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Variables that Influence the Quantity of In-home Services for Children

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Abstract

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There are many reasons in-home services are being implemented and having success with young children. Part of this success may be due to the practitioners' access to the family and home environment. Previous studies have addressed the quality of these services; however, few studies examine how the quantity of services is dispersed and/or how quantity of services is related to various characteristics of, or surrounding, the child. This dissertation attempts to examine factors that may influence the amount of time practitioners are willing to spend in homes when children have comparable concerns or delays. Parental qualities, environmental conditions, and other provider perceptions are examined. It was hypothesized that these various parent and environmental factors make practitioners less likely to give adequate amounts of services to some children in their homes. A survey was mailed to 607 early intervention in-home service practitioners from various professions asking how certain factors influence the amount of time they were willing to spend with the families. An inconvenience factor and perception factor emerged from the variables. The amount of no-shows, inability to make phone contact, longer travel times, parental lack of cooperation, and parental mental health were the most frequent factors practitioners used to decrease the quantity of their services in the home, followed by parental low intelligence and lack of agreement about the course of therapy. Other variables were also noted to decrease time spent with families. Various characteristics of the provider emerged that showed who was more likely to discriminate when determining quantity of services. Training implications are addressed.

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Introduction

Many families experience stress because their children have difficulty, or are at risk of having problems, with their development, behavior, and/or psychological functioning. Congenital abnormalities, environmental conditions, life events, or accidents and illnesses can have a major impact on the child's development (Crutcher, 1991). The needs of these children should be addressed with appropriate services to minimize the impact of such concerns.

Some services provided are secondary, and are aimed at treating a child's problems that are already present. Other services are designed at the prevention level, as services are implemented with children who are at-risk of developing problems (Lefton & Brannon, 2003). Some services are mandated. For example, child protective services and foster care situations are provided to families without the family giving consent.

Currently, many practitioners are serving children and families in the natural home environment. Early intervention programs, various organizations or agencies, and individual practitioners provide services from various professions, including psychologists, social workers, speech therapists, occupational therapists, physical therapists, and medical experts in the child's home treatment plan. This research looks at early intervention practitioners. Some state early interventions programs are moving toward more home-based services for their young children. These professionals provide services to families who are willing to accept services. The services are not mandated, but are available to families who have children with developmental, emotional, or behavioral problems. Additionally, some states offer early intervention services to children who are at risk of having delayed development.

In-home services are designed to target many aspects of the child's life. They preserve and strengthen families, provide protection of the children in the home (Chapman, Gibbons, Barth, McCrae, & NSCAW Research Group, 2003), target developmental delays, improve child behavior, and help family functioning. In-home services can be successful for diagnostic services and for therapy (Woods, 1988) for many reasons. First, programs and services that involve the parents and families, not just the child, have been shown to be more effective (Blackman, 2002). Part of this may be due to the importance of carry over and follow-through as the parents are able to see how to implement strategies in their home. In-home practitioners are also able to have access to the child, the child's family unit, and the home environment. Being able to observe families in their natural environments can be very helpful and enlightening, as family dynamics, living conditions, and other variables are made apparent to the practitioner providing the service. This information would allow practitioners to tailor their interventions. In general, in-home practitioners are able to maximize their effectiveness in the home because they have access to many aspects of the child's life. Having this access will ultimately influence the implementation and successfulness of various interventions. If the practitioners take advantage of having all of this information that they obtain in the home, they will be better equipped to support the families' needs, appreciate the families' values, and provide appropriate resources (Tracy & McDonell, 1991). This, in turn, will affect the child and outcomes of therapy. Without education related to family functioning and systems the family is a part of, one may assume that practitioners may be ill-equipped to utilize the in-home setting effectively and may

discriminate more because of lack of awareness and strategies to work within the family structure and ecosystem. Without acknowledging the social system that children and families live, practitioners are unable to effectively see clients' perspectives, worldview, and reality and ultimately tend to treat the child as an isolated unit (Woods, 1988).

There are other reasons in-home services work well for children. These types of services allow the child to learn and participate in the home environment, enable the child to apply context-specific skills in the home, and take aspects of the home environment into account. These are important components of treatment with children (Llewellyn & McConnell, 2002). In addition, interventions that occur in natural environments enable children to participate in the same developmental contexts as other children and to develop skills and relationships relevant to their environment (McCollum, 2002). These home-based interventions also allow the child to be more at ease while learning and interacting with other professionals. A recent meta-analysis demonstrated that children who were receiving in-home services fared better than children in control groups. These children had better socio-emotional and cognitive outcomes and their abuse incidence and risk was lower than children in controls which the researchers attribute to parental involvement and education (Sweet & Appelbaum, 2004).

It has also been shown that family-centered services increase parents' satisfaction with services and child outcomes, as well as decrease parental stress (Law, Hanna, King, Hurley, King, Kertoy, & Rosenbaum, 2003). If professionals are working with families who are distressed, currently having problems functioning, and have a child who is having difficulty, practitioners may add more hardships and stress onto families by providing services outside of the home. Some parents have trouble finding transportation, travel long distances, have many children to take to and from appointments, and encounter other complications that add to the inconvenience and hardships of attending office appointments (Woods, 1988; Sweet & Appelbaum, 2004). Overall, when parents rate home-based interventions and center-based interventions, they appear to rate in home services more favorably (Mahoney & Filer, 1996) and it is known that satisfaction with services influences continuation and participation (Walsh, 1999).

Factors Impacting the Effectiveness of In-Home Services

Not all children who require interventions receive services in their home environment, with most services provided weekly or biweekly in a separate facility. Although in-home services are being implemented, the provision of such services has been neglected in practice and in training, in general (Tracy & McDonell, 1991). Also, the amount of services provided is not necessarily distributed in a manner that reflects the severity of the problem. For example, it would be expected that children with more severe problems would receive more services than those with mild impairments in most cases. This is not necessarily what happens in practice as some services are dispersed based on availability, ability of the parents to pay, etc. (Majnemer, Shevell, Rosenbaum, & Abrahamowicz, 2002). There may be additional reasons for this discrepancy, some which are suggested in this research.

Provider Beliefs, Attitudes, and Perceptions

Research about beliefs, attitudes, and perceptions are explained as the current study examines how these may impact the quantity of services provided to children in

their home. Literature is lacking as to how these key characteristics may impact service provision. The interaction between individual variables, practitioner orientation, organizational factors, and their own culture ultimately influence providers' behaviors (Johnson & Cournoyer, 1994). If practitioners are stating that some of the environmental and parental characteristics being examined in this study influence their work and the quantity of time they spend with families, are programs, agencies, and families cognizant of this? Are professionals' responses to the parents, the family's values, the home environment, and other related familial factors impacting services? It is important that in-home practitioners realize that every family is different. There are differences in parents' abilities, communication styles, beliefs, attitudes, coping skills, knowledge, and willingness to welcome professionals into their home (Haring & Lovett, 2001). Interestingly, professionals emphasize the importance of not judging the parents; however, most report having difficulty not being judgmental (Walsh, 1999).

A few different questionnaires and studies have attempted to measure and analyze providers beliefs and perceptions about family-centered practices and in-home service provision (e.g. Johnson & Cournoyer, 1994; King, Kertoy, King, Law, Rosenbaum, & Hurley, 2003). Some practitioners tend to blame children's families for the child's problems while some believe that other genetic, biological, or situation-specific variables are to blame (Johnson & Cournoyer, 1994). One study found that providers who had less family contact were more likely to hold the family responsible for causing their family member's illness, which in turn led to families reporting more negative experiences with providers (Marshall, Solomon, Steber, & Mannion 2003). In addition, some providers believe it is unnecessary to provide parents with information about treatment because they believe that the parents are incompetent to make decisions about the course of therapy (Johnson & Cournoyer, 1994). With this, it is evident that beliefs influence practices and satisfaction. In a research article by King et al. (2003), findings suggest that many providers have positive opinions about family-centered services and agree that it is important where others do not. Furthermore, findings reported that negative beliefs about these services were related to practitioner lack of training, experience, and familiarity with how to implement in-home services effectively. Overall, providers held weaker beliefs about the importance and principles of family-centered practices than did parents. When practitioners have stronger beliefs about the importance of home services and greater self-efficacy, these authors found that they reported greater interpersonal sensitivity and were more respectful toward parents.

A study by Campbell and Halbert (2002) revealed some providers' ideas about how they would improve services and be more satisfied with their jobs. For example, many practitioners stated that they wished they were able to terminate services if the parents were unresponsive. They stated that they wished parents were more involved, responsible, and were more accountable for following through with recommendations. These providers had been providing in-home services for a minimum of three years and revealed that they would rather return to center-based services. How do these beliefs impact their work ethic and amount of services they provide to families?

Potential Developmental Risk Factors That May Also Impact Services Provided

This section of the literature review will include research on various factors that appear to have some impact on the child's development and may also potentially have an impact on the amount of time practitioners provide services. These factors are not child-specific (e.g. related to severity, disability, temperament), but are related more to the child's environment. Many of these variables will be termed "risk factors", however, they may be viewed as barriers, provider inconveniences, etc. in this research. To clarify, this research is going to examine how a practitioner might respond when they encounter a "risk factor". For example, a speech therapist may be called in to address a child's delay in their expressive language skills. The child's mother may be depressed. This depression may cause the provider to encounter obstacles in therapy like parental compliance and follow through with treatment recommendations or rapport which may be an inconvenience to the provider. This inconvenience may cause her to decrease her time she provides to the child. At the same time, maternal depression is a risk factor for the child's development, as it also impacts her interactions with the child. If quantity of services is decreased by the speech therapist based on the present risk factor, the child is at a double disadvantage. They are at greater risk for poor development and receive fewer services. These variables are examined here for two reasons: 1.) Practitioners who enter homes will inevitably encounter families with some of these risk factors, and this research wants to understand how these variables may impact the quantity of services practitioners provide when faced with families with these situations; 2.) the early intervention agency surveyed in this research allows families with four risk factors to be eligible to receive their services, even when delays or atypical development is not present.

Research has examined a host of potential risk factors associated with negative child outcomes. As stated previously, congenital abnormalities, environmental conditions, life events, or accidents and illnesses can have a major impact on the child's development (Crutcher, 1991). Certain actions and characteristics of the child's family members (e.g. parental mental health, intelligence, family dynamics, adherence to following through with recommendations) and aspects of the home environment (e.g. neighborhood, location) can also make the child more vulnerable to developmental delays, and an increase in risk factors leads to poorer childhood outcomes (Appleyard, Egeland, van Dulmen, & Sroufe, 2005).

Risk, however, is multifaceted and problematic development depends on the interaction between a complex individual and a dynamic environment (Ramey, Yeates, & MacPhee, 1984). Many children still function well, despite the presence of risk factors. In fact, children who are exposed to the same risk factors do not share the same experiences or have the same outcomes (e.g. Dubow & Luster, 1990). Therefore, the child's relative deficits and strengths, intrinsic and extrinsic, have an impact on the outcome (Ramey, Yeates, & MacPhee, 1984). If interventions can help mediate the effects of some of these risk factors, it is important to encourage and continue implementing such services.

Income, Environment, and Communities

Poverty does not always lead to poor outcomes for children if resiliency factors are present (Bradley, Whiteside, Mundfrom, Casey, Kelleher, & Pope, 1994); however, some

reports do suggest that low socioeconomic status families and families living in poverty are at greater risk of experiencing problems including exposure to more violence, family turmoil, instability, poor air and water, crowded neighborhood and living arrangements, dangerous environments, and chaos. They are also more likely to have authoritarian parents who are less responsive (Evans, 2004). A study conducted by Bradley, et al. (1994), found that 12% of preterm low birth weight children from families in poverty were resilient, whereas 40% of preterm low birth weight children from affluent families were resilient. This is one example that leads people to believe that there is something qualitatively different about the children's environment, or mediating factors related to the environment, that affect their resiliency. One hopeful finding is that Sweet & Appelbaum's (2004) meta-analysis on home-based service delivery concluded that programs that targeted and gave adequate services to low-income families had higher average parent behavior effect sizes than those programs that did not target these families. With this, it is evident that positive changes can occur with families in this situation.

Different mediators have been proposed when examining processes involved in how income affects children's development. Parental intelligence, education, mental health, physical health, location, and resources all have an impact on whether the family has financial difficulties and may also contribute to the risks of such families (Olds & Kitzman, 1990). Mediators such as maternal depression, maternal emotional distress, and the presence of cognitively stimulating home environments have all been shown to mediate between income and child outcomes in some way (Linver, Brooks-Gunn, Kohen, 2002). Research has found that family history of mental illness, poor parenting (e.g. lack of parental warmth, lax supervision, harsh punishment), and residential instability (i.e. multiple moves) mediated the association between poverty and psychological problems (Costello, Keeler, & Angold, 2001). Adolescent parenthood, single parenting, and increased risk of premature birth are also risk factors associated with low socioeconomic status and are considered to be risk factors (Horning & Gordon-Rouse, 2002; Lyons-Ruth, Connell, & Grunebaum, 1990). Statistics show that poverty is a risk factor for involvement with child protective services, although some speculate that people are more apt to report poor families (Courtney, McMurtry, & Zinn, 2004).

When looking at the effects of neighborhood conditions and their impact on early childhood behavioral development, there are mixed opinions as to whether it is possible to disentangle genetic and environmental sources of input. Twin studies show that neighborhoods have a significant impact on behavioral development and mental health problems above and beyond genetic liability (Caspi, Taylor, Moffitt, & Plomin, 2000). This evidence would suggest that poor neighborhood conditions are risk factors that influence positive growth and development. Because programs that provide services to families at environmental risk show greater effect sizes for reducing child abuse than programs that did not target such families (Sweet & Appelbaum, 2004), it is necessary that such services continue in adequate quantities.

Another factor that has been examined is location. In a study of rural communities, Evans (2003) found that aspects of the home environment (e.g. overcrowding, noise, housing quality, turmoil, violence) and parent characteristics (e.g. single parenthood, early drop out rates) were related to an increase in child psychological distress with a greater effect with cumulative risk factors. These conditions and factors are not only present in rural communities, but seem to occur more frequently in rural areas, according to Evans. A recent

meta-analysis showed that suburban programs were more successful than rural programs (Sweet & Appelbaum, 2004). The next question would be "Why?" Are families in better locations receiving more quality and quantity of services? Because this study is being conducted in a rural state, urban areas will not be examined.

Parental Qualities and Behaviors that Affect Parenting Skills

Overall, mothers of children who are more at risk are difficult to access and engage in treatment and will frequently discontinue services prematurely (Jack, DiCenso, & Lohfeld, 2005). Many parent attributes and behaviors impact the child's development. For example, parental intelligence contributes directly, because intelligence is heritable, and indirectly to their child's cognitive development. Parenting practices, which are assumed to be related to parental intelligence, predict children's learning and intelligence (LaBuda, DeFries, Plomin, & Fulker, 1986; van Bakel & Riksen-Walraven, 2002). Parenting skills require more than giving affection and devotion to the child. Such skills involve mental facilities including judgment, memory, organizational ability, and foresight. There is some evidence that when maternal IQ falls below the mild range, there may be some limitations in parenting competency (Glaun & Brown, 1999). Many times, parental lack of intelligence increases the amount of stress parents are experiencing; therefore, hindering sufficient parenting (Feldman, Leger, & Walton-Allen, 1997). Although these mothers with limited cognitive abilities may be perfectly capable of providing a loving environment, there may be other factors that are absent that will impact the child's behavioral, mental, and emotional development. Maternal stimulation, interaction, knowledgeability, and capabilities appear to make a contribution to the child's competencies and also have impact the environment they raise their children in (Sameroff & Seifer, 1983). Many children who have parents with developmental delays are eligible for services because having a parent with intellectual concerns places the child at risk for a developmental delay (Scarborough et al., 2004). Mothers' intellectual functioning appears to have an impact on child intelligence quotients (IQs) (Bradley, Whiteside, Mundfrom, Casey, Kelleher, & Pope, 1994). In general, mothers who have low IQs are more likely to be charged with neglect, rather than abuse (Glaun & Brown, 1999). This may be one reason that services are provided preventatively for mothers who have limited cognitive abilities. Overall, parents with lower levels of education predict that more negative outcomes may arise from services, and they tend to have weaker beliefs about their self-efficacy with implementing suggestions from providers (King et al., 2003).

A review of the literature also briefly reveals a couple of other factors that may be related to child risk, including maternal age and mental health, which will be examined in this survey. Teenage mothers may have children who fare less well on measures of cognitive and social competence, although environmental and child variables tend to compensate for, or exacerbate, outcomes (Ramey, Yeates, & MacPhee, 1984). Another study showed that infants of depressed mothers were at risk of developing slower. However, if provided with in-home interventions, these children had an average of 10 points higher on the Bayley Scales of Infant Development and were more likely to be securely attached (Lyons-Ruth, Connell, & Grunebaum, 1990). These are two other characteristics that are considered to be risk factors for optimal development and should be examined.

Parental Qualities and Behaviors that Affect Compliance and Cooperation

When examining parental behaviors, cooperation and follow-through with recommendations are necessary for successful treatment. Partnerships and cooperation between the parents and professionals are critical components of successful home-based interventions. A practitioner can implement therapy for one hour a week, but unless parents and guardians follow through with treatment, the child is unable to practice the skill enough to advance consistently. Partnerships and treatment must utilize agreed upon strategies and be understandable (Crutcher, 1991). When looking at early intervention programs, some practitioners have reported that parents frequently do not follow through with recommendations. Practitioners often interpret this as noncompliance with treatment and perceive the guardians as being uncooperative or resistant. However, unclear instructions or disagreement on the nature of the presenting problem or the need for treatment may be two other possibilities. In addition, personal and family resources, including time and energy, affect adherence to treatments. If families' basic needs are not being met, there is a decrease in the amount of follow through, because survival becomes the ultimate priority (Dunst, Leet & Trivette, 2001). Strengthening communication and attention to the family can significantly improve the compliance with home therapeutic interventions (Galil, Carmel, & Lubetzky, 2001). A qualitative study by Collins and Collins (1994) examined 30 mental health professionals' perceptions about the involvement of the children's families in treatment. Counselors, psychologists, social workers, psychiatrists, and psychiatric nurses in mental health settings were included. Professionals stated that failure of the parents to get involved with therapy resulted in the children returning for more treatment in in-patient settings. In-home services then have potential to include the parents with the intervention process allowing for better outcomes. Overall, meta-analyses suggest that parents can benefit from services in their home, as they have a tendency to change their attitudes and behaviors with appropriate services, both of which are directly related to their parenting abilities (Sweet & Appelbaum, 2004).

Research on the Quantity of Services Provided in the Home

A recent meta-analysis shows that the quantity of services rendered is positively related to the benefit of children receiving services for cognitive related reasons (Sweet & Appelbaum, 2004). Additional reports and studies document that quantity of services is directly related to outcome, where more is better (e.g. Gilliam, W. S., Ripple, C. H., Zigler, E. F., & Leiter, V., 2000; McCall, R. B., Larsen, L., & Ingram, A., 2003). Are there factors that contribute to the quantity of services given, other than the need or severity of the problem? The following are variables of interest in this research, as each will be examined as to how they impact the quantity of services.

Distance and Rural Areas

There is very little research regarding how the amount of practitioner travel time influences the amount of services provided to families. Some articles briefly mention that travel constraints limit the amount of services due to limited work hours and size of caseloads (Brady, 1982). It is known that parents and practitioners who live and work in rural regions face many challenges. It appears to be difficult to recruit, train, and retain professionals to serve families in rural areas (Jephson, Russell, & Youngblood, 2001; Haring & Lovett, 2001; Ryan, 1999). Providers in rural environments experience problems, such as isolation, distance between children and families served, and inadequate transportation (Doctoroff, 1995). Haring & Lovett (2001) report that geographical location has a major impact on the amount of services various professionals are able to provide, as some practitioners are only able to provide a half-hour twice a month. In addition, providers will miss, and never make up, appointments. With this, children in rural areas may be receiving fewer services. Hourly versus salary pay may also impact work when traveling in rural areas. It has been shown that suburban programs are more successful than rural ones (Sweet & Appelbaum, 2004).

Income and Poverty

Again, little research is conducted related to the amount of services families living in poverty receive in comparison with children who have similar problems from middle and upper class homes. In a study by Kontos and Diamond (2002), the parental and professional perceptions of quality services were not related to socioeconomic status, although quantity of services was not examined. Some studies show that more children from low-income families are provided with in-home services (Scarborough, Spiker, Mallik, Hebbeler, Bailey, & Simeonsson, 2004). This could be due to several factors. Children from middle and upper class homes may utilize more center-based services. The middle and upper class families also have statistically less risk factors associated with atypical development; therefore, receive fewer services in programs that are designed to be preventive. In one study, 32% of the early intervention participants were at or below the poverty level when the national average of those at or below the poverty level was 24% (Scarborough et al., 2004). This does not get to the core of the present question, since hours practitioners spend in the home of a poor family are not compared with the amount of hours they spend in middle and upper class families when the children have comparable problems, and because most early intervention programs offer services to children who are at risk to be preventive. Although some may report that poorer families receive more services when looking at percentages of all the

children receiving in-home services, it is possible that the children are individually receiving fewer services when compared to other children from middle and upper class families. A recent study by Gyamfi (2004) demonstrated that families in poverty were less likely to receive services when problems were present.

Various factors associated with low socioeconomic status and poverty have a potential to decrease time spent in families' homes. Professionals tend to have the perception that lower socioeconomic families are less likely to get involved in treatment of their child (Collins & Collins, 1994) and may be less likely to provide a great amount of services if parents will not follow-through. Professionals need to understand the interrelated concerns with disadvantaged families, because the concerns seem to stem from the lack of psychological resources of the parent, stressful life situations, and absence of support (Olds & Kitzman, 1990).

Physical Home Environment and Living Conditions

Chaotic environment, cigarette smoke, cleanliness of the home, and the presence of animals were additional factors mentioned by various in-home providers when the researcher informally asked them about factors that influence the amount of time they were willing to spend with families before the start of this dissertation. Again, this is an area that is not well documented in the research, in regards to the quantity of services practitioners provide. It is true that many frequent distractions, noises, and interruptions are present when providing services in the home environment. Ringing phones, unexpected visitors, and other children demanding attention are examples of such distractions (Llewwllyn & McConnell, 2002). It is also well documented that environmental tobacco smoke has significant health effects for those exposed (Williams, 2005), and this reason was stated that deterred some in-home practitioners from frequently visiting these environments. These practitioners did not feel that they could ask the families to not smoke in their own home during their visit. Discussion of cleanliness of the home and the presence of animals and how they related to provider beliefs and behaviors were not found in any studies.

Parent or Guardian Intelligence

No research was found related to the providers' perception of the parents' intelligence and how this affects service delivery. Some researchers speculate that parents with limited cognitive capabilities may not have the personal skills to negotiate the amount of services they will receive, therefore, decreasing services they are provided (Mahoney & Filer, 1996). It is important that practitioners avoid preconceived ideas about the abilities of mothers with low intellectual functioning (Glaun & Brown, 1999), and examine each situation on an individual basis as some mothers are able to learn, follow through with treatment recommendations, and make a difference when given the proper support. Even with this, it is apparent how intelligence may impact other areas of the child's life (e.g. income, resources, residence).

Parent or Guardian Cooperation and Follow-Through with Recommendations

Cooperation of family members varies, depending on the nature of the professional involvement. For example, child protective services are more likely to be adversarial in nature because the services are mandated (Chapman et al., 2000). Conversely, early intervention services are offered only to families who want services, therefore, impacting the

nature of the parent-professional relationship. This research examines voluntary participation on part of the families; therefore, one may assume that these parents are cooperative, although this is not always the case.

Some recent research is suggesting that the nature of a successful, cooperative therapeutic relationship relies on the feelings evoked by the professional, rather than what the professional actually does (Chapman et al., 2000). Literature is lacking when examining characteristics of the caregiver and their impact on the relationship. Child welfare workers' accounts of parental cooperation are directly associated with the caregiver reported relationship quality between the caregiver and the worker. Determinants of relationship quality include recent contact and responsive services. More importantly, a "reasonable level of cooperativeness" appears to be a significant predictor of the professional's view regarding relationship quality. Furthermore, interactive behavior can affect the overall satisfaction with services and increase interactions, as well (Howell-Koren & Tinsley, 1990). Having a cooperative parent makes a practitioner's job much easier, because they tend to be more compliant with treatment recommendations, follow through with case plans, and appear committed to the intervention (Chapman et al., 2000).

When professionals visit more frequently, and long enough, they tend to be more effective because a therapeutic alliance is established with the family (Olds & Kitzman, 1990). However, if this alliance is not established, then it is likely that neither cooperation nor follow through will be present. Therefore, there appears to be circularity between hours spent with the family, cooperation, and follow through. It should be noted that satisfaction with services leads to greater compliance with treatment recommendations (Walsh, 1999). So, how do these behaviors impact quantity? No research was found that addresses this issue.

Ethical Implications

Many disciplines that provide in-home services have ethical guidelines that are related to service provision. Discriminating improperly based home environment and parental qualities when providing services to children would be violating guidelines of most professions. In particular, offering services to people in need is part of many professions' ethical code. If professionals ignore people in need or at risk because of these variables, then ethical codes including justice, beneficence, and nonmaleficence may be violated (Kotalik, 2002).

Summary of the literature

Although there is evidence about how various factors influence a child's social, emotional, behavioral, and psychological development, little research is available that examines the hours in-home practitioners are willing to provide when these variables are present or when a child is experiencing problems with their cognitive, behavioral, psychological, and/or emotional development. It is well documented that parental cooperation and follow through impact service delivery; however, other variables such as perceived parental intelligence and physical home environment factors are rarely studied. Findings from this study could potentially have an impact on service delivery and serve to facilitate change if needed. Are we providing more services to children with milder problems or milder potential risk because of other variables present in their surroundings? More importantly, are we decreasing services in homes to kids in need based on these variables? The question of this dissertation is not whether at risk families receive more services to protect the child from poor outcomes. The ultimate question is: When a child has some need for services, do practitioners discriminate based on factors that are not inherent within the child, but base their amount of services on factors relevant to the child's context, environment, surrounding, and parents?

Current Study

Hypothesis

What determines the amount of services children have available to them in their home? Do programs and practitioners provide services based upon their own initiatives, or by actual needs and priorities of children and families? Families have a tendency to report a greater need for services than they are actually receiving. Little research has been conducted to examine whether children from families with optimal patterns of functioning, positive characteristics, and little need for support are more likely to receive greater amounts of services than families who are dysfunctional, "inconvenient", or have indications of being at risk.

With this information, it is hypothesized that variables other than the need for services or the severity of the problem influence the amount of services children and families receive. Distance a provider must travel, the physical home living conditions (e.g. cleanliness, presence of cigarette smoke, chaotic environment), family income level, and the professionals' perceptions about various aspects of the parent or guardians (e.g. intelligence, cooperation, follow-through) are hypothesized factors that influence the quantity of services that are provided to some families who are receiving early intervention services that are not mandated by various courts or agencies.

Potential Implications of This Study and Future Research

This dissertation will hopefully allow others to think about the implementation of in-home services. Further directions and questioning will be needed if the hypotheses are supported. To begin, although there are a host of reasons why in-home services are beneficial, are in-home services more beneficial for some families than others? For example, if it is found that providers limit their services to families with more vulnerability variables, will these families be better served in offices and center-based services so that adequate amounts of services are rendered? If future researchers compare the severity of the child's delay and the amount of services provided, they may find that these parental features and environmental factors mediate the amount of services the child receives. Also, if there is discrimination in the quantity of services rendered, is quality also compromised based on practitioners' perceptions and biases? To what extent do some of these factors influence providers who are based in centers or offices? How do professionals and families overcome this? What are the characteristics of practitioners who do not discriminate based on variables asked about in this survey? How do we train practitioners so that they do not discriminate and give equal amounts of services to children with similar needs? These are questions that must be examined if the hypotheses hold true.

Method

Sample

The names and addresses of practitioners for potential participants were gathered online from one state's early intervention program. A total of 607 surveys were mailed and 227 surveys were returned and analyzed for a return rate of 37.4%. These surveys were mailed to all service providers of this one state's early intervention program. Of the 227 participants, there were 57 speech therapists, 40 developmental specialists or special educators, 40 service coordinators, 33 physical therapists, 15 occupational therapists, 15 social workers, 9 nurses, 7 counselors, 4 nutritionists, 3 physical therapy assistants, 2 occupational therapy assistants, 1 psychologist, and 1 did not specify profession. Table 1 shows numbers and percentages of professions who were sent and then submitted the survey. Gender was not asked about in this survey, as only 4% of the original 607 were male.

Table 1
Frequencies and Percentages of Survey Mailings and Submissions

Profession	Total Sent	Total Received	Percent of Profession Who Returned	Percent of Total Sample
Audiologists	1	0	0.0	0.0
Counselors	15	7	46.7	3.1
Dev Specialists	102	40	39.2	17.6
Nurses	31	9	29.0	4.0
Nutritionists	9	4	44.4	1.8
OT	53	15	28.3	6.6
OTA	5	2	40.0	0.9
PT	59	33	55.9	14.5
PTA	8	3	37.5	1.3
Psychologists	13	1	7.7	0.4
School psychologists	3	0	0.0	0.0
Service Coordinators	159	40	25.2	17.6
Social Workers	28	15	53.6	6.6
Speech Therapists	120	57	47.5	25.1
Vision Specialists	1	0	0.0	0.0
Profession Unknown	0	1	-	0.4
Total	607	227	37.4	100.0

Additionally, 76.7% of the respondents stated that they are paid by the hour (i.e. per 15 minute unit) through their agency or directly from the state's early intervention program, as services are provided at no cost to families. These providers work in comprehensive teams with other professionals and family members to determine appropriate amounts of services based on each child's individual areas of need. The time to be spent by each professional providing service to the child is decided by all team members, including family members. Parents are not mandated to have their children receive early intervention services and they can discontinue these services at any time.

Parents can also refuse individual services while accepting other services. Early intervention services are available to any child in this state who has a delay in development, atypical development, diagnoses associated with delays in development, or any child who is determined to be at risk for delays by the presence of four or more risk factors (e.g. abuse/neglect, low birth weight, lack of resources, parental education, parental mental health). These services are free to all families.

Most of the providers who responded have been providing services for 0 to 5 years (53.7%) followed by 6 to 10 years (19.4%), 11 to 15 years (10.1%), and more than 16 years (8.8%). The majority had completed their master's degree (60.8%) followed by bachelor's level providers (30.0%), high school level education (7.5%), and doctoral level practitioners (1.3%). Fifty-seven percent of providers state that they are greatly or extremely satisfied with the amount of money they make and 74% are greatly or extremely satisfied with their job overall. Additionally, 93.8% feel that they do their job very well to extremely well. When examining their opinions and attitudes about in-home service provision, approximately 86% indicate that they feel in-home services are extremely important, with only approximately 14% stating that they would rather provide center-based services.

Procedure

A total of 607 packets were mailed which included a cover letter, a copy of the survey and a postage paid business envelope. Participants were asked to answer all questions but to not put any identifying information in or on the postage paid business envelope provided. The cover letter and survey can be found in Appendix A and Appendix B.

Questions 1 through 22 of the survey asked providers who provide in-home services to note the degree to which various items (e.g. travel time, cleanliness of the home, parental mental health) decrease the amount of time they are willing to provide services to children and families. Questions 23 through 28 and 33 through 41 ask demographic information (e.g. profession, level of education) along with attitudes and beliefs about families and services. Questions 29-32 blatantly ask providers about the main concern of this research: do practitioners discriminate using variables from questions 1-22 and in turn provide fewer services to children who are more severe or at risk more of a risk of developing delays?

Results

Means and Frequency Data

Table 2 provides descriptive data for the responses to each question. When analyzing means of responding, it appears that the variables practitioners are least likely to say influence their willingness to provide services are race, differing values and beliefs (i.e. religion and politics), caregiver gender, and caregiver age with means ranging from 1.07 to 1.38, with 1.00 representing never and 5.0 representing always. These variables could be considered the main demographics used in discriminatory practices in society, but were not endorsed with these providers. However, other types of discrimination may be occurring related to other questions endorsed. For example, the most influential determinants of decreasing time the providers are willing to provide would be the amount of no shows with 82.3% saying this sometimes, frequently, or always lead to a reduction of services. Secondly, the inability to make phone contact affected service provision of 77.6% of providers. These variables would ultimately affect the amount of services, as not being home for the appointment and/or not being available to make the appointment would decrease time spent in homes; however, the survey asked practitioners to specify how variables impact their "willingness" to provide services and not how the factors impact actual hours spent. Further variables, including parental lack of cooperation, lack of agreement about the course of therapy, longer travel times, parental lack of follow through, perceived lack of safety in the home, a rural home setting, chaotic home environment, and the presence of cigarette smoke were the variables with means ranging from 2.88 to 2.02, respectively, again with 5.00 indicating the factor always influences providers and 1.00 representing never.

Table 2
Frequency of Variables Significantly Impacting Services

Variable	Percent Endorsed as Frequently or Always Decreasing Time	Means	SD
Amount of No Shows	53.7	3.45	1.054
Inability to Make Phone Contact	31.3	3.04	0.925
Longer Travel Time	22.5	2.48	1.199
Parental Lack of Cooperation	21.6	2.88	0.917
Parental Mental Health	18.1	1.75	0.842
Lack of Agreement about Course of Therapy	14.1	2.51	1.002
Parental Low Intelligence	13.2	1.52	0.743
Lack of Safety	12.8	2.32	1.063
Rural Home Setting	12.3	2.31	1.071
Parental Lack of Follow Through	11.5	2.36	0.965
Cigarette Smoke	10.6	2.02	1.103
Chaotic Home Environment	10.1	2.27	0.989
Young Parental Age	7.9	1.38	0.646
CPS Referrals	7.0	1.42	0.691
Single Male Parent	6.6	1.27	0.594
Lack of Cleanliness of the Home	5.3	1.74	0.898
Parental Lack of Appreciation	4.4	1.85	0.883
Presence of Harsh Parenting Practices	2.2	1.70	0.820
Presence of Animals	1.7	1.50	0.731
Greater Number of People in the Home	1.3	1.65	0.804
Differing Values and Beliefs	0.8	1.23	0.544
Race of Family	0.0	1.07	0.283

When examining frequencies of variables that practitioners endorse as frequently to always impacting their willingness to provide services the greatest number of endorsements were 53.7% for amount of no shows, 31.3% for inability to make phone contact, 22.5% for longer travel time, 21.6% for parental lack of cooperation, 18.1% for parental mental health, 13.2% for parent's low intelligence, 14.1% for lack of agreement about therapy, 12.8% for lack of safety, and 12.3% for a rural home setting. Less drastic, yet influential variables that were endorsed as frequently or always decreasing time they provide were 11.5% of practitioners endorsing parental lack of follow through, 10.6% for cigarette smoke, 10.1% for chaotic home environment, 7.9% for young parental age, 7% for knowing the case is a CPS referral, 6.6% for presence of a single male parent, 5.3% for lack of cleanliness in the home, and 4.4% for parent's lack of appreciation for the provider.

Because this research was examining discriminatory practices on the part of providers, questions were asked to determine if the respondent or his or her coworkers have used the variables asked about in this survey to provide fewer services to a child with a more severe delay or more risk factors (questions 29-32). Six percent of respondents would not answer the question related to severity and discrimination and

seven percent would not answer the question about at-risk families when both questions asked them about their coworkers. Some specified that they did not know about their coworkers or did not want to speculate. When examining the other responses, 39.6% of practitioners stated that their coworkers provided fewer services to a child with a more severe problem because of variables asked about in the survey, whereas 33.9% of respondents also stated that they had engaged in such practice. When looking at at-risk families, 15% of respondents stated coworkers use variables asked about in this survey to decrease time spent in homes, and 5.3% admitted to doing it in their own practices.

Factor Analysis

The survey was originally designed around three factors believed to impact service provision. These included provider perceptions about the parent (e.g. mental health, intelligence), provider perceptions about the environment (e.g. cleanliness of the home, chaotic environment, smoke), and inconvenience variables (e.g. not showing up for appointments, unable to contact by phone). A principal-axis factoring analysis was performed using varimax rotation for questions 1 through 22 as the variables of interest. Initially, three factors were specified in varimax rotation, but no clear factors emerged. However, when two factors were specified to define underlying structures in the data, two factors emerged. The results of the two-factor rotation are presented in Table 3.

Table 3
Rotated Factor Matrix

Variables	Factors 1	2
Young parents	0.712	0.131
Low parental intelligence	0.671	0.179
Greater number of people in home	0.645	0.214
Lack of cleanliness	0.614	0.494
Parental mental health	0.590	0.408
Differing values/beliefs of parents	0.561	0.228
CPS referral	0.551	0.272
Presence of harsh parenting practices	0.544	0.425
Presence of animals	0.529	0.298
Chaotic home environment	0.495	0.434
Parental lack of appreciation for services	0.494	0.373
Race of family	0.468	0.044
Single male parent household	0.333	0.234
Amount of no-shows	0.072	0.639
Lack of agreement about course of therapy	0.193	0.594
Lack of follow-through with recommendations	0.362	0.580
Lack of cooperation from parents	0.153	0.547
Longer travel time	0.124	0.537
Inability to make phone contact with family	0.257	0.515
Home in rural setting	0.253	0.501
Presence of cigarette smoke	0.335	0.469
Lack of safety in the home	0.329	0.459

The first factor can be conceptualized as a perception factor that included both parent and environmental characteristics (e.g. intelligence of parent, mental health of parent, harsh parenting, chaotic environment, lack of cleanliness). The second factor is conceptualized as an overall inconvenience factor that includes items such as lack of cooperation, inability to make phone contact, rural setting, longer travel time, and lack of follow-through. With this, the characteristics of the parents and environment were considered to be the same factor, when originally conceptualized as two.

Regression Analyses

In order to examine if the factors were related to any provider characteristics, a regression was performed. The perception and inconvenience factors were designated as dependent variables and other provider characteristics were entered as predictors. This was used to determine if characteristics of the provider influence their actions of decreasing time with families for other reasons, rather than the need for services. When examining the perception factor, 7.6% of the variance was accounted for by the 9 variables (R^2=0.076, F(9, 226)=1.979, p=0.043) with one of the factors being significantly related to the perception factor when controlling for the other variables, and

one other approaching significance. Standardized coefficients are reported, as the variables had varying scale ranges.

Table 4
Summary of Regression Analysis for Variables Predicting Perception Factor

Variable	Standardized Coefficient	Significance
Years providing in-home services	-0.110	0.112
Highest degree obtained	-0.029	0.669
Financial job satisfaction	-0.066	0.414
Overall job satisfaction	-0.062	0.480
Job self-efficacy	0.053	0.461
Prefer center-based service provision	0.075	0.292
Beliefs of importance of in-home services	0.008	0.912
Belief that parents are cooperative/helpful	0.136	0.081
Positive attitudes toward home environments	-0.185	0.022

This chart examines significant relationships of individual variables when controlling for the other variables in the regression. The variables most likely to influence perceptions of providers appear to be their positive attitudes toward parents and environments. The negative correlation indicates that the more likely they are to think that homes are positive environments, the less likely they are to use perceptions of the home and family to alter the amount of services they are willing to provide.

Secondly, the inconvenience factor was examined with the same variables. This regression accounted for 23.9% of the variance (R^2=0.239, F(9,226)=7.585, p<.001,) with 5 variables being significant.

Table 5
Summary of Regression Analysis for Variables Predicting Inconvenience Factor

Variable	Standardized Coefficient	Significance
Years providing in-home services	0.013	0.841
Highest degree obtained	0.157	0.011
Financial job satisfaction	0.109	0.139
Overall job satisfaction	0.017	0.834
Job self-efficacy	0.204	0.002
Prefer center-based service provision	0.190	0.003
Beliefs of importance of in-home services	0.020	0.766
Belief that parents are cooperative/helpful	-0.188	0.008
Positive attitudes toward home environments	-0.155	0.033

This table shows that the better a practitioner thinks she does her job, the less likely inconvenience variables will impact the amount of time she is willing to spend with a child. Additionally, if the provider would rather provide center-based services, the more likely they are to discriminate when providing in-home services. The more

providers feel parents are cooperative and willing to help and that homes are positive environments, the less likely they are to discriminate when inconvenience is a factor. Finally, the higher the degree obtained by the provider, the more likely they were to discriminate and the less likely they were willing to provide services when inconvenience variables were present.

Profession Analyses

ANOVAs and t-tests were conducted to determine if profession impacted responding on the variables of interest. This was done by running analyses specifying the perception and inconvenience factors as dependent variables and profession as the grouping variable. Grouping professions was conducted to add power to the statistic. With the perception factor, there was significance ($t=3.034$, $p=0.003$) indicating varying responding between professions. It appears that the grouping that included mental health and education related professions (e.g. counselors, psychologists, social workers, service coordinators, and developmental specialists) were significantly different from the more medically trained professions (e.g. nurses, nutritionists, speech therapists, occupational therapists, occupational therapy assistants, physical therapists, and physical therapy assistants). The mental health/educational group was more likely to engage in discriminatory practices on the basis of the perception factor, even when education level was controlled for in ANCOVA and separate analyses. When analyzing whether these groups had the same impact on the inconvenience factor, it was not significant, indicating that these groups did not vary on their implementation of services when faced with inconvenience factors. An ANCOVA was performed using education as a covariate to determine if education may mediate the effects on the inconvenience factor. This analysis showed that profession was not significant ($F(4, 225)=1.843$, $p=0.122$) and that education was significant ($F(1, 225)5.754$, $p=0.017$) and that any groupings of profession on this factor would be related to educational level rather than professional field. This analysis indicated that the higher the education level, the more discrimination occurs when inconvenience is a factor. The following table lists means for each factor of each profession.

Table 6
Factor Score Means Based on Professions

		N	Mean
REGR factor score 1 for analysis 1	Mental Health	23	.2945558
	Service Coordinator	40	.1173460
	Developmental Specialist	40	.2012000
	Speech Therapist	57	-.2420604
	Medical	66	-.0872068
	Total	226	-.0001614
REGR factor score 2 for analysis 1	Mental Health	23	.1743706
	Service Coordinator	40	-.3072672
	Developmental Specialist	40	-.0691025
	Speech Therapist	57	-.0335361
	Medical	66	.1910997
	Total	226	-.0015187

Other Correlational Data

When looking at correlations obtained through bivariate data analysis, years providing services was correlated with how well the respondent thinks he/she does his/her job $r(206) = -0.227$, $p \leq 0.01$ indicating that the longer a person does their job the better they think they do their job. Additionally, the better a practitioner thinks he/she does his/her job the greater they are satisfied with their job $r(206)=-0.212$, $p \leq 0.01$ and the more likely they are to think that home environments are positive $r(220)=-0.185$, $p \leq 0.01$, that parents are cooperative $r(222)=-0.142$, $p \leq 0.05$, and the more important they believed in-home services to be $r(222)=0.172$, $p \leq 0.05$. When further examining variables related to the importance of in-home services, there were other correlations that emerged. For example, the more important practitioners believed in-home services were, the more likely they were to think that most homes are positive environments $r(220)=-0.229$, $p \leq 0.01$ and that most parents are cooperative and willing to help $r(222)=-0.160$, $p \leq 0.05$. If more practitioners believed that in-home services were important, they were also more likely to be satisfied with their jobs overall $r(222)=-0.314$, $p \leq 0.01$ and satisfied with the amount of money they made $r(221)=-0.153$, $p \leq 0.05$. In addition, the more important they believed in-home services were, the less likely they wanted to provide center-based services $r(203)=0.385$, $p \leq 0.01$. When examining relationships with providers' desires to provide center-based services, practitioners who would rather provide center-based services were least satisfied with their jobs overall $r(204)=-0.262$, $p \leq 0.01$ and with the money they make providing in-home services $r(202)=-0.172$, $p \leq 0.05$. Overall job satisfaction was also correlated with thinking that most homes are positive environments $r(221)=0.207$, $p \leq 0.01$ and most parents are cooperative $r(223)=0.140$, $p \leq 0.05$. Finally, the higher the degree obtained, the less likely they were to think that most homes were positive environments $r(221)=-0.162$, $p \leq 0.05$.

Discussion

Although there is a push toward in-home services in some areas and with some populations variables impacting services provision need examined. This study highlights some of the variables that impact child development, some of which also impact service delivery. Practitioners were asked about several characteristics and circumstances they take into account when determining the amount of time they are willing to spend in the family's home environment providing services. Two factors emerged related to variables that inconvenience practitioners and variables that are related to perceptions of families and home environments. Many of these had an impact on whether providers would decrease the services they were willing to provide. Some of the findings are consistent with the small amount of research related to practitioner characteristics, although this dissertation adds more insight into actual service provision and quantity of services children receive in their home.

The study showed that race, religion, gender, and age of parents and families were not typically used when considering frequencies of services, but other factors were. The amount of no-shows and inability to make phone contact are the two most frequently endorsed items that impacted practitioner willingness to provide services. Because the majority of practitioners (76.7%) were paid hourly and practitioners can only bill for hours of face-to-face direct intervention, these practitioners may not want to continue to travel to home where the families are repeatedly not present. Additionally, these practitioners may decrease hours because they do not want to look negligent, even though proper documentation would show that the parents were to blame for services not being provided. Longer travel times, parental lack of cooperation, and parental mental health were the next most frequent factors practitioners used to discriminate. Again, longer travel time means less face-to-face billable hours, so practitioners may decrease services to these families in order to take other families who are closer to them. More than 13% of providers listed parental low intelligence and lack of agreement about the course of therapy as factors that will frequently or always decrease the time they are willing to provide services. More than 10% of practitioners discriminate based on a chaotic home environment, presence of cigarette smoke in the home, parental lack of follow-through, rural residency, lack of safety, and parental low intelligence a majority of the time.

A finding with major implications which is related to the variables asked about involves practitioner endorsement of discrimination of services to children who have more significant problems or families who are more at risk. Approximately 40% of practitioners stated that their coworkers provided fewer services to a child with a more severe problem because of the variables asked about in this survey. They were asked about their coworkers to avoid social desirability responding, although approximately 34% admitted to engaging in this same practice of discrimination. When asked if their coworkers used these variables to influence time spent with at-risk children, 15% report that their coworkers discriminate and approximately 5% of the respondent state they also do so. The percentages related to at-risk children are significantly less than children with more severe problems. An explanation can be that most services are provided to children with actual delays, and not those who are at risk. So, practitioners may simply have more experiences with children with delays than children who are at risk. Secondly, most at-risk children are not seen as frequently because they are at risk of having a delay and do

not currently have one. Many practitioners choose to check up with the child and family to track whether they get behind, but are generally not needed as much in these homes as there are no obvious problems to work on at times.

When looking at various professions, it appears that the more medically trained professions were less likely to discriminate based on their perceptions of children and families than mental health/educational professions. Several hypotheses may be generated as to why this may occur. More medically trained personnel may not be as informed about how some of the variables included in the perception factor (e.g. low parental intelligence level, parental mental health, chaotic home environment, presence of harsh parenting, etc.) may impact family functioning and child outcomes. Mental health/educational professions may be aware of how the presence of such factors impedes some progress and focus on the child and then get discouraged about what outcomes they could obtain. Another possibility is that the mental health/education professionals may have different types of interactions with families than the medical group. For example, a physical therapist is going to potentially talk more about physical, observable, bodily concerns and a psychologist may be discussing the child's mental and emotional abilities and concerns. Parents may respond to these areas differently, as it may be easier to interact with the practitioners about physical concerns rather than mental. Profession did not matter when examining the inconvenience factor.

Furthermore, providers' positive attitudes toward home environments and their beliefs that parents were cooperative and willing to help decreased their discrimination based on family and environmental attributes. If providers believed that they did their job poorly, preferred to provide center-based services, thought homes were not positive environments, thought parents were uncooperative and unwilling to help, and had higher degrees they were more likely to discriminate when inconvenience (e.g. no-shows, lack of agreement about course of therapy, lack of cooperation and follow-through, longer travel time, etc.) was involved. Furthermore, correlations with these variables should be reviewed. Variables that are related to the previously listed ones show that the longer a person does their job, the better they think they do their job. Additionally, the more they think in-home are important, the more likely they are to think parents are cooperative and willing to help. Lastly, the longer a person provides services, having a lower educational degree, the more important they think in-home services are, and the more satisfied they are with their job affect their belief that homes are positive environments.

With these findings, it will be important that practitioners think they do their jobs well, actually want to provide in-home services, recognize the importance of in-home services, and have positive attitudes about parents and families as practitioners with these characteristics are less likely to engage in discriminatory practices when deciding how often they will see individual families.

Previous research has shown that training professionals about in-home services has been neglected (Tracy & McDonell, 1991). Past research has shown that negative beliefs about in-home services were related to lack of training, experience, and effective implementation. When they had stronger beliefs about the importance of in-home therapy, they had greater job self-efficacy (King et al., 2003). Future training should address each of these areas to promote the development of their personnel so that discrimination no longer occurs and that all children are receiving adequate quantities of quality services.

Some features of this training would need to focus on increasing competence so that the practitioners are seeing results and think they do their job well. This may be done by training individuals in research-based interventions and requiring stricter competency assessment before they enter the program. This would help with reaching outcomes and potentially decrease some discrimination that occurs; however, it may also decrease the amount of practitioners available. Emphasizing why in-home services are important is another necessary component that may drive practitioners to provide effective, nonjudgmental services. Education about how families and parents have many positive characteristics that need to be capitalized on and teaching how to build a relationship to increase cooperation and assistance from the parent would also need to be addressed. Agencies and programs must also note that the more their employee is satisfied with their job, the less likely they are to engage in discriminatory practices when determining frequencies. Therefore, incentives and positive work interactions are important. This may include paying more to providers who have to travel long distances, paying for trainings, offering other bonuses, etc.

A strength of this research is that it examines the provider's willingness to provide services, so families' input about frequency and intensity is not necessarily impacting that decision. However, actual numbers and quantity cannot be examined from the information obtained. There are additional limitations as this was a self-report inventory. There may be bias in who responded and social desirability may play a role.

Future studies would be necessary to examine if training is effectively addressing discrimination in service provision. Additional testing may look at a child's percent delay and the frequency and intensity of services to get a global picture of tendencies in service provision, after the family is rated on different variables like the ones asked about in this survey.

Appendix A

Survey of In-home Providers

DIRECTIONS: Please answer each of the following questions. Remember, this is an anonymous survey. In your experiences with providing in-home services to children, please indicate the extent to which the following factors decrease the amount of time you are willing to provide services to children and families in their home.

Question	Never	Rarely	Sometimes	Frequently	Always
1. How often does **longer travel time** decrease the hours provided?					
2. How often does the **parent's lack of cooperation** decrease the hours provided?					
3. How often does the **parent's lack of follow-through with recommendations** decrease the hours provided?					
4. How often does the **presence of cigarette smoke in the home** decrease the hours provided?					
5. How often does a **chaotic home environment** decrease the hours provided?					
6. How often does **a significant amount of "no shows"** decrease the hours provided?					
7. How often does a **parent's lower intelligence level** decrease the hours provided?					
9. How often does **lack of cleanliness in the home** decrease the hours provided?					
10. How often does the **parent's young age** decrease the hours provided?					
11. How often does a **greater number of people in the home** decrease the hours provided?					
12. How often does the **presence of animals at the home** decrease the hours provided?					
13. How often does the **mental health of the parent** decrease the hours provided?					
14. How often does the **race of the family** decrease the hours provided?					
15. How often does a **single male parent** decrease the hours provided?					
16. How often does the **inability to make phone contact with the family** decrease the hours provided?					

Question	Never	Rarely	Sometimes	Frequently	Always
17. How often does **knowing that the case is a CPS referral** decrease the hours provided?					
18. How often does **the family living in a far away rural setting** decrease the amount of hours provided?					
19. How often does the **presence of harsh parenting** decrease the hours provided?					
20. How often does the **parents' lack of agreement about the course of therapy** decrease the amount of hours provided?					
21. How often does the **parents' lack of appreciation** decrease the amount of hours provided?					
22. How often does the **parents' differing values, religious beliefs, and/or political views** decrease the amount of hours provided?					

Please answer the following questions:

23. I feel that all parents are cooperative and are willing do anything to help their children.
    _____ Never
    _____ Rarely
    _____ Sometimes
    _____ Frequently
    _____ Always

24. I think all homes are positive environments.
    _____ Never
    _____ Rarely
    _____ Sometimes
    _____ Frequently
    _____ Always

25. Are you paid hourly?
    _____ Yes
    _____ No

26. Do you have some say in the amount of services you provide to clients?
    _____ Yes
    _____ No

27. How many years have you been providing in-home intervention services?
    _____ 0-5 years
    _____ 6-10 years
    _____ 11-15 years
    _____ 16 + years

28. What is the highest degree you have completed?
    _____ High School Diploma
    _____ Bachelor's degree
    _____ Master's degree
    _____ Doctoral Degree

29. Have your coworkers ever provided fewer services to a child with a more severe problem than a child with a mild problem because of any factors asked about in this survey?
    _____No.
    _____Yes. Please explain:_____

30. Have you ever provided fewer services to a child with a more severe problem than a child with a mild problem because of any factors asked about in this survey?
    _____No.
    _____Yes. Please explain:_____

31. Have you ever been unwilling to provide more services to "at risk" children than families who appear more stable?
    _____No.
    _____Yes. Please explain:_____

32. Have your coworkers ever been unwilling to provide more services to "at risk" children than families who appear more stable?
    _____No.
    _____Yes. Please explain:_____

33. On a scale from 1-5, how would you rate your satisfaction with the amount of money you make in your job? Please check one of the following:
    ___ 1 not at all satisfied
    ___ 2 somewhat satisfied
    ___ 3 neutral
    ___ 4 greatly satisfied
    ___ 5 extremely satisfied

34. On a scale from 1-5, how would you rate your overall job satisfaction? Please check one of the following:
    ___ 1 not at all satisfied
    ___ 2 somewhat satisfied
    ___ 3 neutral
    ___ 4 greatly satisfied
    ___ 5 extremely satisfied

35. Please list additional factors that make you or your colleagues uncomfortable entering a client's home.

36. What is your profession? _____

37. How well do you think you do your job?
    _____extremely well
    _____very well
    _____adequate
    _____poorly
    _____extremely poorly

38. How important are in-home services?
    _____extremely important
    _____fairly important
    _____neutral
    _____slightly important
    _____not important at all

39. Would you rather provide center-based services?
    _____ No
    _____ Yes
    Please describe why you answered yes or no_____
    _____
    _____

40. How has your attitude toward families changed during the course of your work?

_____
_____
_____
_____
_____

40. Are you and your co-workers able to make light of family factors that may impact your job for coping with such situations?
    _____ No
    _____ Yes

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY.
Please return this survey with no identifying information in the envelope provided.

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Vita

Adrienne A. Bean

EDUCATION and TRAINING:

- ***Marshall University*** (August 2002-August 2007)
  Doctoral Degree-Doctor of Psychology (Psy.D.)
  -American Psychological Association (APA) accredited Psy.D. program
  -All coursework completed (3.95 GPA)
  -APA approved doctoral residency in Murfreesboro, TN

- ***Marshall University*** (August 2002-August 2004)
  Master's Degree
  -4.0 Grade Point Average

- ***Fairmont State College*** (January 1998-May 2002)
  B.S. Psychology with a minor in Education
  -Graduated Summa Cum Laude
  -Final Grade Point Average 3.917

- Fifty-nine hours of elementary and special education courses focusing on behavioral disorders, mental impairment, and learning disabilities

- ***Formal training working with children with autism utilizing applied behavior analysis (ABA) and discrete trial therapy (DTT)***
  (May 1998-current)
  Through my employment with children with autism, I have had extensive training in ABA and DTT from John Bernard of Bancroft Center for Autism Research and Educational Services (Bancroft C.A.R.E.S.) in Cherry Hill, New Jersey, Susannah Poe of the Klingberg Neurodevelopmental Center in Morgantown, West Virginia, and Tom Feizet from Lovaas Institute for Early Intervention (L.I.F.E.-Atlanta division). Numerous workshops and intensive trainings on implementing programs and addressing behavior were a part of this training. I also conduct regular consults with the Lovaas Institute to communicate client progress and engage in problem-solving and additional training, if necessary.

PROFESSIONAL EXPERIENCE:

- ***Doctoral Intern, The Guidance Center APA Accredited Internship Murfreesboro, TN***
  (September 2006-August 2007)
  I completed my doctoral internship at a community mental health facility in Tennessee. This experience allowed me to gain skills working with children and

adults with a wide variety of mental health disorders. I conducted individual, family, and group therapies and psychological evaluations. This internship included close work with psychiatrists, psychiatric nurse practitioners, other psychologists, social workers, counselors, and case managers to provide comprehensive treatment for all patients.

- ***Supervised Psychologist and Developmental Specialist, WV Birth to Three Early Intervention Program***
  (September 2003-present)
  As a supervised psychologist in the Birth to Three program, I frequently do evaluations for pervasive developmental disorders, emotional concerns, behavioral problems, and other developmental delays. Most assessments include measures of children's behavior, expressive and receptive language, daily living skills, social-emotional ability, cognitive skills, and motor ability. After completing an assessment, I continue to see the family as frequently as needed. This involves direct intervention with the child along with parental and family education so that they are able to follow through with interventions in their daily activities. These services are provided in the child's home, giving me more insight into needs and challenges that may arise. Working with a multidisciplinary team is part of this position, as I work with speech therapists, occupational therapists, social workers, counselors, physical therapists, nurses, developmental specialists, nutritionists, and service coordinators who are involved in the Birth to Three Early Intervention program. Additionally, I work with the school systems when we transition children into preschool services. This team approach ensures that a comprehensive plan is implemented with each child and family.

- ***Behavioral Analyst and Supervised Psychologist, Appalachian Mental Health Care, Title XIX Waiver***
  (May 2006-present)
  This position allows me to supervise staff in the implementation of behavioral principles and specific techniques when working with children with significant impairments in adaptive functioning and behavioral concerns. My role is to review work of staff, train others, and provide feedback. Additionally, I conduct team meetings to address the needs of the child and team.

- ***Applied Behavior Analysis – Discrete Trial Therapist***
  (May 1998- present)
  For the past nine years, I have worked with children with autism and pervasive developmental disorders utilizing ABA-DTT. I am currently the lead therapist for each of my clients. My responsibilities include training new therapists and practicum students from West Virginia University and West Virginia Wesleyan College, conducting team supervision sessions, implementing various programs, analyzing data, evaluating program effectiveness, devising new teaching strategies and goals, and communicating concerns and success with family members and other professionals. The Picture Exchange Communication System

(PECS) is often used with this work. I have also trained various teachers' aides to work with children with autistic spectrum disorders in the classroom. With this, I have supervised research projects examining the efficacy of this therapy.

- ***Camp Gizmo Classroom Behavioral Consultant and Autism Resource***
  (July 2006-present)
  During this camp, I am in charge of creating behavior plans for children in the classroom. I was also responsible for speaking with families who had children diagnosed with autism or other social-emotional concerns. I helped them formulate ideas to implement at-home provided them with information on resources and research in the field.

- ***Camp Gizmo Kid's Camp Coordinator for the 6-8 Year Olds***
  (Summer 2003-2006)
  Camp Gizmo Kid's Camp Staff
  (Summers of 1998, 1999, and 2000)
  I have worked for several years in Romney, WV at Camp Gizmo. This is an assistive technology camp for children with disabilities and their families. As coordinator for the camp for six to eight year olds, I planned and lead activities for each day and attempted to adapt all of these activities to children with various disabilities. With this, my role was to work with other professionals on the child's multidisciplinary team to provide the family with recommendations for the child's overall functioning. Testing these recommendations is completed by incorporating individualized assistive technology, other technological devices, and behavior plans in camp activities for children with special needs so the parents are able to learn and take the information home. This assistive technology focuses on language and mobility.

- ***Teaching Assistant at Marshall University***
  (August 2003-May 2006)
  I taught the undergraduate psychology course at Marshall University for six semesters. I created my own syllabus, lectures, exams, and assignments. This position allowed me to become more comfortable presenting information to large groups and to formulate lectures that are understandable and meaningful for the students.

- ***Therapist for the Braxton County Board of Education's Behavioral Health Program***
  (August 2005-June 2006)
  This position allowed me to work with elementary and high school students who were experiencing emotional or behavioral problems at home or school. I saw clients on a weekly basis in the school setting to do individual therapy. This included consultation with teachers, when appropriate.

- ***Formal Presentations and Research***
  (Spring 2002-current)
  I have given formal presentations at Fairmont State College, Marshall University, Canaan Valley Resort, Milestones Early Intervention Agency, and The Guidance Center. These presentations included my research on parenting, autism, emotion regulation, diagnostics, and early intervention. I recently finished my dissertation which examined in-home practitioners' beliefs about families and other various factors that influence the amount of time they provide services in a family's home.

- ***Clinician, Marshall University Psychology Clinic, University Psychiatric Associates, and Klingberg Neurodevelopmental Center***
  (July 2003-May 2005)
  These positions were part of my practicum experiences for the Psy.D. program at Marshall. These experiences enabled me to do work with children, adolescents, and adults. I conducted many hours of assessments and therapy with many different individuals during the course of these placements. With this, I also completed group therapy sessions for parents to discuss behavioral techniques, divorce, individual child characteristics, emotional issues, and family interactions relating to children two to eight years of age. During these practicum placements, I received at least two hours of supervision a week.

- ***Consultation with West Virginia University and Vanderbilt University Medical Residents and Interns***
  (September 2003-May 2004)
  During my placement at Klingberg Neurodevelopmental Center, I consulted with medical residents and interns from West Virginia University when they were on their pediatric rotations. We would see children who were being evaluated for autistic spectrum disorders. It was my role to assist the lead psychologist in explaining why the child did or did not meet the criteria for an autistic spectrum disorder. I was also responsible for explaining how various behaviors were indicative of autistic symptomology, or other psychological disorders, and giving an overview of treatment recommendations. Additionally, my internship in Tennessee allowed me to collaborate and consult with medical and clinical staff members from Vanderbilt about treatment and diagnosis of patients.

- ***Mental Health Consultant for Head Start***
  (September 2002-May 2004)
  With this position, I worked at different Head Start centers in the Huntington area. I observed every classroom and reported on any problem behaviors or concerns that were evident regarding students and teachers. I also provided feedback on the classroom environment. When teachers would make mental health referrals, I observed those students and the strategies teachers were implementing to provide additional recommendations for the classroom teacher, aides, administrators, and parents. Most strategies included behavioral management plans. I also helped to

create programs for teachers to address various issues in the classroom, including problem-solving, caring, and empathy.

- ***Assistant in a Special Education Resource Room***
  (October 2001-May 2002)
  This volunteer position allowed me to work with children in an elementary school who were in special education. I helped teach children with attention deficit disorder, mental impairments, communication disorders, learning disabilities, and conduct
  disorders. This gave me a lot of experience in learning how to meet the educational and emotional needs of these children.

ADDITIONAL INFORMATION:

- Recipient of the Feil Scholarship Award
- Student Affiliate of the American Psychological Association
- Member of the American Counseling Association
- Former Member of Psi Chi which is the Psychology Honorary at Fairmont State
- Former Member of Kappa Delta Pi which is the Educational Honorary at Fairmont State

OTHER - VOLUNTEER ACTIVITIES:

- United States Marine Corps Key Volunteer-
  This involves being a support for spouses and family members of Marines and communicating important information to them.
- Marshall University Psychology Clinic Call Screener (2002)

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