Training</strong></td>
</tr>
<tr>
<td></td>
<td>before training</td>
<td>before training</td>
</tr>
<tr>
<td></td>
<td>not at all</td>
<td>not at all</td>
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<tr>
<td></td>
<td>very limited</td>
<td>very limited</td>
</tr>
<tr>
<td></td>
<td>generally</td>
<td>generally</td>
</tr>
<tr>
<td></td>
<td>strength</td>
<td>strength</td>
</tr>
<tr>
<td></td>
<td>at my best</td>
<td>at my best</td>
</tr>
<tr>
<td>77.</td>
<td>Understands that cumulative risk factors may lead to cognitive deficits, difficulties in social adjustment, and difficulties in learning</td>
<td><strong>Before Training</strong></td>
</tr>
<tr>
<td></td>
<td>before training</td>
<td>before training</td>
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<tr>
<td></td>
<td>not at all</td>
<td>not at all</td>
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<tr>
<td></td>
<td>very limited</td>
<td>very limited</td>
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<tr>
<td></td>
<td>generally</td>
<td>generally</td>
</tr>
<tr>
<td></td>
<td>strength</td>
<td>strength</td>
</tr>
<tr>
<td></td>
<td>at my best</td>
<td>at my best</td>
</tr>
<tr>
<td>78.</td>
<td>Am knowledgeable about the impact of emotional deprivation on the overall developmental trajectory during the first year of life</td>
<td><strong>Before Training</strong></td>
</tr>
<tr>
<td></td>
<td>before training</td>
<td>before training</td>
</tr>
<tr>
<td></td>
<td>not at all</td>
<td>not at all</td>
</tr>
<tr>
<td></td>
<td>very limited</td>
<td>very limited</td>
</tr>
<tr>
<td></td>
<td>generally</td>
<td>generally</td>
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<tr>
<td></td>
<td>strength</td>
<td>strength</td>
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<tr>
<td></td>
<td>at my best</td>
<td>at my best</td>
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</tbody>
</table>
### Emotional/Behavioral Disorders

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>79. Can distinguish between adaptive and maladaptive responses to trauma</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>80. Am aware of the early signs of autism and related conditions and the concept of autistic spectrum disorders (PDD–NOS)</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>81. Am knowledgeable about the disorders of infancy/toddlerhood (Axis I) and relationship disorders (Axis II) as set forth in DC–03R and the implications of differential diagnosis for treatment</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>82. Am knowledgeable about psychosocial risk factors for disorders</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>83. Am knowledgeable of the literature on attachment disorders, descriptions of, and criteria for identification/diagnosis, as set out in DSM–IV, DC–03R ICD–10, and relevant current literature</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
</tbody>
</table>

**Assessment**

1 = not at all competent;  
2 = very limited competency;  
3 = generally competent;  
4 = an area of strength for me;  
5 = at my best in this area
84. Can organize the results from all assessments used into a workable formulation of the problem(s) and an initial treatment plan

<table>
<thead>
<tr>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
</tbody>
</table>

85. Understands the importance of observations of the infant/child in the settings that are important in daily life

86. Can use observation techniques and relationship-based assessments as described in the Infant Mental Health literature

87. Am knowledgeable about the normative range of parent-child interaction in naturalistic settings so that during planned observations in the home or clinic setting the parent’s emotional states and their responses to the infant/young child can be placed in a meaningful context

88. Recognizes the importance of a working alliance with family members/primary caregivers to the validity of assessment results

5 = at my best in this area

Continue

YOU'RE ALMOST DONE!
### Intervention

<table>
<thead>
<tr>
<th></th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>89. Establishes and maintains a therapeutic alliance with parents and caregivers</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>90. Can relate to and interact comfortably with young children</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>91. Understands the importance of concrete assistance, developmental guidance, crisis management, and advocacy in therapeutic work with families of infants and toddlers</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>92. Recognizes that the parent/caregiver must be engaged and given a leading role for long-term change to occur</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>93. Promotes parental competence in areas such as resolving and forestalling crises and solving family conflicts</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>94. Can discuss family’s discipline concerns in an appropriate developmental and cultural context</td>
<td>1 not at all</td>
<td>1 not at all</td>
</tr>
<tr>
<td></td>
<td>2 very limited</td>
<td>2 very limited</td>
</tr>
<tr>
<td></td>
<td>3 generally</td>
<td>3 generally</td>
</tr>
<tr>
<td></td>
<td>4 strength</td>
<td>4 strength</td>
</tr>
<tr>
<td></td>
<td>5 at my best</td>
<td>5 at my best</td>
</tr>
<tr>
<td>95.</td>
<td>Can demonstrate techniques for soothing, limit setting, maintaining structure, consistency, predictability, and nurturance and can discuss the importance of these with parents/caregivers</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>96.</th>
<th>Am, first and foremost, a good listener</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>97.</th>
<th>Provides emotional support in times of stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>98.</th>
<th>Monitors progress and problems in whatever therapeutic techniques are being implemented by written notes and/or records</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>99.</th>
<th>Can implement dyadic therapeutic techniques as described in the Infant Mental Health Literature and knows their strengths and limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
<tr>
<td></td>
<td>1 not at all 2 very limited 3 generally 4 strength 5 at my best</td>
</tr>
</tbody>
</table>

---

Continue

YOU’RE ALMOST DONE!
### Intervention Competency

<table>
<thead>
<tr>
<th>Question</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>100. Facilitates mutually satisfying reciprocal exchanges between parent and child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>101. Can provide both positive and negative feedback in a sensitive and effective manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102. Am persistent and able to use different techniques with engage hard-to-reach families</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103. Helps parents identify goals and activities that contribute to pleasurable interactions with their infant/toddler, emphasizing strengths in the baby and working from a strengths model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104. Can implement simple behavioral techniques for problems in sleeping, eating and self-control (e.g., charting, positive reinforcement, extinction, time-out), and knows their strengths and limitations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>105. Can offer anticipatory guidance to the family that is specific to their infant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = not at all competent; 2 = very limited competency; 3 = generally competent; 4 = an area of strength for me; 5 = at my best in this area.
106. Can help parents understand and cope with unresolved issues from their past that might be interfering with their ability to parent

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>not at all</td>
</tr>
<tr>
<td>2</td>
<td>very limited</td>
</tr>
<tr>
<td>3</td>
<td>generally</td>
</tr>
<tr>
<td>4</td>
<td>strength</td>
</tr>
<tr>
<td>5</td>
<td>at my best</td>
</tr>
</tbody>
</table>

107. Can convey the value and importance of mutual play in an effective and culturally sensitive manner

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>not at all</td>
</tr>
<tr>
<td>2</td>
<td>very limited</td>
</tr>
<tr>
<td>3</td>
<td>generally</td>
</tr>
<tr>
<td>4</td>
<td>strength</td>
</tr>
<tr>
<td>5</td>
<td>at my best</td>
</tr>
</tbody>
</table>

108. Am knowledgeable about the need to implement empirically validated treatments

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>not at all</td>
</tr>
<tr>
<td>2</td>
<td>very limited</td>
</tr>
<tr>
<td>3</td>
<td>generally</td>
</tr>
<tr>
<td>4</td>
<td>strength</td>
</tr>
<tr>
<td>5</td>
<td>at my best</td>
</tr>
</tbody>
</table>

Continue
### Community Resources and Referrals

<table>
<thead>
<tr>
<th>Objective</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>109. Understands when particular problems manifested by the child require services outside of the therapist's competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>110. Makes referrals in a knowledgeable and professional manner to physicians, occupational and physical therapists, speech pathologists, and other specialists as needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>111. Understands the need to refer a parent/caregiver to a professional for the treatment of their own disorder (e.g., depression, PTSD, outbursts of violence)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>112. Is knowledgeable about resources in the community, how to access them and can discuss these with parents so as to bring them to the parent's attention in a non-threatening manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>113. Follows-up with referrals as needed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Organization, Communication, and Collaboration Competency

<table>
<thead>
<tr>
<th>Objective</th>
<th>Before Training</th>
<th>Since Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>114. Can organize, synthesize, and interpret information from all sources and communicate the needs and strengths of the infant/young child to parents in a fashion to facilitate their</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding and Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>115. Communicates effectively with other professionals involved in carrying out the service plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>116. Can discuss with parents, on an ongoing basis, progress or lack of progress, toward meeting these objectives and goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>117. Can formulate, with parents, a service plan to address the infants/child's needs with explicit objectives and goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>118. Can work as a member of a team and understands the attributes of a successful team such as role release, openness and consensus building</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IMPACT OF FSU HARRIS TRAINING**

119. Overall, how valuable was the FSU Harris training to you?

<table>
<thead>
<tr>
<th>(not valuable)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10 (extremely valuable)</th>
</tr>
</thead>
</table>
Your Done!

Thank You Heather Stone!

A copy of

'Hope and Healing:
A Caregiver's Guide to Healing Young Children Affected by Trauma'

by Kathleen Fitzgerald Rice and Betsy McAlister Groves

will be sent to you shortly.

You have also been entered in the raffle for the Apple iPod Nano 16GB.
APPENDIX F

University of Illinois at Chicago/ Florida State University
Research Information and Consent for Participation in Social Behavioral Research
Training Infant Mental Health Therapists: Characteristics Related to Outcomes

You are being asked to participate in a research study. Researchers are required to provide a consent form such as this one to tell you about the research, explain that taking part in the research study is voluntary, describe the risks and benefits of participation, and help you to make an informed decision. You should feel free to ask the researchers any questions you may have.

Principal Investigator: Heather A. Stone, Doctoral Candidate
University of Illinois at Chicago
2932 Ross Clark Circle #335
Dothan AL 36301
hassling@uic.edu
334-648-2081

Advisor: Mark Mattaini, DSW, Associate Professor
Jane Addams College of Social Work
1040 W. Harrison, Rm 4541
Chicago IL 60607
mattaini@uic.edu
312-996-2770

Co-investigator: Anne E. Hogan, Ph.D., Director
Harris Institute for Infant Mental Health Training
Center for Prevention and Early Intervention Policy
Florida State University
1339 East Lafayette St.
Tallahassee, FL 32301
ahogan@cpeip.fsu.edu
850-922-1352
**Why am I being asked?**

You are being asked to participate in a research survey about Infant Mental Health (IMH) Training Outcomes.

You have been asked to participate in the research because you are a graduate of the Florida State University (FSU) Harris Institute for Infant Mental Health Training Program.

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future dealings with FSU, the Center for Prevention and Early Intervention Policy (CPEIP), the Harris Institute for Infant Mental Health Training (FSU Harris) or the University of Illinois at Chicago (UIC). **If you decide to participate, you are free to withdraw at any time without affecting your relationships.**

**What is the purpose of this research?**

The purpose of the research is to measure the degree to which FSU Harris graduates gained knowledge of infant mental health principles and therapy, and inquire how graduates applied what they learned after training.

**What procedures are involved?**

You are asked to complete an on-line survey that is expected to take 35-45 minutes of your time. The information you provide in the survey would be linked to information contained in records accumulated during your participation in the FSU Harris training. These records would include your training application, workshop post-test scores, satisfaction surveys, and continuing education credit records.

**What are the potential risks and discomforts?**

To the best of our knowledge, completion of this survey includes no more risk of harm than you would experience in everyday life. However, one risk of participating in this research is a loss of privacy (i.e., revealing to others that you are taking part in this study) or confidentiality (i.e., revealing information about you to others to whom you have not given permission to see this information). Careful precautions will be taken to minimize these risks.

**Are there benefits to taking part in the research?**

Taking part in this research study may not benefit you personally, but we [researchers] may learn new things that will improve the training program for future trainees.
**What other options are there?**

You have the option to not participate in this study.

**What about privacy and confidentiality?**

The people who will know you are a research participant are members of the research team. All data (i.e., survey responses and information from past records) will be entered into a computerized dataset on a password-protected server that is maintained by the lead UIC researcher. Your data will be de-identified, meaning it will be assigned a code number that will not contain any information that could be used to determine that you participated in this study. The roster linking code numbers to respondents will be kept in a locked filing cabinet separate from where the electronic data is housed. This list will be destroyed after all data is analyzed.

Study information which identifies you may be looked at and/or copied for oversight of the research by the UIC Office for the Protection of Human Research Subjects and the FSU Office of Research: Human Subjects Committee.

When the results of the research are published or discussed in conferences, no information will be included that would reveal your identity.

**Will I be reimbursed for any of my expenses or paid for my participation in this research?**

You will not be offered payment for completing the survey. However, all respondents who complete the survey within the first two weeks will receive a thank you gift, the Zero to Three publication *Hope and Healing: A Caregiver’s Guide to Healing Young Children Affected by Trauma* by Kathleen Fitzgerald Rice and Betsy McAlister Groves. Additionally, all survey respondents will be entered in a raffle to win an Apple iPod Nano 16GB. The odds of winning the iPod are 1/total number of respondents. The total number of respondents will be ≤122.

**Can I withdraw or be removed from the study?**

You have the right to exit the survey at any time without penalty.

**Who should I contact if I have questions?**

Contact the researchers:
Heather Stone, Doctoral Candidate, hassling@uic.edu 334-648-2081
Mark Mattaini, Associate Professor, mattaini@uic.edu 312-996-2770
Anne Hogan, Associate in Research, ahogan@cpeip.fsu.edu 850-922-1352
What are my rights as a research subject?

If you feel you have not been treated according to the descriptions in this form; or if you have any questions about your rights as a research participant, including questions, concerns, complaints; or to offer input, you may call the UIC Office for the Protection of Research Subjects (OPRS) at 1-866-789-6215 (toll-free) e-mail OPRS at uicirb@uic.edu or the FSU Office of Research: Human Subjects Committee at (850) 644-7900, e-mail at humansubjects@magnet.fsu.edu.

What if I am a FSU student?

You may choose to not participate or to quit the survey at any time. This will not affect your class standing or grades at FSU. Conversely, you will not be offered or receive any special consideration if you participate in this research.

What if I am a FSU employee?

Your participation in this research is in no way a part of your university duties, and your refusal to participate will not in any way affect your employment with the University, or the benefits, privileges, or opportunities associated with your employment at FSU. You will not be offered or receive any special consideration if you participate in this research.

Remember:

Your participation in this research is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University. If you decide to participate, you are free to withdraw at any time without affecting that relationship.

I have read the above information, and I agree to participate in this research.

_________________________________________  ________________________________
Electronic Signature                        Date

Would you be willing to be contacted to discuss further your training experience?

☐ Yes
☐ No

Please print a copy of this form and keep for your records.
APPENDIX G

E-mail/Post Card Invitation to Participate

Dear ________________:

The FSU Harris Institute for Infant Mental Health Training program would appreciate your participation in an outcome evaluation of our program. We are conducting this evaluation (UIC Protocol 2010-0737; FSU Protocol 2010-5602) with Heather Stone, a doctoral candidate at the University of Illinois at Chicago. You are asked to complete an on-line survey that would take 35 to 45 minutes of your time. The survey is available at http://cpeip.fsu.edu/forms/IMHsurvey/. Your assigned ID number to enter the survey is _______. The survey could be provided in a paper form if you prefer. If you complete the survey within the next 2 weeks, you will be sent a copy of the Zero to Three publication *Hope and Healing: A Caregiver’s Guide to Healing Young Children Affected by Trauma* by Kathleen Fitzgerald Rice and Betsy McAlister Groves. All respondents completing the survey will be entered in a raffle to win an Apple iPod Nano 16MB. If you choose not to participate in this survey, your relationship with our office will not be affected in anyway. Please contact our office with any questions 850-922-1300; ltthomas@cpeip.fsu.edu or Ms. Stone 334-648-2081; hassling@uic.edu.

Sincerely,

Anne E. Hogan, PhD
Director
FSU Harris Institute for Infant Mental Health Training
APPENDIX H
Follow up e-mail/ postcard

Dear ____________:

There is still time to participate in an outcome evaluation (UIC Protocol 2010-0737; FSU Protocol 2010-5602) of the FSU Harris Infant Mental Health Training Program (FSU Harris training program) that we are conducting with Heather Stone, a doctoral candidate at the University of Illinois at Chicago. Please consider completing the survey available at http://cpeip.fsu.edu/forms/IMHsurvey/. Your assigned ID number to enter the survey is _______. Once completed, you will be entered in a raffle for an Apple iPod Nano 16 GB. However, if you choose not to participate, your relationship with the FSU Harris training program will not be affected. For more information please visit the above website, contact our office 850-922-1300 ltthomas@cpeip.fsu.edu, or Ms. Stone at 334-648-2081 hassling@uic.edu.

Thank you for your input.

Sincerely,

Anne E. Hogan, PhD
Director
FSU Harris Institute for Infant Mental Health Training
## APPENDIX I

### Data Collection Time Line

<table>
<thead>
<tr>
<th>Week</th>
<th>Respondents w/ e-mail address</th>
<th>Respondents w/o e-mail address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Send out initial invitation to participate e-mail &amp; post card (Appendix G)</td>
<td>Send out post card (Appendix G)</td>
</tr>
<tr>
<td>2</td>
<td>Send out follow up e-mail &amp; postcard (Appendix H) to non-responders.</td>
<td>Send out follow up post card (Appendix H) to non-responders.</td>
</tr>
<tr>
<td>3</td>
<td>Call non-responders (Appendix I)</td>
<td>Call non-responders (Appendix I)</td>
</tr>
<tr>
<td></td>
<td>Send out thank you note and <em>Hope and Healing</em> to first responders.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Close the survey</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Conduct raffle drawing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Send thank you to all survey completers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Send raffle prize to raffle winner</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX J

Data Extraction Form

ID #___________

Continuing Education Records

Cohort year ____________

Number of training hours ____________

Application for participation in FSU Harris IMH training

Section III – pg 3

Previous IMH experience (circle) Yes 01 No 00

FSU Harris Data bases

Mean real time satisfaction score___________

Mean real time knowledge score ____________
APPENDIX K

Letter of agreement - FSU & H. Stone

October 1, 2010

To Whom It May Concern:

The FSU Harris Institute for Infant Mental Health Training (FSU Harris training program) authorizes Heather A. Stone to conduct the study, Training Infant Mental Health Therapists: Characteristics Related to Outcomes. The study will serve as her doctoral dissertation at the University of Illinois at Chicago. The agreement between the FSU Harris training program and Ms. Stone includes the following:

The FSU Harris training program will assist Ms. Stone in contacting and encouraging program graduates to participate in the on-line Survey of Infant Mental Health Training Outcomes.

The FSU Harris training program will allow Ms. Stone access to archival training data. This includes de-identified electronic data collected from: participant program applications, training post-tests, satisfaction surveys, and continuing education records. FSU Harris administrative staff will assist Ms. Stone in linking this data to survey data.

Ms. Stone will own and safe-keep de-identified data from the study. The FSU Harris training program will allow Ms. Stone to publish the results of her study regardless of the findings.

Ms. Stone will provide the FSU Harris training program with a copy of the de-identified, de-linked study dataset as well as outcome results in written and oral form as soon as they are available. She will also provide a final bound copy of the dissertation.

Anne E. Hogan, PhD
Director
FSU Harris Institute for Infant Mental Health Training

Heather Stone, LCSW
Doctoral Candidate
## APPENDIX L

<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Implementation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. What was the range and mean number of training hours for each training cohort?</td>
<td>Training Hours</td>
<td>FSU Continuing Education Records</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td>1b. What were the number of participants in each training cohort?</td>
<td>Number of Participants</td>
<td>FSU Harris Funding Reports</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Learner Participation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a. What was the range and mean of participant attendance?</td>
<td>Attendance (ATTEND)</td>
<td>Continuing Education Records</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td>2b. What are the professional disciplines of learners?</td>
<td>Professional Role</td>
<td>Survey of IMH Training Outcomes item #3</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td>2c. What were the professional roles of learners at the time of training?</td>
<td>Clinical Supervisory Administrative Training</td>
<td>Survey of IMH Training Outcomes item #6</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td>2d. How many learners participated in IMH training before participating in the FSU Harris training?</td>
<td>Prior IMH Training yes = 1 no = 0</td>
<td>Application Form</td>
<td>Descriptive</td>
<td>N/A</td>
</tr>
<tr>
<td>Research question</td>
<td>Variable</td>
<td>Data source</td>
<td>Planned analysis</td>
<td>Power analysis</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>2e. How many learners participated in the FSU Harris advanced clinical training?</td>
<td>Post IMH Training yes = 1 no = 0</td>
<td>FSU Continuing Education Records</td>
<td>Descriptive For use in research Q 6g</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Learner Satisfaction**

<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a. What was the level of learner satisfaction immediately after training?</td>
<td>Learner Satisfaction Real Time</td>
<td>FSU Harris satisfaction surveys</td>
<td>Means For use in research Q 3c &amp; 6c.</td>
<td>N/A</td>
</tr>
<tr>
<td>3b. What is the level of learner satisfaction since completing training?</td>
<td>Learner Satisfaction retrospective</td>
<td>Survey of IMH Training Outcomes item #114</td>
<td>Means For use in research Q 3c &amp; 6c.</td>
<td>N/A</td>
</tr>
<tr>
<td>3c. What is the relationship between learner satisfaction immediately after training and since completing training?</td>
<td>Learner Satisfaction Real Time Learner Satisfaction Retrospective</td>
<td>Research Q 3a Research Q 3b</td>
<td>Spearman’s rho correlation n≤122</td>
<td>N/A</td>
</tr>
<tr>
<td>Research question</td>
<td>Variable</td>
<td>Data source</td>
<td>Planned analysis</td>
<td>Power analysis</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
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<td>-------------------------------------</td>
</tr>
<tr>
<td>4a. What was the level of learner knowledge immediately after completing training?</td>
<td>Learner Knowledge Real Time</td>
<td>FSU Harris workshop post test scores.</td>
<td>Means For use in research Q 4c</td>
<td>N/A</td>
</tr>
<tr>
<td>4b. What is the change in learner self-ratings of knowledge, skills and attitudes (KSA’s) of the seven core competency areas of IMH practice in the year since completing training?</td>
<td>Change in KSA- Typical Development Change in KSA-Atypical Development Change in KSA - Emotional and Behavioral Disorders Change in KSA – Assessment Change in KSA- Intervention Change in KSA- Community Resources &amp; Referrals Change in KSA- Organization, Communication, and Collaboration</td>
<td>Survey of IMH Training Outcomes items #69-118</td>
<td>Repeated measures MANOVA n≤122 Within subject variables: time = before training &amp; after training training areas = 7 IMH core competency areas if MANOVA is significant conduct post hoc analysis to help determine what accounts for the differences</td>
<td>According to G*power 3.1 A –priori F-tests Manova: Repeated measures within factors $\alpha = .05; 1-\beta = .80$ Number of groups = 2 Number of measures = 7 Correlation among measures = .779 Effect size: a small effect ($f = .20$) can be detected with $N = 20$ a medium effect ($f = .50$) can be detected with $N = 12$ a large effect ($f = .80$) can be detected with $N = 10$</td>
</tr>
<tr>
<td>Research question</td>
<td>Variable</td>
<td>Data source</td>
<td>Planned analysis</td>
<td>Power analysis</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>4c. What is the relationship between learner knowledge at the time of training completion and change in learners self-ratings of knowledge, skills, and attitudes (KSA) of IMH core competencies since training?</td>
<td>Learner Knowledge Real Time Change in KSA’s-Typical Development Change in KSA’s-Atypical Development Change in KSA’s-Emotional and Behavioral Disorders Change in KSA’s-Assessment Intervention Change in KSA’s-Community Change in KSA’s-Resources &amp; Referrals Change in KSA’s-Organization, Communication, and Collaboration Overall Change in all KSA’s</td>
<td>Results from research Q 4a Results from research Q 4b</td>
<td>7 Spearman’s rho correlations n≤122</td>
<td></td>
</tr>
</tbody>
</table>

**Application of Learning after Program**

<p>| 5a. Since training, have graduates increased the amount of services they provide to children younger than 6 years? | Change in Services to Children under 6 More =1 About the same =0 Less=0 | Survey of IMH Training Outcomes item # 10 | Descriptive For use in research Q 6i | N/A |</p>
<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
</table>
| 5b. Since training, have graduates adopted recommended IMH practices?            | Overall Application of Learning Coding yes/no questions Coding percentage questions Coding frequency questions | Survey of IMH Training Outcomes items # 5, 11-68. | One tailed matched pairs t-test will determine whether post training scores are higher than pre-training scores for application of IMH practice. | According to g*power3.1 $\alpha = .05; \beta - 1 = .80$
Small effect ($d=0.2$) cannot be detected with a sample <122.
Medium effect ($d=0.5$) requires $N=27$
Large effect ($d=0.8$) requires $N = 12$

For use in research Q 6h

Calculated the difference of the summed items respondents endorsed as remembered before and after training. Calculate a ratio by dividing the respondent’s endorsement scores by the maximum possible score (93).
<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a. Is there a difference between change of learner KSA’s in training cohorts having more training hours and change of learner KSA’s in training cohorts having fewer training hours?</td>
<td>Predictor Variable – between subjects: Training hours High =1 Low = 0</td>
<td>Results from research Q 1a</td>
<td>Repeated Measures MANOVA</td>
<td>According to G*power 3.1 α = .05; 1-β = .80</td>
</tr>
<tr>
<td></td>
<td>DV – within subjects: Change in KSA’s: Typical Development Atypical Development Emotional and Behavioral Disorders Assessment Intervention Community Resources &amp; Referrals Organization, Communication, and Collaboration</td>
<td>Results from research Q 4b</td>
<td>remove participants from analysis that later participated in advanced training</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>split training hours in two groups at the median number of hours ≤112 hours (n &lt; 35) &gt;112 hours (n &lt; 87)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>a small effect (f = .20) can not be detected with N &lt;122; a medium effect (f = .50 )can be detected with N = 28 a large effect (f = .80) can be detected with N = 14</td>
<td></td>
</tr>
</tbody>
</table>

Repeated Measures between factors (groups = 2) (measurements =7 ) (corr of rep measures = .779) a small effect (f = .20) can not be detected with N <122; a medium effect (f = .50 )can be detected with N = 28 a large effect (f = .80) can be detected with N = 14

Repeated Measures Within factors (Groups =2) (Measurements =7) (Corr of rep measures = .779) a small effect (f = .20) can not be detected with N = 20 a medium effect (f = .50 )can be detected with N = 12 a large effect (f = .80) can be detected with N = 10
<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6b. Is there a difference in change of learner KSA’s in cohorts having more participants and cohorts having fewer participants?</td>
<td>Predictor Variable – between subjects: Number of Participants High = 1 Low = 0 DV – within subjects: Change in KSA’s- Typical Development. Change in KSA’s- Atypical Development Change in KSA’s- Emotional and Behavioral Disorders Change in KSA’s- Assessment Change in KSA’s- Intervention Change in KSA’s- Community Resources &amp; Referrals Change in KSA’s- Organization, Communication, and Collaboration</td>
<td>Results from research Q 1b. Results from research Q 4b.</td>
<td>Repeated Measures MANOVA</td>
<td>According to G*power 3.1 $\alpha = .05; \beta-1 = .80$</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Split participants into two groups at median number of participants &lt;20 (n&lt; 39) ≥20 (n&lt; 83)</td>
<td>Remove all participants who later participated in advanced training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H1:Centroid Mean KSA’s (PartCoH)&lt; Centroid Mean KSA’s (PartCoL)</td>
<td>H0: Centroid Mean KSA’s (PartCoH)≥ Centroid Mean KSA’s (PartCoL)</td>
</tr>
<tr>
<td>Research question</td>
<td>Variable</td>
<td>Data source</td>
<td>Planned analysis</td>
<td>Power analysis</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>6c. What is the relationship between learner satisfaction and learner change in KSA’s?</td>
<td>Learner Satisfaction Real Time Learner Satisfaction Retrospective</td>
<td>Results from research Q 3a, b, and c</td>
<td>Spearman’s rho correlations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in s KSA’s- Typical Development</td>
<td>Results from research Q 4b.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in s KSA’s- Atypical Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in s KSA’s- Emotional and Behavioral Disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Assessment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s - Intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Community Resources &amp; Referrals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Organization, Communication, and Collaboration</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research question | Variable | Data source | Planned analysis | Power analysis
--- | --- | --- | --- | ---
6e. Is there any difference in learners’ self ratings of KSA’s between learners of different professional disciplines? | Predictor variable: - between subjects Professional Discipline Social work (n = 60) (LCSW = 1) Mental Health Counseling (LMHC = 2) Marriage and Family Therapy & Psychology (LMFTP = 3) DV – within subjects: Change in KSA’s- Typical Development Change in KSA’s- Atypical Development Change in KSA’s- Emotional and Behavioral Disorders Change in KSA’s- Assessment Change in KSA’s- Intervention Change in KSA’s- Community Resources & Referrals Change in KSA’s- Organization, Communication, and Collaboration | Results of research Q 2b Results of research Q 4b | Repeated Measures MANOVA | According to G*Power3.1 $\alpha = .05; \beta-1 = .80$

**Characteristics of learners**

**Repeated Measure Manova – between effects** –
3 groups 7 measurements Assuming correlation among rep measures of .779 a small effect ($f = .20$) can not be detected with $N \leq 122$; A medium effect ($f = .50$) can be detected with $N = 36$ A large effect ($f = .80$) can be detected w/ $N = 18$

**Repeated Measures Within factors**
Groups =3 Measurements = 7 Cor between rep measures = .779 a small effect ($f = .20$) can be detected with $N = 27$ a medium effect ($f = .50$) can be detected with $N = 12$ a large effect ($f = .80$) can be detected with $N = 12$
<table>
<thead>
<tr>
<th>Research question</th>
<th>Variable</th>
<th>Data source</th>
<th>Planned analysis</th>
<th>Power analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>6f. Is there any difference in change in learners’ KSA’s between learners who had prior training in IMH and learners who had no prior training in IMH?</td>
<td>Between Subjects variable: Prior IMH Training (PRIORIMH) Yes = 1 No = 0</td>
<td>Results of research Q 2e</td>
<td>Repeated Measures MANOVA post hoc analysis areas - 7 competencies</td>
<td>According to G*power 3.1 $\alpha = .05; \beta - 1 = .80$</td>
</tr>
<tr>
<td></td>
<td>DV:</td>
<td>Results of research Q 4b</td>
<td></td>
<td>Repeated Measures Manova -Between factors (groups = 2) (measurements = 7) (corr between representative measures = .779)</td>
</tr>
<tr>
<td></td>
<td>Within subjects variable</td>
<td></td>
<td></td>
<td>a small effect ($f = .20$) can be detected with N &lt;122;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Typical Development</td>
<td></td>
<td></td>
<td>a medium effect ($f = .50$) can be detected with N = 28;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Atypical Development</td>
<td></td>
<td></td>
<td>a large effect ($f = .80$) can be detected with N = 14;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Emotional and Behavioral Disorders</td>
<td></td>
<td></td>
<td>Repeated Measures Within factors (groups = 2) Measurements = 7 Cor between rep measures = .779</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Assessment</td>
<td></td>
<td></td>
<td>a small effect ($f = .26$) can be detected with N = 20;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Intervention</td>
<td></td>
<td></td>
<td>a medium effect ($f = .50$) can be detected with N = 12;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s- Community Resources &amp; Referrals</td>
<td></td>
<td></td>
<td>a large effect ($f = .80$) can be detected with N = 10;</td>
</tr>
<tr>
<td></td>
<td>Change in KSA’s-Organization, Communication, and Collaboration</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Continuing Education Training Literature and FSU Harris IMH Training

<table>
<thead>
<tr>
<th>Evidence Base Highlights</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Reviews of the Medical Literature (Bloom, 2005; Forsetlund et al., 2009; Mansouri &amp; Lockyer, 2007; Marinopoulos et al., 2007)</td>
<td>FSU Harris Training used varying didactic strategies to include: Lecture, video, class discussion, case discussion, homework (reading &amp; practice case formulation), final project</td>
</tr>
<tr>
<td>Combined didactic training with interactive elements (e.g. role-playing, discussion groups, and experiential exercises revolving around problem solving) is more effective than didactic training alone.</td>
<td>FSU Harris Training was an intensive training having a longitudinal sequence, smaller groups, large number of training hours, and multiple sessions.</td>
</tr>
<tr>
<td>FSU Harris Training had longitudinal sequenced learning: 10 month long program meeting for 2 day workshops monthly</td>
<td></td>
</tr>
<tr>
<td>Cochrane Collaborative Review (Forsetlund et al., 2009)</td>
<td>FSU Harris Training had longitudinal sequenced learning: 10 month long program meeting for 2 day workshops monthly</td>
</tr>
<tr>
<td>A trend indicating that more intensive interventions are more effective.</td>
<td></td>
</tr>
<tr>
<td>Intensity included multiple intervention offered in a longitudinal sequence, group size, number of training hours and number of training sessions.</td>
<td></td>
</tr>
<tr>
<td>Group size</td>
<td></td>
</tr>
<tr>
<td>Davis et al. (1999) did not find group size to have effect; Mansouri &amp; Lockyer (2007) found a negative correlation between group size and effectiveness</td>
<td>FSU Harris Training overall had relatively small group sizes - varying between 12 to 30 participants per cohort</td>
</tr>
<tr>
<td>Number of sessions vary but was generally about 140 hours</td>
<td></td>
</tr>
<tr>
<td>[Trainings included in the review were of low intensity or moderate intensity. No trainings of high intensity included.]</td>
<td></td>
</tr>
<tr>
<td>FSU Harris Training would be considered complex. Thus it could be more challenging to produce a training effect than with simpler interventions.</td>
<td></td>
</tr>
<tr>
<td>Type of training (Forsetlund et al., 2009)</td>
<td></td>
</tr>
<tr>
<td>Complexity – more complex, less effect</td>
<td></td>
</tr>
<tr>
<td>Serious outcomes – more serious the outcomes for clients, greater the effect</td>
<td>Outcomes can be considered serious with regards to long-term outcomes for children when one has an understanding of early development. However, there may not appear to be imminent risk.</td>
</tr>
<tr>
<td>Number of sessions varied but was generally a series of 10 weekend sessions</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX M (continued)

### Evidence Based compared to FSU Harris IMH Training Program (continued)

<table>
<thead>
<tr>
<th>Evidence Based Highlights</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of expert presenters may be influential (Chow, Cichocki &amp; Leff, 2009)</td>
<td>FSU Harris Training experts Joy Osofsky, PhD from LSU and Robert Harmon MD from the Univ. of Colorado</td>
</tr>
<tr>
<td>Time from training to evaluation</td>
<td>This evaluation is coming several years after the training and at differing intervals depending on the year that graduates attended. This could affect the outcomes of this study. There may also be difference between graduates who participated in one of the first cohorts and those who have participated in more recent cohorts. If positive effect is measured, however, it could also indicate sustainability of the intervention.</td>
</tr>
<tr>
<td>It has been suggested that training should include participants from various disciplines to better reflect the reality that health care professionals face in practice. However there is little evidence to help determine the efficacy of such a strategy (Hammick, 2000)</td>
<td>FSU Harris Training participants are all licensed mental health providers but from several disciplines (social worker, marriage &amp; family therapy, mental health counseling, clinical psychology)</td>
</tr>
<tr>
<td>Minopoulos et al. (2007) found no audience characteristics influenced efficacy. Mansouri &amp; Lockyer (2007) found when audience was all from only one profession increased effectiveness</td>
<td></td>
</tr>
</tbody>
</table>

### Adult Learning Theory compared to FSU Harris IMH Training Program

<table>
<thead>
<tr>
<th>Adult Learning Theory Highlights</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Domains</td>
<td>Overall, training techniques appear to have been consistent with these guidelines.</td>
</tr>
<tr>
<td>Knowledge (lecture)</td>
<td></td>
</tr>
<tr>
<td>Skills (practice)</td>
<td></td>
</tr>
<tr>
<td>Attitudes (discussion)</td>
<td></td>
</tr>
<tr>
<td>(Bloom, 1977; Krathwohl, Bloom &amp; Masia, 1969; Simpson, 1972)</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX M (continued)

**Adult Learning Theory compared to FSU Harris IMH Training Program (continued)**

<table>
<thead>
<tr>
<th>Adult Learning Theory Highlights</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory of reasoned action &amp; Theory of planned behavior (Perkins et al., 2007) suggests that the behavioral intentions of a person can be a good predictor of behavior. Attitudes, Subjective norms and perceived behavioral control can influence behavioral intentions.</td>
<td>Course end projects were required for most cohorts. In these projects, trainees were to create a plan as to how to implement IMH principles into their work environment. The project might help trainees build their intentions to implement some of what they learned into their practice.</td>
</tr>
<tr>
<td>Need for established competencies to evaluate learning (Chow &amp; Cichocki, 2009; Corrigan et al., 2003; Daniels &amp; Walter, 2004; Hoge, Huey, &amp; O’Connell, 2004; Stuart et al., 2009)</td>
<td>FSU Harris did not plan curriculum according to competencies, but this evaluation is drawing from a list of core competencies for IMH to help evaluate the program.</td>
</tr>
</tbody>
</table>

### Literature Specific to Training Mental Health Professionals compared to FSU IMH Training Program

<table>
<thead>
<tr>
<th>Training Mental Health Professional Literature</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapists reported that interpersonal experiences with clients, with supervisors, and ones’ own therapist were most influential in their development as therapists (Orlinsky, Botermans, &amp; Rønnestad, 2001.)</td>
<td>Interpersonal interactions with presenters and other therapists over time may have been supportive and influential. Opportunities for follow up contact with presenters and other attendees could have been influential particularly for participants in the advanced training.</td>
</tr>
<tr>
<td>Therapists reported strong motivation to furthering their development as therapists and even find it an essential element of job satisfaction (Orlinsky et al., 1999).</td>
<td>Seems likely that therapists who participated in the FSU Harris training which required a substantial time commitment may have had similar motivation.</td>
</tr>
</tbody>
</table>
**APPENDIX M (continued)**

<table>
<thead>
<tr>
<th>Literature Specific to Training Mental Health Professionals compared to FSU IMH Training Program (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training Mental Health Professional Literature</strong></td>
</tr>
<tr>
<td>Psychotherapists reported continuing development over the course of their careers. “Accumulated wisdom” came through the process of having a reflective stance where one asked for and received feedback. Respondents (Skovholt and Ronnestad, 1992)</td>
</tr>
<tr>
<td>Therapists reported that they were most likely to adapt a new therapy if it could be integrated with what they were already doing and was endorsed by other therapists that they respected. They would continue the intervention if they enjoyed conducting the intervention, clients liked the intervention and reported improvements (Cook et al., 2009).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation of training of mental health therapists highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surveys of Therapists Highlights</strong></td>
</tr>
<tr>
<td>Two year training of mental health clinicians in England to work with severely mentally ill clients (Gauntlett, 2005). Therapists reported that training presented by expert presenters and training with co-worker were the factors most influential for technology transfer. Felt they needed more training to use most complex skills.</td>
</tr>
<tr>
<td>Three trainings of therapists in Motivational Interviewing (MI) for tx of substance abuse (Miller &amp; Mount, 2001; Miller, Yahne, Moyers, Martinez, &amp; Pirritano, 2004; Rubel, Sobell, &amp; Miller, 2000) The most intensive training had the most positive results. The intensive training included workshop (2 days), feedback (written comments about actual practice), and coaching (telephone sessions) was most effective.</td>
</tr>
<tr>
<td>Training therapists in Cognitive Behavioral Therapy (CBT) for tx of substance abuse (Sholomskas et al., 2005) Comparing 3 training conditions: Manual only Manual plus web-based training Manual plus 3 day workshop plus up to 3 supervision sessions</td>
</tr>
<tr>
<td>Those participants in the advanced training could have received the equivalent of group supervision, but many more sessions as compared to Sholomskas and colleagues (2005).</td>
</tr>
</tbody>
</table>
### APPENDIX M (continued)

<table>
<thead>
<tr>
<th>History of IMH Training</th>
<th>FSU Harris Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topics covered</strong></td>
<td>Content similar, although updated by more current literature</td>
</tr>
<tr>
<td>included typical and atypical development, human bonding and attachment, assessment and intervention (Shapiro, Adelson &amp; Tableman, 1978).</td>
<td>Clinicians from varying disciplines</td>
</tr>
<tr>
<td>Clinicians from varying disciplines</td>
<td>There was no specific clinical experience and supervision provided in the FSU Harris training. The longitudinal nature of the program allowed trainees to try out practices in their own work setting. The training emphasized the importance of reflective supervision, but did not facilitate the provision of it except for the 17 graduates who participated in the advanced training.</td>
</tr>
<tr>
<td>Clinical experience and supervision.</td>
<td>Trainees in the 2002-2003 cohort were asked to do this, but most participants did not follow through, so the exercise was not repeated with subsequent cohorts.</td>
</tr>
<tr>
<td>Clinical experience included observation of normally developing infants in families over the course of a year for comparison to families that present clinically (Shapiro, Adelson &amp; Tableman, 1978).</td>
<td>Wayne State providing academic credit No academic credit; Continuing education credits for licensure were provided</td>
</tr>
</tbody>
</table>
## APPENDIX N

<table>
<thead>
<tr>
<th>Variable Type</th>
<th>Variable Name</th>
<th>Conceptual Definition</th>
<th>Data source</th>
<th>Measurement Scale/ Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>FSU Harris IMH Training</td>
<td>IMH Training</td>
<td>Archival data</td>
<td></td>
</tr>
<tr>
<td>Possible</td>
<td>Training Hours</td>
<td>The total number of training hours a respondent participated in training. Includes number of hours offered and participant attendance. Does not include advanced training hours.</td>
<td>Data collected at time of training</td>
<td>Continuing Education Records</td>
</tr>
<tr>
<td>Moderating</td>
<td>Number of Participants</td>
<td>The number of persons in any one training cohort.</td>
<td>Data collected at time of training</td>
<td>Continuing Education Records</td>
</tr>
<tr>
<td>Possible</td>
<td>Professional Discipline</td>
<td>The professional discipline of the respondent (LCSW, LMHC, LMFT, Psychologist)</td>
<td>Online Survey of IMH Training</td>
<td>Professional Characteristics/ Role Inventory</td>
</tr>
<tr>
<td>Moderating</td>
<td>Prior IMH Training</td>
<td>Having IMH training prior to participating in the FSU Harris Training</td>
<td>Archival data</td>
<td>Application for participation in IMH Training</td>
</tr>
<tr>
<td>Possible</td>
<td>Post IMH Training</td>
<td>Respondents participating the FSU Harris advanced training</td>
<td>Archival data</td>
<td>Continuing Education Records</td>
</tr>
<tr>
<td>Moderating</td>
<td>Learner Satisfaction</td>
<td>Sense of satisfaction at the time training was completed.</td>
<td>Data collected at time of training</td>
<td>Satisfaction Surveys – mean of all 10 pt ratings proffered by participants after each workshop attended –</td>
</tr>
<tr>
<td>Proximal</td>
<td>Real Time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable Type</td>
<td>Variable Name</td>
<td>Conceptual Definition</td>
<td>Data source</td>
<td>Measurement Scale/ Source</td>
</tr>
<tr>
<td>---------------</td>
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<tr>
<td>Outcome</td>
<td>Learner Satisfaction Retrospective</td>
<td>Value of the FSU Harris training to respondents in retrospect</td>
<td>Online Survey of IMH Training Outcomes</td>
<td>IMH Retrospective Satisfaction Scale</td>
</tr>
<tr>
<td>Outcome</td>
<td>Learner Knowledge Real Time</td>
<td>Knowledge gained in workshops. Mean of respondents’ workshop post-test scores.</td>
<td>Data collected at time of training</td>
<td>Mean of all post-test scores for each workshop attended</td>
</tr>
<tr>
<td>Outcome</td>
<td>Change in KSA’s – Typical Development</td>
<td>Change in respondent’s retrospective self-assessment of knowledge, skills and attitudes related to typical development of children &lt; 6 yrs of age after training.</td>
<td>Online Survey of IMH Training Outcomes</td>
<td>Abridged FSU IMH Therapist Competence Scale</td>
</tr>
<tr>
<td>Outcome</td>
<td>Change in KSA’s – Atypical Development</td>
<td>Change in respondent’s retrospective self-assessment of knowledge, skills and attitudes related to atypical development of children &lt; 6 yrs of age after training.</td>
<td>Online Survey of IMH Training Outcomes</td>
<td>Abridged FSU IMH Therapist Competence Scale</td>
</tr>
<tr>
<td>Outcome</td>
<td>Change in KSA’s – Emotional and Behavioral Disorders</td>
<td>Change in respondent’s retrospective self-assessment of knowledge, skills and attitudes related to emotional and behavioral disorders of children &lt; 6 yrs of age after training.</td>
<td>Online Survey of IMH Training Outcomes</td>
<td>Abridged FSU IMH Therapist Competence Scale</td>
</tr>
<tr>
<td>Outcome</td>
<td>Change in KSA’s – Intervention</td>
<td>Change in respondent’s knowledge, skills and attitudes related to intervention with children &lt; 6 yrs of age.</td>
<td>Online Survey of IMH Training Outcomes</td>
<td>Abridged FSU IMH Therapist Competence Scale</td>
</tr>
</tbody>
</table>
### APPENDIX N (continued)

<table>
<thead>
<tr>
<th>Variable Type</th>
<th>Variable Name</th>
<th>Conceptual Definition</th>
<th>Data source</th>
<th>Measurement Scale/ Source</th>
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<tbody>
<tr>
<td>Outcome</td>
<td>Proximal</td>
<td>Change in KSA’s - Community Resources and Referrals</td>
<td>Change in respondent’s knowledge, skills and attitudes related to community resources and referrals for children &lt; 6yrs of age.</td>
<td>Online Survey of IMH Training Outcomes</td>
</tr>
<tr>
<td>Outcome</td>
<td>Proximal</td>
<td>Change in KSA’s – Organization, Communication, and Collaboration.</td>
<td>Change in respondent’s retrospective self-assessment of knowledge, skills and attitudes related to organization, communication, and a collaboration when working with children &lt; 6yrs of age after training.</td>
<td>Online Survey of IMH Training Outcomes</td>
</tr>
<tr>
<td>Outcome</td>
<td>Proximal</td>
<td>Overall Change in all KSA’s</td>
<td>Overall change in respondent’s retrospective self-assessment of knowledge, skills and attitudes related to work with children &lt; 6yrs of age.</td>
<td>Online Survey of IMH Training Outcomes</td>
</tr>
<tr>
<td>Outcome</td>
<td>Distal</td>
<td>Change in Services to Children under 6</td>
<td>Self-reported increase in volume of services provided to young children after training completion</td>
<td>Online Survey of IMH Training Outcomes</td>
</tr>
<tr>
<td>Outcome</td>
<td>Distal</td>
<td>Overall Application of Learning</td>
<td>The degree to which learners reported they implemented specific recommended practices from the FSU Harris training.</td>
<td>Online Survey of IMH Training Outcomes</td>
</tr>
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</table>
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