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## ABSTRACT

This dissertation focuses on the process involved in the formulation and implementation of a program evaluation plan in relation to a University-based early intervention outreach program for toddlers with autism. In addition, results from the initial application of this program evaluation plan are reported and discussed. The framework which was used to guide this approach to program evaluation was Maher's Program Planning and Evaluation Framework (Maher 2000). The program on which the evaluation occurred provides a range of early intervention services for toddlers and their families using the principles and procedures of Applied Behavior Analysis (ABA). The kind of program evaluation reflected in this dissertation, specifically in relation to the type of early intervention outreach program, is important because although there is encouraging evidence suggesting the value of both early intervention and the use of ABA principles for children with autism, very few reports have described how to design and conduct a systematic program evaluation that would provide information for continued programmatic development and improvement. As part of the dissertation, the program evaluation consultant established a professional relationship with the director of the program. In conjunction with the director, the consultant proceeded to delineate the kind of information that the director could use to further develop and improve the program. Subsequently, the program evaluation consultant and the program director determined specific program evaluation questions to which program evaluation protocols were linked and placed into a completed program evaluation plan. The program evaluation plan was then implemented and a program evaluation report was provided to the director and reviewed with that individual by the consultant. Finally, an evaluation of the program evaluation process itself was undertaken. The dissertation concludes with

recommendations for both the development and improvement of early intervention outreach programs for toddlers with autism as well as recommendations for further implementation of this kind of program evaluation approach with early intervention outreach and related types of programs.

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## CHAPTER I

### Introduction and Overview

*Chapter Abstract:* This chapter begins with a discussion related to the prevalence of Autistic Spectrum Disorders, as well as the significance related to the documentation of systematic program evaluation for early intervention programs designed for children with autism. A description of the current Early Intervention Program evaluated is provided and the chapter concludes with a detailed explanation of the current dissertation task. The program evaluation plan and specified protocols developed within the plan are discussed.

#### *Prevalence of Autistic Spectrum Disorders and the Importance of Program Evaluation in Early Intervention Programs for Children with Autism*

According to a report published by the Center for Disease Control and Prevention in 2007, the average Autistic Spectrum Disorder (ASD) prevalence was 6.7 per 1,000 for eight-year-olds in 2000 and 6.6 per 1,000 for eight-year-olds in 2002 across several areas

of the United States. This comprehensive study examined prevalence rates across fourteen states: Alabama, Arizona, Arkansas, Colorado, Georgia, Maryland, Missouri, New Jersey, North Carolina, Pennsylvania, South Carolina, Utah, West Virginia, and Wisconsin. This recent report as well as many others, suggest that ASDs are among the most common of the severe disorders of development with a prevalence of approximately 1 in 150 in the United States (Chakrabarti & Fombonne, 2005; Chakrabarti & Fombonne, 2001; Jacobsen, Mulick & Green, 1998).

In the last 15 years, epidemiological studies of pervasive developmental disorders like autism have shown consistent and significant increases in prevalence. It is likely that increases in prevalence reflect a broadening of the concept and diagnostic criteria for autism, as well as increased awareness and improved detection across age and level of intellectual disability (Chakrabarti & Fombonne, 2005). Despite these possible explanations, many medical, educational, and mental health professionals report concern related to the drastic increases in autism estimated and reported recently. In February 2007, the Star Ledger, a newspaper in New Jersey, reported that Catherine Rice, a behavioral scientist who led the previously described study, expressed her distress, “Autism is more common than we believed and is a public health concern.” Because the exact causes of pervasive developmental disorders are yet unknown, and because there is no known cure for ASD, much attention should be focused on developing useful and effective interventions that will positively alter the developmental trajectory of individuals with autism.

Autistic Spectrum Disorder is characterized by impairments in social interaction and communication along with restricted, repetitive, and stereotyped patterns of behavior

(Fitzgerald, Lester & Zuckerman, 2006). Recent progress has been made in the early identification of children with autism, and most children are now identified during the early preschool ages or earlier (Charman & Baird, 2002). Over the past two decades, this shift within the field of autism has led to a recent focus on early intervention and treatment. Current research suggests intensive early intervention may result in dramatic improvements for toddlers with autism, specifically in terms of cognitive, social and behavioral domains (e.g. Green, Brennan, & Fein, 2002; Harris & Handleman, 2000). However, despite much encouraging evidence for the effectiveness of early intervention with this population, there is still no one approach that meets accepted criteria for an empirically validated treatment (Baker & Abbott Feinfeld, 2003; Jacobsen et al., 1998). As the number of children diagnosed with autism and other Autistic Spectrum Disorders continues to increase, the need to establish and document evidence based early intervention treatments for this population continues to grow significantly.

Numerous litigation cases over the appropriate identification of and the development of educational and early intervention services for children with autism have occurred over the past decade. This litigation and the overall inconsistency in the early intervention services provided for children with ASDs, highlight the great need and importance for systematic studies examining the effectiveness of the services provided to children with autism. It is this investigation that will allow for the development of appropriate programming and service delivery in this population.

As it stands currently, individual states are provided with a large amount of decision making authority when developing early intervention programming appropriate for children and families with autism. Because very few evidence based early

intervention programs for children with autism exist, many different methods of administering services for children who are at risk or already diagnosed with autism have been utilized across the U.S. (Fitzgerald et al., 2006). Early intervention services are not cheap; the total societal costs incurred by these interventions are high and directly influenced by the rising prevalence of developmental disorders. Consequently, research examining the effectiveness of early intervention programs for children with autism has become increasingly necessary, as the number of individuals diagnosed with autism continues to climb.

### *Dissertation Context*

This investigator planned and conducted a program evaluation of an early intervention program for toddlers with autism. Specifically, a University-based early intervention outreach program, located in the northeastern USA, was examined. The Early Intervention (EI) Program provides early and intensive intervention for toddlers with autism using the principles of Applied Behavior Analysis (ABA). Home-based programs for learners under 3 years of age and their families provided include the following:

- Licensed and/or certified staff
- Systematic assessment of the learner's environment
- Systematic assessment of the learner's skills
- Individualized Family Service Plan (IFSP) development
- Data based decision making

- Use of empirically supported strategies
- Interventions in the natural environments which span the home and community
- High intensity and continuous provision for learning opportunities and engagement
- Speech therapy
- Transition planning
- Parent training and support to promote collaboration and family involvement as well as advocacy
- Parent support groups
- Appropriate and individualized programs for children and families

developed using the following;

- Autism Diagnostic Observation Schedule (ADOS)
- Cognitive tests (Stanford Binet Fifth Edition or Bayley Scale of Infant Development)
- Rossetti Infant Toddler Language Scale
- Behavioral Language Assessment (BLA)
- Assessment of Basic Language and Learning Skills- Revised (ABLLS-R)
- Program Specific Developmental Checklist

The Early Intervention Program currently consists of 5 full time and two part-time staff member(s). Current staff members consist of: certified Special Education teachers,

bachelor's level graduates of psychology, Occupational therapists, and certified associate level behavior analysts. The EI program is one of several different programs and services offered through a larger University-based center designed to work with children who have developmental disabilities. The EI program is a part of Outreach Services within the larger center. The evaluator worked closely with the Early Intervention Clinical Coordinator/Assistant Director of Outreach Services, as this contact served as the main liaison between the program and the program evaluator.

Also involved in this program evaluation are the relevant stakeholders, or the toddlers and families who have received services through the Early Intervention Program. Currently, 38 children (and their families) have received in-home intervention services through the Early Intervention Program. In addition, 4 children received a brief assessment through the program. All students who received the program were under age 3; and all of the toddlers had been diagnosed or determined at risk for an Autistic Spectrum Disorder. Approximately 36 of the families served received funding through their state. The remaining 2 families received services through private funding. It is important to note that 3 of the 36 families served through the state were privately funded at some point as well.

In the five years this program has existed, a sound program evaluation has yet to be completed. According to Maher (2000), a sound program evaluation is practical, useful, proper, and technically defensible. The purpose of this dissertation was to develop and conduct a sound program evaluation for the previously described University-based Early Intervention Program.



### *Dissertation Task*

This dissertation investigated the process of evaluating an Early Intervention Outreach program using a systematic program evaluation approach, as described by Maher (2000). Maher's framework includes four phases; clarification, design, implementation and the focus of this dissertation, the *evaluation* phase. Additional information about these phases and the application of Maher's framework in this specific dissertation are provided in Chapter 3.

After consulting with important stakeholders of the aforementioned program, a second dissertation task was to document the program evaluation process in order to provide useful information related to organizing and implementing a systematic program evaluation process. The investigator worked closely with important stakeholders to develop program evaluation questions representing the informational needs of the current program. The investigator and important stakeholders focused on creating program evaluation questions that would assist those involved in better understanding the program, while assisting in future decision making.

Again, the investigator worked most closely with the Early Intervention Clinical Coordinator, as she was considered the main client, as well as a major stakeholder invested in the program evaluation process. After collaborating with the client and placing the program in an evaluable form, as indicated by Maher's framework (2000), several program evaluation questions were developed. Three of these program evaluation questions were addressed through a pilot implementation of the evaluation plan. This dissertation addressed the following program evaluation plan questions specifically;

1. To what extent does the intensity of the program moderate student success in the program?
2. What are parent's reactions to the program?
3. What are staff member's reactions to the training they receive through this program?

For each program evaluation question, specific protocols were created to outline the procedures for the collection and the eventual documentation of evaluation data. Similarly, data collection instruments were developed to examine program specific information. In addition, data were collected from standardized measures that were currently being used in the program, such as the programs own unique checklist, the Autism Diagnostic Schedule (ADOS) (Lord, Rutter, & LeConteur, 1994) cognitive tests (Stanford Binet Fifth Edition (Roid, 2003) or Bayley Scales of Infant Development (Bayley, 2006)), as well as the Assessment of Basic Language and Learning Skills (ABLSS) (Partington, 2006). The protocols summarized methods and procedures for data analysis, personnel, responsibilities, timelines, and guidelines for communication, as well as the use of program evaluation information.

Finally, an evaluation of the program evaluation created and implemented through this dissertation was included, focusing on the client's reactions to the program, difficulties encountered through the evaluation, and the utility of the dissertation in terms of the information and products provided to the client and program.

*Chapter Summary:* In this chapter, the prevalence of ASDs, as well as a brief summary related to the importance of documenting early intervention program evaluations for

children with autism is provided. In addition, a brief description of the early intervention program in terms of the services provided, relevant stakeholders and the history of program development are presented. The task of the current dissertation, designing and implementing a program evaluation plan for this Early Intervention Program is described. Lastly, the program evaluation plan and documentation of the implementation of specified protocols developed within the plan are discussed.

## CHAPTER II

### Review of Literature

*Chapter Abstract:* The purpose of this chapter is to review the current research examining: Autistic Spectrum Disorders generally, the application of Applied Behavior Analysis when working with children with autism, early intervention for children with autism, as well as program evaluation related to early intervention services for children with autism and their families. The chapter concludes with a discussion of the relevance of this literature in relation to the current dissertation.

#### *Autistic Spectrum Disorders*

Autism was first described in 1943 by Leo Kanner in a classic article that included 11 case studies of children with similar social deficits (Corsello, 2005). Kanner focused on two features; the “autism,” and a group of unusual behaviors he termed, “insistence on sameness” or “resistance to change,” which included unusual movements and mannerisms as well as difficulty with novelty (Volkmar, Chawarska, & Klin, 2005).

Following Kanner’s initial description and well into the 1970’s, the dominant view was that autism resulted from psychological factors associated with faulty parenting. As a result, at this time, treatments for autism focused on interventions for

parents, typically mothers who were often labeled “refrigerator mothers.” This faulty conceptualization of autism was counter-therapeutic and lacked a scientific approach to understanding and developing treatments for the disability. Fortunately, a group of innovative thinkers began to challenge this conceptualization beginning in the 1960’s. A shift in theory began to occur as these researchers identifying a link between epilepsy and autism, started conceptualizing autism as a neurological disorder affecting brain development and its associated functioning (Bryson, Rogers, & Fombonne, 2003).

Today the diagnostic criteria have evolved based on continued observations and research, resulting in the current criteria documented in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) (American Psychiatric Association, 2000). Presently, autistic disorder is defined in terms of qualitative impairments in social interaction and communication, and restricted, repetitive, and stereotyped patterns of behaviors, interests, and activities, with impairments in one of these areas prior to the age of 3 years (Corsello, 2005). Autistic Disorder is thought to be the most classic form of spectrum related disorders which includes four other specific diagnoses: Asperger’s disorder, Rett syndrome, childhood disintegrative disorder, and pervasive developmental disorder- not otherwise specified (Bryson et al., 2003).

Autism is possibly the most widely recognized and reliably diagnosed developmental disorder and it has been identified in almost all societies (Volkmar, Klin, Siegel, Szatmari, Lord, Campbell, et al., 1994). From the 1940s when Kanner identified the disorder and until recently, autism was considered a relatively rare disorder, with estimated occurrence rates of 2 to 5 per 1000 individuals. As the conceptualization, and hence the definition of autism have broadened, so has the estimated prevalence of this

disorder. Recent prevalence estimates for autistic spectrum disorders range from 1 in 1000 to 1 in 150 individuals (Chakrabarti & Fombonne, 2005; Chakrabarti & Fombonne, 2001; Jacobsen et al., 1998; Jensen & Sinclair, 2002).

Autism tends to involve a number of other significant associated features. These include but are not limited to: intellectual disability, seizures, a greater proportion of affected males and comorbidity with other genetic disorders. Most research suggests the rate of intellectual disability in autism is approximately 70%, with lower rates of impaired cognitive functioning for the broader spectrum of autistic disorders (Volker & Lopata, 2008). Children with autism also evidence more co-occurring maladaptive behaviors than do typically developing peers and peers with other intellectual disabilities (Hartley, Sikora, & McCoy, 2008). The existence of these maladaptive behaviors, in addition to the cognitive and social delays associated with autism, have all contributed to the recent focus on the development and evaluation of effective intervention for children with autism.

### *Applied Behavior Analysis and Autistic Spectrum Disorders*

Over the years, many different treatments for children with autism have developed from a range of different philosophies and theories. Much debate has focused around the application of applied behavior analysis (ABA), when working with children with autistic spectrum disorders. Applied behavior analysis is the “science of applying what is learned from the analysis of behavior to understand the functional relationship between behavior and conditions (Jensen & Sinclair, 2002, p.45).” The science of ABA

has been used to create interventions for individuals with autism since the 1970's. ABA programs for children with autism target specific skills in a specialized sequence, the purpose being to modify behavior so as to increase and/or improve socialization, communication and general adaptive functioning (Jensen & Sinclair, 2002).

Although a plethora of research examining the use of ABA techniques to reduce symptoms in children with autism emerged from 1960-1980, it was not until Lovaas' classic study in 1987 that ABA was considered one of the primary treatments for autism, especially for young children (Harris & Delmolino, 2002). In Lovaas' seminal study he found that two or more years of early intensive 1:1 behavioral treatment (40+ hours per week) resulted in significantly higher IQ scores and less restrictive educational placements for young children with autism than did less intensive ABA treatment (Reed, Osborne, & Corness, 2006). Since Lovaas' study, a number of other researchers have supported the effectiveness of behavioral treatments. Partial replications of Lovaas' work have generally found significant improvements for children with autism in the areas of: IQ, language, adaptive behaviors, autistic symptoms and problem behaviors (Corsello, 2005; Eldevik, Eikeseth, Jahr, & Smith, 2006; Harris & Handleman, 2000; Jacobsen, et al., 1998; Magiati, Charman, & Howlin, 2007; Volker & Lopata, 2008).

Although the name Lovaas has been linked to ABA in autism research, in reality, the Discrete Trial Instruction (DTI) utilized by Lovaas' study is only one specific ABA intervention used with children with autism. ABA includes a number of other methods, strategies, techniques and programs that are based on the behavioral principles of ABA. In recent years, criticisms about the generalizability of ABA techniques, specifically discrete trial instruction, have been addressed with the development of more naturalistic

behavioral interventions such as: the Natural Language Paradigms (Koegel, O'Dell, & Koegel, 1987), embedded trials, Pivotal Response Training (PRT) (Koegel, 1995; Koegel, Camarata, Koegel, Ben-Tall, & Smith, 1998), and incidental teaching (Hart, 1985; McGee, Krantz, & McClannahan, 1985; McGee, Morrier, & Daly, 1999) .

These more naturalistic interventions are less well known and less widely available than is DTI at the present time; however, these contemporary techniques hold great promise in terms of intervening with young children diagnosed with autism. Although each of the methodologies previously mentioned (language paradigms, embedded trials, pivotal response training (PRT), and incidental teaching) are separate and unique techniques, they share some commonalities. Specifically, these methodologies include teaching within natural contexts (during play, work, snack, within the classroom or at home), the use of natural reinforcers, and learning opportunities that are child initiated (Corsello, 2005).

Over time a large body of research documenting the effectiveness of the application of ABA principles with autistic children has developed. Many ABA methods have demonstrated significant impact on the learning and overall development of: cognitive skills, language, social skills, and adaptive behaviors. In 1998 Jacobsen et al. reported that more than 500 studies had been published demonstrating the efficacy of various ABA techniques for building a wide range of skills in people with autism of all ages. However, as the instructional techniques of ABA continue to evolve with more naturalistic and contextual methodologies, it will be important to subject these techniques to the same meticulous examination and long term outcome studies that have documented the benefits of traditional ABA techniques (i.e. DTI) (Harris & Delmolino, 2002).



*Early Intervention Related to Autistic Spectrum Disorders*

Most early intervention programs for children with autism, and hence most research on the efficacy of these programs, have focused on programs designed for pre-school aged children (Corsello, 2005). However, over the past decade, research has suggested that the distinct deficits in social engagement associated with autism are often apparent before preschool, typically by 12 to 15 months. In retrospective studies many parents report first noticing difference in their children with autism during infancy, frequently seeking professional advice between the ages of 18-24 months due to continued delays in the development of language or the apparent loss of, or regression in, previously acquired skills. Even when considering the subgroup of children with autism who appear to develop normally the first 12 to 24 months of life, typically indicators of autism are evident by 24 to 40 months. Often early indicators consist of primarily negative symptoms, or the absence of specific skills or behavior typical for children in their age group when relating to their environment (Howlin & Moore, 1997). These impairments have been shown to be reliable indicators of autism and typically these impairments are obvious even without spoken language (Jensen & Sinclair, 2002). These recent screening and diagnostic advances, as well as recent research related to early diagnosis, suggest that children can be reliably diagnosed with autistic spectrum disorders as young as 2 years of age (Corsello, 2005; Jensen & Sinclair, 2002; Lord, 1995).

Many studies report positive outcomes for young children with autistic spectrum disorders receiving early intervention (Baker & Abbott Feinfeld, 2003; Corsello, 2005; Eldevik et. al., 2006; Harris & Handleman, 2000; Jacobsen et. al., 1998; Jensen &

Sinclair, 2002; Magiati et. al., 2007; Volker & Lopata, 2008). Lovaas' (1987) study, as described in the previous section, served as not only the impetus for research related to ABA and autism, but also served as evidence for the effective use of early intervention for young children with autism. His particularly impressive results with children aged 2-3 with autism suggest strongly that intensive early intervention can be effective in significantly influencing the trajectory of development for this population (Magiati, 2007). It is important to note, that as discussed in the previous section, Lovaas' name and his work have been linked to the theory of ABA. His (1987) study has also been linked to early intensive behavioral intervention (EIBI). However, technically, EIBI refers to a broad range of ABA style treatments applied intensively in the toddler and preschool years (Jensen & Sinclair, 2002).

Although a number of studies attempting to replicate Lovaas' research findings have led to mixed results, generally, subsequent studies have yielded positive results for children with autism when receiving early intervention (Baker & Abbott Feinfeld, 2003; Corsello, 2005; Eldevik et. al., 2006; Harris & Handleman, 2000; Jacobsen et. al., 1998; Jensen & Sinclair, 2002; Magiati et. al., 2007; Volker & Lopata, 2008). Specifically, in 2000 Harris and Handleman provided a detailed look at age as a predictor of success related to early intensive behavioral intervention. Outcome data from this study suggested that individuals with autism who had entered the program before 48 months of age yielded results similar to those reported in Lovaas' famous study. In contrast, outcome data for children entering the program after 48 months of age was less impressive. Again, these findings suggest a great need for effective and evidence based early intervention for young children with autism.

*Current State of Early Intensive Behavioral Intervention for Autism and Relevance to  
Dissertation Task*

Early intervention for children with autism has been a particularly hot topic over the last two decades. Like effective early intervention for children at risk for other disabilities, early intervention for children with autism should be implemented early (before the age of 3); provided for many hours a week per year and for an extended period; be directly delivered to children and families; address a wide range of needs; and accommodate individual differences. Overall, early intensive behavioral intervention is costly when implemented properly, and it does not produce significant gains for every child (Jacobsen et. al., 1998).

However, as previously discussed, the historically poor prognosis for children with autism has been challenged by the emergence of research documenting significant improvements for some children with autism following early intensive behavioral intervention, as well as confirmatory reports that the effects can endure into later childhood and adulthood (Smith, 1998). Some studies have estimated, based on Lovaas' original study, that improvements produced by early intensive behavioral intervention in autistic spectrum disorders may result in a cost-saving to society of nearly \$200,000 by the time an individual with autism has reached age 22 (Jacobsen et al., 1998) and almost a million dollars by the time that individual is 55 years old (Lord, Wagner, Rogers, Szatmari, Aman, Charman, et al., 2005). These promising cost saving estimates have led to the recent focus on the examination and evaluation of the many aspects that comprise early intensive behavioral intervention.

Recently, examination of the effectiveness, and specifically the cost-effectiveness of early intervention programs for children with autism has become particularly poignant in the state of New Jersey. As previously discussed in Chapter I, the report published by the Center for Disease Control and Prevention (2007) reported that the average ASD prevalence was 6.6 per 1,000 for eight-year-olds in 2002. Among the fourteen states examined, New Jersey had the highest prevalence rates of ASD, 10.6 cases of autism per 1,000 children (1 in 94) reported. The statistics were even more significant for boys, as New Jersey's rate for eight-year-old boys in 2002 was 16.8 per 1,000 (1 in 60) according to this comprehensive study that included 30,000 children in Essex, Union, Hudson and Ocean counties.

These alarming statistics have sparked much debate within the state of New Jersey, as well as several different explanations for the higher prevalence of ASDs in the state according to this study. Some mental health officials suggested one reason for New Jersey's high rates is the aggressive system of assessment and treatment for children with autism. Similarly, professionals within the field have questioned whether New Jersey has a higher concentration of "autism experts," pediatric neurologists, developmental pediatricians and behavioral psychologists than those states with lower prevalence rates like West Virginia.

In addition, some attribute the state's autism rates to the availability of early intervention and school services for autistic children, as well as heightened awareness among parents. O'Crowley (2007) reported that the State Health Commissioner of New Jersey, Fred M. Jacobs, confirmed that the number of toddlers in the early intervention program has been rising steadily across the last several years. In addition, the budget for

the program has increased from \$22 million in 2000 to \$79 million in 2007. According to O’Crowley (2007) in the New Jersey Star Ledger, Jacobs said fully funding early intervention through the state Health and Senior Services Department, as well as funding special preschool services, was a priority for Governor Corzine. Although there may be several explanations for the increased prevalence rates reported in New Jersey, the fact remains that evidence related to cost-effective intervention for toddlers with autism is necessary in New Jersey, as well as across the United States during this time of fiscal crisis.

Over the past 20 years, a shift in early intervention research related to autism has occurred. Studies prior to the 1980’s addressed questions regarding the effectiveness of early intervention, while more recent research has focused on determining which aspects of early intervention are most cost-effective and for which types of autistic children (Gabriels, Hill, Pierce, Rogers, & Wehner, 2001). Many studies have demonstrated that a significant proportion of children with autism benefit from early intensive behavioral intervention, however, a unitary program model for this service delivery has yet to be developed (Jacobsen et. al., 1998). As a result, little research has been devoted to comparing the effectiveness of early intervention programs for children with autism, specifically programs developed for children ages 0-3 (Corsello, 2005).

Despite the lack of a unitary model for early intervention programs, research has begun to recognize aspects that remain similar across programs that have demonstrated empirical evidence of improving overall development for children with autism. Specifically, Corsello (2005) indicated that common elements of these programs include but are not limited to: including parent involvement, intensity, a predictable environment,

incorporating the child's interests, actively engaging the child, and focusing on individualized goals. Although these commonalities have been identified there is little research to suggest which aspects of the program are most powerful in terms of success for the child. There is a great need for future research focusing on the programmatic variables that reliably predict responsiveness to early intensive behavioral intervention (Jacobsen et. al., 1998). Although controlled studies afford the most rigorous examination of treatment effects, valuable information can be obtained through non-experimental or quasi-experimental evaluations, as is the focus of this dissertation task.

*Chapter Summary:* This chapter focuses first on a description of Autistic Spectrum Disorders. Symptoms, prevalence and a brief history of the diagnosis are supplied. This chapter also concentrates on a review of the relevant literature related to the application of applied behavior analysis when working with children with autism. Similarly, an examination of the literature relevant to early intervention in autism is also discussed. In addition, a review of the research documenting the need for systematic evaluation of early intervention programs for children with autism is presented. Finally, conclusions and the significance of this literature review in terms of its relation to the current dissertation task are provided.

## CHAPTER III

### Approach to Program Evaluation Plan Formulation

*Chapter Abstract:* According to Maher (2000), a sound program evaluation exists within a broader context of thorough program planning and evaluation. In this framework, program evaluation is the fourth and final phase. In this chapter a brief description of Maher's (2000) first three phases will be provided. The first section of the chapter concentrates on the purpose of the evaluation phase and the qualities of a sound human service program evaluation. The second section of this chapter will presents a detailed description of the activities comprising the evaluation phase. In addition, the second section focuses on the application of Maher's (2000) framework to the specific program evaluated in this dissertation.

#### *Program Evaluation Framework*

As previously discussed, Maher's (2000) program evaluation framework includes four phases: clarification, design, implementation and evaluation. In the clarification phase, the client's concerns and current circumstances are clarified. The goal of this phase is to gain important contextual information; the target population served, the needs

of this target population addressed, as well as other relevant and related environmental information. Successful completion of the clarification phase helps to ensure that the needs of the target population are addressed appropriately and realistically. The design phase focuses on the documentation of a program developed based on the information gained in the previous phase. The design phase culminates with the production of a program design document that dictates the activities of the implementation and evaluation phases. The purpose of the implementation phase is to assure the program design is executed with integrity according to the plan previously developed in the clarification and design phases.

The evaluation phase should assure that data are obtained and analyzed while keeping in mind the context of the program and important program evaluation questions. The evaluation information gained in this part of the process can allow sound judgments to be made about the program's value and worth, thus contributing to continuous program development, improvement and maturity. It is important to note that a complete program evaluation plan should be developed and documented as a part of the design phase.

The evaluation phase is important for several reasons. Program development and implementation often require a significant investment of resources. A sound program evaluation will ensure that the program and the related investment of resources are directly addressing the needs of the target population. Similarly, as previously discussed, the program evaluation process facilitates continued program development and improvement. If the program evaluation reveals specific value the target population has gained as a result of a program, documentation of this value may allow for continued implementation of the program and possibly the eventual maturity and expansion of



services. Often continued funding from third party agencies is based on the documentation of data indicating program effectiveness. In addition, the program evaluation process typically involves important stakeholders in the continuation and further development of the program and services provided to the target population. Often this involvement will lead important stakeholders to renew interest and re-invest in the program.

According to Maher (2000), a sound program evaluation possesses the following qualities: practicality, utility, propriety and technical defensibility. In terms of practicality, a sound program evaluation is one that can be implemented by people in the organization with minimal disruption to organizational routines. Similarly, a sound program evaluation should provide useful information about the program. Information gained should provide important stakeholders with the data to make more effective decisions about the programs development and eventual improvement. A quality program evaluation is also conducted within appropriate legal and ethical standards. Lastly, a program evaluation should include methods, procedures, and instruments that can be justified as to their technical reliability, validity, and accurateness.

### *Overview of Activities of Evaluation Phase*

As articulated by Maher (2000), the evaluation phase is comprised of twelve major activities. These activities are sequential, interrelated, and reflexive. Thus, although these steps are intended to be followed in order, specific circumstances may

indicate the need to revisit or return to previous steps in order to revise or improve upon the process.

Below is a complete list of the Twelve Steps of the Evaluation Phase:

1. Identify the client
2. Determine the client's needs for program evaluation
3. Place the program in "evaluable" form
4. Delineate program evaluation questions
5. Specify data collection variables for each program evaluation question
6. Describe the data collection methods, instruments, and procedures
7. Describe methods and procedures for data analysis
8. Specify program evaluation personnel and responsibilities
9. Delineate guidelines for communication and use of program evaluation information
10. Construct program evaluation protocols
11. Implement program evaluation
12. Evaluate program evaluation

The remainder of this section focuses on briefly describing each of the previously mentioned activities comprising the evaluation phase. For a more detailed description of these activities the reader is referred to *The Resource Guide for Planning and Evaluating Human Services Programs* (Maher, 2000).

1. Identify the client

In this first activity, the client for the evaluation is identified. Several questions should be considered: Who is the individual or group within the human services organization that is directly responsible for assuring that the program is implemented as designed? Who is the individual or group responsible for overseeing the program, while functioning in a larger managerial or administrative capacity? Who is the individual, group or agency that is external to the organization that is interested in the design, implementation and outcomes of the program? The answers to these questions will identify the client, while determining the appropriate perspective of other primary stakeholders.

2. Determine the client's needs for program evaluation

This program evaluation activity provides an opportunity for the client to clarify the reasons for the program evaluation, while focusing the nature and scope of the evaluation needs. Several tasks should be accomplished in order to determine the needs of the client for program evaluation. First, it should be clarified what the client wants to know or learn about the program. Similarly, the client should indicate the reasons for evaluating the program at this time. In addition, it is important to assess how the client expects to acquire this information and knowledge. Completion of

these activities helps to determine whether the client's needs can and should be addressed through program evaluation.

3. Place the program in "evaluable" form

An "evaluable" program is one that reflects a program design that meets three criteria; clarity, compatibility, and developmental status. Clarity refers to the extent which written information describing each program design element exists and is able to be understood by the consultant, client, and other relevant stakeholders. Compatibility is indicated by the degree to which each program design element appears consistent with other elements. Lastly, developmental status is the extent to which each program design element appears sufficiently developed for efficient implementation and the degree to which the program as a whole is developed. It is important to place the program in evaluable form for several reasons. Most importantly, the planning and evaluation process can only yield continuous development and improvement when the program is clearly understood by all concerned.

4. Delineate program evaluation questions

Through this activity the program evaluation questions on which an evaluation will focus are delineated and agreed upon by the client, relevant stakeholders and the consultant or investigator conducting the program evaluation. A program evaluation question is a question about some

element of the program's design, implementation, or results that will allow program planning and evaluation actions to be taken. Such actions include but are not limited to: judgments about the worth of the program in serving the needs of the target population; judgments about the capability of the program to be implemented as designed; decisions about how to use the evaluation information resulting from the evaluation to make revisions in the program's design; and decisions about whether and to what extent the program can be implemented in other settings. In order to complete this activity it should first be determined what needs to be known about the program. As a result, a list of evaluation questions should be developed with the client and important stakeholders input and collaboration. Lastly, the most important questions should be selected and placed into *SMART* program evaluation form. The *SMART* acronym indicates that questions should be: Specific, Measurable, Answerable, Relevant and Time-framed.

5. Specify data collection variables for each program evaluation question

A data collection variable refers to some construct, item, event, or other matter that needs to be measured through a data collection procedure in order to answer the program evaluation questions. Once identified, variables should be operationalized for data collection. This operationalization will guide decisions about the appropriate methods, procedures, and instruments needed for data collection.

6. Describe the data collection methods, instruments, and procedures

Building on the previous step, this activity establishes how data will be collected on the variables in order to answer each program evaluation question. Data collection should be targeted to the particular variables that will result in an answer to a specific program evaluation question. It may not be necessary to collect data on all variables. It should be determined with the client which variables are significant enough to elicit documentation and data collection. A method for data collection refers to the particular way in which data will be collected. The method used should depend on the nature of the variables and program evaluation questions. Possible methods of collection include but are not limited to: questionnaires, interview, permanent product review, and observation. Procedures for data collection should refer to timeframes, as well as whether a comparison or control group will be necessary. In selecting instruments for the program evaluation it must be first determined if instruments exist or whether these instruments will need to be developed by the consultant.

7. Describe methods and procedures for data analysis

The purpose of this step is to determine how the data collected should be analyzed in a way that will address each established program evaluation question. Data must be collected and analyzed systematically to ensure

that program evaluation questions are answered in a way that informs the consultant, client, and other relevant stakeholders.

8. Specify program evaluation personnel and responsibilities

Through this activity the people who will be involved in the implementation of the program evaluation are identified and their roles and responsibilities are clarified specifically. Completing this step helps to facilitate the eventual implementation of the program evaluation protocols developed. This activity also includes discussion of the timelines and responsibilities with the stakeholders that will serve as evaluation staff.

9. Delineate guidelines for communication and use of program evaluation information

This step is comprised of several tasks which, if successfully accomplished, will contribute to effective communication and the appropriate use of program evaluation information. First, the target audience receiving the evaluation information should be identified. Individuals and groups who are affected and may be able to contribute to program development and improvement are considered the target audience. After the target audience has been identified, it should be specified what information will be communicated, as well as by whom and when this will occur. Information can be communicated in a number of

ways: written report, graphs, tables, lists, etc. In addition, this step should include how the target audience will be involved and what program planning actions will occur.

#### 10. Construct program evaluation protocols

Through this program planning and evaluation activity, program evaluation protocols are developed and recorded in written form as part of the program evaluation plan document. The following information should be included in the program evaluation protocol:

- The program evaluation question
- Data collection variables
- Data collection methods, instruments, procedures
- Methods and procedures for data analysis
- Guidelines for communication and use of evaluation information

After a protocol has been developed for each evaluation question, this information can be culminated into a program evaluation plan document. According to Maher (2000), the following heading should be included in the program evaluation plan document:

- Overview of the program evaluation
  - Client and client information needs
  - Timeframe of the evaluation
- Description of the program to be evaluated
- List of program evaluation questions



- Program evaluation protocols
- Appendix A: Copies of instruments
- Appendix B: Professional biographical sketch of consultant/program planning and evaluation team (optional)

#### 11. Implement program evaluation

This step is the actual implementation of the program evaluation plan based on the description of the methods, procedures, and instruments contained in the program evaluation protocols. As the program evaluation proceeds it may be necessary to adjust the process and revise one or more protocols to address the needs of the target population more precisely.

When and if any modifications are made, an appropriate rationale for the change should be documented and discussed with relevant stakeholders.

#### 12. Evaluate program evaluation

After the program evaluation has been implemented, an evaluation of the evaluation process is warranted. This evaluation allows the client, consultant and relevant stakeholders an opportunity to evaluate the effectiveness of the program evaluation, as well as an opportunity to learn ways the evaluation could be modified and improved in the future. Maher (2000) articulates four questions that can be asked of the client, consultant and relevant stakeholders in order to evaluate the program planning and evaluation process:

1. To what extent was the program evaluation conducted in a way that allowed for its successful accomplishment?
2. In what ways was the resulting program evaluation information helpful to people? Which people?
3. Did the program evaluation occur in a way that adhered to legal strictures and ethical standards?
4. To what degree can the evaluation be justified with respect to matters of reliability and validity?

*Applying Maher's (2000) Program Evaluation Plan to the Current Dissertation Task*

Information for the current program evaluation plan was developed in collaboration with the client, through a series of face-to-face interviews, as well as several phone conferences and email correspondences. This section of the chapter focuses on presenting the overall content of these meetings and conferences as they relate to the completion of the twelve steps to the evaluation phase, as dictated by Maher (2000). For a more detailed description of the timeline and agenda of each meeting please refer to Appendix A.

To begin, the consultant had an initial meeting with the client. As discussed earlier, the client is the Early Intervention Clinical Coordinator, she was instrumental in the development of the program and due to her intimate knowledge and investment in the program, she served as the main contact, and eventually the main client for the consultant conducting the program evaluation. The purpose of this first meeting was to; identify a

client, learn more about the program and the context within which it exists, and to determine the client's need for a program evaluation. As previously mentioned, the Early Intervention Clinical Coordinator was immediately identified as the primary client affiliated with this project due to her significant involvement in the continued development, implementation and improvement of the early intervention program. Through discussions with the client the consultant learned more about the services provided through the Early Intervention Program. In addition, the consultant determined that in the three years since the program was developed a formal evaluation of the EI program had yet to occur. In this meeting it was established that the consultant would collaborate with the client, to develop an appropriate program evaluation plan that would be implemented upon the client's eventual approval.

Following this initial meeting, the consultant scheduled a series of face-to-face and phone interviews in order to obtain the necessary descriptive information needed to place the program in "evaluable" form, as described by Maher (2000). Through these interviews the consultant gathered contextual information, as well as important program design elements. Specifically, the following information was recorded in order to place the program in "evaluable" form as dictated by Maher's (2000) framework; the program purpose and SMART goals, eligibility standards and criteria, policies and procedures, methods and techniques, equipment and materials, facilities, the program components, phases and activities, as well as the budget, personnel and the incentives associated with the program.

After conceptualizing the program in an "evaluable" form, the consultant was able to determine that the program was ready and appropriate for evaluation. At this time, the

consultant met with the client again to establish and clarify program evaluation questions that were realistic and would provide useful information that could influence or guide further program development. After several correspondences to modify and clarify, three specific program evaluation questions were developed and agreed upon by both the client and consultant. In addition, together the client and consultant discussed and eventually operationalized the specific data collection variables for each program evaluation question. Similarly, the client and consultant collaborated to establish data collection methods, procedures and related instruments. With input from the client, the consultant also established methods and procedures for data analysis, which were eventually approved by the client. Before moving on to implementation, the client and consultant also worked together to specify the program evaluation personnel and responsibilities associated with the program evaluation plan, as well as to dictate guidelines for communication and the use of program evaluation information.

After these communications, the consultant used the information gathered to develop individual program evaluation protocols for each program evaluation question. These protocols were reviewed by the client, and a phone conference was held to discuss the client's satisfaction with the finalized products for each question. Once the client approved the protocols, the consultant gathered and organized the information obtained into a program evaluation plan that was also reviewed and eventually approved by the client. Following this approval, and before implementing the program evaluation, the client held a meeting with other important stakeholders from the program to review with them the plan, as well as to elicit suggestions and feedback from other's involved in the program. Specifically, the client presented the program evaluation information at a

research meeting focused on the Outreach services within the larger organization, of where the EI program is a part. This internal meeting provided important stakeholders, the director and assistant director of Outreach services, an opportunity to supply their opinions and input related to the program evaluation plan. The client communicated this input to the consultant, and after some slight modifications based on this feedback a final program evaluation plan was established and agreed upon by both the client and consultant.

After receiving formal approval through the Institutional Review Board for the Protection of Human Subjects in Research at Rutgers University, implementation of the program evaluation was conducted as dictated by the program evaluation plan. Data collection instruments were disseminated by the client and consultant as described in the details of the program evaluation plan. For a complete description of the program evaluation plan, the reader is referred to Chapter 4.

Upon receiving the completed data collection instruments from both the parent and training groups, the consultant analyzed the data obtained as dictated through each program evaluation protocol. Once the data was analyzed and reviewed, results were described through written report, as answers to the program evaluation questions previously developed in the process. The answer to each evaluation question was reported to the client, as each program evaluation protocol described. The reader is referred to Chapter 5 for a detailed description of the program evaluation results.

Eventually the results to each program evaluation question and the completed program evaluation plan were provided to the client for review. The client received written information about the results as dictated in the program evaluation plan. In

addition, the consultant met with the client about the completion of the program evaluation and the reported results to each question. The consultant highlighted and reviewed significant findings that were of particular interest to the client in terms of program intensity, parent satisfaction and staff member's reaction to training. The consultant then requested feedback from the client. The reader is referred to Chapter 7 for a full description of the client's feedback.

*Chapter Summary:* This chapter focuses on Maher's (2000) approach to program evaluation. A brief description of the clarification, design and implementation phase are provided. A more detailed explanation of the evaluation phase is discussed including; the purpose for program evaluation, the qualities of a sound program evaluation, and the twelve activities that comprise the program evaluation phase. Finally, a description of the implementation of Maher's (2000) framework on the current dissertation task is reviewed.

## CHAPTER IV

### Program Evaluation Plan

*Chapter Abstract:* The purpose of this chapter is to discuss the significance of understanding contextual information before designing and implementing a relevant program evaluation. Maher's (2000) AVICTORY approach is described and applied specifically to the current dissertation task. The chapter concludes with a thorough illustration of the program evaluation plan utilized through this dissertation.

#### *Relevant Organizational Context*

The relevant context within which the target population and their needs are embedded must be well understood by all concerned if an effective human services program is to be designed and implemented (Maher, 2000). Specifically, the relevant context refers directly to those factors in the environment of the target population and their needs that provide meaning and direction for subsequent program planning and evaluation activities. Because the target population does not exist in a vacuum, information about the organizational context often determines how and when to design and implement a program and a related program evaluation.

Maher (2000) suggests several reasons for the importance of delineating the relevant context. Primarily, factors that may facilitate or inhibit design and

implementation of the program can be identified and considered from the start.

Similarly, the readiness of the organization to develop and implement a program or program evaluation can be assessed. Lastly, the knowledge of the relevant context allows for precise evaluative judgments to be made about the worth and merit of program, which in turn enables more accurate projections to be made about the implementation of the program in other settings.

In order to explore the relevant context, while assessing the readiness of the organization to plan and implement a program evaluation Maher (2000) suggests utilizing the framework of the AVICTORY approach. Specifically, AVICTORY is an acronym referring to the set of factors about which relevant contextual information can be obtained in a progressive step by step manner with the client and relevant stakeholders. The factors assessed using this framework include the following:

- A-Ability of the organization to commit resources to the design, implementation, and evaluation of the program
- V-Values that people within the organization and other relevant stakeholders ascribe to the target population, the program, and program evaluation
- I-Ideas that people have about the current situation regarding the target population, its needs, addressing those needs through a program, and evaluating that program
- C-Circumstances within the organization as related to its structure and leadership
- T-Timing of the design, implementation, and evaluation of the program



- O-Obligation that members of the organization and stakeholders feel to assist the target population through a program and to evaluate that program
- R-Resistance that might be encountered with respect to the design, implementation, and evaluation of the program
- Y-Yield or benefit that may result for the target population as a result of the program and its evaluation

*Application of Maher's (2000) AVICTORY Model to Current Dissertation*

Maher (2000) describes several different methods for obtaining information about the eight factors presented in the AVICTORY approach. Specifically, interviews of the key individuals and groups within the organization can be conducted. Similarly, questionnaires related to these factors can be designed as a way of acquiring this information. In the same way, a permanent product review can be conducted to make judgments and inferences about the context. Lastly, participant observation allows judgments and inferences to be made on the part of the evaluation consultant based on involvement and participation with the client and other relevant stakeholders. For the purposes of this dissertation task, this investigator conducted an interview with the program director, in order to obtain information related to the eight factors previously outlined through the AVICTORY framework. The organizational context for the early intervention program evaluated is described below.

- Ability – This factor addresses whether an organization possesses the resources to successfully implement a human service program and evaluation. The

various resources include human, technological, informational, financial, physical and temporal. When this program evaluation began, the Early Intervention Outreach Program had been in existence for approximately three years; as such many of these resources were already in place. Human resources included a director, two full time special education teachers, two part time special education teachers, two bachelors' level graduates of psychology, and one occupational therapist. Informational and technological resources included an informal curriculum providing methods for individualized assessment and intervention for each toddler receiving early intervention services. Financial resources were provided through state funding, as well as through the private revenue generated by the program. Adequate temporal and physical resources were provided through the larger organization within which the EI program exists. Specifically, the larger organization provided appropriate office space, as well as assessment and intervention measures and tools needed for the implementation of this program. For the purposes of this dissertation, the investigator was interested in the program's ability to commit these resources into a formal program evaluation. After discussions with the client, as well as discussions between the client and relevant stakeholders, it was determined that the larger organization was eager to commit and devote human, technological, informational, temporal, and some financial resources if needed into the first formal evaluation of this program.

- Values— After talking with the client and other staff involved in the Early Intervention Program, it was clear that all staff involved in this program were

devoted to learning about and working with the target population, toddlers with Autistic Spectrum Disorders. Professional staff in this program value not only the target population, but also the intervention services provided to these individuals.

- Ideas – The investigator learned through discussions with the client, that it was her opinion that the level of service provided to each individual within the target population varied according to the level of need. Despite this variance, the client works with staff members to develop clearly defined tasks and goals for each identified individual within the program. Overall, staff members appeared devoted to the target population, as well as to the success of the current program, attempting to make changes and improvements where they deemed necessary.
- Circumstances – Staff and administration related to this program have stayed relatively consistent over time. The client has directed the Early Intervention program since its development in November 2005, and she suggests there has been approximately 50% rate of staff turnover. Although a 50% turnover rate is significant, it is important to note that this percentage is based on a very small number of staff members. It is important to note that the mission of this program has remained stable and consistent over time.
- Timing – Administrators and other program staff were eager for an official evaluation of the program, as this would be the first time the program would be formally assessed. Similarly, timing was particularly ideal, as the client was eager to obtain evaluation information due to recent state budget cuts related to

programmatic funding. Additionally, the client was invested in documenting the implementation of an Early Intervention Program based in the theory of Applied Behavior Analysis. As previously mentioned, programs combining evidence based treatment (Applied Behavior Analysis) with an early intervention program for toddlers with autism is underrepresented in research. The client was excited to evaluate and document this unique Early Intervention Outreach program.

- Obligation – After informal discussions with the program director, the investigator thought that staff feel a strong obligation to assist the target population, individuals with developmental disabilities within the Early Intervention Program. Key stakeholders from the state and the larger organization can be presumed to be committed because of the funding they have provided for this program.
- Resistance – Anticipated resistance to this program evaluation was low, as staff and administration both appear dedicated to the evaluation process and overall success and further development of the Early Intervention Program. Because this program evaluation would require minimal effort from staff, very little resistance was anticipated throughout the program evaluation project.
- Yields – As this program evaluation began, administration felt that the Early Intervention Program was providing toddlers with autism consistent and intense educational services designed to increase; school readiness, functional communication, joint attention, and all other functional skills. Administrators

were eager to obtain a formal program evaluation documenting programmatic benefits.

### *Overview of the Program Evaluation Plan*

#### Client Needs for Program Evaluation

In order to maintain the existence of this program within the larger organization, it is important to document the services and the related benefits provided by the Early Intervention Outreach Program. Information gained through a formal program evaluation provided the client and relevant stakeholders with concrete, advantages and benefits of the program. Documentation of these anticipated advantages is significant as it may influence or increase staff interest or funding for the program.

Similarly it is significant to collect data to document the benefits of the program in terms of the length and intensity of services provided. The state in which the program resides provides funding for several of the children in the program. Documentation of the anticipated benefits in relation to length and intensity of services may be helpful information for the client as she attempts to elicit consistent or further funding from the state.

Lastly, the client feels strongly that it is important to begin to document the results of evidence based early intervention programs for children with Autism Spectrum Disorders. As previously mentioned, this client has developed an evidence based early intervention program rooted in the theory of Applied Behavior Analysis (ABA). Research has consistently recognized the effectiveness of ABA with children on the

Autistic Spectrum. However, very few early intervention programs for children with autism have documented significant results. Consequently, little research has been devoted to assessing the effectiveness of evidence based early intervention programs for children with Autistic Spectrum Disorders. The proposed program evaluation would provide uniquely significant information not yet documented in current literature. In general, this client is highly motivated and invested in establishing the effectiveness of early intervention evidence based treatments for children with Autistic Spectrum Disorders.

#### Time Frame

This program evaluation was designed and implemented over the course of approximately one and a half years. The program evaluation implementation began in February, 2009 and all program evaluation procedures were completed by May, 2009.

#### Brief Description of Program

Please note that a full description of the program is provided in Chapter 1.

#### List of Program Evaluation Questions

1. To what extent does the intensity of systematic programming and parent training provided through this program moderate the students success in the program?
2. What are parent's perceptions and reactions to specific aspects of the program?
3. What are staff member's perceptions and reactions to the training they receive through this program?

## Program Evaluation Protocols

### *\*\*Protocol 1\*\**

#### *Program Evaluation Question 1*

To what extent does the intensity of systematic programming and parent training provided through this program moderate the students success in the program?

#### *Data Collection Variables*

For question 1, the operationalized data collection variables included: intensity, defined as the number of hours of direct service provided; moderate, defined as contributing to, or hindering; and success, defined as decreased inappropriate behaviors and increased academic, social, adaptive and school readiness skills, measured by pre and post measure assessment tools.

#### *Data Collection Methods, Instruments, and Procedures*

A review of records, as well as pre and post assessment information were used to answer this program evaluation question. Both pre-assessment and post-assessment information from all of the students who have completed the program were obtained. This information was reviewed and combined with time records, indicating the number of hours of direct service that each student received throughout the program.

#### *Methods and Procedures for Data Analysis*

As previously mentioned a review of records was used to help determine the number of direct service hours each student had received throughout their time in the program. In

addition, an analysis of pre and post assessment measures for each toddler involved in the program was conducted. The client and investigator worked together in terms of presenting the pre and post data information analyzed.

*Personnel, Responsibilities, and Timeframe*

The evaluation consultant was responsible for the analysis of this data, while the client was responsible for gathering the majority of this information. The evaluation consultant completed this analysis within 4 months of receiving the data previously described.



*\*\*Protocol 2\*\**

*Program Evaluation Question 2*

What are parent's perceptions and reactions to specific aspects of the program?

*Data Collection Variables*

In order to collect data regarding this question, the evaluation consultant developed a *Parent's Reaction Survey* (see Instrument 1.1 for completed Parent Reaction Survey), designed to elicit parents thoughts, responses and feelings related to the Early Intervention Program. Surveys were distributed to all of the parents who have received services through the Early Intervention Program since its development in 2005.

*Data Collection Methods, Instruments, and Procedures*

Data collection method includes the distribution, completion, and collection of the *Parent Reaction Surveys* (Instrument 1.1) completed by parents involved in the program.

*Methods and Procedures for Data Analysis*

The units of analysis are the responses of parents to the questionnaire items in the *Parent Reaction Survey*. Some items on the surveys require respondents to provide ratings on a seven-point scale. Other items asked respondents to provide qualitative responses and comments. Descriptive statistics are used in data analysis and interpretation. For items that involved ratings, means and percentages were calculated. Thematic analysis was also conducted for responses that involved qualitative comments.

*Personnel, Responsibilities, and Timeframe*

The evaluation consultant was responsible for the development, distribution and analysis of the *Parent Reaction Surveys*. The client provided the evaluation consultant with demographic information used to distribute the surveys. It is important to note that the client's feedback was considered significantly in the development of the *Parent Reaction Surveys*. *Parent Reaction Surveys* were distributed immediately after the evaluation consultant had received permission through the Institutional Review Board. The evaluation consultant analyzed these surveys within 4 weeks of receiving the completed surveys.

*\*\*Protocol 3\*\**

*Program Evaluation Question 3*

What are staff member's perceptions and reactions to the training they receive through this program?

*Data Collection Variables*

In order to collect data regarding this question, the evaluation consultant developed a *Staff's Reaction Survey* (see Instrument 1.2 for completed Staff Reaction Survey), designed to elicit staff members thoughts, responses and feelings related to the training they have received through the Early Intervention Program. Surveys were distributed to all of the current staff members.

*Data Collection Methods, Instruments, and Procedures*

Data collection method included the distribution, completion, and collection of the *Staff Reaction Surveys* (Instrument 1.2) completed by current staff involved in the program.

*Methods and Procedures for Data Analysis*

The units of analysis are the responses of staff to the questionnaire items in the *Staff Reaction Survey*. Some items on the surveys require respondents to provide ratings on a seven-point scale. Other items asked respondents to provide qualitative responses and comments. Descriptive statistics are used in data analysis and interpretation. For items that involved ratings, means and percentages were calculated. Thematic analysis were conducted for responses that involved qualitative comments.

*Personnel, Responsibilities, and Timeframe*

The evaluation consultant was responsible for the development, distribution and analysis of the *Staff Reaction Surveys*. The client provided the evaluation consultant with demographic information used to distribute the surveys. It is important to note that the client's feedback was considered significantly in the development of the *Staff Reaction Surveys*. *Staff Reaction Surveys* were distributed immediately after the evaluation consultant had received permission through the Institutional Review Board. The evaluation consultant analyzed these surveys within 4 weeks of receiving the completed surveys.

## Guidelines for Communication and Use of Program Evaluation Information

### *Dissemination of Program Evaluation Information*

The program evaluation information was disseminated to the client and the other Early Intervention Program staff members, in the form of a summary report. After examination, review, and when the data had been analyzed in a meaningful way, this information was summarized in a written report. The report included a narrative description of the program evaluation procedures, protocols and results, as well as any necessary information about the way this particular program evaluation process was established. In addition, recommendations and potential areas for further evaluation, based on the program evaluation data and survey responses were included.

The program evaluator presented and reviewed this written summary report with the client, allowing an opportunity for communication and open feedback. Eventually this information will be disseminated to other staff members and relevant stakeholders.

### *Client's Use of Program Evaluation*

This program evaluation provided the client and the other staff members with valuable information about the current EI Program. This information, specifically the information gathered related to parent and staff reactions, may be used to revise and improve the program over time. All program evaluation questions focused on important aspects of the program that may be modified based on program evaluation results.

As previously discussed, the summary report developed included specific recommendations related to programmatic improvements, based on the data collected. The client may then choose to discuss possible recommendations or improvements with current staff members at their monthly staff meetings. She may wish to generate and

incorporate her own recommendations and staff suggestions, in hopes of improving the overall program. The client may also choose to provide the same information to the Department of Health and Senior Services, the federal agency responsible for administering the Early Intervention Programs in the state in which the program resides.

### Evaluation of the Program Evaluation

According to Maher (2000), a sound evaluation of this program evaluation will include and address four main questions. To what extent was the program evaluation conducted in a way that allowed for successful accomplishment (practicality)? In what ways was the resulting program evaluation information helpful to people (utility)? Did the program evaluation occur in a way that adhered to legal restrictions and ethical standards (propriety)? To what degree can the evaluation be justified with respect to matters of reliability and validity (technical defensibility)?

To determine whether the program evaluation was conducted in a way that allowed for its successful accomplishment, the program evaluator held a meeting with the client at the completion of the program evaluation process. This meeting allowed and elicited discussion about evaluation aspects that seemed most useful and practical. Similarly, any issues or aspects that seemed to impede the program evaluation process were discussed.

After the program evaluation is completed and staff has started to implement some of the suggestions and recommendations, it will be useful to determine whether the recommendations were in fact beneficial. Talking with both the client and current staff members will allow the evaluating consultant to determine which suggestions were most

useful, and what role staff members played in modifying or adapting the program. In addition, as previously mentioned, this program evaluation provided a unique opportunity to document the results of an early intervention program that is evidence based. Specifically, this program evaluation will help to determine the effectiveness of Applied Behavior Analysis as an early intervention treatment for children with Autism Spectrum Disorders.

Throughout the program evaluation process it is important to make sure that all issues are handled in an appropriate, professional and ethical manner. After the program evaluation is complete it was important to talk with the client, as well as the program evaluation advisor, about ethical dilemmas or situations faced in the program evaluation process. It was also helpful to consult the APA code for psychologist to ensure ethical practice.

Once data has been reviewed, analyzed and presented to the client, the program evaluator discussed with the client the estimated validity and reliability of all findings. The program evaluator also discussed all aspects of the project with the program evaluation advisor, to confirm the utilization of sound statistical practice.

*Chapter Summary:* The beginning of this chapter focuses on the importance of understanding the relevant organizational context before designing and implementing a program and evaluation. Maher's (2000) AVICTORY approach is described and the application of this framework related to the current dissertation task is illustrated. This chapter concludes with a full description of the program evaluation plan, including a complete discussion of the procedure for evaluating the program evaluation process.

## CHAPTER V

### Results of the Program Evaluation

*Chapter Abstract:* This chapter presents in detail the results of the current program evaluation. The general information gained through program evaluation information is presented first. The chapter concludes with a thorough description of the specific program evaluation results related to each program evaluation question developed and examined through this process.

#### *General Program Evaluation Information*

Several different types of information were reviewed throughout the program evaluation process. In addition, personal interviews, telephone and email correspondences were frequent between the evaluator and the client. First, electronic billing information was organized and provided by the client for review. Analysis of electronic billing data supplied vital statistics related to service hours and duration of treatment provided by the program.

Twenty-four electronic client files were also organized and made available to the evaluator by the client. These files varied greatly in terms of the client data recorded both pre and post intervention. It is significant to note that of the 15 clients for whom



there were no electronic files, the majority were clients who had only brief contact, one assessment or less than a month of services through the Early Intervention program. Of the 24 electronic client files reviewed, information varied in quantity from one document (i.e. one report, one ABLLS-R pre assessment, etc.) to six documents, with 3.6 as the average number of documents in each of the 24 files. Table 5.1 indicates the different types and forms of information found within the 24 electronic client files.

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*Table 5.1*  
*Varied Electronic Client File Information*

• pre and post data using Assessment of Basic Language and Learning Skills – Revised (ABLLS-R)
• pre assessment using Bayley Scales of Infant Development Second Edition (BSID-II)
• pre and post assessment using Autism Diagnostic Observation Schedule (ADOS)
• Program Summary Reports
• pre assessment using Behavior Language Assessment Forms
• Individualized Program Mastery Lists

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The evaluator also reviewed 25 paper client files located at the larger organization within which the EI program exists. Again it is important to note that although technically 38 children have received services through the EI program, only 25 paper client files were reviewed for the purposes of this program evaluation, as files of clients who had received a brief assessment or less than a month of service were not examined at this time. Similar to the electronic files reviewed, paper files varied dramatically in terms of assessment information. Table 5.2 depicts the different types and forms of information found within the 25 paper files.

*Table 5.2*  
*Varied Paper Client File Information*

• billing information
• case correspondences
• Individualized Family Service Plans (IFSPs)
• private evaluations (speech and language, occupational therapy, neurology and psychological)
• pre and post data using Assessment of Basic Language and Learning Skills – Revised (ABLLS-R)
• pre assessment using Bayley Scales of Infant Development Second Edition (BSID-II)
• pre and post assessment using Autism Diagnostic Observation Schedule (ADOS)
• Vineland Adaptive Behavior Scales
• Program Summary Reports
• pre assessment using Behavior Language Assessment Forms
• Individualized Program Mastery Lists

In an effort to gather information related to staff and parent reactions to the program, the evaluator along with feedback from the client, developed and disseminated two separate assessment tools: the *Staff Training Reaction Survey* and the *Parent Reaction Survey* (see Appendix A: Program Evaluation Instrumentation for copies of these assessment tools). Staff Training Reaction Surveys were distributed to all 8 of the current staff members, excluding the program director and client. Six of these surveys, 75%, were completed by staff members and reviewed by the program evaluator. Twenty-nine Parent Reaction Surveys were distributed to parents who had received more than one month of services through the EI program. If families had received services for more than one child, they were asked to indicate different reactions and feelings using different

colors or symbols when and if reactions differed based on the child involved. Eleven of the 29, or 38% of the surveys were completed by parents and reviewed by the program evaluator.

In addition to the specific program evaluation questions examined, general information related to the EI program was gained. Specifically, the evaluator learned that currently 7 children are receiving consistent in-home services through the EI program. At this time 38 children have received some form of service through the EI program, and 4 of these clients received only a brief assessment rather than in-home services. Services ranged in frequency and intensity for each client. As previously discussed, 4 clients received a brief, one-time psychological assessment, while some clients were provided extended in-home services, with a maximum of 967 hours of service received by an individual client. According to the information provided, the average age of the client when starting services was 26 months. The average number of months toddlers received services, excluding current clients and children who received a brief assessment, was 9.3 months. All of this information, as well as the specific results reported in this chapter, were reported to the client through a written Program Evaluation Summary Report. An in-person meeting between the evaluator and client was also conducted, at which time the client was provided an opportunity to ask questions and offer feedback related to the program evaluation process. The client's reactions and feedback related to the evaluation process are discussed in detail in Chapter 7.

Overall, considerable program information was organized and examined through the evaluation process. In addition, specific assessment tools were developed and distributed in an effort to learn about staff and parent perceptions and reactions to the

program. General program evaluation information, as well as specific results related to program evaluation questions developed, were discussed with the client and provided through a written Program Evaluation Summary Report. Open ended responses and comments received through the reaction surveys returned were summarized and documented through the Supplementary Program Evaluation Summary Report (see Appendix C for a complete draft of the Supplementary Program Evaluation Summary Report).

### *Specific Program Evaluation Information*

As previously discussed, the evaluator and client involved in this pilot program evaluation developed and agreed upon 3 specific program evaluation questions that would be examined through this dissertation. In this section the data collected and results related to these questions are described in detail. Programmatic strengths and limitations based on this information are discussed in Chapter 6.

#### *Results of Program Evaluation Question 1*

*To what extent does the intensity of systematic programming and parent training provided through this program moderate the students success in the program?*

Of the 38 clients served through the program, a sample of clients using the following criteria was developed in an effort to learn more about the existing data; and the relationship between hours of EI service and skills gained through the program. The sample included clients who had completed the program; had received in-home

intervention services; and had received at least one month of services through the program.

As a result, 38 clients were narrowed to 29 clients who met the specified criterion. These clients varied greatly in number of services hours received (minimum = 5hrs, maximum = 967hrs, average = 307hrs). The sample also varied greatly in terms of the number of months they were involved with the program (minimum = 1month, maximum = 17, average = 7.9 months). The existing pre and post data for this sample were reviewed and differed dramatically in relation to the amount of data, as well as the assessment tools used and recorded through paper and electronic files. The specific quantity and the assessment tools reviewed are described in Table 5.3 below.

*Table 5.3*  
*Type and Quantity of Assessment Data Existing for Sample Examined in Question 1*

<ul style="list-style-type: none"> <li>For 19 of 29 clients (66%) some Assessment of Basic Language and Learning Skills – Revised (ABLLS-R) data were obtained</li> </ul>
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>For 15 of the 29 clients (52%) multiple sets of ABLLS-R data were obtained (data obtained across time)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>For 13 of the 29 clients (45%) ABLLS-R data coinciding with program entry and discharge dates were obtained</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>For 13 of the 29 (45%) clients Autism Diagnostic Observation Schedule (ADOS) information was obtained</li> </ul>
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Only 2 of the 29 (7%) clients had pre and post data related to the ADOS</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>For 8 of 29 (28%) clients Vineland Adaptive Behavior Scales</li> </ul>
<ul style="list-style-type: none"> <li>For 11 of 29 clients (38%) Bayley Scales of Infant Development Second Edition (BSID-II)</li> </ul>
<ul style="list-style-type: none"> <li>For 7 of 29 clients (24%) Behavior Language Assessment data was available</li> </ul>
<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>3 of 29 (10%) clients had pre and post data related to the Behavior Language Assessment</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>For 15 of the 29 (52%) clients program Progress Summary Reports were available</li> </ul>
<ul style="list-style-type: none"> <li>For 4 of the 29 (4%) clients Programs Mastered Lists were available</li> </ul>

Because the largest amount of pre and post data exists related to the ABLLS-R assessment tool, this information was investigated further and the results of this examination are reported in Tables 5.4 and 5.5 below.

*Table 5.4*  
*Client Information Related to Hours of EI Services Received (Clients with Pre and Post ABLIS-R Data)*

Client	Total Service Hours Through Duration in EI Program	Total Months in EI	Average Hours of EI/Month	Average Hours of EI/Week
1	147.5	12	12.2916667	3.07291667
2	324.75	7	46.3928571	11.5982143
3	349.25	7	49.8928571	12.4732143
4	398	6	66.3333333	16.5833333
5	432.5	9	48.0555556	12.0138889
6	445	12	37.0833333	9.27083333
7	457.25	11	41.5681818	10.3920455
8	473.75	10	47.375	11.84375
9	539.75	11	49.0681818	12.2670455
10	652.75	15	43.5166667	10.8791667
11	661	17	38.882	9.7206
12	684.5	12	57.0416667	14.2604167
13	967	16	60.4375	15.109375

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*Table 5.5*  
*Statistics Related to Hours of EI Services Received by Clients with Pre and Post ABLLS-R Data*

• Maximum number of service hours provided = 967
• Minimum number of service hours provided = 147.5
• Average number of service hours provided = 502.5
• Maximum number of months services provided = 17
• Minimum number of months services provided = 7
• Average number of months services provided = 11.2
• Maximum average hours of service provided per month = 66.3
• Minimum average hours of service provided per month = 12.3
• Average hours of service provided per month = 46.0
• Standard deviation calculated using average hours of service per month = 3.4
• Maximum average hours of service provided per week = 16.6
• Minimum average hours of service provided per week = 3.1
• Average hours of service provided per week = 11.5

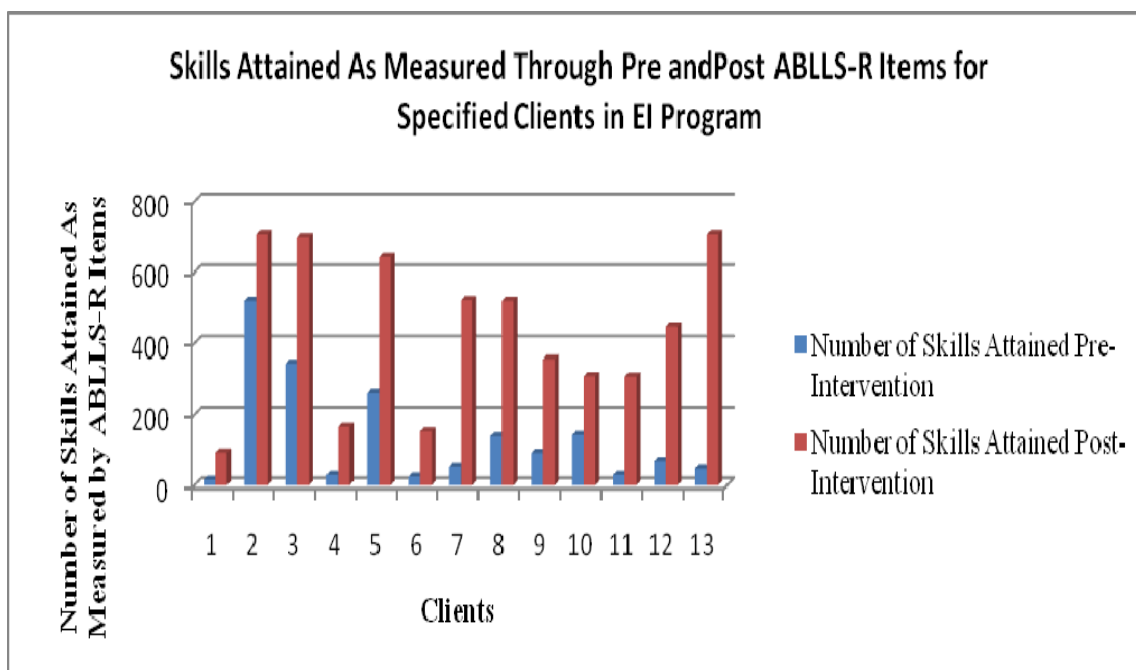
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A review of the pre and post ABLLS-R data for this sample revealed that all children displayed gains according to pre and post data collected through this assessment tool. Information related to ABLLS-R pre and post assessment, as well as program intensity in terms of hours of service received and treatment duration, are presented in Table 5.6 and visually depicted in Figures 5.1, 5. 2, 5.3and 5.4 below.



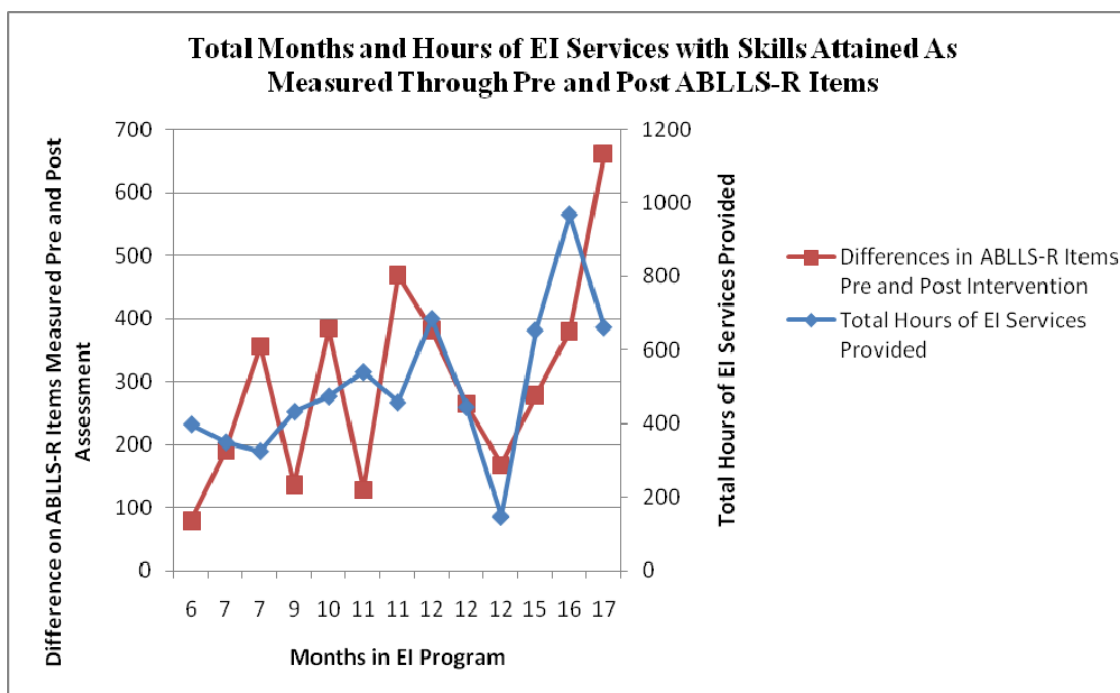
*Table 5.6*  
*Sample Client Information Related to Hours of EI Services Received and Pre/Post*  
*ABLLS-R Skills Measured*

Client	Total EI Hours	Total Duration in EI Program (Months)	Average Hours of EI/Month	Average Hours of EI/Week	Pre ABLLS-R Score	Post ABLLS-R Score	Post- Pre ABLLS-R Scores (gains)
1	147.5	12	12.29	3.07	141	308	167
2	324.75	7	46.39	11.60	344	700	356
3	349.25	7	49.89	12.47	519	709	190
4	398	6	66.33	16.58	15	93	78
5	432.5	9	48.06	12.01	29	165	136
6	445	12	37.08	9.27	92	356	264
7	457.25	11	41.57	10.39	52	521	469
8	473.75	10	47.38	11.84	259	643	384
9	539.75	11	49.07	12.27	24	152	128
10	652.75	15	43.52	10.88	29	307	278
11	661	17	38.82	9.72	47	709	662
12	684.5	12	57.04	14.26	138	519	381
13	967	16	60.44	15.11	69	448	379



*Figure 5.1.*  
Skills Attained As Measured Through Pre and Post ABLLS-R Items for Specified Clients in EI Program

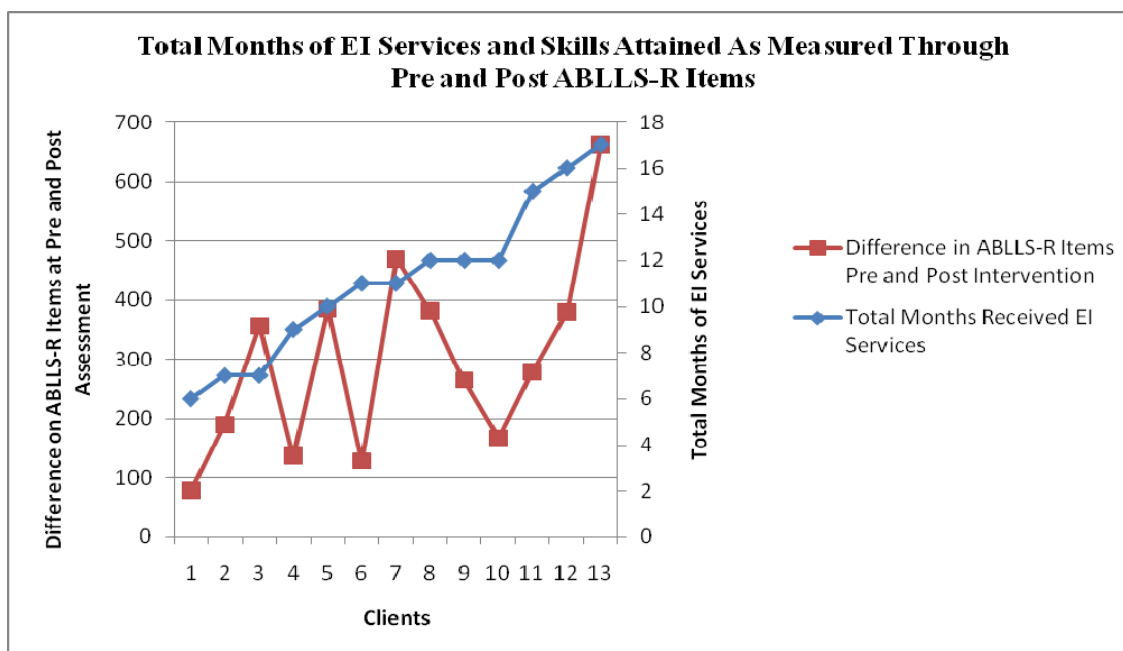
Figure 5.1 shows the number of skills each client attained, both pre and post intervention. As seen above, all clients receiving EI services made considerable gains as measured by the ABLLS-R.



*Figure 5.2*

*Total Months and Hours of EI Services with Skills Attained As Measured Through Pre and Post ABLLS-R Items*

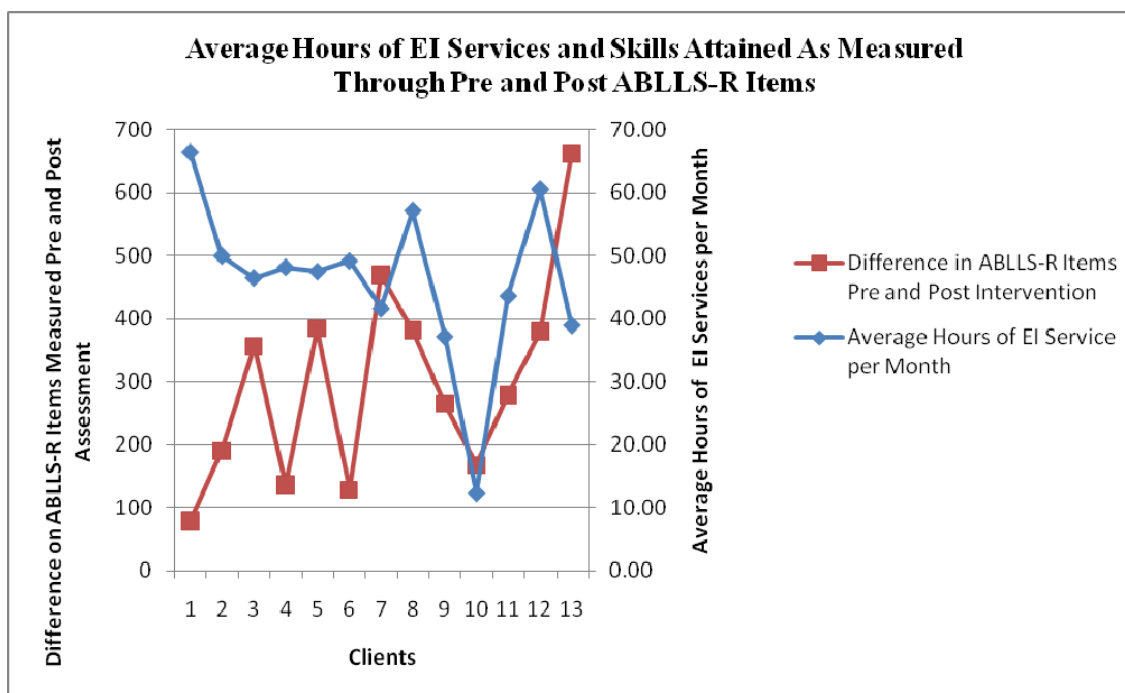
Figure 5.2 shows the differences in ABLLS-R items pre and post assessment, while comparing clients across total months in the EI program and the total hours of services received. As seen above, clients varied across duration and intensity of EI services, as well as across skills attained as measured by the ABLLS-R throughout the course of EI services.



*Figure 5.3*

*Total Months of EI Services and Skills Attained As Measured Through Pre and Post ABLLS-R Items*

Figure 5.3 visually depicts the positive correlation between the total months clients received EI services, and the skills gained pre and post assessment by each client, as measured by the ABLLS-R.



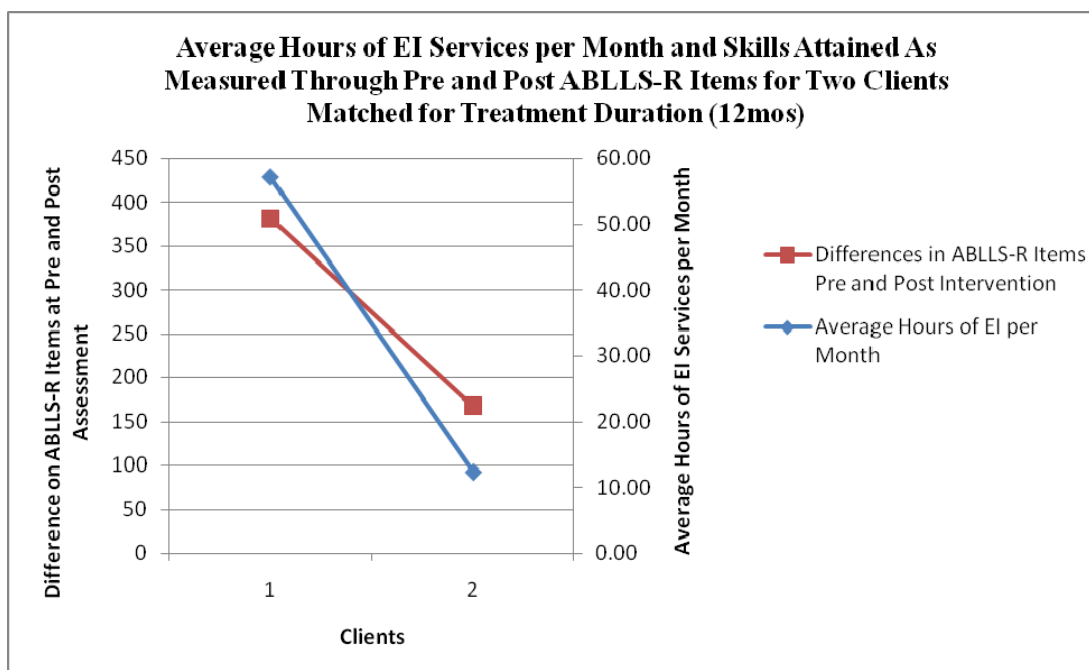
*Figure 5.4 Average Hours of EI Services and Skills Attained As Measured Through Pre and Post ABLLS-R Items*

Figure 5.4 shows the relationship between the average number of hours of EI services clients received, and the skills they gained as measured pre and post intervention by the ABLLS-R. Although a positive correlation exists between the total duration of services and skills attained, as seen above, the relationship between the intensity of services (hours of services per month) and skills attained as measured by the ABLLS-R is less clear.

Although pre and post data reviewed are promising in terms of the progress and developmental gains made while receiving EI services, this information should be reviewed and interpreted with caution. It is difficult to determine what role the amount of hours (intensity) of the program has played, as specific pre and post assessment data are limited from several perspectives. First, the pre and post raw scores collected and used in these calculations only loosely coincided with the client's admission and discharge from the program. Several of the clients examined above may have gained skills that are not

included through this assessment. Second, information related to treatment intensity (hours of service) should not be analyzed without considering treatment length. It is difficult to compare gains made by clients based on intensity when there is such great variation in the number of months of services received by each client. In addition, it is significant to note that only one diagnostic tool, the ABLLS-R, was used in this assessment of pre and post data. The ABLLS-R is an assessment tool designed for slightly older developmentally delayed children, and as a result it is possible that this instrument is not sensitive to the developmental gains made by toddlers (Partington, 2006). Lastly, the information presented above should not be interpreted without considering developmental gains that could be attributed to additional EI services, differences in parental supports and resources, and or developmental gains related to age and maturation.

In an effort to examine more closely the relationship between program intensity regardless of treatment duration, ABLLS-R pre and post assessment for two clients from this sample who differed greatly in terms of hours provided, but who had both received EI services for 12 months were compared. Data are visually depicted in Graph 5.5 below.



*Figure 5.5 Average Hours of EI Services per Month and Skills Attained As Measured Through Pre and Post ABLLS-R Items for Two Clients Matched for Treatment Duration (12 months)*

Figure 5.5 compares two clients who received EI services for the same length of time (one-year), however client 1 received approximately 57 hours of EI services per month, while client 2 received only 12 hours of EI services each month. As seen in Figure 5.5, while client 2 gained 167 skills, as measured by the ABLLS-R, client 1 gained 381 skills, as measured by the ABLLS-R.

Again it is important to note that these data should be interpreted with caution. Although initial information suggests that higher intensity services (defined by the average of hours of service received per month) led to greater gains than did less intense services, there are again several potential flaws in these data and the sample utilized. As a result, at this time, the evaluator is not able to draw firm conclusions related to program

evaluation question 1. A plan for future data collection and program evaluation related to this question will be provided in Chapter 6.

### Question 1 Results Reviewed

Formal pre and post data related to client success is varied and limited for many clients. Existing data do suggest that children who received services made notable gains measured by the ABLLS-R, however, as previously discussed, due to limitations in design and sample size, this information should be interpreted cautiously. Future program evaluation should continue to examine the relationship between program intensity (hours of service per month) and skills gained through the program.

### Results of Program Evaluation Question 2

*What are parents' perceptions and reactions to specific aspects of the program?*

As previously discussed, in an effort to learn about parents' perceptions and reactions to the program, the evaluator and client developed a sample Parent Reaction Survey (see Appendix A for complete draft) that was distributed to 29 families who had received services through the EI program for more than one month. Eleven of the 29 (38%) surveys were completed by parents and reviewed by the program evaluator.

Results related to Parent Reaction Survey Items are presented below. Results from items allowing parents to react using an open response are summarized briefly, but were documented through the Supplemental Program Evaluation Summary Report (see Appendix B) and discussed in more detail with the client in-person. Specifically, the majority of parents' reactions and comments were positive indicating that staff was



professional and caring. Most parents also indicated the need for therapists knowledgeable in Applied Behavior Analysis and reported that they were satisfied with staff's performance in this area in particular. One parent reported problems with scheduling or inconvenient appointment times, and another parent stated that she would have preferred more "mand training." Overall, remarks were encouraging and generally parents were satisfied with services provided.

*Results for Parent Reaction Survey Item 6:*

Please rate your initial expectations for the Early Intervention Program. In other words, before receiving direct service through the program how successful did you anticipate the program would be for you and your child?

(No Success)

(Very Successful)

1	2	3	4	5	6	7
0%	0%	0%	9%	18%	36%	36%

Average score = 6.0

*Results for Parent Reaction Survey Item 8:*

How satisfied were you with the type and intensity of the services you obtained through the Early Intervention Program?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	9%	27%	27%	36%

Average score = 5.9

*Results for Parent Reaction Survey Item 9:*

How satisfied were you with the educational and vocational goals developed for your child through the Early Intervention Program?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	9%	18%	36%	36%

Average score = 6.0

*Results for Parent Reaction Survey Item 10:*

How satisfied were you with the staff's knowledge related to early intervention and developmental disabilities?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	9%	9%	55%	27%

Average score = 6.0

*Results for Parent Reaction Survey Item 11:*

Before receiving direct service through the program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	18%	9%	46%	27%	0%	0%

Average score = 3.4

*Results for Parent Reaction Survey Item 12:*

Before receiving direct service through the program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	0%	18%	18%	27%	27%	9%

Average score = 4.9

*Results for Parent Reaction Survey Item 13:*

How satisfied were you with the parent training aspects of this program?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	9%	9%	36%	45%

Average score = 6.18

*Results for Parent Reaction Survey Item 14:*

After receiving direct service through the program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	0%	0%	9%	18%	55%	18%

Average score = 5.8

*Results for Parent Reaction Survey Item 15:*

After receiving direct service through the program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	0%	0%	0%	9%	63%	27%

Average score = 6.2

*Results for Parent Reaction Survey Item 16:*

How satisfied were you with the level of communication between you as parents and program staff?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	0%	18%	27%	55%

Average score = 6.4

*Results for Parent Reaction Survey Item 17:*

Additionally, if issued, how beneficial were monthly team meetings in enhancing communication between staff and your family?

(Not Beneficial)

(Very Beneficial)

1	2	3	4	5	6	7
0%	0%	0%	0%	10%	30%	60%

Average score = 6.5 \*\*one participant did not answer this item

*Results for Parent Reaction Survey Item 18:*

Overall how would you rate your experience with the Early Intervention Program?

(No Success)

(Very Successful)

1	2	3	4	5	6	7
0%	0%	0%	9%	18%	36%	36%

Average score = 6.5

*Results for Parent Reaction Survey Item 19:*

Would you recommend this program to a friend who has a toddler with an Autistic Spectrum Disorder? Why or why not?

100% of participants responded: Yes

*Results for Parent Reaction Survey Item 20:*

Please indicate which choice below describes best your child's current academic placement:

\_\_\_ Regular Education Classroom

\_\_\_ Special Education: Self Contained Classroom

\_\_\_ Special Education: Learning Disabled Classroom

\_\_\_ Specialized School (e.g., DDDC)

\_\_\_ Mainstreamed in Regular Education Classroom with Shadow or Assistant

\_\_\_ 1/2 day Integrated Class (Special and Regular Education)

\_\_\_ Preschool Disabled Class

\_\_\_ Other: (Please explain): \_\_\_\_\_

- 4 participants did not respond to this item
- 1 participant indicated Regular Education Classroom
- 1 participant indicated Special Education: Self Contained Classroom
- 3 participants indicated Specialized School
- 2 participants indicated Preschool Disabled Class

### Question 2 Results Reviewed

Review of Parent Reaction Surveys suggests that parents were generally pleased with the quality and level of services provided through the EI program. Specifically parents reported satisfaction with parent training aspects of the program. Many parents attributed increases in knowledge related to ABA and autism to services received through this EI program. Some parents expressed specific concerns related to program techniques or scheduling, but overall the majority of parent reactions and perceptions were positive.

### Results to Program Evaluation Question 3

*What are staff member's perceptions and reactions to the training they receive through this program?*

As previously discussed, the evaluator with feedback from the client, developed Staff Training Reaction Surveys (see Appendix A for a complete draft) that were distributed to all 8 EI staff members currently involved with the program. Six of the 8 (75%) surveys were completed and returned to the evaluator for review. Results related

to specific Staff Training Reaction Survey Items are presented below. It is significant to note that results from items allowing staff to react using an open response are summarized briefly but as was the case with Parent Reaction Surveys, open ended responses were documented in the Supplemental Program Evaluation Summary Report (see Appendix B) and discussed in more detail with the client in person.

Staff members varied greatly in terms of their knowledge level related to ABA. Similarly, staff members varied in terms of the amount of training and experience they had received through the program. More than one staff member indicated that direct observation and feedback was very helpful for training purposes. One staff member reported the need for more trainings related to early intervention specifically, while another staff member stated that some of the trainings were slightly redundant. Overall perceptions of training through the program were positive and most comments were constructive in nature.

*Results for Staff Training Reaction Survey Item 1:*

How long have you been involved with the Early Intervention program?

- 7 months minimum response
- 3 years maximum response
- 23 months average response

*Results for Staff Training Reaction Survey Item 2:*

How many different clients have you worked with?

- 4 clients minimum response

- 20 clients maximum response
- 12 clients average response

*Results for Staff Training Reaction Survey Item 3:*

On how many cases have you served as the team leader?

- 1 case minimum response
- 7 cases maximum response
- 3.8 cases average response

*Results for Staff Training Reaction Survey Item 9:*

How would you rate the level of overlap that existed between your previous training and the training you received?

(No Overlap)

(All Overlap)

1	2	3	4	5	6	7
20%	0%	0%	40%	0%	0%	40%

Average score = 4.6

*Results for Staff Training Reaction Survey Item 10:*

Before receiving training through the Early Intervention Program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	20%	0%	0%	40%	0%	20%

Average score = 5.1



*Results for Staff Training Reaction Survey Item 11:*

In your opinion, how would you rate the level of rigidity or structure utilized in your training of Applied Behavior Analysis through Early Intervention Program?

(No Rigidity)

(Very Rigid)

1	2	3	4	5	6	7
0%	0%	40%	20%	20%	20%	0%

Average score = 4.2

*Results for Staff Training Reaction Survey Item 12:*

How significantly has your knowledge of Applied Behavior Analysis changed based on your experiences with the Early Intervention Program?

(No Change)

(Very Significant Change)

1	2	3	4	5	6	7
0%	40%	0%	20%	20%	20%	0%

Average score = 3.8

*Results for Staff Training Reaction Survey Item 13:*

Before receiving training through the Early Intervention Program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	20%	0%	0%	40%	20%	0%

Average score = 4.7

*Results for Staff Training Reaction Survey Item 14:*

How significantly has your knowledge of Autistic Spectrum Disorders changed based on your experiences with the Early Intervention Program?

(No Change)

(Very Significant Change)

1	2	3	4	5	6	7
0%	40%	20%	20%	20%	0%	0%

Average score = 3.2

*Results for Staff Training Reaction Survey Item 15:*

Before receiving training through the Early Intervention Program how would you rate your knowledge of the development of the 0-3 population?

(No Knowledge)

(Very Knowledgeable)

1	2	3	4	5	6	7
0%	40%	20%	40%	0%	0%	0%

Average score = 3.0

*Results for Staff Training Reaction Survey Item 16:*

How significantly has your knowledge of the development of the 0-3 population changed based on your experiences with the Early Intervention Program?

(No Change)

(Very Significant Change)

1	2	3	4	5	6	7
0%	20%	0%	20%	40%	0%	20%

Average score = 4.6

*Results for Staff Training Reaction Survey Item 17:*

How challenging were any barriers you faced during your training through the Early Intervention Program?

(No Challenge)

(Very Challenging)

1	2	3	4	5	6	7
60%	0%	0%	40%	0%	0%	0%

Average score = 2.2

*Results for Staff Training Reaction Survey Item 18:*

In your experience, in terms of providing direct service, how functional or practical was the training you received through the Early Intervention Program?

(Not Practical)

(Very Practical)

1	2	3	4	5	6	7
0%	0%	0%	20%	40%	20%	20%

Average score = 5.4

*Results for Staff Training Reaction Survey Item 19:*

How challenging were logistical aspects of the program? (i.e. travel, scheduling issues, etc.)

(No Challenge)

(Very Challenging)

1	2	3	4	5	6	7
0%	0%	20%	20%	20%	20%	20%

Average score = 5.0

*Results for Staff Training Reaction Survey Item 20:*

Overall how satisfied were you with the training you received through the Early Intervention Program?

(Not Satisfied)

(Very Satisfied)

1	2	3	4	5	6	7
0%	0%	0%	20%	20%	40%	20%

Average score = 5.6

Questions 3 Results Reviewed

Review of Staff Training Reaction Surveys revealed great variance in experience and feelings about specific aspects of the training provided through the EI program, although generally speaking, comments were positive and constructive in nature. More than one staff member suggested that on-sight observation and feedback was a beneficial and desired training opportunity.

*Chapter Summary:* The purpose of this chapter was to discuss in detail the information and results reviewed through the program evaluation process. The beginning of this chapter focuses on a description of the data collected, as well as general facts learned through program assessment. The remainder of the chapter was dedicated to a detailed explanation of data, results and general conclusions gained related to the 3 program evaluation questions previously specified and developed by the client and evaluator through the pilot program evaluation process. Initial examination suggests that the EI program provides services that lead to gains measured by the ABLLS-R. Overall, parents were pleased with the services received and staff was generally satisfied with the training

provided through the EI program. The next chapter will concentrate on programmatic strengths and limitations, as well as general suggestions for programmatic improvement, as indicated through these limited results.

## CHAPTER VI

### Evaluation Conclusions and Related Suggestions for Continued Program Development and Evaluation

*Chapter Abstract:* This chapter focuses on information gained through the implementation of the program evaluation process in relation to the Early Intervention Program, as well as related suggestions for programmatic development and future evaluation. Specifically, the programmatic strengths and values associated with the EI program are discussed, as well as the limitations or areas for improvement revealed through the program evaluation. Finally, related and creative suggestions for programmatic improvement and development are provided.

#### *Programmatic Strengths Learned Through the Evaluation Process*

A sound program evaluation provides information related to the program's value and worth. As a result, the evaluation process often contributes significantly to continuous program development, improvement and maturity. Assessment and evaluation should highlight the program's strengths and the value contributed to the target population. Data reviewed through the current program evaluation suggest that the EI program provides appropriate and valuable services to the target population,

children with autism and their families. As previously discussed, at this time pre and post assessment data for children in the EI program are limited. As a result, and without an experimental control group or condition, it is impossible to capture and measure the specific contribution the EI services have provided for each client. However, contributions and value of the EI program can be measured and assessed in other ways.

While reviewing paper and electronic client files the evaluator had the opportunity to read several documents providing information related to the gains children made while receiving services through the EI program. Individualized Family Service Plans, as well as pre and post assessments and reports suggested that many pre-academic and social goals set for the toddlers involved were mastered while receiving services through the EI program. Pre and post assessment reports, specifically evaluations implemented through the EI program, indicated specific areas of growth and maturity, as well as the associated skills introduced and gained through EI services.

In addition to the valuable skills toddlers gained through EI services provided, initial data related to parents' perceptions and reactions to the program were positive, as parents were generally satisfied with several different aspects of services delivered. Parents involved with the EI program, and included in the present program evaluation, indicated that they were pleased with the staff's knowledge related to early intervention, as well as children with autism. When asked why parents had sought services through the EI program, many parents suggested a strong desire and need for services provided by staff that are knowledgeable and specifically staff trained in the application of Applied Behavior Analysis for children with autism. In relation, data collected through parent reaction surveys showed that all parents who returned surveys were satisfied with the EI

staff's knowledge and implementation of ABA. More than one parent commented that she was surprised and impressed by the individualized and flexible nature of the ABA services provided in a natural environment.

Most parents included in this sample were satisfied with the parent training aspects of the EI program. Generally parents felt that the parent training services provided were functional and beneficial. All parents suggested that they had gained knowledge related to ABA and autism through the EI services they had received, and all parents indicated that they would recommend the EI program to other families of children with autism. Again, these data should be interpreted with caution as the data collected through this program evaluation were limited. Only 38% of the parent reaction surveys were completed and returned, however, the parents who did respond endorsed high rates of satisfaction across the multiple programmatic domains assessed. In fact, more than one parent wrote a long narrative discussing her child's recent progress, as well as the progress she attribute to the EI services she received. One mother commented, "I liked when they worked on teaching my son his name, before EI services he did not respond to his name consistently..." Clearly client data reviewed, as well as information gained through parents surveys suggest that a major strength of the EI program is the valuable and appreciated services provided to the target population, children with autism and their families.

Information learned through this program evaluation also suggested that the level of staff knowledge and training, although varied, was a particular programmatic strength. Results of the staff reaction surveys suggest that staff members were generally satisfied with the training they had received through the EI program. Staff also suggested that



they had encountered very few identified barriers to the training process. As previously discussed, generally parent data suggested that parents receiving EI services were satisfied and in some cases more than satisfied with the level of staff knowledge and training. Again, although information gained through this program evaluation should be interpreted with caution; initial data suggests that staff knowledge and training are a major programmatic strength.

In addition to the programmatic strengths related to the EI services provided directly, it is also significant to note the strengths in terms of future program evaluation, as well as future program development. Specifically, information gained through the evaluation process suggests that over time the program has gradually increased the amount of pre and post data collected and recorded for the toddlers involved with the program. Similarly, as time and the program have progressed, so have the organizational techniques and methods the program utilizes to record client data. Anecdotal evidence gained through the review of client files suggests that the presence of an electronic file, as well as structured pre and post data were more common for toddlers who had received services most recently, rather than toddlers who had received services while the program was in its infancy and still developing procedures for client data collection. Throughout the evaluation process, the evaluator and client discussed in great detail the numerous transitions and improvements that have occurred over time related to pre and post data collection. The process and methods used for data collection should constantly evolve and develop along with a program. This program evaluation process revealed that a major programmatic strength has been the EI program's ability to adjust, adapt and improve methods designed to collect data and assess the program overall. As the fields

of education and psychology continue to focus on evidence based treatments, it is imperative that the EI program continue to develop advanced and efficient means for collecting and recording evidence related to programmatic success.

*Limitations, Areas for Improvement and Related Programmatic Recommendations Based on Information Gained Through Program Evaluation*

Sound program evaluation should provide information related to programmatic strengths, as well as critical information related to the limitations and possible areas in which the program could improve and develop over time. In this section programmatic limitations, as well as suggestions for related improvements offered to the client are discussed in detail. Again the evaluator used data collected and information gained through the program evaluation process to determine which aspects of the program were most lacking and consequently which areas of the program would benefit from further development and commitment of resources.

Data collected through the program evaluation process suggests that although a plethora of client information exists for many clients, a more consistent and uniform method for gathering and recording pre and post client data is needed. A more systematic record of pre and post data will allow the client and relevant stakeholders the opportunity to collect, analyze and compare data for children who received varied rates of program intensity or duration. Specifically, at least one standardized assessment tool should be administered to all clients in the program, both before and after they receive EI services as a matter of programmatic routine. As previously discussed, the program evaluation revealed that at this time the assessment tool used most often through the program was

the Assessment of Basic Language and Learning Skills- Revised (ABLLS-R) (Partington, 2006).

The ABLLS-R is an assessment tool designed to assess skills in children with language and learning deficits, most commonly used in the process of the development of a behavioral program for children with autism (Partington, 2006). The continued and systematic use of this assessment tool is highly recommended as it allows the evaluator to examine 25 categories of functional behavior across a wide range of skill sets. Although it was developed for a slightly older population (3 and older), the ABLLS-R focuses on assessing the same hierarchy of functional skills the EI program attempts to build and develop for toddlers receiving services.

As the EI program continues to expand and develop, it may be useful to create a complete and uniform pre and post assessment battery including the ABLLS-R as the primary assessment conducted with each child receiving services. In addition to the data collected through this standard assessment battery, information related to individual goals set, mastered and associated timelines should be recorded for each client. All of this information should be organized and stored both in paper and electronic files for each child involved with the program. When pre and post assessment data is kept in a more structured and standardized way, stronger conclusions can be deduced from the information revealed through the program evaluation process. As previously discussed, as the program develops and even through the evaluation process, many modifications and improvements related to data collection were implemented. Initial data gathered through the evaluation process suggests that although not a current strength, the program

has and continues to make significant progress related to the documentation of consistent pre and post assessment data for each EI client.

Another area for programmatic development was discovered through the evaluation process when assessing both staff and parent knowledge related to ABA and autism. Currently, the program does not utilize a consistent or formal assessment designed to measure information gained through parent and staff training. Although for the purposes of the present program evaluation parent and staff reaction surveys were developed and distributed, the data collected through these surveys were mostly retrospective in nature. In an effort to gain useful, accurate and current comparison data it may be beneficial to develop assessments that measure specifically parent and staff knowledge related to ABA and autism. These assessments could then be administered to parents both at the time of admission and discharge from the program, while staff would complete these surveys when they are hired and once they complete training through the EI program.

Assessing knowledge both pre and post training through the EI program may reveal powerful data related to both parent and staff training, specifically information related to the training provided focused on ABA and autism. Not only would this type of assessment provide data for comparisons, but it would also allow staff to learn more about parents' baseline knowledge, hopefully allowing staff an opportunity to adapt and modify parent training for each parent. Similarly, staff training topics could be adapted and designed based on the information gained through staff pre assessment.

In addition to the implementation of a standardized process for the assessment of parent knowledge, it may be helpful to gather information related to parental stress and

burnout. Because the EI program concentrates heavily on teaching parents, it is important for staff to understand the strengths and limitations parents have already identified within themselves. The use of a standardized measure like the Parenting Stress Index (PSI) (Abidin, 1995) will again allow the program to assess parents' current abilities, limitations and resources. The PSI is an assessment measure designed to yield a measure of the magnitude of stress in the parent-child system. The PSI assumes that total parenting stress is a function of certain salient child characteristics, parent characteristics and related parenting situations. Child characteristics are measured across six different domains: distractibility/hyperactivity, adaptability, reinforces parent, demandingness, mood and acceptability. Parent personality and situational variables consist of the following seven subscales: competence, isolation, attachment, health, role restriction, depression, and spouse. Gathering pre and post information using the one, or a combination of several PSI subscales would allow the program to compare parental stress indices across time and through treatment.

All programmatic limitations learned through program evaluation were documented and explained in person during the program evaluation results summary meeting. It was during this meeting that the client discussed with the evaluator the history of the EI program, specifically the history and development in relation to both the areas determined strengths, as well as areas identified as in need of improvement.

#### *Creative Suggestions for Further Program Development*

In addition to the previously discussed suggestions and recommendations several more creative and innovative ideas for further program development and overall

improvement were presented to the client, both through written form and discussion. In an effort to reach out into the community and relevant stakeholders, it was suggested that the EI program may benefit from a “round table” discussion inviting important and relevant stakeholders (i.e. program staff, parents who have or are currently receiving services, staff outside of the program, case managers, advocates, and state officials involved with the state early intervention). Conducting this type of “round table” discussion will allow different stakeholders to collaborate and share ideas about early intervention services in the state. Fostering this type of opportunity may lead to crucial information or connections related to EI services in the state for this developing program.

The positive and enthusiastic responses reviewed in many parent surveys also led the evaluator to suggest the program director begin to develop a “parent support list.” In other words, the program director may choose to ask specific families whether they would be comfortable providing their contact information for future families to use if they had questions or concerns about receiving EI services. In this way, the EI program has a unique opportunity to foster important connections between families of children with autism.

It was also suggested to the client that staff receive parent permission and begin video recording sessions periodically throughout the treatment process. Often video recordings are a powerful way to capture significant visual data in terms of behavioral progress gained over time. The implementation of routine recordings may also serve an additional function if videos are used in terms of supervision and staff training. Many staff members surveyed indicated that although anxiety provoking, direct observation and related feedback were preferred methods for training. Thus, periodic recordings created

in session may serve multiple purposes in terms of both data collection and as a useful staff training tool.

It was also suggested to the client that the program continue to elicit program evaluation support over time through the professional students attending the Graduate School of Applied and Professional Psychology at Rutgers University. The client and evaluator discussed different ways to advertise and connect with graduate students potentially interested in implementing continued program evaluation efforts much like the current dissertation task. When the client is ready to again engage in the evaluation process, it may be useful to continue to utilize the efforts of students who will receive valuable training and professional development for their time, effort and dedication to the project of program evaluation. As discussed, all of the previously described recommendations were presented to the client in written form, as well as in person at the program evaluation results summary meeting.

*Chapter Summary:* The beginning of this chapter focused on the programmatic strengths learned through the evaluation process. Programmatic limitations and areas for improvement were also discussed, as well as associated recommendations and suggestions for future growth and development. The chapter concludes with a description of the creative ideas and suggestions offered to the client based on information gained through the evaluation of the EI program.

## CHAPTER VII

### Evaluation and Assessment of the Program Evaluation Process

*Chapter Abstract:* This chapter focuses on an evaluation of the program evaluation process overall. Strengths related to the process, as well as the most helpful aspects of the program evaluation identified by the client are discussed in the first section. In addition, the limitations and less helpful aspects of the program evaluation are presented. The chapter concludes with a description of the application of Maher's (2000) meta-evaluation process in terms of the current dissertation.

#### *Strengths of the Program Evaluation Process Identified by the Evaluator and Client*

It is important to evaluate the program evaluation process itself; as such "meta-evaluation" fosters programmatic development. The overall assessment of the evaluation process allows the evaluator, client and relevant stakeholders an opportunity to make informed decisions about the design and implementation of future program evaluation. In this way the review of the evaluation process can indicate how to improve future program assessment, maximizing program planning actions, utility and efficiency (Maher, 2000). As previously discussed, the current chapter presents an overall discussion of the evaluation of the program evaluation process implemented through this



dissertation task on the Early Intervention Program. The current section focuses on the strengths of the evaluation process identified by the evaluator as the project progressed over time. Information for this chapter were gathered through formal, as well as informal communications with the client, in addition to direct observation.

After program evaluation data was gathered, reviewed and summarized in written form, this information was presented to the client in a document (the Program Evaluation Summary Report) and discussed in detail, in-person at a meeting between the client and evaluator. After the results of the program evaluation were discussed, the evaluator and client spoke candidly about the evaluation process and procedures, the related strengths, limitations, as well as the most beneficial aspects of the process and evaluation. During this discussion the client communicated that a major strength of the program evaluation process was the organized and ordered framework used to evaluate the EI program. The client suggested that the program evaluation plan was carefully designed and executed with integrity. Overall, it was the structure of the program evaluation method that facilitated an informative and successful pilot program evaluation of the Early Intervention Program.

As the program evaluation progressed over time, frequent and consistent communication between the client and evaluator was imperative. A major strength related to the program evaluation process was the ability of both the evaluator and client to remain in constant contact in terms of the details related to the program evaluation. The program evaluation framework utilized elicits client feedback in every phase of evaluation, hence facilitating constant communication which in turn contributes to the execution of a practical, functional and beneficial evaluation.

Evaluation of the evaluation process reveals that possibly the most significant strength related to the methods used for evaluation in this case was the attention, focus and contributions made to the creation of an improved and more efficient future program evaluation plan. The program design and procedures used in this evaluation elicited valuable information that may eventually inform evaluation improvements. Program evaluation should be fluid and adaptable, not static, and the program evaluation process should reflect this flexibility, as was the case during the current project.

#### *Program Evaluation Process Limitations and Areas for Future Improvement*

As discussed throughout the current dissertation, a major limitation encountered through the evaluation process was the lack of organized and consistent program evaluation data. Although a plethora of client information exists, the specific data needed to systematically analyze and compare client information were not available at this time. The identification of this limitation strongly validates the need to incorporate plans for program evaluation during initial program development. Determining program assessment procedures before the program is implemented will help to facilitate the organized and efficient storage of program evaluation data. The purpose of the current dissertation was to develop a plan and framework for future program evaluation to ensure consistent and organized program evaluation continues throughout the development and possibly the eventual expansion of the program. For more specific suggestions and recommendations for future program evaluation please refer to Chapter 6.

Another limitation identified by the evaluator was the fact that not all questions related to the program were answered or even addressed through the current program evaluation. This was partially due to the fact that it was necessary for the evaluator to restrict the scope of the plan due time limits imposed by the evaluation being conducted as part of a larger dissertation. However, some programmatic questions were not addressed as the client and evaluator discussed the need to focus and prioritize information examined and gained through program evaluation. At this time both the evaluator and client collaborated to determine the three pilot program evaluation questions addressed through the current evaluation.

*Most Helpful Aspects of the Program Evaluation Process Identified by the Client*

During the previously discussed program evaluation summary meeting attended by both the client and evaluator, the evaluator asked the client to identify and then elaborate in terms of the most helpful and beneficial aspects of the program evaluation process. From this discussion it was clear that regardless of the results or data collected through evaluation, this initial systematic implementation of an organized program evaluation framework was informative and advantageous. The client and evaluator discussed how even gathering information for the program evaluation was informative, as this act often revealed to the client exactly what data and client records are most important to collect and store in an organized way.

While engaged in program evaluation actions, specifically those tasks involved with gathering and organizing data for the evaluator, the importance of consistent and

efficient program evaluation procedures were particularly relevant for the client. In this way, the overall implementation of methods designed to evaluate the program functioned as a very powerful and useful feature provided through program evaluation.

Concentrating attention and resources on program evaluation procedures is the first step in terms of developing an appropriate and efficient plan for future and continued assessment of the program.

The client also suggested that it was extremely helpful to have had direct input throughout the systematic evaluation process. In this way the client was able to influence the evaluation process so that the most pertinent and useful information would be gathered. In addition the organized and systematic examination of all program evaluation information was valued and acknowledged by the client throughout the evaluation process.

#### *Applying Maher's (2000) Meta-Evaluation to the Current Dissertation Task*

According to Maher (2000), evaluation of the program evaluation process need not be cumbersome, but rather can be facilitated by using the four identified qualities of a sound human services program evaluation to create four related meta-evaluation questions. These four questions focus on assessing the evaluation process in terms of practicality, utility, propriety and technical defensibility;

- To what extent was the program evaluation conducted in a way that allowed for its successful accomplishment (practicality)?

- In what ways was the resulting program evaluation information helpful to people (utility)?
- Did the program evaluation occur in a way that adhered to legal strictures and ethical standards (propriety)?
- To what degree can the evaluation be justified with respect to matters of reliability and validity (technical defensibility)?

The remainder of this chapter focuses on answering these evaluation questions in relation to the current examination of the Early Intervention Program.

Many steps were taken by both the evaluator and the client to develop a practical and successful program evaluation. Honest and frequent communication between the client and the evaluator helped to facilitate a realistic program evaluation plan that was then implemented with moderate programmatic resistance. Despite a low return rate for parent reaction surveys, generally programmatic information was easily accessible and available to the evaluator. In addition to the time and effort devoted to this project by the program evaluator, the main client had the most instrumental role in terms of organizing and gathering data for the evaluator to review and analyze. Again, organization, realistic timelines, and communication allowed the client and evaluator to collaborate and complete a successful pilot program evaluation with little disruption to the program the overall daily activities involved.

Information resulting from the current program evaluation was beneficial and helpful for stakeholders involved with the Early Intervention Program. Although the information and data collected is of most interest to the main client, there are other

stakeholders involved with the Outreach division invested in the EI program and consequently interested in data collected through an assessment of the program. In addition, as previously discussed, this pilot program evaluation and the related recommendations will hopefully influence and improve future evaluation and the delivery of services. In this way, the current program evaluation will also benefit children with autism and their families receiving services over time.

In the same way that efforts were made to ensure a practical and useful program evaluation, the evaluator also took steps to ensure a legal and ethical program evaluation process. All program evaluation steps and plans were reviewed and consequently approved through appropriate means before the implementation of any program evaluation steps. Specifically, the evaluator sought approval through an advisor and eventually through the Rutgers University Institutional Review Board for the Protection of Human Subjects (IRB). Only after receiving approval were the appropriate program evaluation procedures administered. Mid-way through the program evaluation process, the evaluator applied for and received approval for additional program evaluation procedures that were not addressed in the original program evaluation plan initially reviewed by the IRB. The only ethical issue identified by the evaluator through the implementation of this program evaluation was related to staff feedback and the communication of this feedback to their superior, the client. Although efforts were made to protect the confidentiality of all participants involved through the program evaluation, the small number of staff members employed through the program limited the evaluator's ability to mask staff comments and feedback. It is possible that the two staff members who did not complete and return surveys were concerned about the confidentiality of

their responses. However, in an effort to avoid this dilemma, all staff and parent responses were reviewed and summarized for the client by the evaluator, so that the client did not have the opportunity to read or examine directly survey information.

Lastly, the evaluator suggests that the current dissertation and program evaluation was both reliable and valid in terms of technical defensibility. All program evaluation procedures and specifically the reaction surveys were developed by the evaluator and client together in an effort to create questions that would reliably measure concepts of interest. Specific correlation values across instrument items were not determined, however, anecdotal evidence suggests that the individual parents and staff returning surveys tended to respond reliably across questions designed to measure similar concepts. Although specific information gained through the program evaluation should be interpreted with caution, it is important to focus on the reliability and validity of the program evaluation framework utilized through this project. This pilot program evaluation was implemented in the natural environment and consequently directly assesses the program as it typically and currently exists. This suggests the evaluation process was valid and that conclusions learned through the assessment of this process can be generalized and may apply across settings.

*Chapter Summary:* The purpose of this chapter was to discuss the evaluation of the program evaluation process implemented through the current dissertation. Strengths related to the program evaluation process are presented, as well as the limitations and the most helpful aspects of the evaluation process as identified by the client. The chapter concludes with the application of Maher's (2000) meta-evaluation as it relates to program

evaluation of the Early Intervention Program. In this section the evaluation process is assessed in terms of practicality, utility, propriety and technical defensibility.



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## APPENDIX A

### PROGRAM INSTRUMENTATION

## Training Feedback Survey

### Early Intervention Program

You are invited to participate in a program evaluation project that is being conducted by Stephanie Lee, Psy.M., a graduate student at the Graduate School of Applied and Professional Psychology at Rutgers University. The purpose of this project is to evaluate the XXXX Early Intervention Program.

All of the current staff involved with the XXXX Early Intervention Program will be asked to participate in this study, and each individual's participation will last approximately 35-40 minutes. The study procedures include the completion and return of a written survey.

Specifically, staff will be asked to:

- Complete the Training Reaction Survey provided
- Seal completed Training Reaction Survey in specified envelope provided
- Return survey by mail using the specified envelope and postage provided

If you agree to take part in the study, please note that the survey does not include any questions related to your identity (i.e. name, address, date of birth, etc.). Please do not write your name or any identifying information anywhere on your survey, as your responses will be kept separate from any identifying information documented (name and address). I will keep any information received confidential by preventing individual's access to the information and by keeping all data in a secure location.

There are no foreseeable risks to participation in this study. Participants who complete and return their surveys within two weeks of receiving the survey will be mailed a \$5 gift card for their time and effort.

Participation in this study is voluntary. You may choose not to participate, and you may choose not to answer questions with which you are not comfortable.

This study is confidential. Confidential means that some project records will contain your name and current address. I will keep your identifying information and survey responses in separate and secure locations. At the conclusion of this study all records will be shredded. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

If you have any questions about the study procedures, you may contact Stephanie Lee at 518-495-5918. This project is overseen by Dr. Charles Maher at the Graduate School of Applied and Professional Psychology, Rutgers University, State University of New Jersey, 152 Frelinghuysen Road, Piscataway, NJ 08854 (732)445-2000 x103. If you have any questions about your rights as a research subject, you may contact the Sponsored Programs Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human Subjects  
Office of Research and Sponsored Programs  
3 Rutgers Plaza  
New Brunswick, NJ 08901-8559  
Tel: 732-932-0150 ext. 2104  
Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

Please keep a copy of this consent form for your records.

Please complete and return the attached survey as specified if you agree to participate in this study.

Thank you for your time and consideration.

*This informed consent form was approved by the Rutgers University Institutional Review Board for the Protection of Human Subjects on 2/16/09; approval of this form expires on 2/16/10.*

## **Training Feedback Survey**

### **Early Intervention Program**

**Please answer all of the following questions to the best of your ability:**

How long have you been involved with the Early Intervention program? \_\_\_\_\_

How many different clients have you worked with? \_\_\_\_\_

On how many cases have you served as the team leader? \_\_\_\_\_

Briefly summarize the training experiences you have had while working with the Early Intervention program.

What aspects of your training were most practical or helpful while working in the field?

What aspects of your training do you feel were less than helpful when working with the target population?

What aspects of training did you enjoy the most?

What aspects of training were the most challenging?

How would you rate the level of overlap that existed between your previous training and the training you received?

(No Overlap)      1      2      3      4      5      6      7      (All Overlap)

Before receiving training through the Early Intervention Program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)      1      2      3      4      5      6      7      (Expert)

In your opinion, how would you rate the level of rigidity or structure utilized in your training of Applied Behavior Analysis through the Early Intervention Program?

(No Rigidity)      1      2      3      4      5      6      7      (Very Rigid)

How significantly has your knowledge of Applied Behavior Analysis changed based on your experiences with the Early Intervention Program?

(No Change)      1      2      3      4      5      6      7      (Very Significant Change)

Before receiving training through the Early Intervention Program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)      1      2      3      4      5      6      7      (Expert)

How significantly has your knowledge of Autistic Spectrum Disorders changed based on your experiences with the Early Intervention Program?

(No Change)      1      2      3      4      5      6      7      (Very Significant Change)

Before receiving training through the Early Intervention Program how would you rate your knowledge of the development of the 0-3 population?

(No Knowledge)      1      2      3      4      5      6      7      (Expert)

How significantly has your knowledge of the development of the 0-3 population changed based on your experiences with the Early Intervention Program?

(No Change)      1      2      3      4      5      6      7      (Very Significant Change)



How challenging were any barriers you faced during your training through the Early Intervention Program?

(No Challenge)      1      2      3      4      5      6      7      (Very Challenging)

In your experience, in terms of providing direct service, how functional or practical was the training you received through the Early Intervention Program?

(Not Practical)      1      2      3      4      5      6      7      (Very Practical)

How challenging were logistical aspects of the program? (i.e. travel, scheduling issues, etc.)

(No Challenge)      1      2      3      4      5      6      7      (Very Challenging)

Overall how satisfied were you with the training you received through the XX Early Intervention Program?

(No Satisfaction)      1      2      3      4      5      6      7      (Very Satisfied)

If you could change one thing about the XX Early Intervention program, what would it be? (Please Discuss)

We welcome any further questions, comments or concerns related to your perceptions of training:

## Parent's Reaction Survey Early Intervention Program

You are invited to participate in a program evaluation project that is being conducted by Stephanie Lee, Psy.M., a graduate student at the Graduate School of Applied and Professional Psychology at Rutgers University. The purpose of this project is to evaluate the XXXX Early Intervention Program.

All of the parents who received services through the XXXX Early Intervention Program will be asked to participate in this study, and each individual's participation will last approximately 35-40 minutes. The study procedures include the completion and return of a written survey.

Specifically, parents will be asked to:

- Complete the Parent Reaction Survey provided
- Seal completed Parent Reaction Survey in specified envelope provided
- Return survey by mail using the specified envelope and postage provided

If you agree to take part in the project, please note that the survey does not include any questions related to your identity (i.e. name, address, date of birth, etc.). Please do not write your name or any identifying information anywhere on your survey, as your responses will be kept separate from any identifying information documented (name, address, date of birth, etc.). I will keep any information received confidential by limiting individual's access to the research data and by keeping all data in a secure location.

There are no foreseeable risks to participation in this study. Participants who complete and return their surveys within three weeks of receiving the survey will be mailed a \$5 gift card for their time and effort.

Participation in this study is voluntary. You may choose not to participate, and you may choose not to answer questions with which you are not comfortable.

This study is confidential. Confidential means that some project records will contain your name and current address. I will keep your identifying information and survey responses in separate and secure locations. At the conclusion of this study all records will be shredded. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

If you have any questions about the study procedures, you may contact Stephanie Lee at 518-495-5918. This project is overseen by Dr. Charles Maher at the Graduate School of Applied and Professional Psychology, Rutgers University, State University of New Jersey, 152 Frelinghuysen Road, Piscataway, NJ 08854 (732)445-2000 x103. If you have any questions about your rights as a research subject, you may contact the Sponsored Programs Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human Subjects  
Office of Research and Sponsored Programs  
3 Rutgers Plaza  
New Brunswick, NJ 08901-8559  
Tel: 732-932-0150 ext. 2104  
Email: [humansubjects@orsp.rutgers.edu](mailto:humansubjects@orsp.rutgers.edu)

Please keep a copy of this consent form for your records.

Please complete and return the attached survey as specified if you agree to participate in this study.

Thank you for your time and consideration.

*This informed consent form was approved by the Rutgers University Institutional Review Board for the Protection of Human Subjects on 2/16/09; approval of this form expires on 2/16/10.*

**Parent's Reaction Survey**  
**Early Intervention Program**

**Please answer all of the following questions to the best of your ability:**

How did you and your family become involved in the XX Early Intervention Program?

Please list any related or non-related services your child may have received separate from the Early Intervention Toddler Program while they received direct service through the XX Early Intervention Program. (private speech, OT, PT, etc.)

What were your favorite aspects of the XX Early Intervention Program?

What were your least favorite aspects about the program (if any)?

What aspects of the program were the most helpful (if any)?

What aspects of the program were less than helpful (if any)?

Please rate your initial expectations for the XX Early Intervention Program. In other words, before receiving direct service through the program how successful did you anticipate the program would be for you and your child?

(No success)    1    2    3    4    5    6    7    (Very Successful)

During a typical week, approximately how many hours of direct service did your child receive through this program? \_\_\_\_\_

How satisfied were you with the type and intensity of the services you obtained through the XX Early Intervention Program?

(No Satisfaction)    1    2    3    4    5    6    7    (Very Satisfied)

How satisfied were you with the educational and vocational goals developed for your child through the Early Intervention Program?

(No Satisfaction)    1    2    3    4    5    6    7    (Very Satisfied)

How satisfied were you with the staff's knowledge related to early intervention and developmental disabilities?

(No Satisfaction)    1    2    3    4    5    6    7    (Very Satisfied)

Before receiving direct service through the program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)    1    2    3    4    5    6    7    (Expert)

Before receiving direct service through the program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)    1    2    3    4    5    6    7    (Expert)

How satisfied were you with the parent training aspects of this program?

(No Satisfaction)    1    2    3    4    5    6    7    (Very Satisfied)

After receiving direct service through the program how would you rate your knowledge of Applied Behavior Analysis?

(No Knowledge)    1    2    3    4    5    6    7    (Expert)

After receiving direct service through the program how would you rate your knowledge of Autistic Spectrum Disorders?

(No Knowledge)    1       2       3       4       5       6       7    (Expert)

How satisfied were you with the level of communication between you as parents and program staff?

(No Satisfaction)    1       2       3       4       5       6       7    (Very Satisfied)

Additionally, if issued, how beneficial were monthly team meetings in enhancing communication between staff and your family?

(No Benefit)        1       2       3       4       5       6       7    (Very Beneficial)

Overall how would you rate your experience with the XX Early Intervention Program?

(No success)        1       2       3       4       5       6       7    (Very Successful)

Would you recommend this program to a friend who has a toddler with an Autistic Spectrum Disorder? Why or why not?

Please provide us with a brief update on your child's progress since receiving services through the Early Intervention Program.

Specifically, please indicate which choice below describes best your child's current academic placement:

- ☐ Regular Education Classroom
- ☐ Special Education: Self Contained Classroom
- ☐ Special Education: Learning Disabled Classroom
- ☐ Specialized School (e.g., DDDC)
- ☐ Mainstreamed in Regular Education Classroom with Shadow or Assistant
- ☐ 1/2 day Integrated Class (Special and Regular Education)
- ☐ Preschool Disabled Class
- ☐ Other: (Please explain): \_\_\_\_\_

## APPENDIX B

### BRIEF MEETING DESCRIPTIONS AND AGENDAS

#### I. Major Contact One: Interview

i. People Present: client (Early Intervention Clinical Coordinator) and evaluator

ii. Purpose or Agenda Items:

- Identify a client
- Gather information about program context
- Determine client's need for program evaluation

iii. Contact Results:

- Early Intervention Clinical Coordinator identified as main client
- Information about services provided recorded by evaluator
- Evaluator and client agreed program appropriate for evaluation (no formal evaluation had occurred since programs development)

\*\*Reader is referred to Chapter 1 for a detailed description of information gathered through this contact

#### II. Major Contact Two: Interview

i. People Present: client and evaluator

ii. Purpose or Agenda Items:

- Gather program information so program can be placed in “evaluable” form
  - Identify program purpose and SMART goals
  - Identify eligibility standards and criteria

- Identify program policies and procedures
- Identify program methods and techniques
- Identify program components
- Identify program phases and activities

iii. Contact Results:

- Evaluator recorded the following information in detail:
  - Program purpose and SMART goals
  - Program eligibility standards and criteria
  - Program policies and procedures
  - Program methods and techniques
  - Program components
  - Program phases activities

\*\*Reader is referred to Chapters 1 and 4 for a detailed description of information gathered through this contact

III. Major Contact Three: Phone Conference

i. People Present: client and evaluator

ii. Purpose or Agenda Items:

- Gather program information so program can be placed in “evaluable” form
  - Identify program equipment and materials
  - Identify program facilities
  - Identify program budget methods and techniques



- Identify program personnel
- Identify program incentives

iii. Contact Results:

- Evaluator recorded the following information in detail:
  - Program equipment and materials
  - Program facilities
  - Program budget methods and techniques
  - Program personnel
  - Program incentives

\*\*Reader is referred to Chapters 1 and 4 for a detailed description of information gathered through this contact

IV. Major Contact Four: Interview

i. People Present: client and evaluator

ii. Purpose or Agenda Items:

- Establish and clarify program evaluation questions

iii. Contact Results:

- Evaluator and client agreed upon the following topics for evaluation questions
  - Program intensity related to success
  - Parent reactions
  - Staff reactions to training

\*\*Reader is referred to Chapters 1 and 4 for a detailed description of information gathered in this meeting

#### V. Major Contact Five: Email Correspondences

i. People Involved: client and evaluator

ii. Purpose or Agenda Items:

- Clarify and finalize program evaluation questions
- Operationalize specific data collection variables for each question

iii. Contact Results:

- Finalized program evaluation questions:
  - To what extent does the intensity of the program moderate student success in the program?
  - What are parent's reactions to the program?
  - What are staff member's reactions to the training they receive through this program?
- Finalized data collection variables for each question, allowing evaluator to begin developing data collection instruments

\*\*Reader is referred to Chapters 1, 4 and the data collection instruments located in Appendix B for a detailed description of information gathered through this contact

#### VI. Major Contact Six: Phone Conference

i. People Present: client and evaluator

ii. Purpose or Agenda Items:

- Discuss and finalize data collection instruments (surveys)

iii. Contact Results:

- Evaluator and client finalized data collection instruments for review by other stakeholders relevant to the program evaluation

\*\*Reader is referred to the data collection instruments located in Appendix B for a detailed description of information gathered through this contact

VII. Major Contact Seven: Research Meeting of Division of Outreach within the Douglass Developmental Disabilities Center and Eventual Phone Conference

i. People Present: client, director of Division of Outreach, and the assistant director of Division of Outreach

ii. Purpose or Agenda Items:

- Approval of program evaluation questions and program evaluation overall

iii. Contact Results:

- Stakeholders provided feedback that was delivered to the evaluator via phone conference by client
- Approval of program evaluation questions (with feedback) and overall program evaluation (with feedback)

\*\*Reader is referred to Chapters 1, 3, 4 and data collection instruments located in Appendix B for a detailed description of information gathered through this meeting

### VIII. Major Contact Eight: Email Correspondences

- i. People Involved: client and evaluator
- ii. Purpose or Agenda Items:
  - Gather contact information so data collection instruments can be distributed
- iii. Contact Results:
  - Contact information obtained and data collection instruments disseminated

### IX. Major Contact Nine: Interview and Data Gathering

- i. People Involved: client and evaluator
- ii. Purpose or Agenda Items:
  - Gather all pre and post information on toddlers served through the program
  - Determine an appropriate formula or means to measure and describe the progress attained in the program
- iii. Contact Results:
  - Gathered and recorded half of the pre and post information on toddlers served through the program
  - Client and evaluator determined appropriate means to measure and communicate pre/post results

\*\*Reader is referred to Chapter 5 for a detailed description of the information gathered through this contact

X. Major Contact Ten: Continued Data Gathering

i. People Involved: Evaluator and client briefly

ii. Purpose or Agenda Items:

- Continue to gather remaining all pre and post information on toddlers served through the program
- Brief contact with client

iii. Contact Results:

- Gathered and recorded remaining pre and post information on toddlers served through the program

\*\*Reader is referred to Chapter 5 for a detailed description of the information gathered through this contact

XI. Major Contact Eleven: Program Evaluation Summary Meeting

i. People Involved: client and evaluator

ii. Purpose or Agenda Items:

- Presentation and review of Program Evaluation Summary Report and Supplemental Program Evaluation Summary Report documenting results of the program evaluation
- Evaluator elicits feedback from client related to program evaluation process

iii. Contact Results:

- Discussion of program evaluation results and review of summary documents
- Evaluator received feedback related to documents and program evaluation process

\*\*Reader is referred to Chapter 5, 6, 7 and Appendix C for a detailed description of the information gathered and reviewed through this contact

## XII. Major Contact Twelve: Email with Updated Program Evaluation Summary Report

- i. People Involved: client and consultant
- ii. Purpose or Agenda Items:
  - Send finalized Program Evaluation Summary Report to client
- iii. Contact Results:
  - Sent document and future contact information

\*\*Reader is referred to Chapter 5 for a detailed description of the information sent through this contact

## APPENDIX C

## SUPPLEMENTAL PROGRAM EVALUATION SUMMARY REPORT

**Supplemental Program Evaluation Summary Report**

Program Evaluation Client: Dr. XXXX

Project Evaluator: Stephanie Lee

Submitted for Review by client at Review Meeting on 4/29/09



## **Table of Contents**

- I. Introduction
- II. Sample Parent Reaction Survey Comments
- III. Sample Training Reaction Survey Comments

## **I. Introduction**

- This supplemental report will include sample comments parents and staff expressed in their reaction surveys. All unique comments are recorded and summarized. Statements or suggestion topics repeated by multiple parents or staff members are indicated with a star (\*). Abbreviated comments will be discussed in detail with the client in person.

\*\*Any and all questions or concerns related to this material should be discussed with the program evaluator:

○ Stephanie Lee, Psy.M. (518)495-5918

## II. Sample Parent Reaction Survey Comments

### ○ Results for Parent Reaction Survey Item 1:

How did you and your family become involved in the XX Early Intervention Program?

- NJ Early Intervention \*
- Moved from a different state to receive EI services in NJ
- Recommended by speech therapist, looking “quality ABA provider”
- Recommended by pediatrician

### ○ Results for Parent Reaction Survey Item 2:

Please list any related or non-related services your child may have received separate from the Early Intervention Toddler Program while they received direct service through the XX Early Intervention Program. (private speech, OT, PT, etc.)

- None
- Private ABA
- OT & Speech\*
- Private Speech with OT, PT and Speech through EI
- Speech/Feeding therapy & OT for sensory integration and fine motor

### ○ Results for Parent Reaction Survey Item 3:

What were your favorite aspects of the XX Early Intervention Program?

- Systematic data collection, consideration for individual family situation\*
- Knowledge of ABA\*
- Liked working on name recognition and response
- Knowledgeable and enthusiastic clinicians

- “Great staff...professional....director accessible, knowledgeable, caring and concerned with progress”
- Parental involvement and input\*

○ Results for Parent Reaction Survey Item 4:

What were your least favorite aspects about the program (if any)?

- None\*
- Sometimes staff had a “hard time seeing outside of the spectrum”
- Times of session not always convenient\*, therapist sometimes late
- Sometimes multiple teachers difficult, rather than just 1-2
- Some “old school ABA methods,” prefer more mands training

○ Results for Parent Reaction Survey Item 5:

What aspects of the program were the most helpful (if any)?

- ABA, parent training, final reports
- Table time
- Interaction with therapist
- Information and resources provided through therapist
- Observing ABA and ABLLS assessment
- Team meetings and parent training
- Reports with suggestions
- “So much...” data collection, ABLLS updates, meetings, following programs

○ Results for Parent Reaction Survey Item 6:

What aspects of the program were less than helpful (if any)?

- None\*
- None, perhaps PECS
- Some of the approaches of the therapists

### III. Sample Training Reaction Survey Comments

#### ○ Results for Staff Training Reaction Survey Item 4:

Briefly summarize the training experiences you have had while working with the Early Intervention program.

- ABA International Conference, several workshops (including COSAC), DDDC training and EI workshops (2)
- DDDC and EI trainings (required)
- Crisis Intervention training
- Supervision and staff meetings
- Shadowing and seminars

#### ○ Results for Staff Training Reaction Survey Item 5:

What aspects of your training were most practical or helpful while working in the field?

- N/A
- Observations
- Staff meetings and direct observations
- Functional assessment for challenging behaviors

#### ○ Results for Staff Training Reaction Survey Item 6:

What aspects of your training do you feel were less than helpful when working with the target population?

- None
- Repetition of verbal behavior foundations
- Trainings not focused on EI population

- Some of the lectures
  - Results for Staff Training Reaction Survey Item 7:

What aspects of training did you enjoy the most?

- N/A
- Immediate feedback through direct observation
- Staff meetings where case material is shared
- Trainings targeting EI population
- Brainstorming in teams

- Results for Staff Training Reaction Survey Item 8:

What aspects of training were the most challenging?

- N/A
- Fluency and use of charts challenging and least helpful for population
- Role playing after learning concept
- Observations stressful but valuable

- Results for Staff Training Reaction Survey Item 21:

If you could change one thing about the XX Early Intervention program, what would it be? (Please Discuss)

- N/A\*
- Closer clients, less travel time, less take home work
- Encourage co-treats with advanced therapists
- Increased trainings related to considering parent's feelings while utilizing ABA strategies

- Uniformity in basic materials, e.g. having standard kit for most common ABLLS goals, or hierarchy for puzzle program, blocks, etc. that families may lack

- Results for Staff Training Reaction Survey Item 22:

We welcome any further questions, comments or concerns related to your perceptions of training:

- N/A\*
- Welcome more opportunities for trainings specifically with norms for this age group, especially compared to ABLLS used to assess (not designed for pre-pre schoolers)