Montemorelos University

Faculty of Business and Legal Sciences

FACTORS IMPACTING ON QUALITY OF SERVICES TO EARLY INTERVENTION PROGRAMS

Thesis
presented in partial fulfilment
of the requirements for the degree
Doctorate in Business Administration

by

Chirlene L. Barthelemy

April 2019

ABSTRACT

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Main advisor: Karla Saraí Basurto Gutiérrez

DOCTORAL THESIS ABSTRACT

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Title: FACTORS IMPACTING ON QUALITY OF SERVICES TO EARLY INTERVENTION PROGRAMS

Researcher's name: Chirlene L. Barthelemy

Name and degree of main advisor: Karla Saraí Basurto Gutiérrez, Ph.D. in Business Administration

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Problem

The research question that drives this study is as follows: Can differences in cultural competence, knowledge, marketing and customer service explain the quality of the early intervention program as perceived by the parent users of the program?

Methodology

The type of sampling conducted in this investigation is non-probabilistic, directed, intentional and for convenience, where the number one criterion for participation in this survey is that the participants would have had received or are receiving early intervention services. Surveys couldn't be given as a group; participants were intentionally selected. The instrument was issued to parents whose children are receiving or

have received early intervention services. The participants are from different geographic areas in New York. Out of 200 parents approached, 102 responded giving a representative sample of 51%. The sample was 102 parents who have received or are receiving the services, representing 14% of the total population of children receiving Early Intervention in the New York State area. The substantive statistical process was based on regression analysis, performed in SPSS 20.0. Linear regression was used to test this hypothesis, whereby cultural issues, knowledge, and marketing were the independent variables and quality of service was the dependent variable.

Results

Linear regression was used by the method of stepwise regression. This method revealed that the variable marketing accounted for 52% of the variance of the dependent variable quality of service. It also was revealed that the combination of two variables, marketing and knowledge, were good predictors of quality of service. The value of R^2 adjusted was equal to .568, which means that these two variables explain 56% of variance of the dependent variable quality of service. When evaluating the influence of independent constructs through the standardized beta coefficients, it was found that cultural issues was not a good predictor, thus it was eliminated from the model.

Conclusion

It is recommended that the administration of Early Intervention and service agency providers make training for parents available with regards to the availability of additional resources for children with special needs. Parents are saying that they were not aware of Early Intervention prior to getting the services. Parents are saying they did

not have prior knowledge of Autistic Spectrum Disorder nor Applied Behavior Analysis. Furthermore, parents are stating they were unaware of community support programs for special-needs children.

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Tesis
presentada en cumplimiento parcial
de los requisitos para el titulo de
Doctorado en Administración
de Negocios

por

Chirlene L. Barthelemy

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DEDICATION

This work is dedicated to God the Almighty, who strengthened me and made all this possible, and to my beloved one and only husband, friend, pastor, Reginald, who motivated and inspired me to follow my dreams.

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Never in my wildest dreams did I think that I would be able to achieve such a great accomplishment, and therefore, I never allowed myself to dream to such an extent. It is not that I am incapable, for I know that I can do all things through Christ, my Savior, but because I know that my responsibilities would not have allowed me to embark on such a journey. This is a stepping stone to where God wants to lead me, as I am no longer going to deny myself of opportunities that God wants to place in my path. For years I've denied myself opportunities that God has placed in my path, and as a result of fear and reality of the circumstances of life, I missed out on those opportunities. I believe that God speaks to us through visions and dreams. He does not give you a dream that you do not have the capacity to fulfill; even if you feel inadequate at that given time. For if God gave it to you, He'll also send you who and what you need to manifest the vision. Therefore, I want to acknowledge my dear and beloved husband, who planted this seed in my mind and who encouraged me to keep at it, even when I wanted to give up. I love this man and without him I would not have made it. God has blessed me with such a wonderful husband, who takes time and dedication in helping me throughout this journey and throughout my life.

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CHAPTER I

INTRODUCTION

Background of the Study

Developmental Disabilities (DD) comprise of different medical conditions with related educational and behavioral (social) implications (Zablotsky, Black, Maenner, Schieve, & Blumberg, 2015). Developmental disabilities stem from disorders related to (i) cognitive and neurological brain functioning—either genetic or trauma related, (ii) including sensory disabilities—deafness, blindness, and perceptual difficulties, and (iii) several conditions related to body functioning, e.g. diabetes mellitus. Diagnoses of developmental disabilities (DD) carry with it the implication of lifelong special needs, necessitating a variety of treatment programs depending on the type and severity of the disability (Zablotsky et al., 2015). According to Zablotsky et al. (2015), the prevalence of developmental disabilities (DD)—including attention-deficit/hyperactivity disorder (ADHD) and specific learning disabilities (SLD); autism spectrum disorders (ASD); and intellectual disability (ID) have not changed significantly in the three years leading up to 2014. These conditions characteristically necessitate intervention form a range of health professional services including specialized education, occupational therapy, physiotherapy, speech-language therapy, medical specialists (e.g. pediatric and neurologic services), social services, and nursing (Zablotsky et al., 2015).

Early screening of children for disabilities is supported by federal government;

moreover, *early intervention (EI)* is mandated by Act 7, Part C of the Individuals with Disability Education (Handler, 2006; U.S. Department of Education, 2012). State authorized and funded community-based multidisciplinary intervention is provided as part of EI to children at-risk of DD. This intervention differs from the outpatient situation at hospitals (Magnusson & McManus, 2017).

Relevant to the efficiency of EI and this research is the following list of variables: (a) cultural issues, (b) knowledge, (c) marketing and (d) quality of the program.

Cultural Issues

Culture refers to the total of the inherited ideas, beliefs, values, and knowledge, which constitute the shared bases of social action in a specific ethnic group (Bhui, Warfa, Edonya, McKenzie, & Bhugra, 2007; Hofstede, 2000). The recent 2013 statistical outcomes indicate that the ethnic demographics of the United States is changing, as increasingly larger percentages of people other than Caucasian inhabit the country (López, Hofer, Bumgarner, & Taylor, 2017). Increased cultural issues of community-based agencies to effectively serve the multinational population is needed. A widely accepted definition of cultural issues, also supported by the U.S. Department of Health and Human Services (DHHS, López et al., 2017) is:

> A set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations. A culturally competent system of care acknowledges and incorporates—at all levels—the importance of culture, the assessment of cross-cultural relations, and vigilance toward the dynamics that result from cultural differences, the expansion of cultural knowledge, and the adaptation of services to meet culturally unique needs. (Cross, Bazron, Dennis, & Isaacs, 1989, p. 4)

The National Association of Social Workers (2015) emphasizes the importance

of being aware and sensitive to differences between people of various ethnic groups, and the display of respect and tolerance toward different ethnic groups. The association believes cultural competence refers to the process by which individuals and systems respond respectfully and effectively to people of all cultures, languages, classes, races, ethnic backgrounds, religions, spiritual traditions, and immigration status. This involves other diversity factors that recognizes, affirms, and values the worth of individuals, families, and communities; and protects and preserves the dignity of each.

The recent 2013 statistical outcomes indicate that the ethnic demographics of the United States is changing, as increasingly larger percentages of people other than Caucasians inhabit the country (López et al., 2017). As a result, culturally competent care for children with DD is essential as the linguistic and cultural belief systems of the families play an important role in the education of their children. Such care necessitates services that address the cultural needs of the different ethnic groups being served (Cross et al., 1989). Increased cultural competency of community-based agencies to effectively serve the multinational population is needed.

Knowledge

The Merriam-Webster (2019) dictionary defines knowledge as the “the fact or condition of knowing something with familiarity gained through experience or association”. The explanation includes the notion of awareness of something, which is different to understanding the matter. A rather extended description of ‘knowledge’ is found in the Business Dictionary (2016) which describes knowledge as an ability humans possess, whereby information can be construed and understanding can develop from combining information and experience together with inferences made by an individual.

Knowledge is believed to be the base for actions taken and is used in deciding whether two arguments are in agreement or disagreement. Organizational knowledge refers to the combination of knowledge and competencies of the people who work in it.

A Christian denomination, the Seventh-day Adventists (Robinson, 2016), seem to define knowledge in terms of an understanding of the differences between various religious interpretations, hence their belief that a person is only truly educated when they understand the basis of different religions.

In terms of early intervention (EI) for children aged 0-3 years, knowledge involves (a) information about the existence of the EI program in all the states, (b) the level of being informed about the: (i) benefits and need for such intervention (ii) the risk factors of developmental delay, (iii) characteristics of children with developmental delays, and (iv) how to access the EI program. This kind of knowledge is specific in nature, necessitating dissemination of information to parents of all racial groups by using different ways to communicate and in a variety of settings. Dissemination of information to facilitate knowledge or insight in parents and other caregivers can be equated with marketing EI.

Marketing

Marketing is the management process through which goods and services move from concept to the customer. It includes the coordination of four elements called the 4 Ps of marketing: (a) identification, selection and development of a product, (b) determination of its price, (c) selection of a distribution channel platform or place to reach the customer, and (d) development and implementation of a promotional strategy (Baker, 2014; Khan, 2014; Resnick, Cheng, Simpson, & Lourenço, 2016).

In the case of a free service such as Early Intervention (EI) provided by the Federal Government, marketing planning does not entail price determination. However, the other three Ps are still relevant. In the case of marketing social services, the marketing efforts focus on the desired behavioral outcomes of citizens which is in the case of this study, the uptake of early identification and intervention services for at-risk children (Evans et al., 2014). Pels (2015) emphasized the concept of relationship marketing which leads to the desired word-of-mouth marketing situation. Relationship building is essential when dealing with at-risk children and their families; and although not the aim of building relationships during therapeutic intervention, resultant word-of-mouth marketing is considered to be ideally suited to the EI situation. Finally, in the case of governmental programs that are aimed at behavior change of citizens, social marketing can be considered, in addition to the four Ps and relationship marketing (Wilhelm-Rechmann, Cowling, & Difford, 2014).

Quality of the Program

Quality of the services refers to the clients' assessment of how well a delivered service met their expectations. Service business operators often assess the service quality provided to their customers to improve services, to identify problems quickly, and to better assess client satisfaction. In the past, the focus was more on the service delivery aspect, but due to the interactive nature of service, delivery customer interaction has been studied as part of the concept (Dabholkar, 2015).

All interactions between a customer and a product provider at the time of sale and thereafter, are considered as customer service relations. The notion of client perceived value (CPV) that stretches across practical, emotional and social aspects of the

client's life (Arslanagic-Kalajdzic & Zabkar, 2016), is of interest in this study about EI. Although all three aspects of CPV should be considered in exploring CPV in EI service delivery, it should be kept in mind that having a young child diagnosed with special needs could elicit deep emotions in the parents, which could cloud their judgment. Customer service adds value to a product and builds enduring relationships. Healthcare professionals are focused on building lasting relationships with their clients, the patients, and special-needs children and their parents, as the intervention period often lasts long. Strong relationships are therefore important for collaboration between parent and professional (Ullrich, Cole, Gebhard, & Schmit, 2017).

Definition of Terms

Although most of the above variables have previously been defined during the process of describing them, this section gives a brief definition of key terms in use in this study.

Cultural Competency. Culture refers to the ideas, beliefs, values, and knowledge, constituting the shared bases of social action in a specific ethnic group. Cultural sensitivity relates to the behaviors, policies, etc. as they are structured in a system or within an organization that makes it possible to relate in cross-cultural environments. Therefore, such a system will acknowledge the relevance of culture, endeavor to customize services to meet culturally specific needs, and ensure that the dynamics resulting from the different cultures represented are managed.

Knowledge. The willingness to act on one's understanding of a matter. This meaning of knowledge is used in this thesis, as parents need to act on their knowledge of EI if their young children stand to benefit from the system.

Marketing. This is a strategy which focuses on information giving with special attention to the structuring of the message, in order to attract the receiver and incentivize desired behavior. This notion ties in with the knowledge element in this study since adequate knowledge is considered a motivating factor for the uptake of EI services.

Family Satisfaction. Family satisfaction is closely related to resident satisfaction. While both are indicators of quality, the two groups have somewhat different views of quality. Residents are mostly focused on quality of life and autonomy, while families usually place more emphasis on quality of care. Therefore, family satisfaction is based on the healthcare provider—family relationships. This implies that the family has the responsibility of being interested in and implementing the advice of the healthcare professionals, just as the healthcare professional should build an embracing relationship with the family.

Costumer Service. Customer service implies that a strong relationship is forged between the company and client during the sale of a product or service delivery process to ensure continued use of services. The notion of client perceived value (CPV) that stretches across practical, emotional and social aspects of the client's life is of interest in this study about EI. Although all three aspects of CPV should be considered in exploring CPV in EI service delivery, it should be kept in mind that having a young child diagnosed with special needs could elicit deep emotions in the parents, which could impair their judgment. Healthcare professionals focus on building lasting relationships with their clients, the patients and special-needs children and their parents, as the intervention period often lasts long and strong relationships are important for collaboration between parent and professional.

Quality of a Program. In the business world, service quality and client satisfaction are vital to business success. Service delivery organizations such as government services might not measure client satisfaction regularly, but it is just as important because the clients' adherence to the program and ultimate outcomes (successful implementation) of the program depends on whether the clients perceive the program as worth-while. Quality of services (program) refers to the clients' evaluation of whether the service (program) met their anticipated outcomes or expectations. It is important to note that the client (individuals or families) do not base judgement on technical knowledge. This notion of client perceived value (CPV) stretches across practical, emotional and social aspects of the client's life, and is of interest in this study about EI.

Theoretical Relationship between Variables

The following relationships between the variables are identified:

Cultural Issues and Quality of the Program

Woolfenden et al. (2015), explored cultural sensitivity and parents' satisfaction with program delivery. The researchers found that parents' satisfaction with the early intervention of young children under developmental surveillance in Australia was determined by several factors, one of which was the perceived cultural sensitivity of the practitioners. Parents complained that professionals, especially doctors, did not take them seriously and behaved in culturally insensitive ways which led to parents not utilizing the EI services or being dissatisfied with the intervention. The Woolfenden et al. study did not distinguish between customer service and perceived quality of the program, it is therefore not possible to determine which of the two notions, or both, were

incorporated in the parents' dissatisfaction due to cultural insensitive behavior of the professionals.

Hebbeler, Barton, and Mallik (2008) reported similar findings in their longitudinal study on early intervention of toddlers and children and their parents. A comparison between white and African-American children attending EI, that African-American children achieved significantly less favorable outcomes compared to white children. Similar results were noted in children of other races compared to white children. Membership to ethnic groups other than whites was found to be 2.11 to 2.13 times more likely to produce poorer intervention outcomes and produce parents' dissatisfaction with the quality of the program. It needs to be noted that parents were less satisfied with the quality of the kindergarten program than the EI program (Hebbeler et al., 2008) since the current study focuses on EI only.

Knowledge, Marketing and Quality of the Program

World-wide, children of 0-3 years do not have equal access to early intervention (Black et al., 2017). The researchers reported that as much as 43% of children in poverty-stricken countries are at risk of developmental delays which could lead to children not reaching their full potential. Black et al. (2017) concluded that programs to address this need should be prioritized to ensure children's well-being and development to improve their future participation in society. To achieve this goal, parents of all social groups should be informed about developmental delays, the existence of EI programs, and the urgent need for the uptake of such programs when children are at risk of developmental delays.

One of the determining factors in families' uptake of the EI services is their

knowledge of such programs together with insight about their child's need for the program (Woolfenden et al., 2015). They found that family access to EI programs is influenced by different factors of which knowledge about the program availability and knowledge of the access route to utilize the program were determining factors. Uptake of EI is dependent on the parents' and extended family and/or community's knowledge of the existence and benefits of the program. This knowledge of the EI program is dependent on marketing thereof. Figure 1 illustrates the interrelationship between the variables.

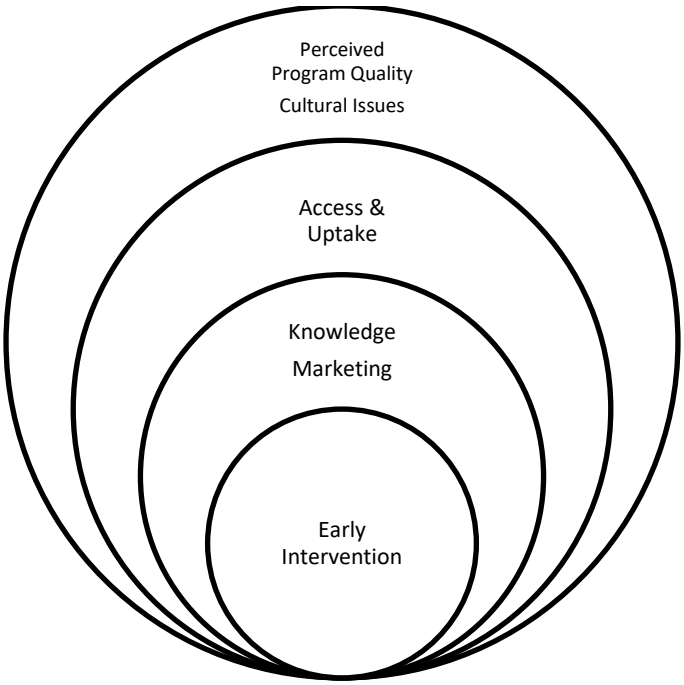


Figure 1. Relationship between the Variables.

Statement of the Problem

Despite being made available to all, Early Intervention (EI) is not perceived by all parent users as an equal opportunity program. The problem that will be addressed in this study is whether differences in cultural issues, knowledge and marketing by service providers and/or administrative officers could be responsible for the perceived differences in the quality of EI as experienced by the parent users of EI.

Research Question

The research question that drives this study is as follows: Can differences in cultural competence, knowledge, marketing and customer service explain the quality of the early intervention program as perceived by the parent users of the program?

In Figure 2, the theoretical model, which aims to identify possible prediction between the independent variables to the dependent variable is presented.

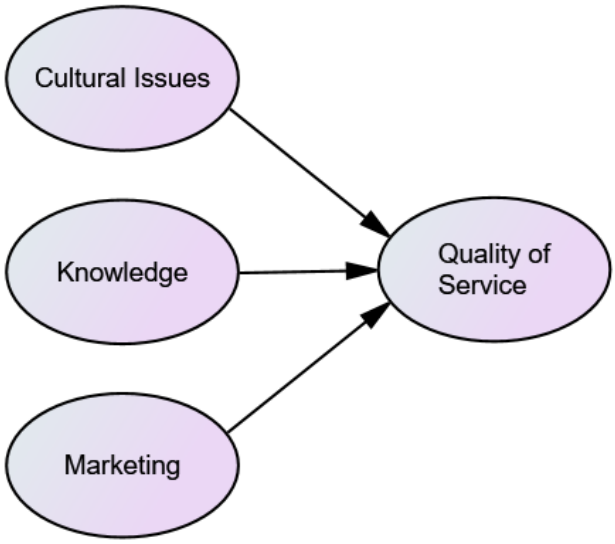


Figure 2. Research Model.

Hypothesis

The variables of cultural issues, knowledge, marketing, and customer service are major determinants of parents from different religion perceived quality in explaining their use and satisfaction of the early intervention program.

Research Objectives

The purpose of this research is to gauge the quality of the early intervention program by observing the satisfaction of parents whose children have participated in the program.

Significance of the Study

Early intervention delivered to children under the age of 3 years differs from out-patient settings, in that the service provider often delivers the intervention in the child's home environment (Dunst, Bruder, & Espe-Sherwindt, 2014). The purpose of delivering the service in the child's home (natural environment) with the parent present is to empower parents to deal with the child's disability and teach them how to interact with the child to further the intervention in the home setting while the service provider is not present. By continuing the intervention through parent involvement, it becomes more possible to mitigate the effects of the disability so that the child's developmental milestones are achieved at a rate that, as closely as possible, represents normal milestones (Dunst et al., 2014; Magnusson & McManus, 2017; McWilliam, 2015).

Dunst et al. (2014) found that half of the parents whose children receive EI display minimal involvement in the sessions provided by service providers, irrespective of where it is delivered. An hour or two intervention per week is not sufficient in facilitating

catching up on milestone achievement of a child with DD. It is essentially what the parents and other caregivers do with the child between the intervention sessions that influences that child's development. The author argued that the differences in developmental outcomes of DD children in EI settings could be ascribed to the differences in the natural caregivers' involvement. The relationship between the natural caregiver (parents and other caregivers at home) and the service provider(s) is important in parent coaching sessions (McWilliam, 2015).

The organization Zero to Three reported successful outcomes of EI. The organization found that early diagnosis of DD together with EI could turn future impacts of the disability around by minimizing or even eliminating the long-term effects of the disability on the toddler's language, motor, and cognitive development. Up to 33% of young children diagnosed with DD, who took part in EI, did not need special educational services upon entering Kindergarten, an outcome that signifies tremendous success of EI (Ullrich et al., 2017). In another study where the Early Head Start program was evaluated, the findings indicated that participation in EI programs benefitted young children diagnosed with DD. The EI group were more likely to achieve normal milestones compared to children with DD who did not attend EI (Ullrich et al., 2017). In addition, the parents and families of children receiving EI services acquired specific skills in dealing with their child's special needs. The reported outcomes of EI programs are significant in terms of the child's future education and successful integration into society (Ullrich et al., 2017). Individuals who are not familiar with disabilities might fail to recognize the magnitude of such outcomes as they are not able to anticipate the child's development and school career without the uptake of EI.

As stated earlier, client perceived value is a notion that includes practical, emotional and social aspects of the client's life (Arslanagic-Kalajdzic & Zabkar, 2016). In EI, the client is represented by the child with DD and the parents of caregivers. Since the child is too young to voice an opinion, the parents or caregivers will be the main parties voicing their perceptions of early intervention success. The healthcare providers working in EI aim to build lasting relationships with the parents as intervention most often spans several years (Ullrich et al., 2017). Such lasting and caring relationships with the parents and caregivers can only succeed when there is reciprocation and openness to the guidance of service providers by the caregivers of parents (Collins et al., 2017). The finding by Dunst et al. (2014) that parents display minimal participation, even if the child is seen in the home setting, has serious implications for the ultimate success of the EI program. Inadequate parental participation and relationship building could impact negatively on parent satisfaction with the program.

One of the few studies that evaluated parent ratings of EI program success was reported on by Bruder and Dunst (2015). In this study, the parents had to evaluate the service providers' levels of confidence and competence. Results show that the parents rated the practitioners as more confident than competent when using practices, and that the degree of parent involvement in early intervention or preschool special education was related to variations in parents' perceived judgments. The six areas rated included family-centered behaviors, teamwork and cooperation, assessing and evaluating the child, training practices, compilation of individualized family serviced plans or individualized educational programs, and utilizing the child's natural environment including ways in which the parents were included in the activities (Bruder & Dunst,

2015). The researchers found that parents judged the service providers as being too optimistic about their own abilities and that the service providers' competence do not match their confidence. Furthermore, parent's participation in the EI program was linked to their perceptions of practitioner competence (Bruder & Dunst, 2015). Bruder and Dunst (2015) and McWilliam (2015) called for further investigation of parent satisfaction and participation in EI to determine the quality and success of the intervention. It is this gap that this study aims to address by exploring the cultural competence of service providers, parental knowledge together with marketing of the EI program. This study is particularly interested in exploring this gap within a specific cross-section of people, namely parent users that are part of a faith-based organization.

Many studies have been done on the effects of early intervention services; however, the effect of early referral to EI is scarce. Early intervention is vital to children at risk for developmental delays or a disability (Ullrich et al., 2017). In offering EI to children in need, it is essential to identify those who could benefit from the program. Early referral and uptake of EI is essential to assist children with special needs and their parents (Ullrich et al., 2017).

Previous researchers ascertained that the effectiveness of the EI program is in general, with respect to parents' satisfaction, based on outcomes. In this study, the focus would be on different variables that might play a role in the effectiveness of EI services to bring about parents' satisfaction. In other words, what are the variables that are affecting the positive outcomes, which is a result of parents' satisfaction?

Parents need sufficient information about existing programs to utilize them for their children's benefit. Unfortunately, many parents are not informed about the

existence of EI. Parents might be aware of EI but not understand why such services would be needed for their children, and more specific information is needed as a result. Service providers such as medical personnel and therapists must be culturally informed, sensitive, and responsive to the differences between ethnic groups' beliefs and customs. This includes difficulties with speaking and understanding English. For instance, in some cultures, disability is regarded as a curse; therefore, parents do not want their children to be labeled, which might explain why they do not attend EI programs. Some children are referred late to the program due to lack of awareness by parents and medical practitioners, as well as varying inclusion criteria implemented by different states (Ullrich et al., 2017).

Consequently, parents and families could react unfavorably toward the EI program that could affect their participation. When parents do not have adequate information on early childhood delays or disabilities and the consequences thereof, they could have biases about the program and would be unwilling to allow child participation. Parents who are not aware of the program would not access the program early and as a result, children's developmental delays are not improved. Late referral to the program affects the effectiveness of the program. As a result of cultural insensitivity, language issues and labeling, some parents may decide not to participate in the program, leaving the child untreated, which could exacerbate the situation further. This study is important as it aims to explore factors that could influence parents' program uptake and satisfaction, which in turn could benefit children with special needs who need EI. Very young children are not able to decide for themselves and are dependent on their parents' views and decisions. The outcomes of this study promise to provide further insight into

the determinants that influence parents' decision to pursue EI.

Early intervention is a government-based program that provides services to children from birth to three years of age who suffer from development delays. The purpose of this program is to assure that children who are experiencing delays are assisted, catching up with their non-disabled peers. This would enhance their ability to achieve higher grades at school and beyond, and develop the abilities to adapting to their full potential (Richter et al., 2017; Ullrich et al., 2017; Woodman, Demers, Crossman, Warfield, & Hauser-Cram, 2018).

Limitations

Here are some limitations that are considered relevant to the study:

1. The limitation of this explorative empirical study is that it will use a limited number of participants who already made use of EI services to determine parents' satisfaction with the services.

2. The population of this study is limited to persons belonging to the faith-based organizations.

3. Due to limitations in funding and time, the number of surveys will be limited.

Delimitations

Here are some delimitations that are considered relevant to the study:

1. The study will be implemented in the school year 2018-2019 in faith-based organizations in New York State.

2. It will be a study with a quantitative, cross-sectional, exploratory, descriptive, and predictive design.

3. Data will be collected through surveys, and with the participation of Christian parents belonging to a specific denomination who have received early intervention services or who are currently receiving the service in the state of New York.

4. The study is delimited to Christians from faith-based organizations. Furthermore, the possible participants will be selected by their willingness to take the short survey which might not provide a selection of different kinds of disabilities and an over-representation of parents with children with a limited number of disabilities or delays is possible.

Assumptions

Below are some scenarios considered in the preparation of this research:

It is assumed that parents and other adults will be willing to take the survey, and that the willing participants will have sufficient knowledge of disabilities and EI to supply adequate responses to the survey questions. It is furthermore assumed that the participants will answer the survey questions truthfully.

Philosophical Background

In this section, we present a philosophical perspective that frames this study pointing to the Bible. For such a case, presented below, Scriptures and other religious sources will be used to attest the following constructs: a) cultural competency, (b) knowledge, (c) marketing, (d) customer service, and (e) quality of the program.

There are several religious institutions in the United States. The website of Seventh-day Adventists [SDAs] (Robinson, 2016) mentions an excess of 32,000 denominations within the United States. Like the SDAs, the Christian denominations ascribe

to the Bible as the Word of God and they all recognize the supremacy of the Bible in all aspects of religious and general life. How these denominations interpret the Word differ significantly and some recognize sources other than the Bible as a true revelation of God's supreme will on earth. For instance, the SDAs subscribe to 28 core beliefs based on the revelations from the Bible, which also includes the belief that Jesus Christ moved into a higher position in heaven in 1844 and that Christians who died are kept in a state of unconsciousness until the second coming of Jesus Christ. The latter two beliefs, together with the acceptance of the prophecies of Ellen G. White as the extended word of God, significantly differ from biblical revelations and doctrines in other Christian religions. It is therefore not possible to discuss *the Christian belief* as if there is only one interpretation of the Bible and all Christians believe the same doctrine.

The SDAs, together with many other Christian denominations, believe in the inherent worth of a human being as a creation of God and advocate respect and tolerance between the world's peoples. Most Christian doctrines, therefore, support and work toward a society free from biases, with inclusion and respect for all people irrespective of race or gender or creed and denounces any cruelty and discrimination against people and supports the notion of personal freedom (Robinson, 2016).

Cultural Issues

The Bible states that God has made all people and made them in the likeness of His image (Genesis 1:26-27). This study explores the research question from a biblical perspective which is, per definition, inclusive and welcoming of all races as people created and loved by God (John 3:16): "For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but

have everlasting life".

During His life on earth, Jesus demonstrated His love and respect for others by speaking to the Samarian woman at the well—something that was prohibited since He was a Jew (John 4:7). In the New Testament, the apostles wrote about occasions where Jesus healed people from other nations, which was unheard of in those days since the Jews kept to themselves. Both Matthew and Luke related the incident when Jesus healed the favorite servant of the centurion in Capernaum (Matthew 8:5-15; Luke 7:2-10). The daughter of the Syrophenician woman was healed (Mark 7:26) and so was the daughter of Jairus (Mark 5:23); both these children did not belong to the Jewish nation but were still healed by Jesus.

Cultural sensitivity is essential when dealing with people from other ethnic groups. The United States of the 21st century is characterized as a nation consisting of different ethnic or cultural groups. The 2010 census indicated that 12.6% of the United States' population self-identified as Black or African-American. A further 16.3% were identified as Hispanic, and 4.8% self-identified as Asian (U.S. Census Bureau, 2012). Projections for 2060 are that an expected 19% of the U.S. population would be foreign-born, which will further increase the cultural diversity of the country (Colby & Ortman, 2015).

Harmonious living and working together necessitates respect for one another and being sensitive to individual differences, including cultural differences. Similar to differences between people, even from the same family, there are differences (e.g. in beliefs, values, relationships, habits, and child rearing practices) between cultures which are near and dear to the cultural group in question (Moran, Abramson, & Moran,

2014). The various cultures have until recently remained distinct and autonomous, but with increasing global interaction cultures became more interconnected, and al-though cultures do change, they do so slowly (Moran et al., 2014).

People of different cultures behave and communicate differently, this includes child rearing practices and the way they react to disabilities (Kids Matter, n. d.). The EI professionals should be sensitive to the belief systems and other cultural differences between the different cultures they serve. By building close respectful relationships with the child's parents, the EI professionals can facilitate mutual understanding and respect (Kids Matter, n. d.). Understanding and being sensitive to the differences of other cultural groups the EI facilitator serves, enables the professional to build meaningful relationships with the children and their families, which further enhances their ability to effectively determine and meet the child's developmental, social, and learning needs.

Knowledge

Genesis 2 records the presence of the tree of knowledge of good and evil as the tree that helped to constitute the first sin, because Eve (and Adam) found the possibility to possess God's knowledge attractive. The word knowledge is used 172 times in the Bible, illustrating its importance. It is noted that when God wants to bestow something special and worthwhile on a person, He gives them knowledge (Exodus 31:3; 35:3; 1 Kings 4:29-34). In 1 Samuel 2:3 it is stated that God is the Lord of knowledge and carefully considers actions before acting. King Solomon, who was specially loved by God from a young age, asked God for knowledge and wisdom when he got the opportunity (2 Chronicles 1:11). This particularly pleased the Lord and Solomon received other gifts from God as a result. The Bible communicates the importance and worth of

knowledge and often links it with wisdom.

In the 21st century knowledge remains important. Knowledge enables people to act in accordance with what they know to be the truth. In a Swiss study about people's knowledge about climate change and world views that are related to culture, the researchers found that knowledge of the causes of climate change was important in the decision to change one's behavior in favor of saving the ozone (Shi, Visschers, & Siegrist, 2015). The authors concluded that causal knowledge compliments cultural sensitivity, and that people who gained causal knowledge are more willing to adapt their behavior to meet the desired outcome (Shi et al., 2015). This notion should be explored further in the current study as it suggests that parents might react more (or less) decisively on different kinds of information provided to them to create knowledge. Knowledge provision and structuring the information in a specific manner to attract people, is the domain of marketing.

Marketing

The executive director of the Yale Center for Faith and Culture, asserts that Christian business persons should build their businesses on faith, deriving their business ethics from the Scriptures. The main principle that Christian businesses should center on is that people are created in the image of God (Genesis 1:26-27). Genesis provides the narrative about the creation which forms three foundational pillars to base business ethics on—(a) who we are, (b) how to treat others, and (c) our responsibility as stewards of the resources entrusted upon us (Miller, 2005). The book of Numbers noted the holiness code which sets the standards of being honest in business by stating measuring standards and individuals' rights when fraud occurred. Another aspect of

Jewish-Christian business principle is justice. The prophets Isaiah and Amos criticized powerful and rich people, just as did Jesus with people who became wealthy by deceitful business practices. This stands in sharp contrast with modern times where dishonesty and fraudulent business practices became customary (Miller, 2005).

Modern marketing practices fall short of the imperative to be honest and represent the product truthfully. The Christian marketer should not fall into the trap of misrepresenting the nature of the product, its availability, or popularity. Misrepresentation is false and untruthful (Kryger, 2016). Christians also sell a 'product' which is the Gospel and make use of marketing strategies to promote their cause (Kryger, 2016). However, the marketing should always be open, honest and truthful, with the aim to promote the interests of the Kingdom as well as the interests of those who come to listen. Similarly, the marketing of Early Intervention programs should aim to be open, honest and informative to empower parents to make the best decisions for their children.

The government program 'Find Child' focuses on identifying children with developmental delays and at risk of disabilities for inclusion in the EI program. While there may not exist financial interests in promoting the program, the promoters of the program should endeavor to communicate the purposes and benefits of EI clearly, so that parents and caregivers may gain sufficient knowledge on which to base their decisions. EI program promoters and facilitators should demonstrate respect and care for the family and child with special needs, irrespective of race, culture or creed. By being sensitive to cultural differences the program facilitators meta-communicate to the parents and children that they are respected, and that their inherent human worth and right to practice their culture is recognized and appreciated.

Program Quality

Christians focus their lives on promoting the Kingdom of God and living according to the Scriptures. In the New Testament, Paul wrote to the new congregations teaching them the Christian way of living, and these are still the guiding principles of Christians today. In his letter to the Colossians, Paul instructed the congregation: “And whatever you do, in word or deed, do everything in the name of the Lord Jesus, giving thanks to God the Father through him” (Colossians 3:17), and again: “Whatever you do, work heartily, as for the Lord and not for men” (Colossians 3:23).

When working in honor of the Father, the Christian’s work quality and service delivery must be of the highest quality possible. Honoring the Father who loved Christians so exceedingly that He gave up his Son to die in their place, calls for excellence. The Christian receiving service from others should also receive it in thankfulness and appreciation, as the service is rendered as if to God. This calls for a spirit of appreciation and collaboration with brothers and sisters in Christ.

There is a dearth of literature on Christian parents’ perceptions or evaluations of EI program quality and marketing. The following exploration of the literature provides insights on parents, irrespective of their religious beliefs. From the literature on EI, parents do not always cooperate well with the program facilitators. Researchers have found that many parents do not participate by supporting their children, according to the suggestions of the therapists and other program facilitators, and that children’s programs are often interrupted by parents not being available or failing to provide access to the child (Dunst et al., 2014; Woodman et al., 2018). This results in fewer hours of therapy, which brings with it decreased outcomes in terms of social and integration

skills, leaving the child less ready to benefit from school later in life (Woodman et al., 2018). Parent involvement in EI is essential as parents spend more time with the child than the therapists, and can further teach and reinforce the methods of intervention (Dunst et al., 2014; Morgan et al., 2017; McWilliam, 2015).

Based on the Scriptures, humans are made in the image of God, and have inherent worth. This is demonstrated by God, who sent His Son to be crucified for their sins so that they may have life. The Bible holds the life and behavior of Jesus as a mirror for Christians to emulate. Christians should live for the glory and honor of God, a life which calls for honesty, truthfulness, excellence in all activities or work, tolerance and love toward all men, and being sensitive to others' needs.

It should be noted that the United States government does not use the Scriptures as it foundational source for governing its citizens. Therefore, federal programs, such as Early Intervention (EI), will also not be ordered by the Scriptures. Nevertheless, biblical principles such as honesty, equality, justice and fairness are also principles that have been embedded in the code of ethics of families, businesses, and government institutions. These are basic ethical codes by which all humans are governed and therefore, they can be fairly used in this research study.

Study Organization

This research is arranged in five chapters. In Chapter I, there has been a presentation of the background of the problem, the relationship between the variables, the investigation to be carried out, the problem statement, the definition of terms, the research hypothesis, the research questions, the objective of the investigation, the justification, the limitations, the delimitations, the assumptions and the philosophical

background. The remaining sections of the research paper are structured in sequential chapters.

Next, in Chapter II, a review of pertinent literature which relates to budgetary slack, budgetary participation, management perception, organizational performance, and budgetary control is presented.

Chapter III points out the overall research methodology for the study. This includes the research design used for the data collection, research sampling, data collection techniques, data analysis methods the measurement instrument, the validity, the reliability, the operationalization of the variables, the null hypotheses, the operationalization of the null hypotheses, the research questions and limitations of the chosen method.

In Chapter IV, the nature of the analysis procedure is described, and the findings are presented in relation to the research hypothesis, the behavior of the variables and the analysis of the main model.

Finally, in Chapter V, a summary of the study is presented, along with the results, the conclusions, recommendations and paths for future research.

CHAPTER II

LITERATURE REVIEW

Introduction

The impact of early childhood intervention cannot be understated. Early identification of a developmental delay or disability increases the likelihood that intervention strategies will blunt the effect of the delay or disability (Bruder, 2010). The Individuals with Disabilities Education and Improvement Act (IDEA) was created to specifically address the early intervention needs of children from birth to five years and improve childhood outcomes (Handler, 2006). The programs are primarily a family-based solution approach to support improved child outcomes. Families specifically, and communities in general, are the direct beneficiaries of early childhood intervention (Dunst, 2017). As such, voluntary enrollment with parental permission forms a critical pillar in the programs (Twardzik, MacDonald, & Dixon-Ibarra, 2017).

Chapter II will consider a few items as: the importance of the different variables, the study of their dimensions, the different relations, and research about the variables. This work is fundamentally based on understanding the interaction between culture, knowledge, marketing, and the treatment by personnel on parents' perception of program quality in early intervention. To explore the concepts in detail for this literature review, a thorough review of the definitions, key participants, key goals of early intervention programs, and the dominant factors affecting expectations is necessary.

Importance of Early Intervention

Previous researchers ascertained that the effectiveness of the EI program is in general, with respect to parents' satisfaction, based on outcomes. As such, the purpose of this research is to gauge the quality of the early intervention program by observing the satisfaction of parents whose children have participated in the program. Parents need enough information about existing programs to utilize them for their children's benefit. Therefore, it is critical to investigate the different factors that could potentially influence the success of early interventions.

Cultural Issues

Importance

In the next section the importance of the construct will be presented.

The differing definitions of culture result in various measures to quantify culture. Maternal Behavior Q-Sort, developed by Bigelow, Littlejohn, Bergman, and McDonald, (2010), provides a tool to determine cultural view of an ideal mother when connected to demographic data. Posada et al. (1995) found convergence for children across groups of mothers from different cultures when considering their secure-base behaviors. Generally, poorer, minority families report more discontent with early intervention programs, with some literature pointing to a misalignment in cultural values between service providers and the parent (Cappella, Frazier, Atkins, Schoenwald, & Glisson, 2008).

With special regard to the social sciences, Arzubiaga, Artiles, King, and Harris-Murri (2008); Sarche, Tafoya, Croy, and Hill (2017) argued for refinement of the theoretical psychological and educational underpinnings of fundamental research to respond to

the needs of a growing cultural minority. Since early childhood intervention framework and practices are specifically to enhance the change that a child with a physical or mental disability can successfully and independently integrate into society, the basis of early intervention should be shifted to one that is a-cultural. Increasingly, intervention programs are incorporating aspects of the culture of the parent in order to appeal more broadly to those in need (Bal & Trainor, 2016; Ekmecki et al., 2015).

Culture in existing studies is argued to be inadequately accounted for due to the inherent cultural biases that mediated the results (Arzubiaga et al., 2008; Sarche et al., 2017). Culture sets the reference frame through which behaviors are deemed as acceptable or unacceptable. Although mediation of results is to be expected as culture sets the frame of reference for any interpretation, the inadequacy of considering culture and its role in the efficacy of an early intervention program regarding affected target population is an increasing concern that some researchers are currently attempting to address. It is addressed by removing or reframing data interpretation in terms of a cultural reference frame (García, Méndez Pérez & Ortiz, 2000; Puig, 2010; Woolfenden, et al., 2015).

In other studies, culture was intentionally left inadequately defined and a rubric developed for quality studies identifying for culturally responsive research. Motivated by the broad ineffectiveness of early intervention programs to systematically increase outcomes in non-dominant cultures, Bal and Trainor (2016) investigated the criteria for culturally responsive research. The argument in Bal and Trainor's (2016) was that the deterministic methods of incorporating culture into current studies failed to account for the many potential interpretations of differing cultures. The resulting rubric did provide for

cultural bias consideration in an early intervention study by shifting the tenets associated with cultural studies. The implication of their work can best be summarized as removing the tenet that research leads to a single set of factual truths, to that of the truth of research outcomes requires review of other cultural perspectives.

Dimension

In the next section, the most important dimensions will be presented.

Family Environment

Values and cultural beliefs set expectations and the perceived importance of childhood early intervention. Successful adoption by parents of a particular early intervention program is strongly dependent on alignment between parental views of the value of the program goal and the stated program goals. Effective interventions thus require the formation of strong positive alliances between a treatment provider and the person receiving treatment. Knipscheer and Kleber (2004) suggested an ethic-similarity hypothesis that posited improved outcomes with ethnic alignment between the parents and the service provider. However, literature has provided strong evidence that similarity in attitudes and beliefs are more important in predicting positive uptake and outcomes for early intervention (Bunger, Powell, Robertson, MacDowell, & Birken, 2017).

With respect to children with disabilities, there is support for the notion of alignment between administrator and parental goals as it pertains to early intervention as a key information source. Thematic analysis by Decker and Vallotton (2016) elucidated the impact of generating alignment between service providers and parents in the treatment of children with hearing loss. Service providers generated alignment between parental

and program specific goals by becoming invaluable sources of both information and direction to the parents. Specific to the Decker and Vallotton's (2016) work, themes that arose for early intervention for hearing loss included parents learning, and emphasizing, the critical component of constant talking. Constant talking was a goal in the program set by service providers, but aligned with the parents through persistent instruction. Additional themes included the emphasis of the role of the parent and the irreplaceable value and the need for additional, unbiased information. Both themes indicated that parents must know their importance in implementing early intervention program constructs for strong consideration of program participation, and the service providers successfully creating alignment between program goals and parental goals (Decker & Vallotton, 2016). Other works have found similar effects as the necessity of a strong bond of trust between service provider and parent was functionally necessary for the parent to implement a program faithfully (Ekmekci et al., 2015).

The definition of parenting and the resultant expected responsibilities directly shape parental expectations in child rearing (Ekmekci et al., 2015; Fabiano, Schatz, & Jerome, 2016). The abundance of variation in parental definitions, specifically as it occurs in the USA, affects the motivation to implement a suggested early intervention program. The participation rate is thus affected by the incoherence between the administrator, program construction, application, and execution, the alignment between the goals of individual parental units and those of the early intervention programs, and the variation in goals of parental units as dependent on their culture (Bagner, Pettit, Lewinsohn, Seeley, & Jaccard, 2013; Bal & Trainor, 2016). This work is focused on examining the correlation between culture, knowledge, marketing and outreach, and

the personal treatment with the quality of early intervention methods.

The decision makers for choosing to place a child into an early childhood intervention program is the parent or legal guardian; and this makes the parental role the most important one in getting a program implemented. In the intervention process, recruiting parents has been an issue of concern as programs are designed, generally, to target the person with the problem directly (Houle, Besnard, Bérubé, & Dagenais, 2018). Thus, factors that affect parental decision making have increasingly been emphasized in order to increase uptake of early intervention in the most needed areas.

Current research indicates that mothers predominantly make child-care decisions as is commonly perceived (Fabiano et al., 2016). Their role, thus, heavily influences the expectations of what should be accomplished through early intervention, how it can or should be accomplished, and finally, the decision to actually participate in early intervention programs. Despite the dearth of knowledge, there has been a focus on maternal function, relationships, referrals, and family checkup to improve early intervention outcomes by focusing on mothers. Olds (2006) examined and proposed an evidence-based preventive intervention framework that focused on the mother's functions, relationships, and referrals. The result of the tested framework was improved caregiving and maternal well-being (Olds, 2006). Motivational interviewing through family checkups resulted in improved parenting and child behavior (Bunger et al., 2017). Regardless, for both approaches, the methods were devised using an evidence-based evaluation of available information that was not primarily the explicit maternal goals that are currently a topic of investigation.

Infants to five-year-old children comprise the third key participant in early

intervention. The primary goal of early intervention is to abate the effect of various disabilities in children, so every program is designed to address the specific developmental or treatment needs. For example, early intervention for language has been used for children lacking word reading and reading comprehension (Fricke et al., 2017). Parent-child interaction therapy (PCIT) is a specific program designed to address expressive language problems (Klatte & Roulstone, 2016). In PCIT, speech and language therapists train parents to implement therapy directly to their children. Other examples of disabilities addressed with early intervention range from hearing loss (Decker & Vallotton, 2016) to obesity (Döring et al., 2018) to reducing violence (Giovanelli, Hayakawa, Englund, & Reynolds, 2018).

The beneficial effects on children that receive successful early intervention have led to increased federal resources during the last half decade (Fricke et al., 2017; Twardzik et al., 2017). Enrolling at-risk or disabled children in the proper early intervention service greatly increases their chances to surpass their physical, cognitive, communication, socio-emotional, and adaptive challenges (Twardzik et al., 2017). Unlike parents who need a more culturally specific targeting program to increase participation, children's base-beliefs converge across cultures meaning the fundamentals of the solution to the child's ailment can be used with little consideration to the uncontrollable factors (Ekmekci et al., 2015).

The U.S. Government has played a significant role in increasing early intervention through the Individuals with Disabilities Education Act (Twardzik et al., 2017). Part C of the act is specifically targeted at encouraging early intervention by providing resources to both state and non-profit entities. It greatly reduces the cost to parents

whose children are enrolled in early intervention programs and increases the ease of access and use of the programs. Early childhood intervention programs are commonly orchestrated by state Education, Health or Other Lead Agencies with federal funding stemming from both Part B and Part C of the IDEA Act (Handler, 2006). Although the funding of the programs and guidelines for specific goals are determined primarily at the Lead Agency level, administration of the programs is commonly accomplished through local resources and non-profit organizations (Bruder, 2010; Twardzik et al., 2017).

Economic Environment

Bal and Trainor (2016) defined culture as a reference frame influenced heavily by demographics, socio-economic status, racial membership, and identity. The ephemeral definition of culture as more connected to the applied values and beliefs of a group, creates some challenges for quantification and evaluation. The definition used by Bal and Trainor (2016) fell more in line with general definitions of culture in anthropology. Ekmekci et al. (2016) examined the critical factors necessary to facilitate participation of a group or person in early intervention. As in many of the other studies discussed here, culture, defined in their terms as the beliefs about certain behaviors, played a pivotal role. Specifically, the marketing and outreach mechanisms and designs to certain demographics and populations required a tailored approach based on the culture of the demographic or population.

Since the decision to enroll children in an early intervention program is not compulsory for parents, alignment between cultural and individual expectations is a necessity (Woolfenden et al., 2015). Parental education levels and socio-economic status have

been linked to higher follow-through for parental participation in an early intervention program (Heath et al., 2018). Participation, defined generally in phases of intent to enroll, enrollment or recruitment, attendance, involvement or engagement, and retention, has been linked to alignment between the environment and parental, program, and practitioner values (Houle et al., 2018). The role of mothers is heavily emphasized as it has been found that they are largely the primary decision makers when it comes to child care (McBride et al., 2017).

The costs of maintaining a reasonable standard of living for individuals who lack the required skills and abilities to integrate into self-sustaining roles as adults is borne by long term welfare and adult support service costs. For example, obesity, which has been found to be more easily prevented with early intervention (Lobstein et al., 2015), costs upwards of 10% of total U.S. healthcare expenditures, more than $147 billion U.S. (Finkelstein, Trogdon, Cohen, & Dietz, 2009). Obesity is a highly visible issue where the potential effects of early intervention can easily be recognized at a national level. However, the development delays of children are many and varied, but still result in losses that are preventable with early intervention.

The economic costs are largely borne by federal, local, and state government entities. Thus, reducing the need for economic support is a highly important goal for early intervention as it is justified as an investment to reduce cost of care for adults. Policymakers are often motivated by the economic costs of welfare and are often at the forefront in motivating and soliciting early intervention programs as economically beneficial. The expectations and goals of parents in the framework of early intervention are much less well defined as compared to administrators. The mental health of both

parent and child has been found to be directionally associated (Bagner et al., 2013), with developmental delay correlated with poverty rates and minority families (Cappella et al., 2008). Generally, poorer, minority families report more discontent with early intervention programs, with some literature pointing to a misalignment in cultural values between service providers and the parents (Cappella et al., 2008).

The preference of the male and female parental figures is not well known, leading to disconnects between the communicated benefits of early intervention and the reception of parental figures, to the claimed benefits (Fabiano et al., 2016). More specifically, the expectations and goals of parents have been shown to be dependent on ethnic background, socio-economic status, and other factors that contribute to the difficulty in quantifying parental expectations and goals (Ekmekci et al., 2015; Prinz, 2016). Parenting and family support within a broad child abuse prevention strategy: child maltreatment prevention can benefit from public health strategies (Prinz, 2016). Secure-base behavior, tenets of attachment theory, and sensitivity beliefs have all been found to be common sources of value alignment between administrators and parents (Ekmekci et al., 2015).

Ekmekci et al. (2015) examined interventions for parents of young children and focused on enhancing parental sensitivity. In multicultural societies, therapists and practitioners and the patients that receive their service do not always share a common ethnic background. Their examination of Dutch, Moroccan, Turkish, Surinamese, and Antillean ethnic minorities in the Netherlands used the Maternal Behavior Q-Sort (Bigelow et al., 2010) to evaluate congruence between service practitioners' and mothers' beliefs on sensitivity. Sensitivity was defined as the appropriate responsiveness to child

signals, and although appropriate, it is not defined in absolute terms. Their findings indicated that sensitivity maintained a high priority in the mothers' decision process. There was congruence between practitioners' and mothers' emphasis on importance of sensitivity, and that sensitivity as defined by a particular cultural group, should be considered in any early childhood intervention program.

Social Environment

The impact of personnel treatment in early intervention has been investigated by many (Ekmekci et al., 2016; Jeyaseelan & Sawyer, 2017). Where alliance refers to the collaborative nature between the patient and therapist, positive alliance has been found to be crucial for effective interventions. For example, a literature review of effective treatment methods for substance use in young people found there to be a general lack of data.

Enhancing readiness pertains to academic (Clements & Sarama, 2011), social and emotional growth (Britto et al., 2017), and the promotion of family stability (Bhopti, Brown, & Lentin, 2016), self-sufficiency (Woodman et al., 2018), and stability in general (Twardzik et al., 2017). The factors are inter-related with each other in addition to containing a cost-benefit component when programs are designed to address deficiencies. Academic readiness prior to reaching kindergarten, for example, is an indicating factor which helps to determine behavioral, social, or emotional issues as they grow. Underdeveloped behavioral, social, and emotional skills are linked with lack of self-sufficiency and thus the possibility of increased government cost for support (Lynch, Dickerson, Pears, & Fisher, 2017). The drive to reduce public spending leads to early intervention programs, which address the developmental delays. Large government expenditures

can be easily avoided with proper intervention.

Knowledge

Importance

In the next section the importance of the construct will be presented.

Knowledge has not found a unified definition in its application to early intervention. In a plethora of studies, knowledge was delineated by subject matter experts providing information and training parents specifically as it relates to disabilities and capabilities (Decker & Vallotton, 2016). In this sense, knowledge was completely dependent on administrators and their view of a particular situation. Paynter and Keen (2015) define knowledge in their work as the understanding of the recommended evidence-based practices and their benefits, and they apply the definition to professional and paraprofessional staff. Their work emphasizes, as others do, that knowledge transfer is a necessity for greater early intervention performance (Paynter & Keen, 2015). For autism spectrum disorder, the knowledge and use of specific early intervention practices, either by the administrator or the parent, is defined as knowledge. In this form, knowledge is referred to in a practical, application-specific sense in which subject matter experts provide information and facilitate its transfer to parents (Jeyaseelan & Sawyer, 2017).

Dimension

In the next section the most important dimensions will be presented.

Awareness

The goals of early intervention are fundamentally based in reducing the effect of a host of physical and mental disabilities a child may have. Improved access to behavioral

health services is a goal that has been emphasized (Bunger et al., 2017; Fabiano et al., 2016). Behavior health services generally pertain to culturally relevant behaviors to ensure ready integration into society at large. Additionally, the stated broad goal of early childhood intervention from the IDEA act of 2004 is to support families with young children (Decker & Vallotton, 2016).

The broad generalization, however, can be further delineated in terms of the key participants and how the process of early intervention is executed. Early intervention requires first the recognition of a child who needs a service, communicating the need and service to the parents, convincing a parent to voluntarily accept the service, and coordination between the service provider, parent, and child to execute the intervention. Decker and Vallotton (2016) exhibited a full example of the process where they detailed parents' report of information received from early intervention services about their children with hearing loss.

Whereas knowledge in most studies defined in significant portions and applications specific to situations, practices and behaviors, other studies have used a more traditional definition of knowledge as the general possession of an individual or group of information. Education level was used by Ekmekci et al. (2016) to quantify the knowledge of the parents, mothers specifically, that participated in their diverse study. Knowledge was divided into five levels, including vocational school, secondary school, high vocational education, and university or higher education. Iordan and Reuter-Lorenz (2017) followed a similar approach in their definition of knowledge as being dependent on the possession of information. The level of awareness of the impacts of behavioral physical activity and eating practices by guardians was used in their work

as the essential factors in early intervention knowledge. Although education level is used to characterize the parent population in early intervention, it is not usually the metric by which researchers designate individuals as knowledgeable.

Knowledge Management

Early Intervention (EI) programs are programs designed to aid parents in meeting the physical (Novak, Morgan, & Adde, 2017), cognitive (Dunst, 2017), communication (Decker & Vallotton, 2016), socio-emotional (Fricke et al., 2017), and adaptive needs of their children. Early developmental delays and disabilities generally have a strong negative correlation with successful progression into an integrated contributing member of society and thus represent a topic of great interest. Legislatively, the years from birth to age five are the early intervention years with the term applying to special education or preschool special education.

Administrators, parents, and children form the key participants of the programs that must be addressed. Administrators provide assistance and services to parents and children in areas ranging from physical disabilities to education preparation and support (Decker & Vallotton, 2016). Although children and parents are the targeted beneficiaries of early childhood intervention, the necessity for parental consent in nearly all cases means administrators must ensure their message impacts parents more so than the children. Cohesion amongst the three key participants is a minimum necessity for a program with the stated goal of blunting the effects of physical or mental developmental delays in children.

Administrators maintain the most explicitly described goals in the early intervention framework. These explicit goals derive themselves from the clinical practitioners,

program administrators, and policy makers. Here, seven particular goals of early intervention have strong literature support and are best summarized as: enhanced readiness (Prinz & Sanders, 2007), welfare cost saving (Gortmaker et al., 2015; Hajizadeh et al., 2017), improved quality of life outcomes (Bhopti et al., 2016; Deming, 2009), dynamic data acquisition in situ (Deming, 2009), abate developmental delays (Decker & Vallotton, 2016), improved targeted demographic outcomes (Bal & Trainor, 2016), and parental awareness (Heath et al., 2018). Early childhood intervention programs fundamentally are driven by remedies to mental and physical developmental deficiencies that can present themselves between birth and five years and, if left unaddressed, these children are likely to turn into adults who cannot operate independently.

Kids in Transition to School (KITS) is a short-term intervention program used to evaluate kids transitioning into kindergarten and designed to improve their academic readiness. The work by Lynch et al. (2017) strongly exhibits the impact of enhancing readiness and the interconnectivity of the various factors. The team examined the use of KITS for children in foster care. Foster children hold a greater risk of social, emotional, and behavioral developments that can lead to negative health outcomes due to lack of family stability and maltreatment experiences (Ahrens, Garrison, & Courtney, 2014). Implementing KITS for foster children provided significantly improved emotional and behavioral benefits, in addition to improvement in school readiness. The average cost effectiveness was over $60 per day per child (Lynch et al., 2017). Knowledge and readiness of the service practitioners is also integrated into administrator goals as they seek to optimize early intervention programs. Cognitive disorders affecting speech inhibit integration into society and result in the dependency of the individual on supportive

care. Providing positive outcomes for those affected by cognitive disorders affecting speech is an explicit goal of early intervention that affects quality of life for the individual. Zimmerman, Borkowski, Clark, and Brown (2018) studied the training and knowledge levels of speech-language pathologists concerning environmental toxicants and their effect on the development of infants and children, and the effectiveness of continuing education on enhancing the knowledge of the speech-language pathologists. Utilizing a Qualtrics survey to collect data, the researchers found speech-language pathologists in their survey lacked the requisite continuing education to have confidence in recommending or implementing environmental health practices to the families they serve (Zimmerman et al., 2018).

Application and Acquisition

Reduction in the effects on autism on the quality of life for those living with its effects represents another application of the goals of administrators. Autism ranges in conditions, but is generally defined by challenges with social, communication, and behavioral skills, and is estimated to affect one in 68 children in the United States (Paynter & Keen, 2015). Evidence-based practices have sufficient research evidence to demonstrate their effectiveness and are no longer conjectures or hypotheses (Wong, 2015), and they satisfy the clear consensus from research that interventions must be of high quality to maximize positive outcomes (Centers for Disease Control and Prevention, 2004). Evidence-based practices have increasingly grown in prominence in early intervention program design, as they clearly show effectiveness. As autism affects both the behavioral and social affluence of those it affects and is widely known among the U.S. populace, early intervention programs that address autism have the advantage of

recognition that other intervention programs do not necessarily share.

The final goal discussed in literature review is intimately tied to increasing enrollment in early intervention programs. It specifically concerns the topic of this work as it pertains to increasing the parental sensitivity based on professionals' beliefs. Professionals' beliefs are heavily tied to best practices, but generally fail to consider parental culture and values that may be antithetical to the best practices (Bhopti et al., 2016). Recently, there has been a shift toward greater consideration of parental values or the ability to shift parental values toward those of the administrator's for greater early intervention impact (Britto et al., 2017; Bunger et al. (2017; Ekmekci et al., 2015). Improvement in these areas, parental value and perceptions, are good indicators of an increase in knowledge and awareness of these programs. The more informed parents are, the better decision-makers they become for the child who is in need of early intervention services.

Marketing

Importance

In the next section the importance of the construct will be presented.

Demographic, developmental, and socio-economic risk factors have been shown to be strongly related to negative outcomes for at-risk populations (Bunger et al., 2017; Twardzik, MacDonald, & Dixon-Ibarra, 2017). Prior goals discussed indicate direct intervention between child and practitioner but improving outcomes for the at-risk population will achieve high enrollment in the programs with targeted marketing to parents. This goal is dependent on the effectiveness of marketing to affected target populations, as estimates have found that most eligible enrollees did not participate in early intervention programs due to factors primarily dependent on exposure and marketing (Bal

& Trainor, 2016).

A knowledge gap between parental and administrator guidelines has been noted between functional outcomes and positive experiences. According to Roulstone (2015), neither functional outcomes nor positive experiences are routinely measured in academic studies and represent an area in marketing that is critical to a product offering uptake. Houle et al. (2018) noted the lack of precision and consistency of implementation strategies across literature, thereby representing another knowledge gap. Their examination found planning and education implementation marketing strategies met some success in initiating early intervention, but did not specifically address positive experiences (Houle et al., 2018).

Dimension

In the next section the most important dimensions will be presented.

Advertising and Networking

The misalignment between administrators and parental expectations and goals of early intervention programs represents an area of literature that has recently gained more attention (Marshall, Kirby, & Gorski, 2016). The investigation of the cross-section between culture, knowledge, marketing, and personnel treatment has been steadily growing in an attempt to improve the participation rate and perceived quality of early intervention. Marshall, Kirby, and Gorski (2016) studied the connection between parental concern and services, and under enrollment and late entry to early intervention. By examining 27,556 responses from parents of children from birth to age five, they gleaned demographic and socio-economic disconnects between how a

program targeted an affected population, knowledge of remedies by parents, and cultural factors that weighed on parental decisions to fully implement an early intervention program. Their conclusion noted that primary health care provider and parent involvement were the strongest indicators of parental concern and knowledge of available services. Indeed, spreading information on early childhood intervention connotes understanding mobilization methods to inform the public (Cotterill, John, & Moseley, 2013).

Outreach

Outreach to parents for early intervention requires a marketing component to successfully connect a program to the participants it will impact the most. Marketing in early intervention has focused on promoting positive family outcomes. The volume of literature has illustrated that the promotion of positive family outcomes or the marketing of the outcomes is just as important as the program features. Fabiano et al. (2016) expressly evaluated parental preferences for early intervention program to find which aspects of the program descriptions should be promoted to increase engagement. For mental health services, parental perceptions in Canada were that individuals in need would prefer an e-health model where services promoting easy and direct access with the professional service provider would be most ideal (Becker et al., 2016).

Some marketing strategies have used the approach of trade-offs in features and parental costs to target groups. The Dropout Prevention Campaign sought to draw attention to the high school dropout problem by increasing visibility and mobilize the community to action through various media (Babinski, Corra, & Gifford, 2016). The trade-off used in the campaign were the negative communal publicity associated with underperforming schools, termed “dropout factories” for their graduation rates of 60% or less,

and the implications of who was responsible for alleviating the problem. Various early intervention support programs related to mental health and bullying (Reeder et al., 2017), including using video-feedback intervention, have utilized the strategy to great effectiveness (Hodes, Meppelder, Moor, Kef, & Schuengel, 2017).

Lynch et al. (2016) examined the effectiveness of Early Detection, Intervention and Prevention of Psychosis Program. Their work found various protocols to be effective for community outreach and implementing education models, and that they were centered on creating a network of professionals and community members which could rapidly communicate signs of psychosis. The protocols included development and delivery of outreach messages to target audiences, community mapping, establishment of a steering council, and process evaluation (Lynch et al., 2016). The protocols demonstrated effectiveness across culturally diverse audiences as the protocols allowed for targeting based on population needs.

Quality of Service

Importance

In the next section the importance of the construct will be presented.

Quality has been a topic of intense interest in early childhood intervention. Disparate outcomes by race, class, and ability in U.S. schools that have seen increases are posited to be due, at least in part, to perceived quality by the parents of children who need intervention (Bal & Trainor, 2016). Twardzik et al. (2017) used a systematic review of nearly 600 unique articles on enrollment of under three into Part C of the IDEA act. Quality was determined using eleven measures developed by Galna, Peters, Murphy, and Morris (2009). Additional factors in defining quality in relevant literature incorporate enrollment,

demographic specific outcomes, correlation between practices and desired positive outcomes, and cognitive matching between a therapist and the person receiving intervention.

Dimensions

In the next section the most important dimensions will be presented.

Program Effectiveness

Since enrollment in early intervention programs is not required by law, good alignment between parental preferences and the program structure and goals has been shown to significantly affect program quality. Studies have found parental preferences connected to the occurrence of child anxiety and a specific interest in externalizing problems as necessary (Mian, Godoy, Eisenhower, Heberle, & Carter, 2016). Dissemination of information concerning the early intervention programs are also inhibited by the issues with parent engagement, specifically matching parental preferences to program characteristics. Quality as characterized by Mian et al. (2016) was intimately connected with retention. In-home visits and advising represent an evidence-based intervention that worked well when parents perceived high quality (Manz et al., 2017).

Ethnic minority and single-parent status are two demographic groups that have been identified as more likely to drop out of the programs (Bal & Trainor, 2016). Home visitation treatment has been promoted as a method to increase retention, improve developmental outcomes, and reduce child maltreatment (Chiang et al., 2018). Indeed, the importance of the intervention style is such that Congress authorized $800 million total for the 2016 and 2017 fiscal years through the Maternal, Infant, and Early Childhood

Home Visit Program. Retention is a quality measure that is directly impacted by the participation or lack thereof of these at-risk groups. According to Chiang et al. (2018), examination of early program exits is lacking in literature. However, relationship factors, including individualized resources and provision of information, are an indicator of higher quality by way of longer-term retention (Beasley et al., 2017).

Customer Service

Additional measures of quality in early intervention include positive correlation between the intervention modality and the desired outcome in addition to a cognitive match between the service provider and the parent. Evidence-based practices have achieved such status by converging theoretical models with extensive empirical data from application over time (Paynter & Keen, 2015). The positive outcomes from evidence-based practices have generally resulted in better cost-benefit analysis as compared with hypothetical models, and thus, at least in view of the legislative administrator, are of higher quality (Shonkoff & Fisher, 2013).

Along similar lines, a cognitive match between professionals' and parental values has been shown to increase positive outcomes (Ekmekci et al., 2015). Parental cognitive beliefs shape individual behavior and expectations of what is or is not needed or appropriate for child rearing. Alignment between professionals' and parents' cognitive beliefs results in a lower barrier for professionals to gain parental trust to implement an intervention tract based on the service providers' insights (Arzubiaga, Artiles, King, & Harris-Murri, 2008). In one example, a cognitive match between service providers and parents on the ability to perceive child signals, interpret the signals, and take appropriate actions resulted in cross-ethnic successful application of early childhood

intervention (Ekmekci et al., 2016). As socio-economic, cultural, and ethnic barriers are generally associated with lower outcomes, the reduction on the effect of ethnic differences is the source of the higher quality perception of cognitive matching.

As professional sources of information, administrators and service providers often attempt to look out for the well-being of children by not only acting as observers of children, but by communicating pertinent information to parents in an actionable form. In the United States, Part C from the IDEA act of 2004 is particularly the result of policymaker providing tools to bridge the gap between service providers and parents. Part C, also called the Program for Infants and Toddlers with Disabilities, focuses on addressing disabilities from birth to three-year age range many children would be exposed to independent public education in the form of pre-k (Twardzik et al., 2017). Guidelines for enrollment and the broad strategic goals are set legislatively at the state level by entities such as the Department of Health, Department of Education, etc.

Program Evaluation

Early intervention administrators include policy makers, clinical practitioners, and researchers. Researchers focus on the investigation, development, and implementation practices of existing accepted knowledge. For example, Bunger et al. (2017) tracked early intervention implementation strategies by examining existing literature and determined the internal tracking of implementation to be lacking. Implementation strategies in examined literature lacked sufficient detail and consistency to be replicable and thus slowed the accumulation of knowledge. The group determined a practical approach by tracking implementation through planning and educational strategies in the earliest stages of an early intervention program, and quality control strategies as a

program matures (Bunger et al., 2017). In the end, their work is targeted toward effective methods to promote the uptake of new research findings. However, research ranges from addressing hearing loss (Decker & Vallotton, 2016), to program enrollment (Twardzik et al., 2017), to early intervention for preventing obesity (Döring et al., 2018) and a plethora of others.

Clinical practitioners and service providers implement the methods and tools most commonly produced by researchers and directly influence policy makers which encourage practices recommended by practitioners (Houle et al., 2018). As programs usually target the person with the problem directly, practitioners and service providers are tasked with, at minimum, recognizing development deficiencies that may necessitate early childhood intervention. Additionally, service providers and practitioners are commonly the conduit in which parents receive information about the developmental deficiencies of their child and supply feedback mechanism on the practical impact and effectiveness of intervention practices.

Relationship between Variables

This section theoretically supports some of the relationships between the involved constructs, specifically those that are directly related to the endogenous variables. These relations are as follows: cultural issues and quality of service, knowledge and quality of service, and marketing and quality of service. It is critical to explore previous works focusing on the relationships of each variable to one another. For instance, Paynter et al. (2016) found inadequate workplace culture and support to be one significant factor in the continued use of ineffective early intervention programs. This shows how culture influences the quality of service being provided and the other way around. Thus,

the organizational culture of practitioners that encourage the use of evidence-based practices must maintain some semblance of values similar to the culture of their parental participants for greater effectiveness (Paynter et al., 2016). Their findings corroborated the hypothesis that greater cultural and value considerations in program design increased effectiveness. Higher scores on openness attitudes, supervisor attitude, and organizational culture correlated with high use of early intervention programs and specifically greater acceptance of evidence-based practices by parents. The trust built also lead to parents seeking more information for developmental deficiencies, increasing their knowledge and their likelihood to follow through with an early intervention program.

Another example is the study of Paynter and Keen (2015), focusing on the knowledge and use of evidence-based practices, the attitudes of staff toward those practices, and the links to organizational culture in the autism early intervention community. In their findings, which examined 99 professional and paraprofessional staff, the early intervention service provider community reported greater knowledge and use of evidence-based practices versus those that still needed research validation. The knowledge and use of evidence-based practices were connected to organizational culture and attitudes and with each other. Though multiple studies indicated similar conclusions, the ongoing education of service providers of the best practices, as determined by research, is necessary to improve early intervention outcomes and set the framework for early intervention program design (Olds, 2006; Paynter & Keen, 2015).

Although evidence-based practices are favorable toward the service provider and legislative portion of the community's administrators, investigations into the

practices are on-going. For example, early intensive behavioral intervention (EIBI) was at one point considered an evidence-based practice due to literature supporting its effectiveness. However, continued collection of data and research into the intervention revealed poor-quality data, small effects, low cost-efficiency, and societal changes (Mottron, 2017). The evolution of effective techniques to improve early intervention outcomes, specifically as it applies to the mechanics of how a service is provided, causes dynamic change at all levels of the goals for administrators. Knowledge and culture are critical in extending the existing literature on early childhood intervention.

Research on Factors that Affect Quality of Service

Existing methods for quality studies include system demonstration (Bunger et al., 2017), Best-Worst scaling (Fabiano et al., 2016), Thematic Analysis (Decker & Vallotton, 2016), and randomized control trials (Fricke et al., 2017). System demonstration captures and reports how project components are implemented to encourage duplication of their processes. For example, system demonstration was used to analyze multiple implementation strategies to access child behavior services with the goal to improve access to services, serves as a baseline (Bunger et al., 2017). The frequency of discrete implementation strategies and their correlated effectiveness was codified and analyzed statistically as a quantifier for quality of the program. However, system demonstration is dependent on the accuracy of the reporting for studies that use a claimed implementation strategy. For example, if an implementation strategy for access for child behavior services claims a positive outcome based on weaker standards than other implementation strategies, system demonstration may artificially rank the inferior

strategy higher than it should be. Progress for system demonstration is tracked through implementation stages using Stages of Implementation Completion observational measure (Chamberlain, Brown, & Saldana, 2011; Saldana, Chamberlain, Bradford, Campbell, & Landsverk, 2014) and Stages of Implementation Analysis (Akin et al., 2013).

The best-worst scaling approach is rooted in the Random Utility Theory of human decision-making (Flynn, Louviere, Peters, & Coast, 2007). For a set of attributes, it does not ask a respondent to directly compare attributes, but to evaluate each attribute independently, although not necessarily in a serial manner. The independent evaluation, whether explicitly noted to the participant or not, reveals preferences of one attribute over another in a quantifiable manner. Best-worst scaling was used to determine parental preferences for early intervention screening (Fabiano et al., 2016). Fabiano et al. (2016) presented 426 parents with 27 best-worst scaling questions to determine preferred components of an early intervention program. The completion of the best-worst conjoint scaling experiment produced data that was then processed into utility scores. Preferences based on the utility scores found parents preferred programs that improved their child's academic, social, and behavioral skills followed closely by free childcare programs. Best-worst scaling grants the capability to correlate alignment in program goals between parents and administrators more directly.

In Decker and Vallotton (2016), thematic analysis of semi-structured interviews was used as a qualitative approach to incorporate various theoretical positions and purposes in examination of parents' views of information received from early intervention service providers. Thematic analysis is a qualitative analytic method used for

identifying, analyzing, and reporting themes in qualitative data by the examination of recurring patterns in participant responses (Braun & Clarke, 2006). It does not follow a strict protocol of adherence but maintains wide use.

Use of evidence-based practices is the primary goal of administrators as they seek to improve the return on resource investment in early intervention programs. The use of thematic analysis in Decker and Vallotton (2016) was used to determine the alignment between the information the parents were receiving concerning best and evidence-based practices for development of children with hearing loss. The data pointed to only partial alignment between the information the parents received or retained, and the current recommended practices.

Randomized controlled trials are another technique in qualitative evaluation. Randomized controlled trials were conducted by Fricke et al. (2017) to determine the efficacy of early language intervention in mainstream school settings. The trials found no significant difference between programs of different lengths in improving outcomes, but instead detected a significant difference between children who did and did not receive the EI intervention. Randomized control trials quantify quality by assuming the sample population has a distribution of attributes that will be roughly equal between the control and non-control group. In this work, children were randomly assigned to the oral language intervention program as the non-control group, and the other children to the waiting control group. In terms of this work, randomized control trials may require careful consideration of the sample population as dependent on cultural homogeneity.

The Stages of Completion and Stages of Implementation Analysis are

measures to quantify parental perceptions of quality. The measures use retrospective data collection, implementation planning, active implementation, and coding to obtain numerical scores of subjective perceptions.

CHAPTER III

METHODOLOGY

Introduction

The preceding chapter has provided a review of the literature and support for the research question, aim and objectives. The purpose of this chapter is to describe the methods and procedures used in answering the research question and for testing the hypotheses raised earlier in the study. In line with the recommendations by Roberts et al. (2003), this chapter provides enough detail to the extent that other researchers can easily understand and apply the methodology to similar studies.

The primary objective of this research was to explore the relationship of causality that may exist between the variables of cultural issues, knowledge, marketing, and quality of service.

The structure of this chapter is as follows: (a) type of research, (b) population of study, (c) the sample, (d) measuring instruments, (e) the null hypotheses (f) data collection and (g) data analysis.

Type of Investigation

This study was at the same time a quantitative, explanatory and cross-sectional. First, it involved the use of structured numerical data and the application of statistical analysis to establish fundamental relationships in building theory (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 2014). The research can also be described as

exploratory, since it intended to establish causal relationships between the identified relationships (Hernández Sampieri et al., 2014).

The instrument was issued during the months of August to December 2018. Considering that the extent of the data collection, analysis and interpretation was for a specific period, the research was categorized as transversal (Hernández Sampieri et al., 2014).

The research can further be categorized as descriptive, meaning that it simply sought to determine, describe and identify characteristics of elements among the variables in relation to the identified problem (Nather, 2015). The variables cultural issues, knowledge, marketing, and quality of service were all descriptively evaluated.

It was field research, because data was collected from various members of different religions in the New York area.

Population

Hernández Sampieri et al. (2014) argues that a sample can be described as an accurate representation of the population. In cases of research, it is more feasible to use a sample since it enables time and cost savings. It is crucial to establish parameters for determining a sample to ensure that it is inclusive of the characteristics of the entire population.

The instrument was issued to parents whose children receive or received early intervention services. The participants are from different geographic areas in New York. Out of 200 parents approached, 102 responded giving a representative sample of 51%.

The population or universe is a set of all the cases that agree with certain specifications Hernández Sampieri et al. (2014) define the population or the universe as a

set of cases submitted to the same specifications. In this study, the population consisted of parents from the New York areas. The participants were 102.

Sample

Hernández Sampieri et al. (2014) states that the sample is a representative subset of the population and that there are two non-probabilistic ways of selecting it, which are: (a) intentional sample, which is one that uses the judgment of a person with experience and knowledge regarding the population that is studied, and (b) shows for convenience, which results from the selection of the units or elements that are available. The type of sampling conducted in this investigation is non-probabilistic, directed, intentional and for convenience, where the number one criterion for participation in this survey was that the participants would have had received or receive early intervention services. Surveys couldn't be given as a group, participants were intentionally selected. The sample was 102 parents who have received or are receiving the services represented .14% of the total population.

Measuring Instruments

In this section of the study, many important matters such as: the different variables used in the study, the development of the instrument, the content validity, the construct validity and the reliability of the instruments will be considered.

Variables

A variable is a property that can fluctuate and whose variation can be measured or observed (Hernández Sampieri et al., 2014). The variables used in this research were the following: (a) independent, cultural issues, knowledge, marketing; (b) and

quality of service as dependent variable.

Instrument Development

According to Hernández Sampieri et al. (2014), a measurement instrument is any tool that a researcher has at his/her disposal to approach a study or a phenomenon and to get information from it. In fact, the instrument is a combination of all the previous research work and the encapsulation of the contributions of the theoretical market by selecting data in relation to the used concepts. In the following paragraphs, a description of how the instrument is used in this present study will be presented.

1. A conceptual definition of the variables cultural issues, knowledge, marketing, and quality of service was already made in the second chapter.

2. The variable relationships of cultural issues, knowledge, marketing, and quality of service were dimensioned and undersized.

3. After the instruments were shaped, the help of writing experts was requested for their correction.

4. To validate the content of the instruments in term of relevance and clarity, an evaluation tool showing the names of the variables and the indicators, having each of them a five-point Likert scale to assess relevance and clarity, were submitted to five experts.

5. After the relevance test, the instrument that was used in this study derives and consists of seven sections: (a) general instructions and demographic data, (b) variable cultural issues, with 31 statements; (c) variable knowledge, with 21 statements; (d) variable marketing, with 18 statements; and (e) variable quality of service, with 26.

Afterward, the instruments were approved by the advisor. The data from parents

of children receiving early intervention services from different ethnic groups was collected. The instrument used is shown in Appendix A.

Instrument Validity

In this section the content and construct of the variables used in the research validity is presented (see Appendix B).

Content Validity

Peter and Churchill (1986) state that content validity is used to determine the extent to which the instrument's items are representative of the domain or whether the procedure followed for the elaboration or scale was adequate.

The validation process of the content of the instruments was as follows:

1. Several interviews were conducted with the advisors to find out their opinion on the measurement of the variables.

2. The literature was reviewed in different databases on the variables cultural issues, knowledge, marketing, and quality of service.

3. Then, the list of dimensions, sub-dimensions and criteria of the instrument to be proposed, in agreement with the advisor, of those that would be used in the instrument, were selected.

4. Consultations and reviews of the research were carried out by the advisors.

5. Clarity and relevance were evaluated with the help of five experts on the subject.

Validity of the Construct

The factorial analysis procedure was used to evaluate the validity of the constructs of cultural issues, knowledge, marketing, and quality of service, is presented

in this section. The results of the validation of each variable are presented in Appendix C.

Next, the statistical tests of the factor analysis for the constructs are presented.

Cultural Issues

The instrument of cultural issues planning was made up of three dimensions: (a) family environment (CIFE1 to CIFE10), (b) Economic environment (CIEV1 to CIEV8), (c) and Social environment (CISE1 to CISE13).

The analysis of the component matrix reveals that the 13 out of the remaining 15 statements have a positive correlation coefficient highly greater than .3. In fact, the minimum value for the component is .250, and the maximum is .712.

Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .731) was found. For the Bartlett sphericity test, it was found that the results (X^2 = 508.839, *gl* = 105, *p* = .000) are significant.

When analyzing the anti-image covariance matrix, it was verified that the values of the main diagonal are significantly greater than zero.

For the extraction statistics by main components, it was found that the commonality values are (Com_{min} = .290; Com_{max} = .782), and many of the items are superior to the extraction criteria (Com = .300); except for two items (CIEE4 and CISE8) whose values were inferior to .300. In addition, the total variance is 53%, higher than the 50% established as a criterion.

The instrument was submitted to the Cronbach's test or the reliability test. The Alpha was .791.

As for the rotated factorial solution, the Varimax method was used (see Table 1), and the indicators were reclassified.

The first factor that was “family environment” that originally counted 10 indicators (CIFE1-CIFE10) was modified. Now it is called “Family Financial Status” constituted by five indicators with a different classification. The new component is thus formed: “My salary is sufficient to cover health expenses” (CIEE2); “My place of employment provides quality health insurance” (CIEE6); “I am secure in my plans for retirement” (CIEE5); “My salary is sufficient to cover health household expenses” (CIEE1); and “The household income can cover private education for my special-needs child” (CIEE7).

Table 1

Rotated Matrix for Cultural Issues

Items	1	2	3
(CIEE2)	**.875**	.032	-.037
CIEE6	**.784**	.124	.097
CIEE5	**.782**	.128	.182
CIEE1	**.774**	.141	-.035
CIEE7	**.735**	-.049	.035
CISE9	.144	**.688**	.236
CISE10	.092	**.644**	.107
CIFE5	.131	**.640**	-.056
CIFE7	-.042	**.597**	-.229
CISE7	.084	**.583**	.433
CIFE2	.053	**.564**	-.006
CISE8	-.146	**.492**	.165
CIEE4	.238	**.451**	.174
CISE6	-.008	.129	**.875**
CISE4	.138	.045	**.838**

The second factor which was “economic environment”, originally grouped this way (CIEV1 to CIEV8) and counted eight indicators, now is called “Socio-economic status” and counts eight indicators, with a different classification. The new component is thus formed: “The cleanliness of the neighborhood street is good” (CISE9); “The vocabulary used in the neighborhood is appropriate” (CISE10); “The living space is located in a safe environment” (CIFE5); “Basic household hygiene is kept well” (CIFE7); “My colleagues treat me with respect” (CISE7); “The bond between parents and children residing in the household is strong” (CIFE2); “The school provides a nurturing environment for my child with special needs” (CISE8); and “The nature of my job allows me to spend quality time with my special-needs child” (CIEE4).

The third factor “Social environment”, originally constituted of 13 indicators (CISE1 to CISE13). Now it is called “Community Support” and contains two indicators. “The attitude of church members toward the Early Intervention program is positive” (CISE6), and “The church community is supportive” (CISE4).

Knowledge

The knowledge instrument was made up of five dimensions: Awareness (KNAW1 to KNAW5), Knowledge management (KNKM1 to KNKM3), Knowledge distribution (KNKD1 to KNKD3), Application (KNAP1 to KNAP6), and Acquisition (KNAQ1 to KNAQ4).

The factorial analysis procedure was used to evaluate the validity of the knowledge construct. The analysis of the component matrix reveals that out of the 21 statements, 18 have a positive correlation coefficient highly greater than .3. In fact, the minimum value for the component is -.078, and the maximum is .793.

Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .853) was found. For the Bartlett sphericity test, it was found that the results (X^2 = 1132.070, *gl* = 210, *p* = .000) are significant.

The analysis of the anti-image covariance matrix reveals that the values of the main diagonal are significantly greater than zero.

The extraction statistics by main components attests that the commonality values are (Com_{min} = .524; Com_{max} = .846), and all items are superior to the extraction criteria (Com = .300). In addition, the total is 67% higher than the criterion that is 50%.

It has also been observed that the component transformation matrix values are very high for each component. For the first component, the value is .685; for the second component, .555; for the third, .376; for the fourth, .661; and for the fifth component, .601.

The instrument was submitted to the Cronbach's test or the reliability test. The Alpha was .894.

As for the rotated factorial solution, the Varimax method was used (see Table 2), and the indicators were regrouped.

The first factor "Awareness", which originally counted five indicators (KNAW1 to KNAW5) was modified because it retains none of the previous indicators. Now it is constituted by eight indicators. Those indicators are: "I am satisfied with the staff's knowledge related to early intervention and developmental disabilities" (KNKM3); "The level of communication between the parents and staff is satisfactory" (KNKD3); "Program holds meetings in which people can share ideas and opinions" (KNKD1); "The IFSP review meetings provide an open forum where updated knowledge can be shared

Table 2

Rotated Matrix for Knowledge

Items	1	2	3	4	5
KNKM3	**.759**	.196	.270	.239	-.126
KNKD3	**.758**	.162	.114	-.204	.252
KNKD1	**.682**	.241	.054	-.007	.005
KNKD2	**.679**	.031	.333	-.043	-.087
KNAP4	**.638**	.412	.162	.226	.087
KNAP3	**.631**	.450	-.061	.073	.329
KNAP6	**.547**	.203	.380	.128	.214
KNAP5	**.531**	.206	.344	.437	.116
KNAW1	.215	**.828**	.057	.095	-.137
KNAW3	.333	**.769**	.012	.166	-.116
KNAW2	.234	**.757**	.031	.119	.146
KNAW4	.056	**.719**	.331	.185	.000
KNAP2	.512	**.520**	.214	.045	.067
KNAQ1	.247	.186	**.733**	.023	.206
KNAW5	.080	-.030	**.689**	-.181	-.096
KNAQ3	.378	.193	**.620**	.200	.100
KNKM2	.044	.132	.077	**.906**	.019
KNKM1	.014	.217	-.174	**.857**	.032
KNAP1	-.087	-.224	-.068	-.004	**.774**
KNAQ4	.404	.166	.344	.129	**.647**
KNAQ2	.279	.354	.383	.026	**.447**

regarding changes in services and program" (KNKD2); "I know who to call if I have problems with the services" (KNAP4); "I know more about how to set goals and strategies for my child since the program has started" (KNAP3); "I am more confident in my skills as a parent since the inception of the Early Intervention program" (KNAP6); and "I can handle the challenges of parenting a child with special needs" (KNAP5).

The second factor "Knowledge management", which originally counted three indicators (KNKM1 to KNKM3), now counts five indicators that are: "Parent is aware of the early intervention services that are available through government funding"

(KNAW1); “I am aware of the services early intervention program have available for my child to access” (KNAW3); “I am aware of the community supports available for special-needs child to ensure inclusion in community activities” (KNAW2); “Parent is aware of what services are available for a child diagnosed with Autism Spectrum Disorder” (KNAW4), and “I am aware of how ordinary activities are part of my child’s learning and development” (KNAP2).

The third factor “Knowledge distribution”, originally counted three indicators (KNKM1 to KNKM3), now counts three indicators that are: “The best time to get help for children with autism is before the age of two” (KNAQ1); “A parent should take their child to another doctor, if a doctor tells a worried parent to wait and see if a child outgrows a developmental problem” (KNAW5); and “I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns” (KNAQ3).

The fourth factor “Application” originally counted six indicators (KNAP1 to KNAP6), but now counts two indicators that are “Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders” (KNKM2); and “Before receiving direct service through the program, I was already knowledgea-ble of Applied Behavior Analysis” (KNKM1).

The fifth factor “Acquisition” originally counted four indicators (KNAQ1 to KNAQ4), but now counts three indicators that are: “I am unaware of my rights when my child is ineligible for early intervention services” (KNAP1); “After receiving direct service through the program my knowledge of Applied Behavior Analysis is good” (KNAQ4); and “The behavior that most suggest that a child may have autism is when child is not using words by age two and loses some words” (KNAQ2).

Marketing

The marketing instrument was made up of three dimensions: Advertising (MAAD1 to MAAD8), Networking (MAN1 to MAN6), and Outreach (MAO1 to MAO4). The factorial analysis procedure was used to evaluate the validity of the marketing construct. The analysis of the component matrix reveals that 17 of the 18 statements have a positive correlation coefficient highly greater than .3, except for (MAO1). The minimum value for the component is -.042, and the maximum is .850.

Regarding the sample adequacy measure KMO, a value very close to the unit (KMO = .845) was found. For the Bartlett sphericity test, it was found that the results (X^2 = 1059.573, *gl* = 153, *p* = .000) are significant.

The analysis of the anti-image covariance matrix reveals that the values of the main diagonal are significantly greater than zero.

The extraction statistics by main components attests that the commonality values are (Com_{min} = .294; Com_{max} = .860), and all items are superior to the extraction criteria (Com = .300) except for one (MAAD7). In addition, the total is 59% than the criterion that is 50%.

It has been also observed that the component transformation matrix values are very high for each component. For the first component, the value is .855; for the second component, .921; and for the third, .372.

The instrument was submitted to the Cronbach's test or the reliability test. The Alpha was .899.

As for the rotated factorial solution, the Varimax method was used (see Table 3), and the indicators were regrouped.

Table 3

Rotated Matrix for Marketing

Items	1	2	3
MAAD3	**.799**	.080	.250
MAN1	**.796**	.073	.068
MAN3	**.769**	.262	.263
MAN6	**.751**	.063	-.005
MAN2	**.734**	.256	.180
MAN5	**.720**	.320	.048
MAAD8	**.710**	.088	.260
MAAD5	**.664**	.076	.309
MAN4	**.664**	.411	.050
MAAD6	**.662**	.021	.253
MAO3	.113	**.899**	.195
MAO4	.144	**.884**	.175
MAO2	.135	**.626**	-.079
MAAD1	.339	.261	**.714**
MAO1	.189	.070	**-.613**
MAAD4	.470	.148	**.584**
MAAD2	.369	.175	**.532**
MAAD7	.279	.005	**.465**

The first factor “Advertising” that originally counted eight indicators (MAAD1 to MAAD8), but now counts 10 indicators that are: “I know that Early Intervention is accessible for families from diverse cultures” (MAAD3); “Parents have an overall satisfaction of Early Intervention program” (MAN1); “Parents are provided explanation of how the service works” (MAN3); Pediatricians are able to make referrals” (MAN6)”; “Parents are provided with description of the available services” (MAN2); “The program relation with parents is positive” (MAN5); “I know that the purpose of the evaluations is to help identify a child’s strengths and weaknesses” (MAAD8); “I am aware that Early Intervention program is effective for families from diverse cultures” (MAAD5); “Parents that are already using the program influence other parents positively” (MAN4); and “I know that

the parents are not obligated to take services even if their child is eligible" (MAAD6).

The second factor "Networking" originally counted three indicators (MAN1 to MAN6), but now counts three indicators that are: "The quality of the advertising media is efficient" (MAO3); "The adequacy of the advertising media is effective" (MAO4); and "The diversity of advertising media is an effective tool for recruitment" (MAO2).

The third factor "Outreach", originally counted four indicators (MAO1 to MAO4), but now counts five indicators that are: "I know that program pamphlets are available in many different languages and can be accessible to parents when requested" (MAAD1); "The process of identifying potential clients needs improvement" (MAO1); "I am aware that the initial process of services for the customers when starting the program is quick" (MAAD4); "I understand the non-out of pocket cost as a promotional tool for the program" (MAAD2); and "I am mindful that parents can't be denied services if they can't afford to pay for them" (MAAD7).

Quality of Service

Quality of Service instrument was made up of three dimensions: (a) Program effectiveness (QSPE1 to QSPE9), (b) customer service (QSCS1 to QSCS7), and (c) program evaluation (QSPEV1 to QSPEV10).

The analysis of the component matrix reveals that 21 statements of the 26 have a positive correlation coefficient highly greater than .3. The following statements are lower than .3: (QSPE2, QSPE5, QSCS7, QSPEV6 and QSPEV1). The minimum value for the component is -.430, and the maximum is .838.

Considering the sample adequacy measure KMO, a value very close to the unit (KMO = .886) was found. For the Bartlett sphericity test, it was found that the results

(X^2 = 1792.792, *gl* = 325, *p* = .000) are significant.

The analysis of the anti-image covariance matrix reveals that the values of the main diagonal are significantly greater than zero.

The extraction statistics by main components attests that the commonality values (Com_{min} = .175; Com_{max} = .754), all items are superior to the extraction criteria (Com = .300) except for one (QSPEV1). In addition, the total variance is 58%, value that is higher than the criterion that is 50%.

It is also obvious that the component transformation matrix values are very high for each component. For the first component, the value is .795; for the second, .802; and for the third component, .992.

The instrument was submitted to the Cronbach's test or the reliability test. The Alpha was .809.

The use of the solution of factorial rotation, Varimax brought changes to the original groupings of the factorial indicators (see Table 4).

The first factor "Program effectiveness", that originally counted nine indicators (QSPE1 to QSPE9), has been modified. Now it counts 14 indicators: "I receive reasonable feedback from the service providers about the progress of my child" (QSPEV10); "The IFSP objectives in my child's plan includes activities that are appropriate for my child" (QSPEV8); "The help my child is getting is based on his or her individual needs" (QSPEV5); "Overall, I am satisfied with the services my child/family received" (QSPEV9); "I am informed of a variety of choices for how my child could be served" (QSPEV7); "I know who to call if I have problems with the services" (QSCS2); "The staff listens to and responds to my concerns" (QSPEV3); "I am satisfied with the type and

intensity of the services obtained through the Early Intervention Program" (QSPEV2); "In my meetings with the staff for (testing, conferences, IFSP, reviews, etc.), I feel I am an active member of the team" (QSEPV4); "The Individualized Family Service Plan" (IFSP) "Meeting review is keeping up with my family's changing needs" (QSCS5); "My family was given information about activities to do with our child on a daily basis" (QSCS6); "I was offered help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s)" (QSCS1); "The program has improved my child's joint attention skills (where two people share attention to the same object" (QSPE7); and "My child has less intense behavior problems (tantrums or hitting" (QSPE9).

The second factor "customer service" that originally counted seven indicators (QSCS1 to QSCS7), retains the same seven indicators, however, they share with the other two factors. These are the indicators: "Since starting the program, my child has learned to adapt to new people" (QSPE3); "My child seeks help, when needed, with basic care" (QSPE6); "My family's daily routines were considered when planning for my child's services" (QSCS3); "Since starting the program, my child has developed socially acceptable skills" (QSPE1); "My child learns skills, like imitating others, exploring, trial and error, etc." (QSPE4); and "I see improvement in my child's ability to give and receive affection" (QSPE8).

Finally, the third factor "program evaluation" that originally counted 10 indicators (QSPEV1 to QSPEV10), has been modified. Now it counts five indicators: "I see no improvement in my child's ability to express himself/herself" (QSPE2); "I see no improvement in my child's knowledge of basic concepts, such as colors and shapes"

(QSPE5); “The program disrupts my family’s routine and activities” (QSPEV6); “I need to learn more on what my options are if I disagree with a decision about my child’s services” (QSCS7); and “Before receiving direct service through the program, I anticipated the program to be a success for me and my child” (QSPEV1).

Table 4

Rotated Matrix for Quality of Service

Items	1	2	3
QSPEV10	**.805**	.004	-.199
QSPEV8	**.797**	.342	.001
QSPEV5	**.790**	.250	-.052
QSPEV9	**.751**	.330	-.212
QSPEV7	**.732**	.278	.013
QSCS2	**.708**	.275	.009
QSPEV3	**.707**	.420	-.152
QSPEV2	**.688**	.406	-.129
QSEV4	**.647**	.461	-.212
QSCS5	**.632**	.454	.057
QSCS6	**.567**	.315	.017
QSCS1	**.528**	.111	.246
QSPE7	**.526**	.453	.132
QSPE9	**.516**	.230	.123
QSPE3	.273	**.810**	-.116
QSPE6	.047	**.754**	-.128
QSCS3	.347	**.693**	.061
QSPE1	.461	**.676**	-.054
QSPE4	.383	**.606**	-.082
QSCS4	.524	**.601**	-.091
QSPE8	.423	**.571**	.185
QSPE2	-.163	-.255	**.787**
QSPE5	-.203	-.311	**.785**
QSPEV6	-.323	.091	**.597**
QSCS7	.199	.219	**.573**
QSPEV1	.172	-.023	**.381**

Reliability of the Instrument

The instruments were subjected to reliability analysis to determine their internal consistency by obtaining the Cronbach alpha coefficient for each scale. The Cronbach alpha coefficients obtained for the variables are the following: (a) cultural issues, .791, (b) knowledge, .894, (c) marketing, .899, and (d) quality service, .809.

All Cronbach's alpha values were considered as corresponding to very acceptable reliability measures for each of the variables (see Appendix C).

Operationalization of the Variables

The table below shows, as an example, the operationalization of the cultural issues variable (see Table 5), in which its conceptual definitions are included as instrumental and operational. In the first column, the name of the variable can be seen; in the second column, the conceptual definition appears; in the third one, the instrumental definition that specifies how the variable will be observed; and in the last column, each variable is codified. The full operationalization is found in Appendix D.

Main Null Hypothesis

Hernández Sampieri et al. (2014) mentions that null hypotheses are propositions about the relationship between variables, which serve to deny what the research hypothesis affirms. In this investigation, the following hypotheses were formulated: confirmatory, alternate and complementary.

Null hypothesis

Cultural issues, knowledge, and marketing are not predictors of quality of service for the early intervention program.

Table 5

Operationalization of the Variable Cultural Issues

Variables	Conceptual Definition	Instrumental Definition	Operational Definition
Cultural issues	Cultural Issues relates to the ideas, beliefs, values, and knowledge, constituting the shared bases of social action in a specific ethnic group.	The degree of Cultural issues, was determined by means of the following 31 items, under the scale: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree 1. There is a nurturing relationship between my child with special needs and his/her siblings. 2. The bond between parents and children residing in the household is strong. 3. Other family members are distant with little or no relationship with special-needs children. 4. The living space is small in size to adequately care for a special-needs child. 5. The living space is located in a safe environment. 6. The atmosphere of the household is disruptive to the emotional support of child with special needs. 7. Basic household hygiene is kept well. 8. Child's academic functioning is priority. 9. Encouragement for the children's academic improvement and achievement is lacking within the household. 10. My family is unsupportive of the Early Intervention program. 11. My salary is sufficient to cover household expenses. 12. My salary is sufficient to cover health expenses. 13. As the only income earner in the household, I cannot afford to lose my job. 14. The nature of my job allows me to spend quality time with my special-needs child. 15. I am secure in my plans for retirement.	To measure the degree of Cultural issues, data was obtained from parents whose children receive (d) early intervention services in the New York are through the measure of 31 items. The variable was considered as metric. To make the approach of the conclusions of this study, the following equivalence was determined for the scale used: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

	16. My place of employment provides quality health insurance 17. The household income can cover private education for my special need child. 18. My household spending is on a budget 19. The neighbours are sensitive to special-needs children. 20. The treatment of my family members is unpredictable. 21. The moral quality of the people in the neighborhood is low. 22. The church community is supportive. 23. My children face social isolation within the community. 24. The attitude of church members toward the Early Intervention program is positive. 25. My colleagues treat me with respect. 26. The school provides a nurturing environment for my child with special needs. 27. The cleanliness of the neighbourhood streets is good. 28. The vocabulary used in the neighbourhood is appropriate. 29. The recreational activities in my neighbourhood is lacking in creativity. 30. The attention offered to children with special needs in my child's school is lacking. 31. Opportunities to special-needs children are offered freely in my neighbourhood.

Operationalization of Null Hypotheses

Table 6 shows the operationalization of one of the null hypotheses.

Data Collection

The data collection was carried out in the following way:

Table 6

Operationalization of Hypotheses

Hypothesis	Variables	Level of measurement	Statistical Test
H_1. Cultural issues, knowledge, and marketing are not predictors of quality of service for the early intervention program.	Independents Cultural issues Knowledge Marketing Dependent Quality of Service	 Metrics Metrics	For the analysis of this hypothesis, the statistical technique of simple linear regression was used by the method of successive steps. The rejection criterion of the null hypothesis was for values of significance $p \leq .05$.

1. After I had contacted some parents, pastors, service providers, principals, in the New York area about this research work and also solicited their support within the distribution of the instruments in their schools and churches, some decided to assist me with the process.

2. The copies of the survey were in two languages, English and Spanish. The survey was self-administered online through Google Drive, and some were completed hard copy and were entered by the researcher into the database. Given that participants of this research were located at various sites across the New York area, it was convenient to employ online tools to aid with data collection so that unnecessary time and resources would not have to be expended. A number of researchers indicated that no significant differences exist in responses to surveys and interviews provided over the internet, telephone, and paper and pencil for data collection (Deutskens, De Ruyter, & Wetzels, 2006; Knapp & Kirk, 2003; Truell & Goss, 2002).

Data Analysis

The database was formed in the SPSS for Windows in version 20, in order to perform the analysis of the variables in that program. Subsequently, the scores for each of the variables were obtained, following the process indicated in the operationalization of the variables. After having completed the database, descriptive statistics (measures of central tendency, variability, normality and detection of atypical and absent data) were used to clean the database and obtain demographic information, as well as to evaluate the behavior of the main variables.

CHAPTER IV

ANALYSIS OF THE RESULTS

Introduction

The focus of this research is to study the quality of the early intervention program by observing the satisfaction of parents whose children have participated in the program, in accordance to the theoretical model identified in chapter one.

Additionally, as outlined in chapter three, the research conducted was quantitative, exploratory, transversal, descriptive and field.

The outline of this chapter is as follows: (a) Introduction, (b) Sample, (c) Demographic description of the sample (d) Cross-tables, (e) Arithmetic means, (f) Multiple regression assumptions, (g) Null hypothesis, and (h) Summary of the chapter.

Population and Sample

The research targeted the participants from the New York State area. The type of sampling conducted in this investigation is non-probabilistic, directed, intentional and for convenience, where the number one criterion for participation in this survey is that the participants would have received or are receiving early intervention services. Surveys couldn't be given as a group; participants were intentionally selected. The sample was 102 parents who have received or are receiving the Early Intervention Service.

Demographic Description

The following section shows the results of the gender category of respondents, the ethnicity of the respondents, the religion of each respondent, the number of children receiving services the level of education of the respondents, the years of service, hours of service, type of service and city of residence of the respondents (statistical tables are shown in Appendix D).

Gender

The distribution of respondents based on gender shows that there is a higher number of female participants in the survey at 77.6% (*n* = 76), whereas 22.4% of the respondents were male (*n* = 22).

Ethnicity

Table 7 shows the distribution of participants by ethnicity. From the total of 102 parents who completed the survey, the racial/ethnicity of those parents are divided into six categories, which made up 100 percent of the participants. The six categories were:

Table 7

Distribution of Participants by Ethnicity

Items	*n*	*%*
African-American/Black	60	61.2
Hispanic/Latino	16	16.3
Asian/Pacific Island	5	5.1
Native American	2	2.0
White/Caucasian	11	11.2
Other	4	4.1
Total	98	100.0

African-American/Black, Hispanic/Latino, Asian/Pacific Island, Native American, White/Caucasian and Other. Of the total of participants, African-Americans accounted for 60 (61.2%), Hispanic/Latino 16, (16.3%), Asian/Pacific Island five (5.1%), Native American two (2.0%), White/Caucasian 11 (11.2%), and Other four (4.1%). In this study, more of the respondents were African-Americans.

Religion

Table 8 shows the distribution of participants by religion. Adventist 39 (39.8%), Baptist six (6.1%), Catholic 20 (20.1%), Jehovah's Witness three (3.1%) and Others 30 (30.6%). The two major religions of the respondents for this survey are Adventist and Others.

Table 8

Distribution of Participants by Religion

Items	*n*	%
Adventist	39	39.8
Baptist	6	6.1
Catholic	20	20.4
Jehovah Witness	3	3.1
Others	30	30.6
Total	98	100.0

Years of Service

Table 9 shows the distribution of years of receiving the service of Early Intervention. It seemed that there's a good distribution among the years of services of the respondents. 0-1 years, 26 (26.5%); two years, 31 (31.6); three years and up, 41 (41.8 %). Nevertheless,

of the respondents, the primary of number of years of service is three years and up.

Number of Children Getting Service

Table 10 shows the distribution of the number of children getting services per respondent. It is observed that the number of children per respondent diminished from the first encounter with Early Intervention with the first child. The percentage of the number of children getting service is as follows: 1st child, 71 (72.4%); 2nd child, 23 (23.5%); and the least is accounted for the 3rd child, 4 (4.1%).

Table 9

Years of Receiving the Service of EI

Items	*n*	%
0-1	26	26.5
2	31	31.6
3 and up	41	41.8
Total	98	100.0

Table 10

Distribution of Number of Children Getting Service

	n	%
1	71	72.4
2	23	23.5
3	4	4.1
Total	98	100.0

Level of Education

Table 11 shows the distribution of participants by level of education. It is observed that the highest number of respondents answering the survey were those with a master's degree at 25 (25.5%), followed by bachelor's at 24 (24%). The two least reported education levels are Doctorate degree and others, both accounted for four (4.1%).

Table 11

Distribution of Participant's by Level of Education

	n	%
High School	23	23.5
Associate	18	18.4
Bachelor	24	24.5
Masters	25	25.5
Doctorate	4	4.1
Others	4	4.1
Total	98	100.0

Hours of Services

Table 12 shows the distribution of participants' hours of services. The two most hourly services reported by the respondents are: 1-2 hours, 34 (34.7%) and 3-5 hours, 32 (32.7%), followed by 6-8 hours, 16 (16.3%). The two least categories of hourly services are 9-11 hours, two (2.0%) and 12-14 hours two, (2.0%). The highest total number of hours is 15 hours and up, and accounted for 12 (12.2%).

Type of Service

Table 13 shows the distribution of participants by type of service. The two highest

types of services utilized by the respondents are Occupational Therapy, 47 (48%) and Speech, 39 (39.8%). It is observed that the lowest utilized services by the respondents is Others, and it accounted for only one (1%).

City of Residence

Table 14 shows the distribution of the participants' cities of residence. The highest respondents are from Nassau, and they accounted for 41 (37.6%), followed by Suffolk, and it accounted for 22 (20.2%). Queens accounted for 10 (9.2%), and Brooklyn for 18 (16.5%). The lowest reported are residents of Staten Island, which is only one (.9%).

Table 12

Distribution of Participants by Hours of Service

	n	%
1-2	34	34.7
3-5	32	32.7
6-8	16	16.3
9-11	2	2.0
12-14	2	2.0
15 and up	12	12.2
Total	98	100.0

Cross-Tables

Education and Knowledge

Table 15 shows that respondents with a High School diploma (13, 61.9%) have more knowledge about the program, than those with a Master's degree (12, 50%).

Table 13

Distribution of Participant's by Type of Service

	n	%
Behavioral Consultant	2	2.0
Behavioral Intervention	5	5.1
Occupational Therapy	47	48.0
Speech Therapy	39	39.8
Physical Therapy	4	4.1
Others	1	1.0
Total	98	100.0

Table 14

Distribution of Participant's by City of Residence

	n	%
Brooklyn	18	16.5
Queens	10	9.2
Bronx	3	2.8
Staten Island	1	0.9
Nassau County	41	37.6
Suffolk County	22	20.2
Others	7	6.4
Total	102	93.6
Missing	7	6.4
Total	109	100.0

Age and Knowledge

In Table 16, people within the age group of 21-31 (6, 85.7%) appeared to have good knowledge of the program.

Ethnicity and Marketing

In Table 17, most of the respondents (60, 66.7%) appeared to agree with the

Table 15

Cross-Tab for Education and Knowledge of the Program

			Knowledge1				
			2.00	3.00	4.00	5.00	Total
Education	High School	Count	0	7	13	1	21
		% within Education	0.0%	33.3%	61.9%	4.8%	100.0%
	Associate	Count	0	3	10	1	14
		% within Education	0.0%	21.4%	71.4%	7.1%	100.0%
	Bachelor	Count	0	6	13	5	24
		% within Education	0.0%	25.0%	54.2%	20.8%	100.0%
	Masters	Count	1	8	12	3	24
		% within Education	4.2%	33.3%	50.0%	12.5%	100.0%
	Doctorate	Count	0	0	4	0	4
		% within Education	0.0%	0.0%	100.0%	0.0%	100.0%
	Others	Count	0	2	0	1	3
		% within Education	0.0%	66.7%	0.0%	33.3%	100.0%
Total		Count	1	26	52	11	90
		% within Education	1.1%	28.9%	57.8%	12.2%	100.0%

Table 16

Cross-Tab for Age and Knowledge of the Program

			Knowledge1				
			2.00	3.00	4.00	5.00	Total
Age	under 20	Count	0	2	2	0	4
		% within Age	0.0%	50.0%	50.0%	0.0%	100.0%
	21-31	Count	0	1	6	0	7
		% within Age	0.0%	14.3%	85.7%	0.0%	100.0%
	32-42	Count	0	14	21	8	43
		% within Age	0.0%	32.6%	48.8%	18.6%	100.0%
	43-53 and up	Count	1	9	23	3	36
		% within Age	2.8%	25.0%	63.9%	8.3%	100.0%
Total		Count	1	26	52	11	90
		% within Age	1.1%	28.9%	57.8%	12.2%	100.0%

marketing strategies utilized by the early intervention.

Ethnicity and Culture

In Table 18, African-American/Black (34, 65.4%), Hispanics/Latino (12, 75.0%) and Asian/Pacific Island (5, 83.3%) show a higher level of cultural issues. These issues

Table 17

Cross-Tab for Ethnicity and Marketing of the Program

			Marketing1				Total
			2.00	3.00	4.00	5.00	
Ethnicity	African-Ameri-can /Black	Count	0	12	33	7	52
		% within Ethnicity	0.0%	23.1%	63.5%	13.5%	100.0%
	Hispanic/ Latino	Count	0	2	12	2	16
		% within Ethnicity	0.0%	12.5%	75.0%	12.5%	100.0%
	Asian/ Pacific Island	Count	0	1	3	2	6
		% within Ethnicity	0.0%	16.7%	50.0%	33.3%	100.0%
	Native American	Count	0	0	2	0	2
		% within Ethnicity	0.0%	0.0%	100.0%	0.0%	100.0%
	White/ Caucasian	Count	0	2	7	1	10
		% within Ethnicity	0.0%	20.0%	70.0%	10.0%	100.0%
	Other	Count	1	0	3	0	4
		% within Ethnicity	25.0%	0.0%	75.0%	0.0%	100.0%
Total		Count	1	17	60	12	90
		% within Ethnicity	1.1%	18.9%	66.7%	13.3%	100.0%

Table 18

Cross-Tab for Ethnicity and Culture of the Program

			Culture1			Total
			3.00	4.00	5.00	
Ethnicity	African-Ameri-can /Black	Count	16	34	2	52
		% within Ethnicity	30.8%	65.4%	3.8%	100.0%
	Hispanic/ Latino	Count	1	12	3	16
		% within Ethnicity	6.3%	75.0%	18.8%	100.0%
	Asian/ Pacific Island	Count	0	5	1	6
		% within Ethnicity	0.0%	83.3%	16.7%	100.0%
	Native American	Count	0	2	0	2
		% within Ethnicity	0.0%	100.0%	0.0%	100.0%
	White/ Caucasian	Count	2	6	2	10
		% within Ethnicity	20.0%	60.0%	20.0%	100.0%
	Other	Count	2	2	0	4
		% within Ethnicity	50.0%	50.0%	0.0%	100.0%
Total		Count	21	61	8	90
		% within Ethnicity	23.3%	67.8%	8.9%	100.0%

are family environment, economic environment and social environment.

Ethnicity and Quality of Service

Table 19 shows all of the ethnicities mentioned in this instrument, which include African-American/Black, Hispanic/Latino, Asian/Pacific Island, Native American, White/Caucasian and Other, and they have a high level of agreement with the Quality

Table 19

Cross-Tab for Ethnicity and Quality of Service

			Quality1			Total
			3.00	4.00	5.00	
Ethnicity	African-American /Black	Count	7	39	6	52
		% within Ethnicity	13.5%	75.0%	11.5%	100.0%
	Hispanic/ Latino	Count	2	13	1	16
		% within Ethnicity	12.5%	81.3%	6.3%	100.0%
	Asian/ Pacific Island	Count	0	5	1	6
		% within Ethnicity	0.0%	83.3%	16.7%	100.0%
	Native American	Count	0	2	0	2
		% within Ethnicity	0.0%	100.0%	0.0%	100.0%
	White/ Caucasian	Count	0	10	0	10
		% within Ethnicity	0.0%	100.0%	0.0%	100.0%
	Other	Count	1	3	0	4
		% within Ethnicity	25.0%	75.0%	0.0%	100.0%
Total		Count	10	72	8	90
		% within Ethnicity	11.1%	80.0%	8.9%	100.0%

of Services rendered through early intervention (72, 80.0%).

Education and Quality of Service

Table 20 shows that, as people acquire higher education, they perceive the quality of the services to be better. High School (18, 85.7%), associate degree (13, 92.9%), bachelor (19, 79.2%), master's (17, 70.8%) and doctorate (4, 100%).

Table 20

Cross-Tab for Education and Quality of Service

			Quality1			Total
			3.00	4.00	5.00	
Education	High School	Count	1	18	2	21
		% within Education	4.8%	85.7%	9.5%	100.0%
	Associate	Count	0	13	1	14
		% within Education	0.0%	92.9%	7.1%	100.0%
	Bachelor	Count	2	19	3	24
		% within Education	8.3%	79.2%	12.5%	100.0%
	Masters	Count	5	17	2	24
		% within Education	20.8%	70.8%	8.3%	100.0%
	Doctorate	Count	0	4	0	4
		% within Education	0.0%	100.0%	0.0%	100.0%
	Others	Count	2	1	0	3
		% within Education	66.7%	33.3%	0.0%	100.0%
Total		Count	10	72	8	90
		% within Education	11.1%	80.0%	8.9%	100.0%

Arithmetic Means

Cultural Issues

Table 21 shows the arithmetic mean of the Cultural Issues variable. It can be observed that the items with the lowest arithmetic means are: “The household income can cover private education for my special-needs child” (2.34); “My salary is sufficient to cover household expenses” (3.17); “My salary is sufficient to cover health expenses” (3.21); “I am secure in my plans for retirement” (3.23); “My place of employment provides quality health insurance” (3.52); “The nature of my job allows me to spend quality time with my special-needs child” (3.74); “The church community is supportive” (3.75). Meanwhile, it is observed that the items with the highest arithmetic mean are: “The bond between parents and children residing in the household is strong” (4.52); “The living space is in a safe environment” (4.48); “Basic household hygiene is

kept well" (4.46); "My colleagues treat me with respect" (4.26); "The school provides a nurturing environment for my child with special needs" (4.16); "The cleanliness of the neighbourhood streets is good" (4.08). The general arithmetic mean is 3.80 and this means that respondents are somewhat in agreement with the *construct of* cultural issues.

Table 21

Arithmetic Mean and Standard Deviation for Cultural Issues

Item	*M*	*SD*
The bond between parents and children residing in the household is strong.	4.52	.852
The living space is located in a safe environment.	4.48	.713
Basic household hygiene is kept well.	4.46	.897
My salary is sufficient to cover household expenses.	3.17	1.230
My salary is sufficient to cover health expenses.	3.21	1.279
The nature of my job allows me to spend quality time with my special needs' child	3.74	1.149
I am secure in my plans for retirement.	3.23	1.228
My place of employment provides quality health insurance.	3.52	1.240
The household income can cover private education for my special need child.	2.34	1.278
The church community is supportive.	3.75	1.057
My colleagues treat me with respect.	4.26	.831
The school provides a nurturing environment for my child with special needs.	4.16	.833
The cleanliness of the neighbourhood streets is good.	4.08	.902
The vocabulary used in the neighbourhood is appropriate.	3.85	1.018
Cultural Issues	3.80	.494

Knowledge

Table 22 shows the Arithmetic mean for knowledge. It can be observed that the items with the lowest arithmetic means are: "Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis" (2.76); "Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders" (3.02); and "I am aware of the community supports available for a special needs

Table 22

Arithmetic Mean and Standard Deviation for Knowledge

Items	*M*	*SD*
Parent is aware of the early intervention services that are available through government funding.	3.87	1.068
I am aware of the community supports available for a special-needs child to ensure inclusion in community activities.	3.60	1.047
I am aware of the services early intervention programs have available for my child to access.	3.88	.965
Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis.	2.76	1.245
Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders?	3.02	1.217
I am satisfied with the staff's knowledge related to early intervention and developmental disabilities.	4.12	.897
Program hold meeting in which people can share ideas and opinions.	3.77	1.046
The level of communication between the parents and staff is satisfactory.	4.06	.871
I am aware of how ordinary activities are part of my child's learning and development	3.95	.947
I know more about how to set goals and strategies for my child since the program has started.	3.90	1.039
I know who to call if I have problems with the services.	4.12	.909
I can handle the challenges of parenting a child with special needs.	3.95	.898
I am more confident in my skills as a parent since the inception of the Early Intervention program.	4.11	.840
I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns.	4.35	.692
After receiving direct service through the program my knowledge of Applied Behavior Analysis is good.	3.84	.898
Knowledge	3.82	.595

child to ensure inclusion in community activities" (3.60). It is observed that the items with the highest arithmetic mean are: "I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns" (4.35); "I am satisfied with the staff's knowledge related to early intervention and developmental disabilities" (4.12); "I know who to call if I have problems with the services" (4.12); and "I am more confident in my skills as a parent since the inception of the Early Intervention program" (4.11). The total mean for the construct was 3.82, this means that the participants

are somewhat in agreement with the knowledge construct.

Marketing

Table 23 shows the arithmetic mean of the marketing variable. It can be observed that the items with the lowest arithmetic means are: “Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis” (2.76); “Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders?” (3.02); and “I am aware of the community supports available for special-needs children to ensure inclusion in community activities” (3.60). It is observed that the items with the highest arithmetic mean are: “I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns” (4.35); “I am satisfied with the staff’s knowledge related to early intervention and developmental disabilities” (4.12); “I know who to call if I have problems with the services” (4.12); and “The level of communication between the parents and staff is satisfactory” 4.06. The total mean for the construct was 3.83; this means that the respondents somewhat agree with marketing strategies utilize by Early Intervention Program.

Quality of Service

Table 24 shows the arithmetic mean of the quality of service variable. It can be observed that the items with the lowest arithmetic means are: “I see no improvement in my child’s ability to express himself/herself” (2.05); “I was offered the help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s)” (3.37); “My child has less intense behavior problems (tantrums or hitting)” (3.75). It is observed that the items with the highest arithmetic mean are: “Overall,

Table 23

Arithmetic Mean and Standard Deviation for Marketing

Items	*M*	*SD*
I know that program pamphlets are available in many different languages and can be accessible to parents when requested.	3.74	1.140
I understand the non-out of packet cost as a promotional tool for the program.	3.63	1.069
I know that Early intervention is accessible for families from diverse cultures.	4.16	.845
I am aware that the initial process of services for the customers when starting the program is quick.	3.42	1.146
I am aware that Early intervention program is effective for families from diverse cultures.	4.00	.990
I know that the parents are not obligated to take services even if child is eligible.	3.89	1.004
I am mindful that parents can't be denied services if they can't afford to pay for them.	3.64	1.191
I know that purpose of the evaluations is to help identify child's strengths and weaknesses.	4.16	.797
Parents have an overall satisfaction of early intervention program.	3.92	.863
Parents are provided with description of the available service.	3.93	.946
Parents are provided explanation of how the service work.	4.01	.878
Parents that are already using the program influence other parents positively.	3.97	.826
The program relation with parents is positive.	4.06	.835
Pediatricians are able to make referrals.	4.05	.818
The process of identifying potential clients needs improvement.	3.49	.951
The diversity of advertising media is an effective tool for recruitment.	3.64	.886
The quality of the advertising media is efficient.	3.15	1.012
The adequacy of the advertising media is effective.	3.23	.986
Marketing	3.83	.873

I am satisfied with the services my child/family received" (4.31); "The help my child is getting is based on his or her individual needs" (4.27); "The IFSP objectives in my child's plan includes activities that are appropriate for my child" (4.22). The total mean for the construct was 3.93, this means that the respondents agree with the Quality of Service.

Multiple Regression Assumptions

The dataset was cleaned to ensure normality by the elimination of 12 data points leaving the dataset at 102 data points.

For this research, the first criterion that was analyzed was the linearity through

Table 24

Arithmetic Mean and Standard Deviation for Quality of Service

Items	*M*	*SD*
Since starting the program, my child has developed socially acceptable skills.	4.13	.863
I see no improvement in my child's ability to express himself/herself.	2.05	1.193
Since starting the program, my child has learned to adapt to new people.	4.04	.846
My child learns skills, like imitating others, exploring, trial and error, etc.	4.02	.764
My child seeks help, when needed, with basic care.	3.91	.907
The program has improved my child's joint attention skills (where two people share attention to the same object).	4.01	.771
I see improvement in my child's ability to give and receive affection.	4.14	.801
My child has less intense behavior problems (tantrums or hitting).	3.75	.927
I was offered help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s).	3.37	1.147
I know who to call if I have problems with the services.	4.04	.748
My family's daily routines were considered when planning for my child's services.	4.03	.785
I feel as part of the team when meeting to discuss my child's progress.	4.16	.768
The Individualized Family Service Plan (IFSP) meeting review is keeping up with my family's changing needs.	4.01	.771
My family was given information about activities to do with child on a daily basis.	3.96	.976
I need to learn more on what my options are if I disagree with a decision about my child's services.	3.67	1.120
I am satisfied with the type and intensity of the services obtained through the Early Intervention Program.	4.17	.931
The staff listens to and responds to my concerns.	4.2	.710
The help my child is getting is based on his or her individual needs.	4.27	.687
I am informed of a variety of choices for how my child could be served.	3.95	.806
The IFSP objectives in my child's plan includes activities that are appropriate for my child.	4.22	.649
Overall, I am satisfied with the services my child/family received.	4.31	.681
I receive reasonable feedback from the service providers about the progress of my child.	4.18	.747
Quality of the service	3.93	.451

the graphs. The second criterion that was tested was the normality of the errors with the Kolmogorov-Smirnov statistic ($p > .05$). In the third criterion the independence of the errors was proven, using the Durbin-Watson test whose value is very close to this, indicates that the errors are not correlated and are independent. The fourth assumptions analyzed was the collinearity of the variables, and it was observed that the factor of the inflation of the variance (VIF) of marketing is 1.000 in Model 1 when only use this

variable for regression. In Model 2 using marketing is 2.089 and knowledge is 2.089, thus, results were less than ten for which, it is concluded that the before mentioned variables do not present collinearity. Finally, the homoscedasticity was analyzed, and it was proved that the errors have equal variances (see Appendix F).

Null Hypothesis

This section presents the null hypotheses to which the supporting statistical tables are seen in Appendix E.

H_0. The empirical model, cultural issues, knowledge, and marketing are not predictors of quality of service for the early intervention program.

Linear regression was used to test this hypothesis whereby Cultural Issues, Knowledge, and Marketing were the independent variables, and Quality of Service the dependent variable.

When applying the method of stepwise in the regression analysis, it shows that the best predictor was the variable marketing because it explained 52% of the variance of the dependent variable quality of service (see Model 1, Figure 3, Table 25). Model 1 has an *F* value equal to 97.295 and *p* value equal to .000. As it can be observed that the *p* value is less than .05, therefore, there is a positive and significant lineal correlation. Thus, the null hypothesis is rejected.

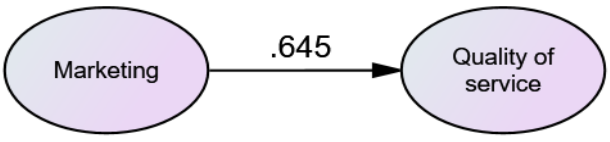


Figure 3. Model 1.

It also was observed that the variables marketing and knowledge were good predictors of quality of service. The value of R^2 adjusted was equal to .568, which means that these two variables explain 56% of variance of the dependent variable quality of Service (see Model 2, Figure 4, Table 25). Model 2 has an *F* value equal to 59.613 and *p* value equal to .000. As it can be observed that the *p* value is less than .05, therefore,

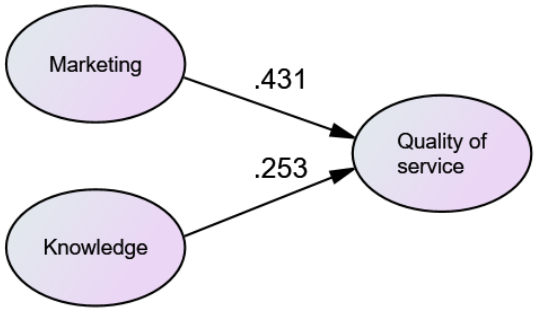


Figure 4. Model 2.

Table 25

Regression Results

Model	*R*	*R* Square	Adjusted *R* Square
1. Marketing	.725	.525	.520
2. Marketing and Knowledge	.760	.578	.568

there is a positive and significant lineal correlation. Thus, the null hypothesis is rejected.

The values of the non-standardizes *Bk* for each model were the following: (a) Model 1 B_0 equal to -.063, B_1 equal to .645 (Marketing) and (b) Model 2 B_0 equal to -.429, B_1 equal to .431 (Marketing) and B_2 equal to .253 (Knowledge).

Summary of Chapter

The chapter was quite extensive as it presented the results of the investigation. It showed the demographic data and the extent of its behavior. All the respective tests relevant to the model were presented.

CHAPTER V

CONCLUSIONS, DISCUSSIONS AND RECOMMENDATIONS

Introduction

This study purposed to explore the prediction between the independent variables cultural issues, knowledge and marketing to the dependent variable quality of service, according to the previously outlined theoretical model.

This research was considered quantitative empirical, explanatory, cross-sectional, descriptive and field.

The demographic variables were gender, age range, primary race/ethnicity, religion, years of service, number of children getting services, level of education, hours of service, type of services and place of residence.

The sample that was used in this research consisted of 102 parents of the New York State area who have experienced the service of Early Intervention for their children with special needs.

Discussions

In this section, the results are discussed and answers to the questions and initial objectives of the research by construct are presented.

Marketing

This study shows that the best predictor was the marketing variable, because it

explained 52% of the variance of the dependent variable quality of service. *Marketing* is a strategy which focuses on information giving with special attention to the structuring of the message, in order to attract the receiver and incentivize desired behavior. This notion ties in with the knowledge element in the study, since adequate knowledge is considered a motivating factor for the uptake of EI services.

Concurring with this model, the revolution of literature has demonstrated that the promotion of positive family outcomes or the marketing of the outcomes is just as important as the program features (Fabiano et al., 2016). According to Bal and Trainor (2016), this goal is dependent on the effectiveness of marketing to affected target populations as estimates have found the vast majority of eligible enrollees did not participate in Early Intervention programs due to factors primarily dependent on exposure and marketing (Bal & Trainor, 2016).

Consistent with the theorists presented above, the model presented similar findings, that the marketing variable is a good predictor for quality of services.

A look at the arithmetic mean suggested that the highest arithmetic mean corresponds to the following statements from the marketing construct: “I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns”; “I am satisfied with the staff’s knowledge related to early intervention and developmental disabilities”; “I know who to call if I have problems with the services”; and “the level of communication between the parents and staff is satisfactory”.

Meanwhile, the three lowest means correspond to the following statements: “Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis”; “Before receiving direct service through the program, I was

knowledgeable of Autistic Spectrum Disorders"; and "I am aware of the community supports available for a special-needs child to ensure inclusion in community activities". The total mean for the construct was 3.83 this means that the respondents somewhat agree with the marketing strategies utilized by Early Intervention Program.

Marketing and Knowledge

It was also observed that the variables marketing and knowledge were good predictors of quality of service. These two variables explain 56% of variance of the dependent variable Quality of Service. Uptake of EI is dependent on the parents' and extended family and/or community's knowledge of the existence and benefits of the program. This knowledge of the EI program is dependent on marketing thereof. Paynter and Keen (2015) defined knowledge in their work as the understanding of the recommended evidence-based practices and their benefits, and they applied the definition to professional and paraprofessional staff. Their work emphasized, as did others, that knowledge transfer is a necessity for greater early intervention performance (Paynter & Keen, 2015). Up to 33% of young children diagnosed with DD who took part in EI did not need special educational services upon entering kindergarten, an outcome that signifies tremendous success of EI (Ullrich et al., 2017). In another study where the Early Head Start program was evaluated, the findings indicated that participation in EI programs benefitted young children diagnosed with DD. The EI group was more likely to achieve normal milestones compared to children with DD who did not attend EI (Ullrich et al., 2017).

Conclusions

This section provided the conclusions documented for this paper. It includes

conclusions made on the arithmetic means and the null hypothesis.

Arithmetic Means

This section shows the conclusions regarding the arithmetic means.

Cultural Issues

The three highest arithmetic means corresponds to the following statements from the Cultural Issues construct: “The bond between parents and children residing in the household is strong”; “The living space is in a safe environment”; and “Basic household hygiene is kept well”. On the other hand, the items with the three lowest arithmetic means for the cultural Issues construct are: “The household income can cover private education for my special-needs child”; “My salary is sufficient to cover household expenses”; and “My salary is sufficient to cover health expenses”. The total arithmetic mean for the cultural issues variable was 3.80 indicating that the respondents are somewhat in agreement with cultural issues construct.

Knowledge

The highest arithmetic means corresponds to the following statements from the knowledge construct: “I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns”; “I am satisfied with the staff’s knowledge related to early intervention and developmental disabilities”; “I know who to call if I have problems with the services”; and “I am more confident in my skills as a parent since the inception of the Early Intervention program”. On the other hand, the three lowest means corresponds to the following statements: “Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis”;

“Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders”; and “I am aware of the community supports available for a special-needs child to ensure inclusion in community activities”. The total mean for the construct was 3.82, this means that the participants perceive the level of knowledge to be between neither agree nor disagree and agree.

Marketing

The highest arithmetic means correspond to the following statements from the Marketing construct: “I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns”; “I am satisfied with the staff’s knowledge related to early intervention and developmental disabilities”; “I know who to call if I have problems with the services”; and “the level of communication between the parents and staff is satisfactory”. Meanwhile, the three lowest means correspond to the following statements: “Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis”; “Before receiving direct service through the program I was knowledgeable of Autistic Spectrum Disorders”; and “I am aware of the community supports available for a special-needs child to ensure inclusion in community activities”. The total mean for the construct was 3.83, this means that the respondents somewhat agree with marketing strategies utilized by Early Intervention Program.

Quality of Service

The highest arithmetic means correspond to the following statements from the quality of service construct: It is observed that the items with the highest arithmetic

mean are: “Overall, I am satisfied with the services my child/family received”; “The help my child is getting is based on his or her individual needs”; and “The IFSP objectives in my child’s plan includes activities that are appropriate for my child”. Alternatively, the three lowest means correspond to the following statements: “I see no improvement in my child’s ability to express himself/herself”; “I was offered the help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s)”; and “My child has less intense behavior problems (tantrums or hitting)”. The total mean for the construct was 3.93; this means that the respondents agree with the quality of service.

Principal Hypothesis

The results of the model are described below in this section.

The declaration of the null hypothesis was expressed as follows: Cultural Issues, Knowledge and Marketing are not predictors of the Quality of Service in the New York State area.

Linear regression was used by the method of stepwise regression. This revealed that the variable marketing accounts for 52% of the variance of the independent variables, and quality of service the dependent variable. It was also revealed that the variables marketing and knowledge were good predictors of quality of service. The value of R^2 adjusted was equal to .568, which means that these two variables explain 56% of variance of the dependent variable quality of service.

When evaluating the influence of independent constructs through the standardized beta coefficients, it was found that cultural issues was not a good predictor, thus it was eliminated from the model. The first model indicated that marketing was a good

predictor of quality of service. The last model shows that marketing and knowledge combined can also be good predictors of quality of service.

In the empirical model, cultural issues, knowledge, and marketing are not predictors of quality of service for the early intervention program.

Linear regression was used to test this hypothesis, whereby it can therefore be concluded/affirmed that the independent variables knowledge and marketing play a significant role in the dependent variable quality of service through early intervention in the New York State area. The empirical evidence therefore rejects the null hypothesis in that knowledge and marketing are not predictors of the quality of service in the Early Intervention Program.

Recommendations

The results of the investigation lead to some recommendations:

To the Early Intervention Providers and Administrators

The Early Intervention administrators and providers should make information and training for parents accessible about the availability of resources, due to the following:

1. Parents are saying that they do not have prior concept of Early Intervention prior to getting services.

2. Parents are saying they do not have prior knowledge of Autistic Spectrum Disorder.

3. Parents are saying that they are unaware of community support programs for special-needs children.

4. Parents are saying they do not have prior concept of Applied Behavior Analysis.

For Future Research

This section presents recommendations for future studies**.**

1. Replicate the study in a larger scale throughout all the New York State area.

2. Replicate the study and formulate a new model that includes the cultural competency of the early intervention providers with regard to the families they serve.

3. Minorities continue to have a low percentage of enrollment in Early Intervention programs, therefore more research needs to be done to dig deeper into finding the root cause for this low enrollment.

APPENDIX A

INSTRUMENT

QUESTIONNAIRE:
A Research Study on the Quality of Services in the Early Intervention Program

Dear Participant,

This questionnaire is intended to gather research data in pursuit of a PHD in Business Administration. The information you provide will help us better understand the quality of services in the early intervention program by assessing the satisfaction of parents whose children have participated in the program.

Kindly complete demographic section, then proceed to items in the tables using the rating scale on the right-hand column to indicate responses. Use a pen to **place an "X" in the box under the number following each item that reflects your honest opinion**. Do not write your name or any identifying information on the survey. All responses are confidential.

Thanks for your willing participation!

Sincerely,

Chirlene Barthelemy

DEMOGRAPHIC DATA SECTION

Please place an "x" in the box of the answers that applies to you:

Gender	❑ Male ❑ Female
Age Range	**Select the answer that applies to you:** ❑ Under 17 to 20 ❑ 21 to 31 ❑ 32 to 42 ❑ 43 to 53+
Primary race/ethnicity	❑ African-American/Black ❑ Hispanic/Latino ❑ Asian/Pacific Island ❑ Native American ❑ White/Caucasian ❑ Other specify_____
Religion	Please Specify_____
How long have you been receiving Early Intervention services?	❑ 0-1year ❑ 2 years ❑ 3+ years
Number of Children getting services	**Number of children who are receiving or received Early Intervention services:** ❑ 1 Child ❑ 2 children ❑ 3 children ❑ 4+Children
Level of education	❑ High School ❑ Associate ❑ Bachelors ❑ Masters ❑ Doctorate ❑ Other specify _____
Hours of Services	**How many hours per week does/did your child received Early Intervention?** ❑1-2hrs ❑ 3-5 hrs ❑ 6-8 hrs ❑ 9-11 hrs ❑12-14 hrs ❑15-16+ hrs
What early intervention services has your child received in the past?	❑ Behavioral Consultant ❑ Behavioral Intervention ❑ Occupational Therapy ❑ Speech Therapy ❑ Physical Therapy ❑ Other specify _____
Currently live in: (Please check one)	❑ Brooklyn ❑ Queens ❑Bronx ❑NYC ❑Staten Island ❑ Nassau County ❑ Suffolk County ❑ Other specify_____

CULTURAL ISSUES

Please place an "x" in the box of the answers that applies to you.

Rating scale				
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Cultural Issues		**Rate**				
How much do I agree with the following statement?		**1**	**2**	**3**	**4**	**5**
1	There is a nurturing relationship between my child with special needs and his/her siblings.					
2	The bond between parents and children residing in the household is strong.					
3	Other family members are distant with little or no relationship with a special-needs child.					
4	The living space is small to adequately care for a special-needs child.					
5	The living space is located in a safe environment.					
6	The atmosphere of the household is disruptive to the emotional support of child with special needs.					
7	Basic household hygiene is kept well.					
8	Child's academic functioning is priority.					
9	Encouragement for the children's academic improvement and achievement is lacking within the household.					
10	My family is unsupportive of the Early Intervention program.					
11	My salary is sufficient to cover household expenses.					
12	My salary is sufficient to cover health expenses.					
13	As the only income earner in the household, I cannot afford to lose my job.					
14	The nature of my job allows me to spend quality time with my special-needs child.					
15	I am secure in my plans for retirement.					
16	My place of employment provides quality health insurance.					
17	The household income can cover private education for my special need child.					
18	My household spending is on a budget.					
19	The neighbors are sensitive to special-needs children.					
20	The treatment of my family members is unpredictable.					
21	The moral quality of the people in the neighborhood is low.					
22	The church community is supportive.					
23	My children face social isolation within the community.					

24	The attitude of church members toward the Early Intervention program is positive.					
25	My colleagues treat me with respect.					
26	The school provides a nurturing environment for my child with special needs.					
27	The cleanliness of the neighborhood streets is good.					
28	The vocabulary used in the neighborhood is appropriate.					
29	The recreational activities in my neighbourhood is lacking in creativity.					
30	The attention offered to children with special needs in my child's school is lacking.					
31	Opportunities to special-needs children are offered freely in my neighborhood.					

KNOWLEDGE

Please place an "x" in the box of the answers that applies to you.

Rating scale				
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Knowledge		**Rate**				
How much do I agree with the following statement?		**1**	**2**	**3**	**4**	**5**
1	Parent is aware of the early intervention services that are available through government funding.					
2	I am aware of the community supports available for special needs-children to ensure inclusion in community activities.					
3	I am aware of the services early intervention programs have available for my child to access.					
4	Parent is aware of what services are available for a child diagnosed with Autism Spectrum Disorder.					
5	A parent should take their child to another doctor, if a doctor tells a worried parent to wait and see if a child outgrows a developmental problem.					
6	Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis.					
7	Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders?					
8	I am satisfied with the staff's knowledge related to early intervention and developmental disabilities.					

9	Program hold meeting in which people can share ideas and opinions.					
10	The IFSP review meetings provides an open forum where up-dated knowledge can be shared regarding changes in services and program.					
11	The level of communication between the parents and staff is satisfactory.					
12	I am unaware my rights when my child is ineligible for early intervention services.					
13	I am aware of how ordinary activities are part of my child's learning and development					
14	I know more about how to set goals and strategies for my child since the program has started.					
15	I know who to call if I have problems with the services.					
16	I can handle the challenges of parenting a child with special needs.					
17	I am more confident in my skills as a parent since the inception of the Early Intervention program.					
18	The best time to get help for children with autism is before the age of two.					
19	The behavior that most suggest that a child may have autism is when child is not using words by age two and loses some words.					
20	I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns.					
21	After receiving direct service through the program my knowledge of Applied Behavior Analysis is good.					

MARKETING

Please place an "x" in the box of the answers that applies to you.

Rating scale				
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Marketing		**Rate**				
How much do I agree with the following statement?		**1**	**2**	**3**	**4**	**5**
1	I know that program pamphlets are available in many different languages and can be accessible to parents when requested.					
2	I understand the non-out of packet cost as a promotional tool for the program.					

3	I know that early intervention is accessible for families from diverse cultures.					
4	I am aware that the initial process of services for the customers when starting the program is quick.					
5	I am aware that Early intervention program is effective for families from diverse cultures.					
6	I know that the parents are not obligated to take services even if child is eligible.					
7	I am mindful that parents can't be denied services if they can't afford to pay for them.					
8	I know that purpose of the evaluations is to help identify child's strengths and weaknesses.					
9	Parents have an overall satisfaction of early intervention program.					
10	Parents are provided with description of the available service.					
11	Parents are provided explanation of how the service work.					
12	Parents that are already using the program influence other parents positively.					
13	The program relation with parents is positive.					
14	Pediatricians are able to make referrals.					
15	The process of identifying potential clients needs improvement.					
16	The diversity of advertising media is an effective tool for recruitment.					
17	The quality of the advertising media is efficient.					
18	The adequacy of the advertising media is effective.					

QUALITY OF SERVICE

Please place an "x" in the box of the answers that applies to you.

Rating scale				
Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	**2**	**3**	**4**	**5**

Quality of Service		**Rate**				
How much do I agree with the following statement?		**1**	**2**	**3**	**4**	**5**
1	Since starting the program, my child has developed socially acceptable skills.					
2	I see no improvement in my child's ability to express himself/herself.					
3	Since starting the program, my child has learned to adapt to new people.					

4	My child learns skills, like imitating others, exploring, trial and error, etc.					
5	I see no improvement in my child's knowledge of basic concepts, such as colors and shapes.					
6	My child seeks help, when needed, with basic care.					
7	The program has improved my child's joint attention skills (where two people share attention to the same object).					
8	I see improvement in my child's ability to give and receive affection.					
9	My child has less intense behavior problems (tantrums or hitting).					
10	I was offered help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s).					
11	I know who to call if I have problems with the services.					
12	My family's daily routines were considered when planning for my child's services.					
13	I feel as part of the team when meeting to discuss my child's progress.					
14	The Individualized Family Service Plan (IFSP) meeting review is keeping up with my family's changing needs.					
15	My family was given information about activities to do with child on a daily basis.					
16	I need to learn more on what my options are if I disagree with a decision about my child's services.					
17	Before receiving direct service through the program, I anticipated the program to be a success for me and my child.					
18	I am satisfied with the type and intensity of the services obtained through the Early Intervention Program.					
19	The staff listens to and responds to my concerns.					
20	In my meetings with the staff for (testing, conferences, IFSP, Reviews, etc.), I feel I am an active member of the team.					
21	The help my child is getting is based on his or her individual needs.					
22	The program disrupts my family's routine and activities.					
23	I am informed of a variety of choices for how my child could be served.					
24	The IFSP objectives in my child's plan includes activities that are appropriate for my child.					
25	Overall, I am satisfied with the services my child/family received.					
26	I receive reasonable feedback from the service providers about the progress of my child.					

Thank you for participating!

APPENDIX B

INSTRUMENT VALIDITY

CULTURAL ISSUES

Evaluation of clarity and relevance of the instrument Leadership style

We thank you for your participation in the validation of this questionnaire. Within the process of elaboration, the validation of the questionnaire is crucial and for that, the support of experts that judge each one of the statements that is included in the questionnaire is required. It is for this that I ask politely for your support in the revision of the next statements. Please read each one of the next statements and grade, marking an "x", on the scale that is presented next.

VARIABLE: Cultural Issues

Cultural Issues relates Culture refers to the ideas, beliefs, values, and knowledge, constituting the shared bases of social action in a specific ethnic group. Cultural sensitivity relates to the behaviors, policies, etc. as they are structure in a system or within an organization that makes it possible to relate in cross-cultural environments.

Measurement scale of level of Clarity			Measurement scale of level of Pertinence		
Clarity Intelligent, easy to understand, drafting and correct expression of the idea.	**1**	Totally Confused	**Pertinence** "Timely, adequate, in relation to the definition, relevance"	**1**	Totally impertinent
	2	Confused		**2**	Impertinent
	3	Somewhat clear		**3**	Somewhat pertinent
	4	Clear		**4**	Pertinent
	5	Totally Clear		**5**	Totally pertinent

To measure the variable, the following scale is used:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
2	3	4		5

Clarity					Family Environment	Pertinence				
1	2	3	4	5		1	2	3	4	5
					There is a nurturing relationship between my child with special needs and his/her siblings.					
					The bond between parents and children residing in the household is strong.					
					Other family members are distant with little or no relationship with special-needs children.					
					The living space is small in size to adequately care for a special-needs child.					
					The living space is located in a safe environment.					
					The atmosphere of the household is disruptive to the emotional support of child with special needs.					
					Basic household hygiene is kept well.					
					Child's academic functioning is priority.					
					Encouragement for the children's academic improvement and achievement is lacking within the household.					
					My family is unsupportive of the Early Intervention program.					

Clarity					Economic Environment	Pertinence				
1	2	3	4	5		1	2	3	4	5
					My salary is sufficient to cover household expenses.					
					My salary is sufficient to cover health expenses.					
					As the only income earner in the household, I cannot afford to lose my job.					
					The nature of my job allows me to spend quality time with my special-needs child.					
					I am secure in my plans for retirement.					
					My place of employment provides quality health insurance.					
					The household income can cover private education for my special need child.					
					My household spending is on a budget.					

Clarity					Social Environment	Pertinence				
1	2	3	4	5		1	2	3	4	5
					The neighbors are sensitive to special-needs children.					
					The treatment of my family members is unpredictable.					
					The moral quality of the people in the neighborhood is low.					
					The church community is supportive.					
					My children face social isolation within the community.					
					The attitude of church members toward the Early Intervention program is positive.					
					My colleagues treat me with respect.					
					The school provides a nurturing environment for my child with special needs.					
					The cleanliness of the neighborhood streets is good.					
					The vocabulary used in the neighborhood is appropriate.					
					The recreational activities in my neighborhood is lacking in creativity.					
					The attention offered to children with special needs in my child's school is lacking.					
					Opportunities for special-needs children are offered freely in my neighborhood.					

KNOWLEDGE

Evaluation of clarity and relevance of the instrument Leadership style

We thank you for your participation in the validation of this questionnaire. Within the process of elaboration, the validation of the questionnaire is crucial and for that, the support of experts that judge each one of the statements that is included in the questionnaire is required. It is for this that I ask politely for your support in the revision of the next statements. Please read each one of the next statements and grade, marking an "x", on the scale that is presented next.

VARIABLE: Knowledge

Knowledge is the willingness to act on one's understanding of a matter. This meaning of knowledge is used in this thesis, as parents need to act on their knowledge of Early Intervention if their young children stand to benefit from the system.

Measurement scale of level of Clarity			Measurement scale of level of Pertinence		
Clarity Intelligent, easy to understand, drafting and correct expression of the idea.	**1**	Totally Confused	**Pertinence** "Timely, adequate, in relation to the definition, relevance"	**1**	Totally impertinent
	2	Confused		**2**	Impertinent
	3	Somewhat clear		**3**	Somewhat pertinent
	4	Clear		**4**	Pertinent
	5	Totally Clear		**5**	Totally pertinent

To measure the variable, the following scale is used:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

larity					Awareness	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Parent is aware of the early intervention services that are available through government funding.					
					I am aware of the community supports available for a special-needs child to ensure inclusion in community activities.					
					I am aware of the services early intervention programs have available for my child to access.					
					Parent is aware of what services are available for a child diagnosed with Autism Spectrum Disorder.					
					A parent should take their child to another doctor, if a doctor tells a worried parent to wait and see if a child outgrows a developmental problem.					

Clarity					Knowledge management	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis.					
					Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders?					
					I am satisfied with the staff's knowledge related to early intervention and developmental disabilities.					

Clarity					Knowledge Distribution	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Program hold meeting in which people can share ideas and opinions.					
					The IFSP review meetings provides an open forum where updated knowledge can be shared regarding changes in services and program.					
					The level of communication between the parents and staff is satisfactory.					

Clarity					Application	Pertinence				
1	2	3	4	5		1	2	3	4	5
					I am unaware my rights when my child is ineligible for early intervention services.					
					I am aware of how ordinary activities are part of my child's learning and development					
					I know more about how to set goals and strategies for my child since the program has started.					
					I know who to call if I have problems with the services.					
					I can handle the challenges of parenting a child with special needs.					
					I am more confident in my skills as a parent since the inception of the Early Intervention program.					

Clarity					Acquisition	Pertinence				
1	2	3	4	5		1	2	3	4	5
					The best time to get help for children with autism is before the age of two.					
					The behavior that most suggest that a child may have autism is when child is not using words by age two and loses some words.					

					I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns.					
					After receiving direct service through the program my knowledge of Applied Behavior Analysis is good.					

MARKETING

Evaluation of clarity and relevance of the instrument of Work Commitment

We thank you for your participation in the validation of this questionnaire. Within the process of elaboration, the validation of the questionnaire is crucial and for that, the support of experts that judge each one of the statements that is included in the questionnaire is required. It is for this that I ask politely for your support in the revision of the next statements. Please read each one of the next statements and grade, marking an "x", on the scale that is presented next.

Measurement scale of level of Clarity			Measurement scale of level of Pertinence		
Clarity Intelligent, easy to understand, drafting and correct expression of the idea.	**1**	Totally Confused	**Pertinence** "Timely, adequate, in relation to the definition, relevance"	**1**	Totally impertinent
	2	Confused		**2**	Impertinent
	3	Somewhat clear		**3**	Somewhat pertinent
	4	Clear		**4**	Pertinent
	5	Totally Clear		**5**	Totally pertinent

VARIABLE:

Marketing This is a strategy which focuses on information giving with special attention to the structuring of the message, in order to attract the receiver and would incentivize a desired behavior. This notion ties in with the knowledge element in this study since adequate knowledge is considered a motivating factor for the uptake of EI services.

To measure the variable, the following scale is used:				
Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly Agree**
1	**2**	**3**	**4**	**5**

Clarity					**Advertising**	**Pertinence**				
1	**2**	**3**	**4**	**5**		**1**	**2**	**3**	**4**	**5**
					Program pamphlets are available in many different languages can be accessible to parents when requested.					

					Non-out of packet cost program as a promotional tool.					
					Early intervention is accessible for families from diverse cultures.					
					The utility of the service for the customer when starting the program.					
					Early intervention is effective for families from diverse cultures.					
					The evaluation process is free and parents are not obligated to take services.					
					Parents can't be denied services if they can't afford to pay for them.					
					Evaluations can help identify child's strengths and weaknesses.					

Clarity					Networking	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Parents have an overall satisfaction of early intervention program.					
					Parents are provided with description of the available service.					
					Parents are provided explanation of how the service work.					
					Parents that are already using the program influence other parents positively.					
					The program relation with parents is positive.					
					Strategies to keep current customers are effective.					
					Pediatrician are able to make referrals.					
					The intensity and variety of client participation in the program is due to positive word-of-mouth.					

Clarity					Outreach	Pertinence				
1	2	3	4	5		1	2	3	4	5
					The process of identification of potential clients needs improvement.					
					The clients' needs are met.					
					The diversity of advertising media is an effective tool for recruitment.					
					The quality of the advertising media is efficient.					
					The adequacy of the advertising media is effective.					

QUALITY OF SERVICE

Evaluation of clarity and relevance of the instrument Education

We thank you for your participation in the validation of this questionnaire. Within the process of elaboration, the validation of the questionnaire is crucial and for that, the support of experts that judge each one of the statements that is included in the questionnaire is required. It is for this that I ask politely for your support in the revision of the next statements. Please read each one of the next statements and grade, marking an "x", on the scale that is presented next.

VARIABLE: Quality of Service

Quality of services (program) refers to the clients' evaluation of whether the service (program) met their anticipated outcomes or expectations.

Measurement scale of level of Clarity			Measurement scale of level of Pertinence		
Clarity Intelligent, easy to understand, drafting and correct expression of the idea.	**1**	Totally Confused	**Pertinence** "Timely, adequate, in relation to the definition, relevance"	**1**	Totally impertinent
	2	Confused		**2**	Impertinent
	3	Somewhat clear		**3**	Somewhat pertinent
	4	Clear		**4**	Pertinent
	5	Totally Clear		**5**	Totally pertinent

To measure the variable, the following scale is used:

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
1	2	3	4	5

Clarity					Program effectiveness	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Since starting the program, my child has developed socially acceptable skills.					
					I see no improvement in my child's ability to express himself/herself.					
					Since starting the program, my child has learned to adapt to new people.					
					My child learns skills, like imitating others, exploring, trial and error, etc.					
					I see no improvement in my child's knowledge of basic concepts, such as colors and shapes.					
					My child seeks help, when needed, with basic care.					
					The program has improved my child's joint attention skills (where two people share attention to the same object).					

					I see improvement in my child's ability to give and receive affection.					
					My child has less intense behavior problems (tantrums or hitting).					

Clarity					Customer Service	Pertinence				
1	2	3	4	5		1	2	3	4	5
					I was offered help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting (s).					
					I know who to call if I have problems with the services.					
					My family's daily routines were considered when planning for my child's services.					
					I feel as part of the team when meeting to discuss my child's progress.					
					The Individualized Family Service Plan (IFSP) meeting review is keeping up with my family's changing needs.					
					My family was given information about activities to do with child on a daily basis.					
					I need to learn more on what my options are if I disagree with a decision about my child's services.					

Clarity					Program Evaluation	Pertinence				
1	2	3	4	5		1	2	3	4	5
					Before receiving direct service through the program, I anticipated the program to be a success for me and my child.					
					I am satisfied with the type and intensity of the services obtained through the Early Intervention Program.					
					The staff listens to and responds to my concerns.					
					In my meetings with the staff for (testing, conferences, IFSP, Reviews, etc.), I feel I am an active member of the team.					
					The help my child is getting is based on his or her individual needs.					
					The program disrupts my family's routine and activities.					
					I am informed of a variety of choices for how my child could be served.					

					The IFSP objectives in my child's plan includes activities that are appropriate for my child.					
					Overall, I am satisfied with the services my child/family received.					
					I receive reasonable feedback from the service providers about the progress of my child.					

APPENDIX C

VALIDITY OF CONSTRUCT

CULTURAL ISSUES

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.731
Bartlett's Test of Sphericity	Approx. Chi-Square	508.839
	Df	105
	Sig.	.000

Communalities

	Initial	Extraction
CIFE2	1.000	.320
CIFE5	1.000	.429
CIFE7	1.000	.410
CIEE1	1.000	.621
CIEE2	1.000	.768
CIEE4	1.000	.290
CIEE5	1.000	.661
CIEE6	1.000	.639
CIEE7	1.000	.543
CISE4	1.000	.722
CISE6	1.000	.782
CISE7	1.000	.534
CISE8	1.000	.290
CISE9	1.000	.549
CISE10	1.000	.435

Reliability Statistics

Cronbach's Alpha	N of Items
.791	15

KNOWLEDGE

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.853
Bartlett's Test of Sphericity	Approx. Chi-Square	1132.070
	Df	210
	Sig.	.000

Table 3

Communalities

	Initial	Extraction
KNAW1	1.000	.762
KNAW2	1.000	.665
KNAW3	1.000	.744
KNAW4	1.000	.663
KNAW5	1.000	.524
KNKM1	1.000	.813
KNKM2	1.000	.846
KNKM3	1.000	.761
KNKD1	1.000	.526
KNKD2	1.000	.582
KNKD3	1.000	.719
KNAP1	1.000	.661
KNAP2	1.000	.585
KNAP3	1.000	.717
KNAP4	1.000	.662
KNAP5	1.000	.647
KNAP6	1.000	.547
KNAQ1	1.000	.675
KNAQ2	1.000	.550
KNAQ3	1.000	.615
KNAQ4	1.000	.744

Reliability Statistics

Cronbach's Alpha	N of Items
.894	21

MARKETING

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.845
Bartlett's Test of Sphericity	Approx. Chi-Square	1059.573
	Df	153
	Sig.	.000

Communalities

	Initial	Extraction
MAAD1	1.000	.692
MAAD2	1.000	.449
MAAD3	1.000	.707
MAAD4	1.000	.584
MAAD5	1.000	.542
MAAD6	1.000	.504
MAAD7	1.000	.294
MAAD8	1.000	.579
MAN1	1.000	.644
MAN2	1.000	.636
MAN3	1.000	.729
MAN4	1.000	.612
MAN5	1.000	.623
MAN6	1.000	.569
MAO1	1.000	.416
MAO2	1.000	.416
MAO3	1.000	.860
MAO4	1.000	.834

Reliability Statistics

Cronbach's Alpha	N of Items
.899	18

QUALITY OF SERVICE

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	1792.792
	Df	325
	Sig.	.000

Table 3

Communalities

	Initial	Extraction
QSPE1	1.000	.672
QSPE2	1.000	.711
QSPE3	1.000	.745
QSPE4	1.000	.521
QSPE5	1.000	.754
QSPE6	1.000	.588
QSPE7	1.000	.499
QSPE8	1.000	.539
QSPE9	1.000	.334
QSCS1	1.000	.352
QSCS2	1.000	.577
QSCS3	1.000	.605
QSCS4	1.000	.644
QSCS5	1.000	.609
QSCS6	1.000	.421
QSCS7	1.000	.416
QSPEV1	1.000	.175
QSPEV2	1.000	.654
QSPEV3	1.000	.700
QSEV4	1.000	.676
QSPEV5	1.000	.689
QSPEV6	1.000	.470
QSPEV7	1.000	.613
QSPEV8	1.000	.751
QSPEV9	1.000	.718
QSPEV10	1.000	.688

Reliability Statistics

Cronbach's Alpha	N of Items
.809	26

APPENDIX D

OPERATIONALIZATION OF VARIABLES

Operationalization of the variable knowledge

Variables	Conceptual Definition	Instrumental Definition	Operational definition
Knowledge	Knowledge is the willingness to act on one's understanding of a matter. This meaning of knowledge is used in this thesis, as parents need to act on their knowledge of Early Intervention if their young children stand to benefit from the system.	The degree of Knowledge was determined by means of the following 21 items, under the scale: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree 1 Parent is aware of the early intervention services that are available through government funding. 2. I am aware of the community supports available for a special-needs child to ensure inclusion in community activities. 3. I am aware of the services early intervention programs have available for my child to access. 4. Parent is aware of what services are available for a child diagnosed with Autism Spectrum Disorder. 5. A parent should take their child to another doctor, if a doctor tells a worried parent to wait and see if a child outgrows a developmental problem. 6. Before receiving direct service through the program, I was already knowledgeable of Applied Behavior Analysis. 7. Before receiving direct service through the program, I was knowledgeable of Autistic Spectrum Disorders. 8. I am satisfied with the staff's knowledge related to early intervention and developmental disabilities. 9. Program hold meeting in which people can share ideas and opinions. 10. The IFSP review meetings provides an open forum where updated knowledge can be shared regarding changes in services and program. 11. The level of communication between the parents and staff is satisfactory. 12. I am unaware my rights when my child is ineligible	To measure the degree of knowledge, data was obtained from parents whose children receive(d) early intervention services in the New York are through the measure of 21 items. The variable was considered as metric. To make the approach of the conclusions of this study, the following equivalence was determined for the scale used: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

	for early intervention services. 13. I am aware of how ordinary activities are part of my child's learning and development 14. I know more about how to set goals and strategies for my child since the program has started. 15. I know who to call if I have problems with the services. 16. I can handle the challenges of parenting a child with special needs. 17. I am more confident in my skills as a parent since the inception of the Early Intervention program t 18. The best time to get help for children with autism is before the age of two. 19. The behavior that most suggest that a child may have autism is when child is not using words by age two and loses some words. 20. I look for developmental milestones my child should be reaching in terms of how he plays, acts, speaks, and learns. 21. After receiving direct service through the program my knowledge of Applied Behavior Analysis is good.

Operationalization of the variable marketing

Variables	Conceptual Definition	Instrumental Definition	Operational definition
Marketing	Marketing This is a strategy which focuses on information giving with special attention to the structuring of the message, in order to attract the receiver and would incentivize a desired behavior.	The degree of marketing was determined by means of the following 18 items, under the scale: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree 1 I know that program pamphlets are available in many different languages and can be accessible to parents when requested. 2. I understand the non-out of packet cost as a promotional tool for the program. 3. I know that Early intervention is accessible for families from diverse cultures. 4. I am aware that the initial process of services for the customers when starting the program is quick. 5. I am aware that Early intervention program is effective for families from diverse cultures. 6. I know that the parents are not obligated to take services even if child is eligible. 7. I am mindful that parents can't be denied services if they can't afford to pay for them. 8. I know that purpose of the evaluations is to help identify child's strengths and weaknesses. 9. Parents have an overall satisfaction of early intervention program. 10. Parents are provided with description of the available service. 11. Parents are provided explanation of how the service work. 12. Parents that are already using the program influence other parents positively. 13. The program relation with parents is positive. 14. Pediatricians are able to make referrals. 15. The process of identifying potential clients needs improvement.	To measure the degree of marketing, data was obtained from parents whose children receive(d) early intervention services in the New York are through the measure of 18 items. The variable was considered as metric. To make the approach of the conclusions of this study, the following equivalence was determined for the scale used: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

		16. The diversity of advertising media is an effective tool for recruitment 17. The quality of the advertising media is efficient. 18. The adequacy of the advertising media is effective.

Operationalization of the variable quality of service

Variables	Conceptual Definition	Instrumental Definition	Operational definition
Quality of service	Quality of services (program) refers to the clients' evaluation of whether the service (program) met their anticipated outcomes or expectations.	The degree of quality of service was determined by means of the following 26 items, under the scale: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree 1 Since starting the program, my child has developed socially acceptable skills 2. I see no improvement in my child's ability to express himself/herself. 3 Since starting the program, my child has learned to adapt to new people. 4. My child learns skills, like imitating others, exploring, trial and error, etc. 5. I see no improvement in my child's knowledge of basic concepts, such as colors and shapes. 6. My child seeks help, when needed, with basic care. 7. The program has improved my child's joint attention skills (where two people share attention to the same object). 8. I see improvement in my child's ability to give and receive affection. 9. My child has less intense behavior problems (tantrums or hitting). 10. I was offered help I needed, such as child care or transportation, to participate in the Individualized Family Service Plan (IFSP) meeting(s). 11. I know who to call if I have problems with the services.	To measure the degree of quality of service, data was obtained from parents whose children receive(d) early intervention services in the New York are through the measure of 26 items. The variable was considered as metric. To make the approach of the conclusions of this study, the following equivalence was determined for the scale used: 1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree

12. My family's daily routines were considered when planning for my child's services.
13. I feel as part of the team when meeting to discuss my child's progress.
14. The Individualized Family Service Plan (IFSP) meeting review is keeping up with my family's changing needs.
15. My family was given information about activities to do with child on a daily basis.
16. I need to learn more on what my options are if I disagree with a decision about my child's services.
17. Before receiving direct service through the program, I anticipated the program to be a success for me and my child.
18. I am satisfied with the type and intensity of the services obtained through the Early Intervention Program.
19. The staff listens to and responds to my concerns.
20. In my meetings with the staff for (testing, conferences, IFSP, Reviews, etc.), I feel I am an active member of the team.
21. The help my child is getting is based on his or her individual needs.
22. The program disrupts my family's routine and activities.
23. I am informed of a variety of choices for how my child could be served.
24. The IFSP objectives in my child's plan includes activities that are appropriate for my child.
25. Overall, I am satisfied with the services my child/family received.
26. I receive reasonable feedback from the service providers about the progress of my child.

APPENDIX E

DEMOGRAPHIC VARIABLES

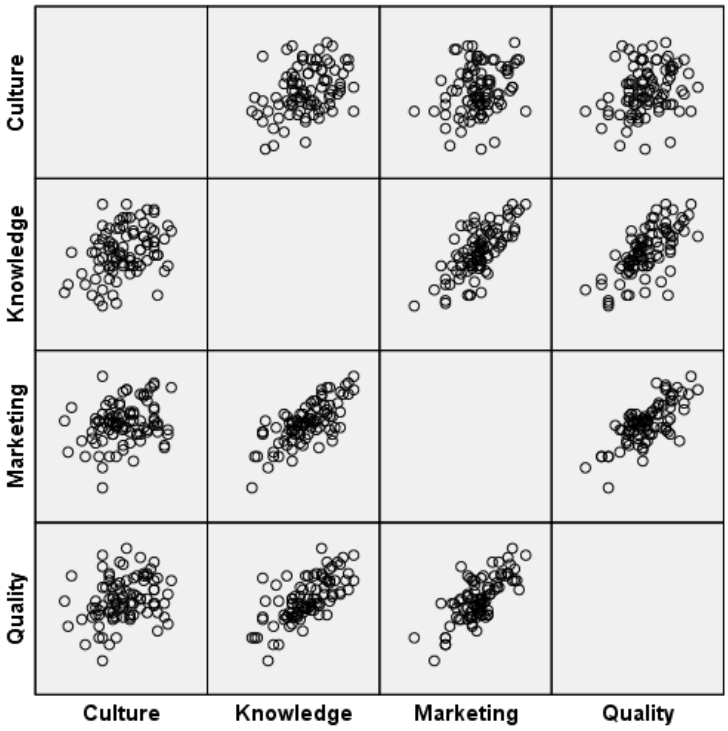
Distribution of participants by Gender

Gender	*N*	%
Male	22	22.4
Female	76	77.6
Total	98	100.0

APPENDIX F

MULTIPLE REGRESSION ASSUMPTIONS

Test of linearity through the graphs



2. Test for normality of the errors with the Kolmogorov-Smirnov statistic (p> .05

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Standardized Residual	.079	90	.200*	.979	90	.155

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

3.Durbin Watson

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.725[a]	.525	.520	.31284	
2	.760[b]	.578	.568	.29654	1.764

a. Predictors: (Constant), Marketing

b. Predictors: (Constant), Marketing, Knowledge

c. Dependent Variable: Quality

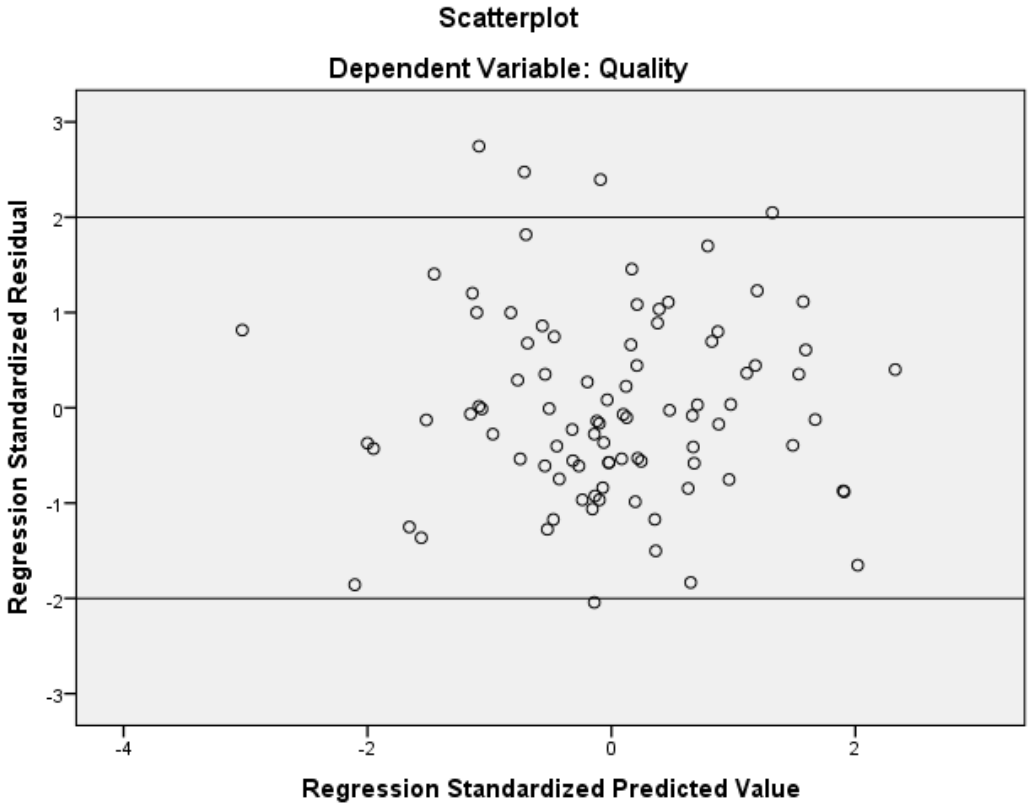
4. The factor of the inflation of the variance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.465	.253		5.787	.000		
	Marketing	.645	.065	.725	9.864	.000	1.000	1.000
2	(Constant)	1.320	.244		5.412	.000		
	Marketing	.431	.090	.484	4.812	.000	.479	2.089
	Knowledge	.253	.076	.333	3.308	.001	.479	2.089

a. Dependent Variable: Quality

5.Homoscedasticity



APPENDIX G

NULL HYPOTHESIS ANALYSIS

Null hypothesis

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.725[a]	.525	.520	.31284	
2	.760[b]	.578	.568	.29654	1.764

a. Predictors: (Constant), Marketing

b. Predictors: (Constant), Marketing, Knowledge

c. Dependent Variable: Quality

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.522	1	9.522	97.295	.000[b]
	Residual	8.613	88	.098		
	Total	18.135	89			
2	Regression	10.485	2	5.242	59.613	.000[c]
	Residual	7.651	87	.088		
	Total	18.135	89			

a. Dependent Variable: Quality

b. Predictors: (Constant), Marketing

c. Predictors: (Constant), Marketing, Knowledge

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.465	.253		5.787	.000		
	Marketing	.645	.065	.725	9.864	.000	1.000	1.000
2	(Constant)	1.320	.244		5.412	.000		
	Marketing	.431	.090	.484	4.812	.000	.479	2.089
	Knowledge	.253	.076	.333	3.308	.001	.479	2.089

a. Dependent Variable: Quality

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CURRICULUM VITAE

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Experience:

Department of Health, Uniondale, NY

Early Intervention Initial Service Coordinator 4/2015 to Present

- Assist the parents in obtaining access to services, including making referrals to providers and scheduling appointments;
- Coordinate Early Intervention services and other services (for example, medical or social) that the child may need or may be receiving;
- Coordinate evaluations and assessments;
- Facilitate and participate in the development, review, and evaluation of Individualized Family Service Plans (IFSPs);
- Ensure services are provided in a timely manner;
- Inform families of their rights and procedural safeguards;
- Coordinate the funding sources for Early Intervention services; and
- Facilitate the development of a transition plan to preschool, school, or to other services.

Odyssey House New York, N.Y.

Senior Vocational Rehabilitation Counselor 3/2001 to 01/2015

- Participated in interdisciplinary meetings.
- Provided active participation in the hiring process as well as implemented orientation plan for new employees.
- Responsible for referring clients to GED programs.
- Conducted weekly educational groups providing career exploration, job preparation skills, college application process as well as coordinate college tours.
- Provided individual weekly supervision to interns and submitted a performance evaluation report at the end of each semester.
- Submitted monthly statistical OASAS report.
- Counseled and managed a caseload of over ninety alcoholic and substance abuse individuals in residential facility.
- Served as liaison with Adult Career and Continuing Education Services – Vocational Rehabilitation (ACCES-VR).
- Determined suitable training/job consistent with individual desires, aptitudes and physical, mental and emotional limitations.

New York Foundling Hospital New York, N.Y.
Social Worker 8/99 to 2/01

- Managed a caseload of 16 foster care specialized needs children.
- Conducted case planning with biological family, children/youth, and foster parents.
- Worked with children/youth with specialized needs including developmental disabilities, mental retardation, severe behavioral problems, and HIV/Aids.
- Provided counseling and coordinated services to families with substance abuse issues through referrals to community resources.
- Submitted monthly reports and maintained on-going contact with ACS, family court, school, medical facility, and mental health programs.

New York City Board of Education Brooklyn N.Y.
Substitute Teacher 9/97 to 6/99

- Maintained and ensured the practice of day to day curriculum in the classroom in order to reinforce learning concepts.
- Supervised and taught elementary school students in the absence of their teacher.

Flatbush YMCA Brooklyn, N.Y.
After School Program Coordinator 9/97 to 6/99

- Supervised over 50 elementary school children and served as liaison for school personnel and YMCA.
- Supervised and assisted four counselors in area of compliance in providing adequate instructions to children in area of academic as well as social needs.
- Prepared monthly status report.

Internship:
North General Hospital New York, N.Y
Vocational Rehabilitation Counselor 9/05 to 5/06

- Worked with mentally ill population in outpatient program.
- Conducted individual client assessments/TABE test/referrals.

Odyssey House New York, NY
School Counselor Intern 9/06 to 5/07

- Served as liaison with District 79 Adult Education Program.
- Responsible for referring clients to GED programs.
- Assisted individuals in developing realistic short- and long-term vocational goals.
- Facilitated educational groups and career exploration, job preparation skills, college application process and college tours.
- Conduct family sessions with clients and their parents regarding several issues (behavior, student progress, etc.).

Education/Certifications:

Hunter College University of New York New York, N.Y.
Bachelors of Arts: Psychology/Sociology 6/6/95

Hunter College University of New York New York, N. Y.
Master's in Education: Vocational Rehabilitation Counseling 6/2006

- *Certified Rehabilitation Counselor (C.R.C)*
- School Counselor Provisional Certification

Additional Qualification:

- CASAC-T
- GED Examiner