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Early Educator Awareness of Autism Spectrum Disorder in Preschool Hispanic Populations

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EARLY EDUCATOR AWARENESS OF AUTISM SPECTRUM DISORDER IN PRESCHOOL HISPANIC POPULATIONS

A Thesis

by

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ABSTRACT

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Christensen et al. (2016) highlights how "there are disparities by race/ethnicity in estimated ASD prevalence, particularly for Hispanic children, as well as disparities in the age of earliest comprehensive evaluation and presence of a previous ASD diagnosis or classification, suggesting that access to treatment and services might be lacking or delayed for some children" With an increase in autism prevalence and Hispanic population, there is a crucial demand for effective servicing and referrals for early identification of Autism.

The aim of this study was to analyze how prepared early educators are in identifying children that fall under the category of autism in preschool Hispanic populations. A survey method was implemented where early educators were asked to identify characteristics that are present in children with Autism Spectrum Disorder (ASD). The researcher anonymously surveyed early educator personnel from Texas, Florida, and California (predominantly Hispanic states). Survey questions included: demographics, educator training, educator awareness, educator self-perceptions, and educator referral process. Results highlight the need for further training to increase early educator's knowledge, preparation, and competency when educating children with ASD.

DEDICATION

This thesis is dedicated to the Nieto, Vidaurri, and Ramirez family. I would like to thank my parents Lorena and Carlos Nieto who have sacrificed so much so I could achieve my dreams of a higher education. I would also like to thank my grandparents Maria and Antonio Ramirez for all their support, encouragement and prayer. I am also forever grateful to my husband, Ulises Vidaurri, for all the love, patience, and counsel. Additionally, the completion of my graduate thesis would not have been possible without my brothers who are my constant drive and motivation. My brothers Toñito, Carlitos, and Roberto, teach me to love unconditionally and appreciate life. Most importantly, I would like to thank God for giving me the renewed strength, joy, and wisdom to conquer any personal or academic endeavor.

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CHAPTER I

INTRODUCTION

The definitions and diagnostic criteria for Autism Spectrum Disorder (ASD) have evolved over the years. Earliest accounts of ASD trace back to Eugene Bleuler. Eugene Bleuler was a Psychiatry professor who in 1912 published a book titled: *The Theory of Schizophrenic Negativism.* Eugene used the term autism to describe symptoms of schizophrenia (Bleuler, 1912).

Then in 1943, Leo Kanner published the first detailed description of early infantile autism (Harris, 2018). Kanner was known to be the leading child psychiatrist of his time in the 20th century (Harris, 2018). According to Eisenberg (1981), Kanner was the director of the child psychiatry program at Johns Hopkins University School of Medicine from 1930 to 1959. Kanner was also an advocate for individuals with disabilities. Specifically, he would advocate for those with neurologic disorders, the blind, the intellectually disabled, and the deaf. He would provide care for these individuals when other clinics and psychiatrists excluded them (Harris, 2016). Additionally, in 1942, Kanner debated against neurologist, Foster Kennedy, in the topic of child euthanasia for severely intellectually disabled children. Kanner argued against the use of Euthanasia with the claim that there is much to be learned about those who are perceived to be intellectually disabled (Kennedy, 1942).

Additionally, Leo Kanner was the author of many textbooks and articles. He was credited with the first textbook of child psychiatry, one that went through four editions over 35 years. Kanner was also the founding editor of the Journal of Autism and Childhood Schizophrenia, now called the Journal of Autism and Developmental Disorders (1971) and has written more than 250 scientific publications (Van Krevelen, 1976). Most importantly, Kanner wrote a paper in 1943 on Autistic Disturbance of Affective Contact, which was the first detailed paper that explained the unique neurodevelopmental disorder known today as Autism Spectrum Disorder (Kanner, 1943, 1968).

Kanner (1943) thoroughly described his observation of eleven children below the age of eleven in his scholarly article entitled, *Autistic Disturbance of Affective Contact*. Furthermore, he commented that although some schizophrenic phenomena could be present due to characteristics of extreme autism, obsessiveness, stereotypy, and echolalia; the children in the study presented with many differences compared to known cases of childhood schizophrenia. Furthermore, Kanner mentions the children described all showed extreme loneliness from the beginning of their lives and cannot tolerate a change of sequence after experiencing a specific order in routine. Kanner also highlights that in the whole group, there were very few warm-hearted parents. He also adds that for the most part, parents and grandparents of children in the study were persons that were "strongly preoccupied with abstractions of a scientific, literary, or artistic nature, and limited in genuine interest in people" (1943, p.250).

Kanner also mentions how some of the marriages were unsuccessful, leading him to question to what extent this factor has affected the children observed. Most importantly, Kanner commented that "children's aloneness from the beginning of life makes it difficult to attribute the whole picture exclusively to the type of early parental relations" (Kanner, 1943 p. 250). Kanner then concluded his paper with the assumption that these children come into the world with an innate inability to participate in the usual, biological contact with people. He emphasized, during the completion of this article describing the intricacies of autism, the need for further studies, and remained convinced that autism is innate.

Then in 1944, Hans Asperger, a Viennese pediatrician, described a group of children with what he labeled as "autistic psychopathy of childhood" (Wolff 1991). The children labeled with autistic psychopathy were also called to have Asperger's syndrome. These group of children had long lasting characteristics such as solitariness, abnormalities in gaze, expression, and gestures, which hindered emotional contact with other people. Insensitivity to social cues was also noted. Hans Asperger was the first to identify that nonverbal communications aspects were impaired in these children (Wolff, 1991).

Theory of Parent Neglect

Bruno Bettelheim, who headed the University of Chicago's Orthogenic school in 1967, believed that autism was not innate. He argued that Autism resulted from present maternal neglect. He supported the psychoanalytic perception that the cause of autism was the result of a faulty parent-child relationship (Holaday, 2012). Additionally, he argued that children were

forced to withdraw amongst themselves as a "result of their mother's cruelty and neglect" (Holaday, 2012).

Kanner did not blame parents for causing autism. Kanner also did not think children were psychosocially deprived (Harris, 2018). In 1965, Kanner commented disagreement with the tendency of viewing autism as a developmental anomaly due exclusively to maternal and emotional factors. Later on, during the first meeting with the National Society for Autistic Children in 1969, he emphasized that in his 1943 paper, he was describing children and parental behaviors observed and did not blame the parents.

Evolving Classification

The Diagnostic and Statistical Manual of Mental Disorders (DSM-III) was published in 1980. ASD first appeared in the DSM-III under pervasive developmental disorders (PDD). ASD was categorized as "Infantile Autism". This was the first time that ASD was a disorder separate from schizophrenia (American Psychiatric Association, 1980).

In 1994, The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) was released. The diagnostic and statistical manual utilized clinician input and classified autistic disorder under PDD's and a number of other disorders. The five main disorders in the DSM-IV were the following: "Autistic disorder, Rett disorder, Childhood Disintegrative disorder, Asperger's disorder, and Pervasive developmental disorder-not otherwise specified" (American Psychiatry, 1994).

Misconceptions of ASD

Unfortunately, in the 1990s, arising misconceptions took place in the United States and Britain after lead researcher Andrew Wakefield and co-workers claimed that vaccines caused autism. Andrew Wakefield mentioned that the measles virus created a leaky gut that would cause toxic substances to be sent to the bloodstream and the brain. Additionally, he recommended separating the Measles, Mumps, Rubella vaccine (MRR) into three doses for safety and preventative measures (Holaday, 2012). Wakefield's proposed theory stemmed from finding intestinal disease in children with autism (Wakefield, Murch, Anthony, et al., 1998). This theory led to a parent decline in vaccinating their children. Some agreed with this theory while others believed that the preservative thimerosal, which contained mercury, was the cause of autism in children (Gross, 2009). From then on, researchers conducted various studies to identify if there was a link between mercury and autism. In 2004, the Institute of Medicine's Immunization Safety Review released a document indicating a concise analysis of published and unpublished studies regarding the link between the MMR vaccine and other vaccines with thimerosal. The committee concluded that evidence rejected a connection or relationship between the MMR vaccine and autism (Holaday, 2012). By then the General Medical Council in Britain had found out that Wakefield had acted unethically, and his journal article was retracted. According to Gross, the participants in Wakefield's study were children whose parents were lawyers and had placed lawsuits against vaccine manufacturers (Gross, 2009). Unfortunately, the theory that vaccines are linked to autism persists today regardless of the research support that states

otherwise. Lof and Johnson (2015) estimate that 1 in 4 children are out of compliance with U.S vaccination guidelines due to parent's fear of autism spectrum disorder.

Understanding the Current Diagnostic Criteria for Autism Spectrum Disorder

In May (2013), the fifth revision of the DSM was published with updated research summaries and detailed work in various disorder areas. Under the section of neurodevelopmental disorders, ASD is listed. Additionally, in September (2016), an updated revision included a change in the criteria for autism. This update specifically mentions that the criteria are now persistent deficits in social communication and social interactions across multiple contexts, as manifested by *all* of the deficits. Deficits in social communication, social interaction, and restricted and repetitive behaviors, interests, and activites are seen. The word *all* was added to clarify that all three items in this criterion are required for the diagnosis of autism spectrum disorder. Additionally, with the current ASD revision, there is no more pervasive developmental disorder, pervasive developmental disorder- not otherwise specified, or Asperger's (American Psychiatric Association, 2016).

Severity Levels on the Autism Spectrum Disorder

According to the American Psychiatry Association, severity is based on social communication impairments and restricted, repetitive patterns of behavior (2013). A level 3 severity level is the most severe level and requires very substantial support. This is the level where severe deficits are seen in verbal and nonverbal social communication skills. Individuals at this level present very limited initiation and response during social interaction. In addition,

repetitive behaviors significantly interfere with functioning, and there is great distress with changes. The level 2 severity level indicates that children at this stage require substantial support. Individuals present with marked deficits in verbal and nonverbal social interactions, and they may respond to abnormally in social interactions. Restricted repetitive behaviors are obvious to casual observers and interfere with functioning. Level 1 is the least severe level where children require support. Individuals at this level present with noticeable deficits in social communication and have problems or decreased interest in social interactions. Restricted and repetitive behaviors for these individuals include difficulty switching activities and problems in organization and planning which restricted independence (American Psychiatry Association, 2013).

Early Identification and Intervention for Autism Spectrum Disorder

According to Lof and Johnson (2015), the median age of diagnosis of autism spectrum disorder is four years of age. Lately, there have been many efforts to try and do screenings for early identification. However, the majority of referrals are initiated by parents who notice developmental differences with their child (Lof and Johnson, 2015). By 12 to 15 months of age, early warning signs of possible ASD can be seen. Thus, a diagnosis of ASD can occur by 24 months. Some of the early warning signs of ASD in children 9-12 months include the following: lack of response to name, lack of social smile, poor mutual attention, limited gestures, a poor imitation, poor eye contact, limited effective range, extreme passivity, and reduced visual orientation to stimuli. For children 24 months of age, some of the ASD social-communication warning signs include the following: lack of responsiveness, lack of shared enjoyment, lack of

facial expression, lack of pointing to share an interest, a poor imitation, delayed speech, abnormal eye contact, limited interest in shared games, over or under sensory reactions, unusual visual interests, and unusual play with objects.

The National Research Council recommends the identification of ASD as early as possible. The intervention initiated by the age of three significantly improves outcomes. An intensive five day a week intervention program is recommended to promote active engagement. Intervention should be composed of family members and teachers working together providing structure opportunities in natural learning environments.

After learning about the importance of early identification and intervention, the researcher started to question the following: How accurate is the knowledge of early educators specifically in Autism Spectrum Disorder? What level of preparation currently exists among early educators in referring students appropriately for early identification of ASD? Where are these early educators referring their students and how competent do they feel educating this population? It is hypothesized that early educators will have an unbalanced level of training in special populations. Some early educators may not be familiar with ASD and may not be able to differentiate between a delay, language difference, or signs of ASD. This may lead to inappropriate or lack of referrals for children who are presenting with ASD characteristics. Early referral is crucial because it leads to early intervention, which has been known to positively affect learning outcomes.

Additionally, after reviewing published articles, the following five common themes were found salient throughout the literature: *continuing education/training, appropriate referral process, social economic status, early intervention, teacher awareness of ASD, and family involvement*. These common themes were identified as important as they actively relate to current knowledge in the field of ASD.

The next section of this literature review is a succinct discussion of each of the identified common themes. A definition and description of each common theme is provided along with an exegesis of the scholarly support and ideology discussed. Additionally, these themes were used as part of the process used for the development of the survey created in this investigation.

CHAPTER II

REVIEW OF LITERATURE

The articles used for this research study were obtained from the UTRGV online catalog and online articles and databases from the University of Texas Rio Grande Valley. Research articles were found after using the database under Academic Search complete. The articles referred in this study ranged from 1943 to 2019. This article criterion was used to include the most relevant and updated information. A systematic review of papers was excluded from the literature review in order to provide information using quantitative research designs. The articles used in this study were articles found to highlight experimental design studies that provide results and discussion. Furthermore, when searching through Academic search complete, the search criteria included the following key terms: *Autism knowledge*, *Autism and History*, *Educator and Autism*, and *Teacher and autism awareness*. After a thorough analysis of these articles, the common themes found throughout the literature were: *continuing education/training, appropriate referral process, social, economic status, early intervention, teacher awareness of ASD, and family involvement.*

Continuing Education/Training

According to Lord and McGee (2001), teachers, therapists, and paraprofessionals who provide treatment for children with ASD in public schools usually have restricted access to effective trainings. Although public school educators report to want to implement supported

intervention methods, their enthusiasm diminishes when necessary training is not provided (Norsworthy and Sievers, 1987).

Researchers Suhrheinrich, Stahmer, and Schreibman (2007) examined the effects of teachers and varying levels of training. Researchers mentioned that many school districts and early intervention programs lack the provision of evidence-based treatments while working with children with ASD. A known evidence-based treatment that teachers often use in the classroom is the Pivotal Response Training Program (PRT). The PRT program is a form of therapy that focuses on stimulus and response generalization, increases spontaneity, reduces prompt deficiency, and increases motivation. PRT is a treatment method known to increase verbal language skills, and nonverbal communication skills.

Suhrheinrich, Stahmer, and Schreibman (2007) included a total of ten teachers working in early intervention classrooms in California as participants in their study. Their teaching experience ranged from 1 to 16 years. All participants reported they had received training in PRT and worked either all day or half of the day with at least two students diagnosed with ASD. Consent was obtained to videotape teachers, and from parents whose children might be recorded. After video analysis, results revealed that none of the teachers met the criteria for fidelity of implementation across all components of PRT.

When examining the use of PRT strategies based on years of experience, one thing was evident. Teachers with more experience appeared to be better at generalizing PRT steps to the group setting. Teachers with less experience performed better with a 1:1 student ratio. This

research highlights the positive correlation between years of experience and the accuracy of implementation. It also revealed the crucial need for continuing education and the need for feedback on teachers in classrooms. Most importantly, the fidelity of implementation appeared to vary depending on the type of training received. Specifically, teachers that received some feedback from a professional, in combination to other types of training, used PRT more accurately (Suhrheinrich, Stahmer and Schreibman, 2007).

Furthermore, researcher Jung (2007) conducted a study where he examined the attitudes and confidence levels on student teachers who completed education and training prior to working with children with special needs. Participants included sixty-eight first-year students and fifty-seven student teachers with no experience or prior training. Participants completed a questionnaire which discussed topics like benefits of inclusion for kids with disabilities, classroom management procedures, ability to teach students with special needs, and provision of education for students with special needs.

Results revealed that academic preparation prior to student teacher experiences results in positive attitudes and confidence in teacher education programs. Specifically, "student teachers who participated in guided field experiences expressed significantly more positive attitudes than student teachers who only completed a course toward including students with special needs in inclusive classroom settings" (Jung, 2007, p. 110) This research highlights how educational training and hands-on experiences prior to becoming a professional will positively affect the attitude and confidence level on a student teacher.

Furthermore, the literature reveals that higher levels of teacher experience have been linked to the positive implementation of treatment and education (Jung, 2007). Besides years of experience, specific hands-on experience, and various training methods should be considered to implement appropriate intervention (Suhrheinrich, Stahmer and Schreibman, 2007). After the researcher reviewed how crucial educational training is for positive implementation of education, a question on the survey regarding continuing education and training was added.

Referral Process

As children begin to enter the school system, early elementary teachers play a vital role in identifying barriers for learning, and on developing the knowledge to recognize if a referral is needed. Research suggests that preschool is an excellent stage to identify children at risk for later difficulties because high-quality preschool experiences are linked to lower special education referral rates in the future (Burger, 2010; Pianta, Steinberg, & Rollins, 1995; Reynolds, Temple, White, Ou, & Robertson, 2011; Temple and Reynolds, 2007).

Researchers Buckrop, Roberts, and LoCasale-Crouch (2016) investigated if the classroom experience predicted special education referral in early elementary school. A total of 959 preschoolers in 240 classrooms were part of the study. The main four preschool experiences they examined were global classroom interaction quality, child engagement, closeness, and conflict in teacher-child relationships. Results revealed that out of the four aspects, there were higher levels of conflict in the preschool teacher-child relationships (lack of closeness). This led to a special education referral.

Furthermore, researchers Dunn, Cole, and Estrada (2017) stated that regular education teachers in both the United States and Canada play a vital role in the identification process for students with disabilities. Dunn, Cole, and Estrada (2017) examined the referral criteria used by teachers when initiating a referral. A total of 97 teachers participated in the study; 41 were from the United States and 56 from Canada. Teachers who participated taught an elementary grade level. Participants in the study completed a questionnaire which specified teachers to indicate their years of teaching experience, number of students in the class, number of students on an individual education plan, and number of referrals made during the past year.

Results of this study revealed there were specific characteristics identified by the teachers for special education referral. Main factors considerable for referrals the are inattention (lack of concentration), poor reasoning skills, and lack of timely completion of assignments. These characteristics were the main factors considered when referring a child for special education services (Dunn, Cole, and Estrada 2017). This article served to provide some insight into classroom teacher's perspectives for referral services.

Early childhood teachers have the crucial duty to provide a young child with classroom interaction, engagement, closeness, and a teacher-child relationship (Buckrop, Roberts, and LoCasale-Crouch, 2016). Aside from providing these opportunities, teachers also need to remember to identify red flags highlighting the need of a special education referral, such as the inability to concentrate, reason, and complete assignments in a timely matter (Dunn, Cole, and Estrada, 2017). Thus, the classroom teacher has the responsibility of identifying factors which

highlight the need for a referral. Upon learning on the important duty that educators have as first professionals welcoming children to education system, the researcher added a question on the survey in regard to the identification of ASD characteristics and the referral process.

Social Economic Status

According to Dickerson et al. (2017), disparities in the diagnosis of autism spectrum disorder (ASD) continue to emerge, and it appears that sociodemographic factors are associated with access to ASD assessment. Dickerson et al. (2017) investigated where researchers aimed to identify factors associated with disparities in ASD. Using the surveillance data from sites participating in the Autism and Developmental Disabilities Monitoring Network, researchers were able to track down current ASD prevalence. Multivariable analyses revealed a significant increase in the verification of ASD from both school and healthcare settings, which were the optimal identification settings. Researchers were also able to point out that estimated socioeconomic factors associated with ASD prevalence included race, ethnicity, education, and income.

Findings in this article support previous literature concluding that ASD prevalence is higher in whites than in non-whites (Durkin et al., 2010). Specifically, the Hispanic ethnicity reported lower ASD prevalence in school settings. Suggested reasons for these disparities are attributed to language barriers (Zaroff & Uhm, 2012), lack of access to healthcare (Liptak et al., 2008), and low education level in Hispanic mothers (Mandell et al., 2009; Magana, 2013).

Furthermore, the census revealed that individuals below the poverty line were negatively associated with ASD verification through school and healthcare settings, suggesting that access to care may also play a role in ASD prevalence. Overall, the optimal ascertainment scenario for reported ASD cases occurred in cases with college-educated mothers. This finding suggests that perhaps parents with higher education can better navigate care systems to ensure services for their children (Windham et al., 2009).

Social economic status appears to be a considerable factor causing disparities and delays on an ASD diagnosis. Furthermore, research has shown that the main socio-economic factors affecting the prevalence of the diagnosis include race, ethnicity, education, and income Dickerson et al. (2017). Specifically, the optimal settings for the ASD diagnosis include the school and health care settings; however, for Hispanic students, it appears that many may be undiagnosed due to language barriers, low maternal education, and lack of access to healthcare. School teachers must closely observe their students in order to identify factors that could possibly be concealing an ASD diagnosis. Upon reviewing socio-economic factors affecting prevalence of diagnosis, researcher added a question regarding ethnicity to the survey.

Early Intervention

Research studies have shown that younger children with ASD make more significant progress compared to older children receiving the intervention (Rogers, 2012). Researchers Wong and Kwan (2009) conducted a study where they aimed to identify the outcome of an early intervention treatment implemented by parents. This intervention method was created by an

Autism research team and a speech therapist. The study took place shortly after individuals received a diagnosis of autism and involved parent intervention focusing on eye contact, gestures, and vocalizations (words). There was a total of 17 children between the ages of 17 and 36 months who participated in the study. Nine children were divided into the control group and eight to the intervention group.

In addition, the groups were comparable in chronological and mental age after administering the Griffiths Mental Developmental Scales (GMDS) (Griffiths 1996), and severity of ASD as measured by CARS (Schopler et al. 1998). The intervention titled "1-2-3 intervention" was delivered daily for 30 minutes for five days per week over two weeks. Treatment involved participant training and focused on the development of simple words/requests. Parents implemented the intervention using the child's favorite toys to elicit requests.

After two weeks, the group receiving intervention completed the Autism Diagnostic Observation Schedule, Ritvo-Freeman Real Life Rating Scale, Symbolic Play Test, and Parenting Stress Index. These tests revealed improvement in both communication and social interaction for the group who received intervention. Most importantly, in the area of vocalization, pointing, and requesting was observed. Findings in this study highlighted how short-term training on communication and social interaction as part of the early intervention, can benefit young children. Additionally, parents of this study presented with a statistically significant 8-point reduction on their stress levels after their children completed the intervention

program. This treatment method is so beneficial because it can be implemented by parents while children wait to receive services. This research highlights the importance of early intervention and the crucial role that family members play for a child with ASD.

This research serves to highlight the many benefits for young children receiving the intervention. Positive outcomes for both children and parents were seen. Specifically, the children improved drastically in their communication and social interaction while parents reduced their stress levels. This research suggests that future treatment programs should encompass early intervention along with family involvement for optimal learning outcomes. Upon learning the benefits of early intervention, this led the researcher to add questions on the survey in regard to early intervention and treatment.

Teacher Awareness of ASD

Researchers Lian et al. (2008) mentioned that a study of preschool teacher knowledge and attitudes may further help contribute to a growing body of literature concerning early intervention efforts (pg. 2). Furthermore, researchers (Liu et. al, 2016) conducted a research where preschool teachers in China were surveyed to assess their knowledge in ASD. The survey was divided into participant demographics, knowledge of typical child development, knowledge of ASD, attitudes towards ASD, practices and self-perceptions of efficacy in the education of children with ASD, and awareness of organizations and intervention approaches specific to the care of individuals with ASD. A total of 471 preschool teachers completed the questionnaire and took part in the study. Results revealed that participant's accuracy was higher in knowledge

questions related to typical development compared to knowledge in ASD. Additionally, results revealed that knowledge in ASD was directly affected upon higher education level. Overall participants strongly revealed their crucial need for additional specialized training. Also, most of participants lacked knowledge in intervention approaches for ASD (Liu et. al, 2016).

This research study served to provide insight on preschool teacher's attitudes, self-perception, and knowledge related to ASD. This study highlighted how preschool teachers ranked more knowledgeable in typical development rather than ASD. Additionally, it recognized the need for specialized training specific to evidence based interventions and knowledge related to ASD (Liu et. al, 2016). After reviewing current teacher's attitudes, self-perception, and knowledge in ASD, this led the researcher to add questions in regard to knowledge and competency in ASD. This was done to compare if findings have changed or are still relevant.

Family Involvement

Current research has also highlighted the positive impact of parental involvement on children with ASD. Some known benefits are its positive effects on children's developmental and educational outcomes (Azeem, Imran, & Khawaja, 2016; Casenhiser, Shanker, & Stieben, 2011; Mareoiu, Bland, Dobbins, & Niemeyer, 2015).

Researchers Sharabi and Marom-Golan (2018) conducted a study which aimed to compare the level of social support and education level of parents of children with ASD. A total of 107 parents (61 mothers and 46 fathers) with children with ASD ages 2 to 7 participated in this study. The parent's involvement scale, family support scale, and a questionnaire were used

to measure parent's involvement, formal and informal social support, and education levels. Results revealed that mothers were more involved than fathers and that parental education positively predicted involvement only among fathers. Additionally, researchers mentioned that mothers were more involved in their child's educational program, care, and with their child's caregivers. Researchers concluded their study by highlighting the central role that mothers have. Mothers take the initiative to maintain constant contact with their child's education system and talk to professionals who help care for their child with ASD. This involvement is crucial because treatment for children with ASD now involves having the parents as part of a child's treatment (Harris & Glasberg, 2003).

Furthermore, researchers Gengoux et al. (2015) conducted research where they examined the effects and maintenance rate of findings on children with ASD whose parent's completed training in Pivotal Response Treatment (PRT). According to Koegel (2012), the PRT program is a behavioral based intervention that focuses on treatment in the natural environment. Researcher Symon (2005), highlights that a big advantage of this approach is that parents can be taught how to effectively implement the treatment. Furthermore, a total of 25 participants were in the group who received PRT treatment during the course of 12 weeks. After the course of 6 months, researchers followed up with participants to identify if children maintained their set progress in language and cognitive skills and if parents were able to maintain fidelity of the PRT treatment.

Results revealed that participants made a significant improvement in the area of the frequency of functional utterances and made beneficial gains while completing the Vineland

Communication Domain and the Mullen Scales of Early Learning. Most importantly, improvement after the course of 12 weeks and after the 6 months follow up period were observed. Research findings from this study suggest that parents are able to successfully learn PRT procedures and implement them accurately. This current study supports the evidence of parent education as part of the treatment for children with ASD.

Family involvement plays a very important role for children with ASD. Parents and especially mothers are known to provide the support to enhance their child's education system and care. Besides providing and ensuring their children receive optimal care and education, parents also play a role in treatment. By teaching parents treatment strategies like PRT, parents are able to increase treatment exposure and provide their children with more learning experiences. After reviewing literature concerning family involvement and the importance of carryover of skills, the researcher added questions to the survey regarding ethnicity, and how many students speak Spanish. This is important for the service professional since treatment will have to be in Spanish if Spanish is spoken at home. This will ensure parents are able to participate in carry over of skills and enhance treatment exposure.

CHAPTER III

METHODOLOGY

The current study surveyed early childhood personnel, such as pre-k, kindergarten teachers, and case managers, on their level of knowledge, preparation, and referral process for early identification of ASD. Specifically, these teachers and case managers were selected because their main area of focus is early childhood intervention. These professionals are the first educated individuals who come in contact with a child entering the education system. These professionals are responsible for identifying any red flags or barriers that could possibly hinder learning. With a delay in a special education referral, a child misses out on his or her individualized teaching plan leading to an increased set back as time passes and new information is taught. After learning about the importance of early identification and intervention, the researcher started to question the following: How accurate is the knowledge of early educators specifically in Autism Spectrum Disorder? What level of preparation currently exists among early educators in referring students appropriately for early identification of ASD? How competent do early educators feel educating this population?

Participants

Approval from the Institutional Review Board (IRB) at the University of Texas Rio Grande Valley took place before the beginning of the investigation. Additionally, consent was requested from each participant (Appendix A). The researcher accessed pre-kinder, kinder,

headstart teachers, and early childhood teachers through districts' websites. E-mails from teachers at public schools in Texas, California, and Florida were found after looking into the staff directory section on school district websites. This method allowed for survey participants to be exclusively teachers who met the criteria of early childhood educators. Also, predominantly Hispanic states were used to identify early educator awareness of Autism in Hispanic populations. Participants were recruited via an email recruitment script (Appendix B). Participants were asked to complete a short survey which contained questions regarding their level of autism knowledge, preparation, and established referral process for early identification of ASD (Appendix C).

This research study surveyed a total of 52 participants. A total of 23 questions were included in the survey. Out of the 70 participants who consented to the study only 52 completed all the survey. Participants in this study were current early childhood educators such as (8) pre-kinder teachers, (10) kindergarten teachers, (1) early childhood case manager, (2) teacher aides, (7) special education teachers, (17) general education teachers (1) counselor, (1) curriculum specialist, (1) school psychologist, (1) music instructor, (1) dance instructor, (1) school social worker, and (1) assistant principal.

Materials

An online survey was created using Qualtrics software. The survey questions aim to identify early educators' knowledge, preparation, and insight into the referral process for the early identification of ASD. The online survey was distributed to educators from the state of

Texas, California, and Florida. The survey was developed to provide information on the background of early educators. Specifically, it focused on their views, knowledge, and self-perceptions in the area of autism. E-mail addresses were obtained by accessing public records on school district websites.

Furthermore, a consent form on an e-mail script notified all participants that the survey was confidential and anonymous. No personal information was collected, and participation was voluntary. Participants could end the completion of the survey at any time.

The Survey

The survey used in the study contained seven sections: *Demographics, background information, teacher's level of training, teacher's experience, self-perceived autism spectrum disorder awareness (ASD), autism knowledge, Hispanic populations, and the referral process.* The sections were selected in order to obtain a thorough representation of ASD awareness in early childhood educators. These specific sections revealed insight into different factors that could affect the level of autism knowledge and the referral process on individuals with ASD. Additionally, six common themes were used as part of the survey development in this investigation. The common themes were: *continuing education/training, referral process, social-economic status, early intervention, teacher awareness of ASD, and family involvement*. The following is a description for each section.

Demographics

The demographic section consisted of questions that gathered demographic information about the participants, such as their gender, age, ethnicity, and residing state. (Questions 1-4 in Appendix C).

Background information

The background information section of the survey consisted of questions that gathered information about the participants highest educational level, credentials, licensures, and current job title. (Questions 5, 6, and 7 in Appendix C).

Training Level

The training section of the survey consisted of questions designed to gather information about the participants training level specifically related to ASD. In addition, early educators were able to provide details such as the name of course or conference, duration of training, and how often they completed training in ASD. These questions were added after researcher reviewed literature concerning the lack of continuing education and training in educators (Norsworthy and Sievers, 1987). These questions were added to identify if that lack of training had changed or was still relevant. Additionally, these questions highlight early educators' level of preparation and serve to identify if they had completed any continuing education courses or further training in ASD. (Questions 7 and 8 in Appendix C).

Experience

The experience section of the survey consisted of two questions which aimed to identify early educator's exposure to individuals with ASD. These questions were added to identify how many

teachers have interacted with an individual with ASD and if he or she takes initiative to learn more about ASD in an article, magazine, or newspaper. These questions were also added to identify early educator's awareness of ASD (Questions 11 and 12 in Appendix C).

Early Educator's Self-Perception on ASD Awareness

This section of the survey contained one question designed to have participants rate their competency level in ASD). This question was added to identify how knowledgeable and prepared early educators felt in the area of ASD in order to provide early intervention (Question 13 in Appendix C.

ASD knowledge

This section of the survey was completed to obtain early educator's knowledge on the cause and criteria for ASD diagnosis. These questions were added after researcher reviewed literature concerning teacher awareness of ASD. These questions were added to identify how knowledgeable early educators are specifically in ASD (Questions 14 and 15 in Appendix C).

Hispanic population

This section of the survey was completed to obtain early educators' insight into preschool Hispanic populations. Early educators were asked what percentage of their students speak Spanish and how many are Hispanic. These questions were added after reviewing literature concerning factors that affect prevalence of diagnosis such as race, ethnicity, and socio-economic status (Dickerson et al. 2017). These questions were also added to identify the demand of culturally linguistic diverse professionals in this special population. (Questions 9, 10, and 23 in Appendix C).

Referral process

This section of the survey was designed to gather information about the early educator's role and knowledge on the referral process on individuals suspected with ASD. These questions were added after researcher reviewed literature concerning the referral process. This question was also added to analyze how comfortable early educators are with referring students with suspected ASD. Thus, this question provided an opportunity for educators to discuss in detail their established referral process if any (Question 16 in Appendix C).

After completion of the online surveys using Qualtrics, data was analyzed. Survey results were analyzed in Qualtrics via measures of central tendency such as mean, median, mode, and standard deviations.

CHAPTER IV

RESULTS, SUMMARY AND CONCLUSION

Demographics of the total population included: 37 Hispanics, 13 Caucasians, and 2 others (See figure 1 in Appendix D). There was a total of 3 males and 49 females surveyed. Specifically, there were 9 individuals surveyed between ages, 18 to 24, and 8 individuals between ages 25 to 34. Additionally, there were 12 individuals surveyed between ages 35 to 44, 14 between ages 45 to 54, and 9 individuals ages 55 to 64 (See figure 2). There was also a total of 38 participants from Texas, 1 from California, and 13 from Florida (See figure 3). The participant's highest level of education was the following: 1 was high school graduate, 2 had an associate degree, 34 had a bachelor's degree, 14 had a master's degree, and 1 had a Doctorate degree (**See** figure 4).

Moreover, survey results revealed a variety of significant findings. For instance, 25% of participants revealed they currently do not hold licensure or credentials. Although some participants had several certifications, most credentials and licensure were an elementary teacher certification, bilingual education certification, early childhood certification, and special education certification. Most importantly, 42% of participants revealed that they had never completed formal education or training specifically related to Autism Spectrum Disorder. For those who specified that they completed a training in ASD, 16% of those participants completed training as part of their qualification, 28% of participants completed training in workshops and

seminars, 12% completed training in conferences, 24% completed training sessions at school, 12% completed training via websites, and 8% selected training as other (See figure 5).

Furthermore, participants also answered a survey question which asked how many of their students were Hispanic. A total of 6% of teachers reported that about 0-25% of their students were Hispanic, while 19% reported 25%-50%, 6% reported 50%-75%, and 69% reported that about 75%-100% of their students were Hispanic. In regard to students speaking Spanish, 37% of teachers reported a range between 0 to 25%, 23% of teachers reported 25% to 50%, another 23% of teachers reported 50% to 75%, and 17% of teachers reported 75 % to 100% (See figure 6).

In regard to the topic of ASD awareness, 8% of participants revealed that they had never met someone with ASD, while 6% of participants said they didn't know. Additionally, 13% of teacher participants revealed that they had never read about ASD in an article, magazine or newspaper. In the area of self-perception, 8% of teacher participants rated themselves very knowledgeable, 33% as knowledgeable, 35% as somewhat knowledgeable, 23% as not very knowledgeable, and 2% as not sure (See figure 7).

Moreover, in regards to the cause of ASD, 21% of teacher participants claimed it was due to genetic predisposition, 7% claimed it was due by vaccinations, 4% by pharmaceutical/recreational drugs, 3% by dietary intake, 6% by environmental exposure, 6% by nutritional issues during pregnancy, 32% selected there is currently no known cause,19% selected they didn't know, and 3% selected other (See figure 8).

Teacher participants also had a question which allowed them to select more than 1 characteristic required for an ASD diagnosis. A total of 9% of teacher participants selected a characteristic required was difficulty reading facial expressions, 11% selected extreme distress at small changes and lack of eye contact. 12% of teacher participants selected deficits in social communication and social interaction as well as difficulties adjusting behavior to suit various social contexts. A total of 11% selected restrictive, repetitive behaviors, interests, or activities, 11% selected difficulty with everyday social and practical life skills, 9% selected difficulty reasoning, learning, problem-solving, 10% selected adaptive functioning deficits in areas such as personal independence and social responsibility, 2% selected other, and 1% selected none. Also, in regard to the referral process for suspected ASD, 81% of teacher participants selected they had an established referral process while 19% did not.

Consequently, the last seven questions gave the participants the option to choose whether they strongly agreed (1), mostly agreed (2), somewhat agreed (3), don't know (4), somewhat disagreed (5), mostly disagreed (6), or strongly disagreed (7). Questions left unanswered were given a zero when analyzing the data. Participants were informed to answer questions based on the Hispanic children they have experience working with.

In the statement, *with proper treatment, most children with autism outgrow the disorder,* 1% strongly agreed, 10% somewhat agreed, 18% were not sure, 14% disagreed, 24% mostly disagreed, and 32% strongly disagreed. In the statement, *signs of Autism begin to appear between the ages of 0 and 3*, 46% strongly agreed, 19% mostly agreed, 10% somewhat agreed, 10% were not sure, 12% somewhat disagreed, and 4% mostly disagreed. In the statement,

general eating habits of an autistic child are normal, 4% mostly agreed, 16% somewhat agreed, 21% were not sure, 13% somewhat disagreed, 25% mostly disagreed, and 21% strongly disagreed.

In the statement, all *children with autism have special abilities or talents,* 16% strongly agreed, 29% mostly agreed, 22% somewhat agreed, 8% were not sure, 10% somewhat disagreed, 6% mostly disagreed, and 10% strongly disagreed. With the statement, *emotional trauma plays a major role in causing autism,* 2% strongly agreed, 2% mostly agreed, 8% somewhat agreed, 27% were not sure, 13% somewhat disagreed, 17% mostly disagreed, and 31% strongly agreed. In the statement, *children with autism are generally attuned to other people's feelings, and emotions*, 4% strongly agreed, 8% mostly agreed, 12% somewhat agreed, 23% were not sure, 19% somewhat disagreed, 13% mostly disagreed, and 21% strongly disagreed. In the last statement, *If my students were diagnosed with Autism, I would want the service professionals to speak Spanish*, 17% strongly agreed, 27% mostly agreed, 17% somewhat agreed, 25% were not sure, 4% somewhat disagreed, 2% mostly disagreed, and 8% strongly disagreed.

Summary and Conclusion

The purpose of this study was to identify early educators' knowledge and preparation in autism spectrum disorders. Additionally, early educators' self-perceived competence level, and established referral processes for early identification of ASD were discussed. This research was conducted to highlight the role of early educators and to determine their ability to make the proper referral for special education testing in individuals with suspected ASD. The following

were the research questions asked: How accurate is the knowledge of early educators specifically in Autism Spectrum Disorder? What level of preparation currently exists among early educators in referring students appropriately for early identification of ASD? How competent do early educators feel educating this population?

Discussion

In regard to the first research question, various responses provided an in-depth view of the accuracy in the knowledge level about ASD in the survey population. Current research states that the cause is unknown but only 32% of participants answered correctly. Unfortunately, about 7% are still misinformed and believe vaccinations are the cause of ASD while, 19% of participants directly reported they do not know the cause of ASD. Furthermore, 86 % of participants reported that they had met someone with ASD while 87% of early educators mentioned they had read an article, magazine or newspaper about ASD. This high percentages serve to illustrate that although ASD awareness and prevalence may be increasing in the general population, there is still a lack of awareness of ASD in early educators.

Regarding ASD knowledge, researchers Hepburn et al. (2007), conducted a study where school teachers evaluated 1323 children in total. Each teacher had the responsibility of identify students who fit the description of ASD along with associated characteristics. Students also completed the Autism Syndrome Screening Questionnaire (ASSQ) for screening purposes. Results revealed that there was an overall agreement of 93 to 95% between teacher identification of ASD and the ASSQ. These findings highlight improvement in ASD knowledge, however,

there is still room for improvement. These researchers also mention that it may be difficult for schools to have the resources to screen all children in general education classrooms for ASD using measures like the ASSQ. A big setback for screening is the time required to administer the instruments, therefore teacher awareness of ASD is a very important component in school districts (Hepburn, 2007).

The second research questions for this study aimed to identify early educator's level of preparation for educating individuals with ASD. Early educators who participated in the study revealed that 42% of participants had never completed formal education or training specifically related to ASD. Of the 58% of participants that did receive training, their type of training varied throughout. For instance, 28% of participants in the study reported to receive training by attending a workshop or seminar on ASD. A close second method of formal education was in-service training at a school with 24%, while a total of 16% indicated they received training in ASD as part of their formal education. Additionally, 12% of participants mentioned they completed training in conferences, another 12% of participants claimed they received training by website, while 8% of participants claimed they completed training in "other" ways. Additionally, 25% of participants revealed they currently do not hold licensure or credentials. Since there is no set requirement for early educators, their level of education, training on ASD, and licensures varied widely throughout the participants.

These findings are congruent with current research highlighting the lack of training. Researchers Yell, Katsiyannis, Drasgow, and Herbst (2003) completed an analysis of 254 due

process litigations and rulings related to students with ASD. They identified that school systems often did not provide evidence in the quality of programs offered such as staffing and appropriate learning environments. They recognize that a type of violation present in school districts is the lack of qualified school personnel. School districts have faculty members who are not knowledgeable about ASD working with students who have ASD. Researchers highlight the need of school districts hiring faculty members with expertise on ASD or giving them the option to provide appropriate training (Yell, Katsiyannis, Drasgow & Herbst, 2003). This research highlights the varied level of preparation that currently exists among early educators.

The third question for this investigation involved education for ASD which involves the referral process. The referral process in the private sector and in the public schools is crucial for the provision of appropriate services and education for individuals identified with ASD. Regarding the referral process, 81% of teacher participants reported that there was an established set process to follow if they suspected a child to have ASD. The remaining participants reported that when they suspect a student to have an ASD diagnosis, they notify their supervisor or child's parents. Findings revealed that although the referral process varied from child to child, at least a high percentage of early educators had an established referral process. Furthermore, researchers Pizur-Barnekow, Muusz, McKenna, O'Connor, and Cutler (2012) surveyed service coordinators in an early intervention program to enhance their understanding on the screening and referral process for children with ASD. Survey coordinators are early intervention professionals who assist families with obtaining access to the necessary services for their child. Thus, service

coordinators play a vital role in assuring that children are screened for ASD and are referred for services and support (Pizur-Barnekow et. al, 2012).

Surprisingly, results of their research revealed that service coordinators recognized that early intervention personnel play a vital role in conducting ASD screening; however, more than 50% of participants revealed that they do not see ASD screening completed in those early intervention settings. Primarily, Pizur-Barnekow et. al (2012) mention that this is due to lack of knowledge in ASD, ASD screening instruments, and lack of knowledge in effectively explaining screening results to parents. These findings serve to highlight how some early educators may have an established referral process but may be unprepared to identify ASD signs and symptoms due to lack of training. Under those circumstances, student may get referred for ASD testing after an overdue amount of time.

Correspondingly, this study aimed to identify how competent early educators feel educating children with ASD. When early educators in this study were asked to report their self-perceived ASD knowledge, most participants (35%) rated themselves as somewhat knowledgeable, while 23% rated themselves as not very knowledgeable. These findings support literature findings that highlight how early educators benefit from further training to gain more confidence educating children with ASD. In 2008, researchers Lian et al. conducted a study where they evaluated 503 preschool teachers to identify their knowledge level in the area of childhood developmental and behavioral disorders. This includes children with ASD or attention deficit hyperactivity disorders (ADHD). Results of this study revealed that most of the preschool

teachers felt unequipped and were interested in further training. These educators felt they could make a difference in the student's education but wanted further training to enhance their skills. This study served to further recognize the educational deficits present among preschool teachers, which concurs with the findings in this thesis study. An increase in education, training and support is needed to enhance early educator's competency in educating individuals with ASD.

Additionally, since this thesis focused on Hispanic Preschool populations, the survey participants resided in either Texas, California, or Florida. These states were selected due to the increased Hispanic population that resides in those states. On this subject, more than half of teacher participants (69%) revealed that about 75%- 100% of their students were Hispanic. However, regarding their students speaking Spanish, most teachers (37%) reported that about 0-25% of their students speak Spanish. In addition, 23% of teachers reported that about 25% - 50% and 50% - 75% of their students speak Spanish. These findings suggest that although the primary ethnicity is Hispanic, many families may not speak Spanish.

Additionally, while answering the survey, more than half of the participants revealed that if their students were diagnosed with ASD, they would want the service professionals to speak Spanish. This insight highlights the need for bilingual and bicultural professionals as early educators. This is also consistent with current literature which states that as of 2014, 9.1 percent of students in US classrooms are considered English Language Learners (ELL) or emergent bilinguals (U.S department of Education). Thus, the growing number of emergent bilingual learners make it crucial for educators to learn how to competently teach this population (Nieto,

2017). Furthermore, the growing number of bilingual students highlight the imperative need of early educators' awareness of ASD as well as competence of the children's native language to decrease language barriers.

In order to enhance public knowledge, a fact sheet on ASD was formulated by this researcher. This fact sheet was also made to generalize knowledge in individuals who work with early childhood populations. The fact sheet defined ASD, explained its cause, signs, diagnosis, treatment, contact information, and references. The fact sheet was created in English and then translated in Spanish to ensure Hispanic populations understand the content (See Appendix E).

Limitations

There were a couple of limitations regarding the participants in the study. The intended sample of participants were preschool teachers and early childhood educators, but at the end of survey distribution, other related professionals completed the survey. Additionally, out of the 70 participants who consented to participate only 52 completed the survey. Also, some participants skipped some questions in the survey; this affected each question differently. In addition, the survey completion rate was 58% meaning that out of the many early educators reached out via e-mail only some participated. Another limitation of the study was the small sample size.

Future Studies

Further research with a larger sample size should be considered. Additionally, the inclusion of other disciplines involved with the child's education would be beneficial. More

survey questions in the topic of educator self-perception and confidence level educating children with ASD would be valuable.

Conclusion

Early educators play a vital role as first professionals welcoming children to the education system. Early educators identify barriers for learning and play an important role in the referral process. Since the level of training and experience varied with each participant, the level of awareness in ASD regarding its characteristics, cause, and referral process varied as well. There was no specific education, training method or referral process established. Furthermore, early educators highlighted the need of further education to enhance their competency educating children with ASD. Additionally, the need of bilingual and bicultural professionals was cited. Future research should focus on expanding to more professionals and obtaining a larger sample.

REFERENCES

American Psychiatric Association (APA). (1987). *Committee on Nomenclature and Statistics. Diagnostic and Statistical Manual of Mental Disorders, 3rd ed*. Revised. Washington, DC: American Psychiatric Publishing.

Azeem, M. W., Imran, N., & Khawaja, I. S. (2016). Autism Spectrum Disorder: An update. *Psychiatric Annals*, *46*, 58–62.

Bleuler, E. (1912). The theory of schizophrenic negativism. *Journal of Nervous and Mental Disease* Publishing Company.

Buckrop, J., Roberts, A., & LoCasale-Crouch, J. (2016). Children's preschool classroom experiences and associations with early elementary special education referral. *Early Childhood Research Quarterly*, *36*, 452–461.

Casenhiser, D. M., Shanker, S. G., & Stieben, J. (2011). Learning through interaction in children with autism: Preliminary data from a social-communication-based intervention. *Autism, 17*, 220–241. doi:10.1177/1362361311422052

Christensen DL, Baio J, Braun KV, et al. (2012). Prevalence and Characteristics of Autism Spectrum Disorder Among Children Aged 8 Years. *Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States*, 1–23.

Diagnostic and statistical manual of mental disorders: DSM-III. (1980). Washington: American Psychiatric Association.

Diagnostic and statistical manual of mental disorders: DSM-5. (2013). Arlington, VA: American Psychiatric Association.

Dickerson, A. S., Rahbar, M. H., Pearson, D. A., Kirby, R. S., Bakian, A. V., Bilder, D. A., et al. (2017). *Autism spectrum disorder reporting in lower socioeconomic neighborhoods. Autism*, *21*(4), 470–480.

Dunn, M. W., Cole, C. M., & Estrada, A. (2009). Referral Criteria for Special Education: General Education Teachers' Perspectives in Canada and the United States of America. *Rural Special Education Quarterly*, *28*(1), 28–37.

Durkin MS, Maenner MJ, Meaney FJ, et al. (2010) Socioeconomic inequality in the prevalence of autism spectrum disorder: evidence from a U.S. cross-sectional study. *PLoS ONE 5*(7): e11551

Eisenberg, L. (1981). Leo Kanner, M.D. 1894-1981. *American Journal of Psychiatry, 138*, 1122–1125. doi:10. 1176/ajp.138.8.1122

Frances, A. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV: Prepared by the Task Force on DSM-IV*. Washington, D.C.: American Psychiatric Assoc.

Gengoux, G. W., Berquist, K. L., Salzman, E., Schapp, S., Phillips, J. M., Frazier, T. W.,..Hardan, A. Y. (2015). Pivotal Response Treatment Parent Training for Autism: Findings from a 3-Month Follow-Up Evaluation. *Journal of Autism and Developmental Disorders, 45*(9), 2889.

Griffiths, R. (1996). *Griffiths Mental Development Scales*. Henley-on Thames: Test Agency.

Gross, L. (2009). A broken trust: Lessons from the vaccine-autism wars. *PLOS Biology, 7*(5): e100114. Doi:10.1371/journal.pbio.1000114.

Harris, S. L., & Glasberg, B. A. (2003). *Siblings of children with autism: A guide for families (2nd ed.)*. Bethesda, MD: Woodbine House.

Harris, J (2018) Leo Kanner, and autism: a 75-year perspective, *International Review of Psychiatry, 30*(1), 3-17, DOI: 10.1080/09540261.2018.1455646

Harris, J. C. (2016). Book forum. *Journal of the American Academy of Child & Adolescent Psychiatry, 55*(8), 729-735. doi:10.1016/j.jaac.2016.06.004

Hepburn, S.L., DiGuiseppi, C., Rosenberg, S. et al. (2007). Use of a Teacher Nomination Strategy to Screen for Autism Spectrum Disorders in General Education Classrooms: A Pilot Study *Journal of Autism Developmental Disorders*, *38*, 373. https://doi-org.ezhost.utrgv.edu/10.1007/s10803-007-0404-2

Holaday, B. (2012, April-June). History of autism. *South Carolina Nurse, 19*(2), 12+. Retrieved http://link.galegroup.com/apps/doc/A301284003/AONE?u=txshracd2633&sid=AONE&xid=36a6be29

Jung, W. S. (2007). Preservice teacher training for successful inclusion. *Education, 128*(1), 106+. Retrieved from https://link.galegroup.com/apps/doc/A169960872/AONE?u=googlescholar&sid=AONE&xid=f5811694

Kanner, L. (1943). Autistic Disturbance of Affective Contact. *Nervous Child, 2*, 217–250.

Kanner, L. (1965). Infantile autism and the schizophrenias. *Behavioral Science, 10*, 412 –420. doi:10.1002/bs.3830100404

Kanner, L. (1968). Autistic disturbances of affective contact. *Acta Paedopsychiatrica, 35*, 100–316. [Originally published in, Nervous Child. 1943, 2, 217-250.

Kennedy F. (1942). The problem of social control of the congenital defective education, sterilization; euthanasia. *American Journal of Psychiatry, 99,* 13-16.

Koegel, R. L., & Koegel, L. K. (2012). *The PRT pocket guide: Pivotal Response Treatment for Autism Spectrum Disorders.* Baltimore, MD: Paul H. Brookes.

Kolvin, I. (1971). Studies in the childhood psychoses. I. Diagnostic criteria and classification. *British Journal of Psychiatry, 118,* 381–384. doi:10.1192/bjp.118.545.381

Lian WB, Ying SH, Tean SC, Lin DC, Lian YC, Yun HL (2008). Pre-school teachers' knowledge, attitudes and practices on childhood developmental and behavioural disorders in Singapore. *Journal of Paediatric Child Health. 44*(4),187–94.

Liptak GS, Benzoni LB, Mruzek DW, et al. (2008) Disparities in diagnosis and access to health services for children with autism: Data from the National Survey of Children's Health. *Journal of Developmental and Behavioral Pediatrics 29*(3), 152–160.

Liu, Y., Li, J., Zheng, Q., Zaroff, C. M., Hall, B. J., Li, X., & Hao, Y. (2016). Knowledge, attitudes, and perceptions of autism spectrum disorder in a stratified sampling of preschool teachers in China. *BMC Psychiatry, 16*(143).

Lof, G. L., & Johnson, A. F. (2015). *TherapyEds speech-language pathology: Review and study guide*. Evanston, IL: TherapyEd.

Lord & McGee (1991). *Educating Children with Autism*. Washingon: DC: National Academy Press.

Magaña S, Lopez K, Aguinaga A, et al. (2013) Access to diagnosis and treatment services among Latino children with autism spectrum disorders. *Intellectual and Developmental Disabilities 51,* 141–153.

Mandell DS, Wiggins LD, Carpenter LA, et al. (2009) Racial/ethnic disparities in the identification of children with autism spectrum disorders. *American Journal of Public Health 99*(3), 493–498.

Mareoiu, M., Bland, C., Dobbins, N., & Niemeyer, J. A. (2015). Exploring perspectives on child care with families of children with Autism. *Early Childhood Research & Practice, 17,* 1–13.

Nieto, S. (2017, Summer). Becoming Sociocultural Mediators: What All Educators Can Learn from Bilingual and ESL Teachers. *Issues in Teacher Education, 26*(2), 129.

Norsworthy, K., & Sievers, P. (1987). *Teacher's Perspective: The Struggle to provide quality education to autistic children*. Educating Autistic Children and Youth (pp. 207-219).

Odom, S. L., Cox, A. W., & Brock, M. E. (2013). Implementation Science, Professional Development, and Autism Spectrum Disorders. *Exceptional Children, 79*(3), 233–251.

Odom, S. L. (2009). The Tie That Binds: Evidence-Based Practice, Implementation Science, and Outcomes for Children. *Topics in Early Childhood Special Education, 29*(1), 53–61.

Pianta, M.S. Steinberg, F.K.B. Rollins (1995). The first two years of school: teacher-child relationships and deflections in children's classroom adjustment. *Development and Psychopathology, 7,* 295-312.

Pizur-Barnekow, K., Muusz, M., McKenna, C., O'Connor, E., & Cutler, A. (2013). Service Coordinators' Perceptions of Autism-Specific Screening and Referral Practices in Early Intervention. *Topics in Early Childhood Special Education, 33*(3), 153–161.

Reynolds, J.A. Temple, B.A. White, S.R. Ou, D.L. Robertson (2011). Age 26 cost-benefit analysis of the child-parent center early education program. *Child Development, 82*, 379-404.

Rogers, S. J., Estes, A., Lord, C., Vismara, L., Winter, J., Fitzpatrick, A., ... Dawson, G. (2012). Effects of a brief Early Start Denver Model (ESDM)–based parent intervention on toddlers at risk for autism spectrum disorders: A randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry, 51*(10), 1052–1065.

Rutter, M. (1972). Childhood schizophrenia reconsidered. *Journal of Autism and Childhood Schizophrenia,* 2, 315–338.

Rutter, M. (1978). Autism: Diagnosis and definition. In: Rutter M, Schopler E, eds. *Autism: A Reappraisal of Concepts and Treatment*. New York: Plenum Press;1978, 1–25.

Schopler, E., Reichler, R., & Renner, B. (1998). *The childhood autism rating scale (CARS).* Los Angeles, CA: Western Psychological Services.

Sharabi, A., & Marom-Golan, D. (2018). Social Support, Education Levels, and Parents' Involvement: A Comparison Between Mothers and Fathers of Young Children With Autism Spectrum Disorder. *Topics in Early Childhood Special Education, 38*(1), 54–64.

Suhrheinrich, J., Stahmer, A. C., & Schreibman, L. (2007). A preliminary assessment of teachers' implementation of pivotal response training. *The Journal of Speech and Language Pathology – Applied Behavior Analysis, 2*(1), 1-13.

Symon, J. B. (2005). Expanding interventions for children with autism. *Journal of Positive Behavior Interventions,* 7, 159–173.

Temple and Reynolds (2007). Benefits and costs of investments in preschool education: evidence from the child-parent centers and related programs. *Economics of Education Review, 26*, 126-144.

U.S Department of Education, National Center for Education Statistics. (2014). The condition of education 2014, English Language Learners.

Van Krevelen, D.A. (1976). Touring the sources. *Acta Paedopsychiatrica: International Journal of Child & Adolescent Psychiatry, 42*, 49.

Wakefield, A. J., Murch, S.H., Anthony, A. et al. (1998). Ileallymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. *The Lancet, 351(*9103); 637-641

Weishaar, M. K.,Weishaar, P. M., & Budt, C. Pre-referral intervention: Problem-solving method and curriculum-based measurement. *Rural Special Education Quarterly, 21*(3), 3-9.

Windham GC, Smith KS, Rosen N, et al. (2014) Autism and developmental screening in a public, primary care setting primarily serving Hispanics: Challenges and results. *Journal of Autism and Developmental Disorders 44*(7), 1621–1632.

Wolff, Sula. (1992). Asperger's Syndrome. (Autistic Psychopathy of Childhood). *Archives of Disease in Childhood* 66.2 n. pag. Print.

Yell, M., Katsiyannis, A., Drasgow, E., & Herbst, M. (2003). Developing Legally Correct and Educationally Appropriate Programs for Students with Autism Spectrum Disorders. *Focus on Autism and Other Developmental Disabilities*, *18*(3), 182–191.

Zaroff CM and Uhm SY (2012) Prevalence of autism spectrum disorders and influence of country of measurement and ethnicity. *Social Psychiatry and Psychiatric Epidemiology 47*(3), 395–398.

APPENDIX A

APPENDIX A

CONSENT DOCUMENT

This research survey is being conducted by Dr. Crutchfield and a graduate communication sciences and disorders student from the University of Texas – Rio Grande Valley (UTRGV). We are conducting a research study about Identifying Early Educator Awareness of Autism Spectrum Disorders in Preschool Hispanic Populations. This research study will focus on measuring the level of early educator awareness in Autism Spectrum Disorder and the level of awareness of the referral process for a child with suspected Autism Spectrum Disorder.

The following survey should take about 15 minutes to complete.

If you would prefer not to participate, simply return the survey blank. Your responses are anonymous; you should not include any identifying information on this survey. We ask that you try to answer all questions. However, if there are any questions that you would prefer to skip, simply leave the answer blank. You must be at least 18 years old to participate. *If you are not 18 or older, please inform the researcher and do not complete the survey.*

Researcher contact information:

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This research has been reviewed and approved by the Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you

feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at 956.665.2889.

APPENDIX B

APPENDIX B

Hello,
My name is Karla Nieto; I am a graduate student from the Department of Communication and Science Disorders at the University of Texas Rio Grande Valley (UTRGV). I would like to invite you to participate in my research study, "Identifying Early Educator Awareness of Autism Spectrum Disorders in Preschool Hispanic Populations." The purpose of this study is to investigate the level of preparedness present in early childhood education personnel.

This research study has been reviewed and approved by the Institutional Review Board for the Protection of Human Subjects (IRB) at the University of Texas Rio Grande Valley. To participate, you must be 18 years or older and currently working in an early childhood education setting. Participation in this research is completely voluntary; you may choose not to participate without penalty.

As a participant, you will be asked to complete an online survey which should take about 10 minutes to complete, depending on responses. All data will be treated as confidential meaning that the researcher(s) will keep the identity of individual subjects private by using indirect identifiers to identify them in reporting and presentation/publication of the research. Data generated from this study will be kept confidential during the discussion of results through the use of indirect identifiers. When the survey is completed, a false name will be assigned to each subject by the researcher(s) immediately after the survey is conducted. The false name will be used when data is reported.

If you would like to participate in this research study, please click on the survey link below.
Survey Link: https://utrgv.co1.qualtrics.com/jfe/form/SV_a9OwAdrEbloDc8J

If you have questions related to the research, please contact me by email at karla.nieto01@utrgv.edu.

If you have any questions regarding your rights as a participant, please contact the Institutional Review Board (IRB) by telephone at (956) 665-2889 or by email at irb@utrgv.edu.

Thank you for your cooperation!
Sincerely,
Karla Nieto

APPENDIX C

APPENDIX C

*Please select **ONE** appropriate response to each question:*

1. Age:

- □ (1) 18-24 years
- □ (2) 25-34 years
- □ (3) 35-44 years
- □ (4) 45-54 years
- □ (5) 55-64 years
- □ (6) 65+ years

2. Gender:

- □ (1) Male ○ (2) Female

3. What state are you in?

- □ (1) Texas ○ (2) California ○ (3) Florida

3. Ethnicity:

- □ (1) Hispanic/Latino/Chicano
- □ (2) Caucasian
- □ (3) African American
- □ (4) Native American / American Indian
- □ (5) Asian / Pacific Islander
- □ (6) Other

4. Education:

- □ (1) No education completed
- □ (2) Some education (below high school)
- □ (3) Some high school
- □ (4) High school graduate or the equivalent
- □ (5) Some college credit
- □ (6) Associate Degree
- □ (7) Bachelor's Degree
- □ (8) Master's Degree
- □ (9) Doctorate Degree

5. What is your current professional job title: _____

6. Do you currently hold any credentials/licensures?

- □ **(1) Yes ○ (2) No**

If yes please list: _____

7. Have you received any formal education or training specifically related to Autism Spectrum Disorder?

□ **(1) Yes** ○ **(2) No**

If yes, please answer question 8

8.	**Training Received**	**Details (e.g., the name of course or conference, duration, how often...)**
	□ As part of your formal qualification	
	□ Workshop/seminar	
	□ Conferences	
	□ In-service training sessions at the school	
	□ Websites	
	□ Other (please specify)	

9. How many of your students are Hispanic?

□ (1) 0% - 25%
□ (2) 25% - 50%
□ (3) 50% - 75%
□ (4) 75%- 100%

10. How many of your students speak Spanish?

□ (1) 0% - 25%
□ (2) 25% - 50%
□ (3) 50% - 75%
□ (4) 75%- 100%

11. Have you ever met anyone with autism spectrum disorder?

□ (1) Yes
□ (2) No
□ (3) I don't know

12. Have you ever read about autism spectrum disorder in an article, magazine or newspaper?

□ (1) Yes
□ (2) No
□ (3) I don't know

13. How would you rate your knowledge of autism spectrum disorder?

□ (1) Very knowledgeable
□ (2) Knowledgeable
□ (3) Somewhat knowledgeable
□ (4) Not very knowledgeable

□ (5) Don't know/ not sure

14. What causes Autism Spectrum Disorder? Select one or more responses

□ (1) Genetic predisposition
□ (2) Vaccinations
□ (3) Pharmaceutical/Recreational Drugs
□ (4) Dietary Intake
□ (5) Environmental exposure
□ (6) Nutrition issues during pregnancy
□ (7) There is currently no known cause
□ (8) I don't know
□ (9) Other_____

15. Which of the following are required for a diagnosis of Autism Spectrum Disorder? Select one or more responses

□ (1) Difficulty reading facial expressions
□ (2) Extreme distress at small changes
□ (3) Lack of eye contact
□ (4) Deficits in social communication and social interaction
□ (5) Difficulties adjusting behavior to suit various social contexts
□ (6) Restrictive, repetitive behaviors, interests, or activities
□ (7) Difficulty with everyday social and practical life skills
□ (8) Difficulty reasoning, learning, problem-solving
□ (9) Adaptive functioning deficits in areas such as personal independence and social responsibility
□ (10) Other_____
□ (11) None

16. At your current place of employment, is there an established referral process to follow if you suspect an individual of having ASD?

□ **(1) Yes** ○ **(2) No**

If yes, please describe _____
If no, what do you do if you suspect an individual to have Autism Spectrum Disorder?_____

Directions: Please answer the following questions on this survey as best as you can. Focus on the **Hispanic children** you have experience working with. For each of the following statements, ***clearly circle*** the number that best reflects how much you agree or disagree with each statement.

Statement	Strongly Agree	Mostly Agree	Somewhat agree	I Don't Know	Somewhat Disagree	Mostly Disagree	Strongly Disagree
17. With proper treatment, most children with autism outgrow the disorder.	1	2	3	4	5	6	7
18. Signs of Autism begin to appear between the ages of 0 and 3.	1	2	3	4	5	6	7
19. General eating habits of an autistic child are normal.	1	2	3	4	5	6	7
20. All children with autism have special abilities or talents.	1	2	3	4	5	6	7
21. Emotional trauma plays a major role in causing autism.	1	2	3	4	5	6	7
22. Children with autism are generally attuned to other people's feelings and emotions.	1	2	3	4	5	6	7
23. If my students were diagnosed with Autism, I would want the service professionals to speak Spanish.	1	2	3	4	5	6	7

APPENDIX D

APPENDIX D

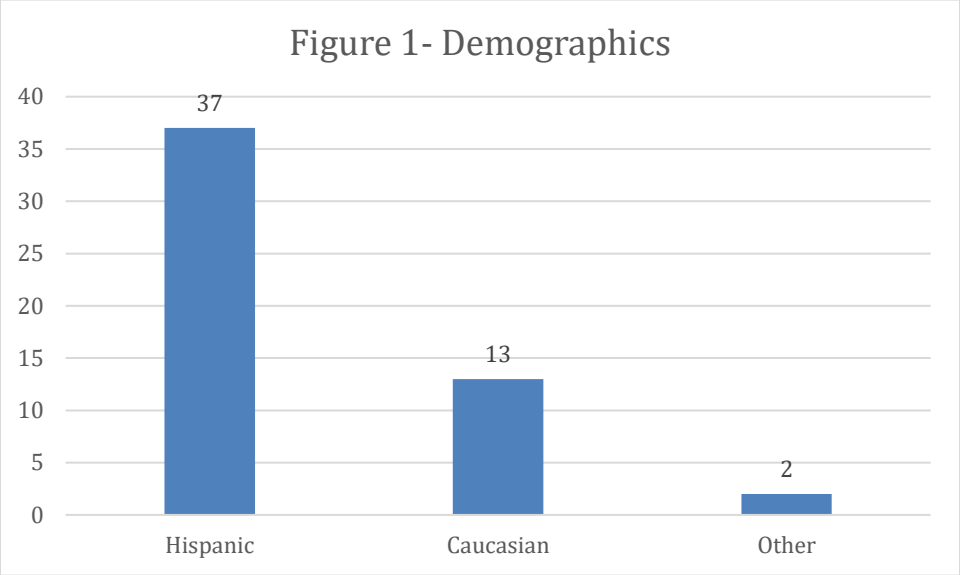
Figure 1- Demographics
40
35
30
25
20
15
10
5
0
37
13
2
Hispanic
Caucasian
Other

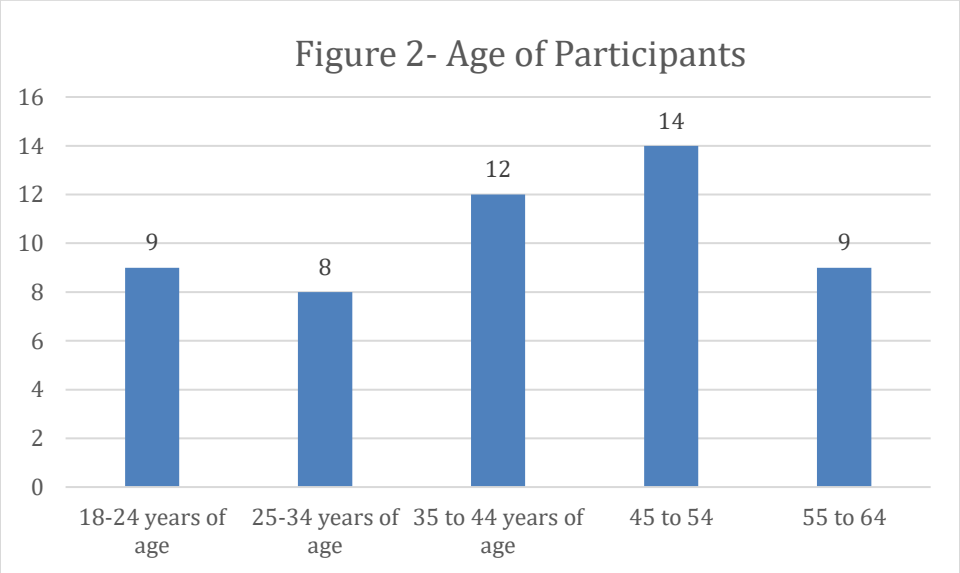
Figure 2- Age of Participants
16
14
12
10
8
6
4
2
0
9
8
12
14
9
18-24 years of age
25-34 years of age
35 to 44 years of age
45 to 54
55 to 64

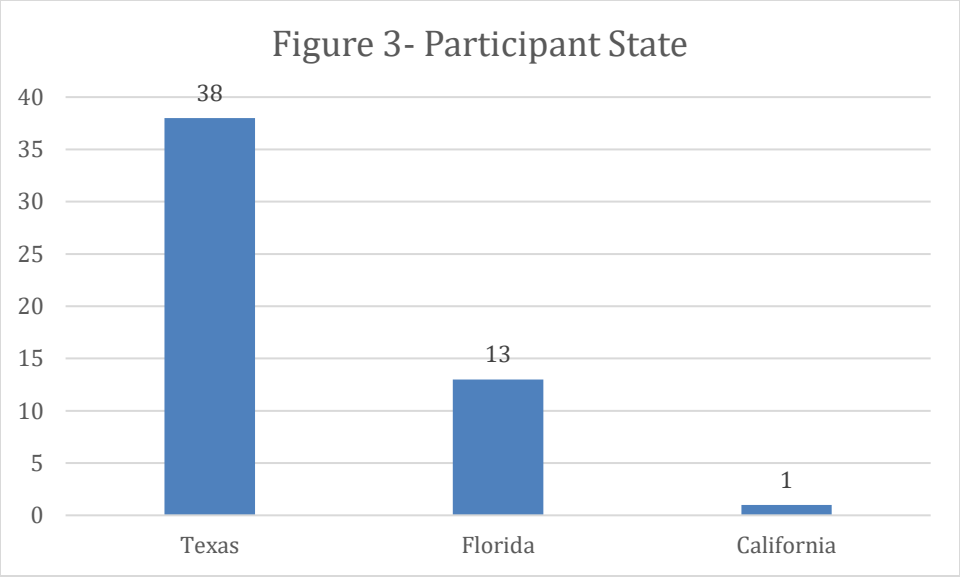
Figure 3- Participant State
40
35
30
25
20
15
10
5
0
38
13
1
Texas
Florida
California

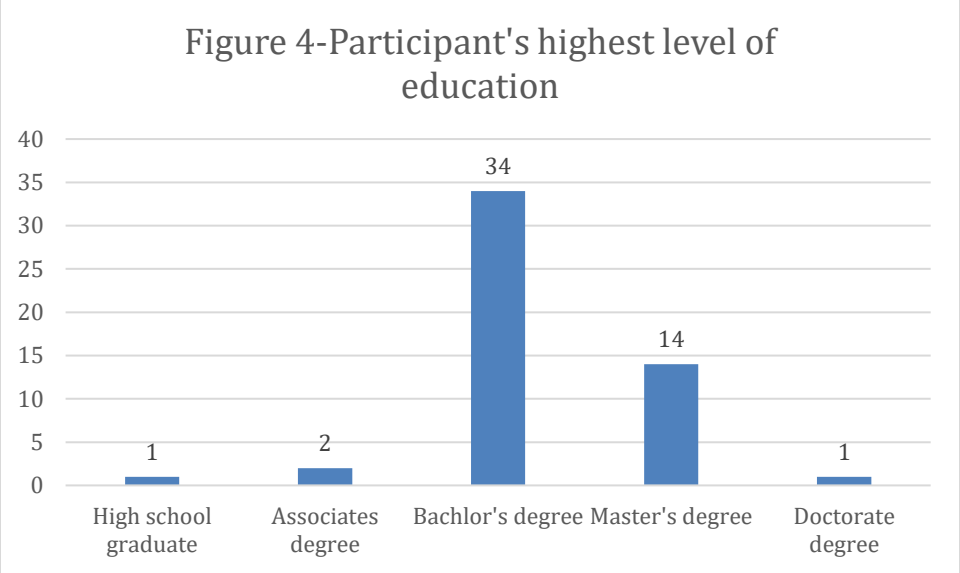
Figure 4-Participant's highest level of education
40
35
30
25
20
15
10
5
0
1
2
34
14
1
High school graduate
Associates degree
Bachlor's degree
Master's degree
Doctorate degree

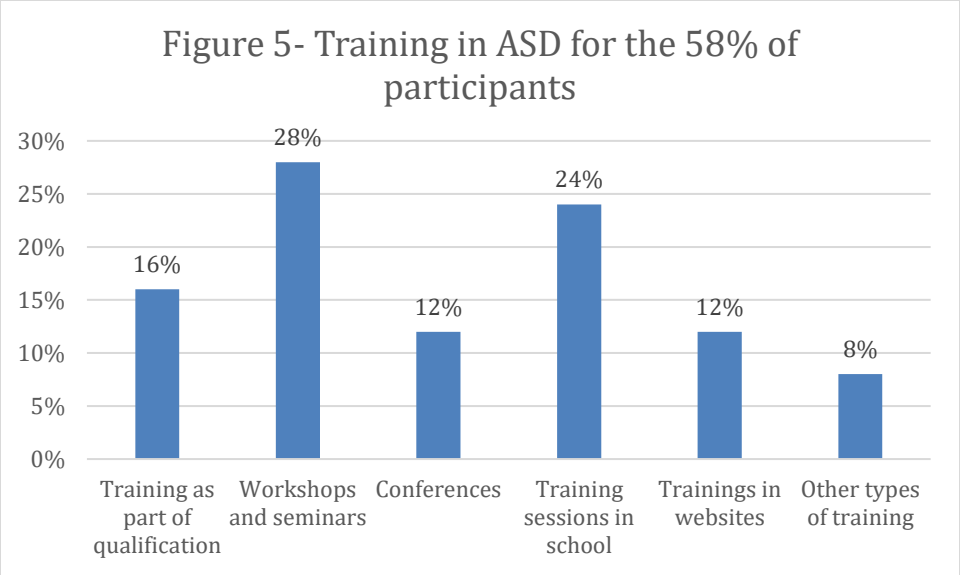
Figure 5- Training in ASD for the 58% of participants
30%
25%
20%
15%
10%
5%
0%
16%
28%
12%
24%
12%
8%
Training as part of qualification
Workshops and seminars
Conferences
Training sessions in school
Trainings in websites
Other types of training

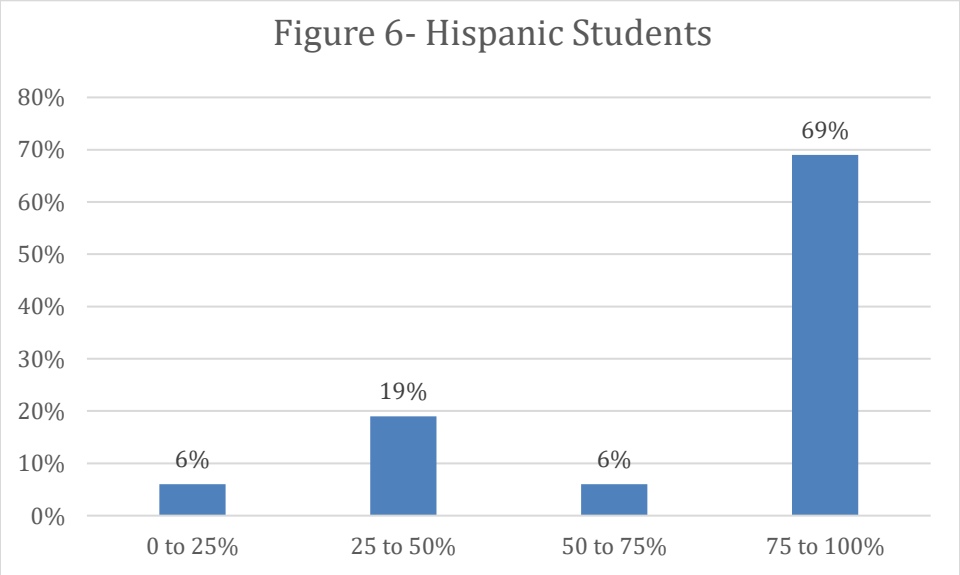
Figure 6- Hispanic Students
80%
70%
60%
50%
40%
30%
20%
10%
0%
6%
19%
6%
69%
0 to 25%
25 to 50%
50 to 75%
75 to 100%

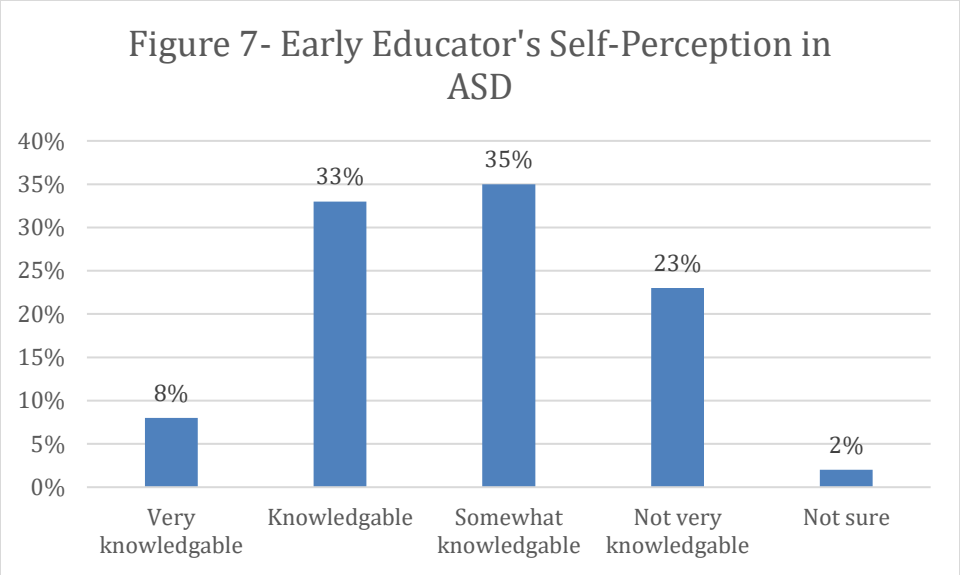
Figure 7- Early Educator's Self-Perception in ASD
40%
35%
30%
25%
20%
15%
10%
5%
0%
8%
33%
35%
23%
2%
Very knowledgable
Knowledgable
Somewhat knowledgable
Not very knowledgable
Not sure

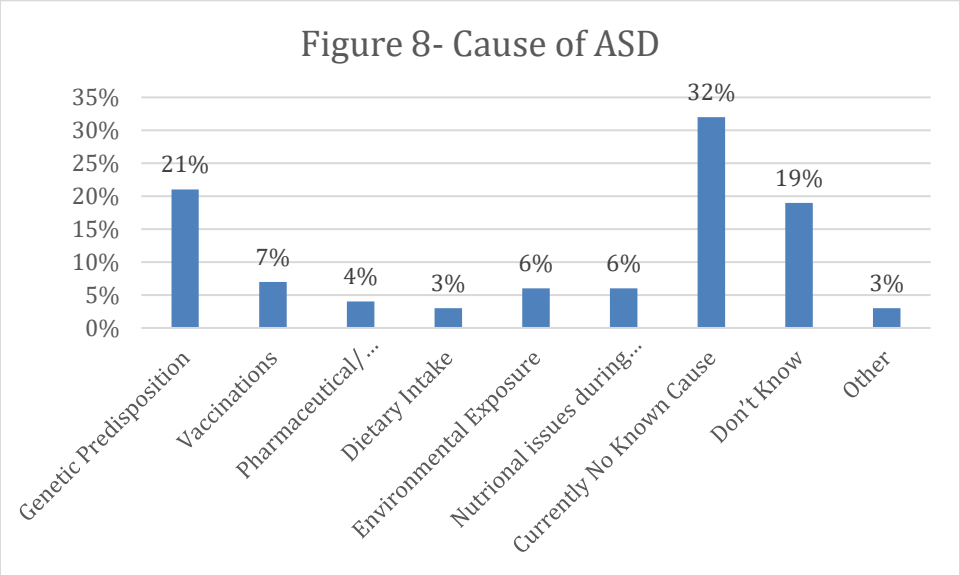
Figure 8- Cause of ASD
35%
30%
25%
20%
15%
10%
5%
0%
21%
7%
4%
3%
6%
6%
32%
19%
3%
Genetic Predisposition
Vaccinations
Pharmaceutical/...
Dietary Intake
Environmental Exposure
Nutrional issues during...
Currently No Known Cause
Don't Know
Other

APPENDIX E

APPENDIX E

Autism Fact Sheet 2019

By: Karla Vidaurri and Ruth Crutchfield SLP.D., CCC-SLP

What is Autism Spectrum Disorder (ASD)?

Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges. ASD has no specific physical features. People with ASD may communicate, interact, behave, and learn in ways that are different from most other people. Severity is based on social communication impairments and restricted, repetitive patterns of behavior. Some people with ASD need a lot of help in their daily lives while others need less.

Causes

We do not know all the causes of ASD. However, we have learned that there may be many different factors that make a child more likely to have an ASD, including environmental, biologic and genetic factors.

Signs

Signs of ASD begin during early childhood and typically last throughout a person's life.

Children with ASD might:

- not point at objects to show interest
- not look at objects when another person points at them
- have trouble relating to others or not have an interest in other people at all
- avoid eye contact and want to be alone
- have trouble understanding other people's feelings or talking about their own feelings
- prefer not to be held or cuddled, or might cuddle only when they want to
- appear to be unaware when people talk to them, but respond to other sounds
- be very interested in people, but not know how to talk, play, or relate to them
- repeat or echo words or phrases, or repeat words or phrases in place of normal language
- have trouble expressing their needs using typical words or motions
- not play "pretend" games (for example, not pretend to "feed" a doll)
- repeat actions over and over again
- have trouble adapting to routine changes
- have unusual reactions to the way things smell, taste, look, feel, or sound
- lose skills they once had (for example, stop saying words they were using)

Receiving a diagnosis

Diagnosing ASD can be difficult since there is no medical test, like a blood test, to diagnose the disorders. An ASD diagnosis requires a developmental screening and a comprehensive diagnostic evaluation. Developmental screening is a short test to tell if children are learning basic skills when they should, or if they might have delays. all children should be screened specifically for ASD during regular well-child doctor visits at 18 months and 24 months. The second step of diagnosis is a comprehensive evaluation. Sometimes the primary care doctor might choose to refer the child and family to a specialist for further assessment and diagnosis. Specialists who can do this type of evaluation include:

- Developmental Pediatricians (doctors who have special training in child development and children with special needs)
- Child Neurologists (doctors who work on the brain, spine, and nerves)
- Child Psychologists or Psychiatrists (doctors who know about the human mind)

Treatment

Services can include therapy to help the child talk, walk, and interact with others. Therefore, it is important to talk to your child's doctor as soon as possible if you think your child has ASD or other developmental problem.

Even if your child has not been diagnosed with an ASD, he or she may be eligible for early intervention treatment services. The Individuals with Disabilities Education Act (IDEA)External says that children under the age of 3 years (36 months) who are at risk of having developmental delays may be eligible for services. These services are provided through an early intervention system in your state. Through this system, you can ask for an evaluation. In addition, treatment for symptoms, such as speech therapy for language delays, often does not need to wait for a formal ASD diagnosis.

Contact Information

If you or the doctor is still concerned, ask the doctor for a referral to a specialist who can do a more in-depth evaluation of your child. Where to call for a free evaluation from the state depends on your child's age:

- If your child is not yet 3 years old, contact your local early intervention system.
- You can find the right contact information for your state by calling the Early Childhood Technical Assistance Center (ECTA) at 919-962-2001 or visit the ECTA website.
- If your child is 3 years old or older, contact your local public-school system.
- Even if your child is not yet old enough for kindergarten or enrolled in a public school, call your local elementary school or board of education and ask to speak with someone who can help you have your child evaluated.
- If you're not sure who to contact, call the Early Childhood Technical Assistance Center (ECTA) at 919-962-2001.

References

What is Autism Spectrum Disorder? | CDC. (n.d.). https://www.cdc.gov/ncbddd/autism/facts.html

Diagnostic and statistical manual of mental disorders DSM-5. (2013). Washington: American Psychiatric Association.

Hoja informativa sobre el Trastorno del Espectro Autista 2019

Escrito por Karla Vidaurri y Ruth Crutchfield SLP.D., CCC-SLP

¿Qué es el Trastorno del Espectro Autista?

Los trastornos del espectro autista (TEA) son una discapacidad del desarrollo que puede provocar problemas sociales, comunicacionales y conductuales significativos. No hay diferencias en el aspecto de las personas con TEA que los diferencien de otras personas. Es posible que quienes tienen un TEA se comuniquen, interactúen, comporten y aprendan de maneras distintas a otras personas. Las dificultades de aprendizaje, pensamiento y resolución de problemas de las personas con TEA varían. Algunas personas necesitan mucha ayuda en la vida diaria, mientras que otras necesitan menos.

¿A quiénes afecta?

Los TEA ocurren en todos los grupos raciales, étnicos y socioeconómicos, pero es 4.5 veces más frecuente en los niños que en las niñas.

Signos y síntomas

Algunos de los signos comienzan durante la niñez temprana y, por lo general, duran toda la vida.

Los niños o adultos con TEA podrían presentar las siguientes características:

- No señalan los objetos para demostrar su interés.
- No miran los objetos cuando otra persona los señala.
- Tener dificultad para relacionarse con los demás o no manifestar ningún interés por otras personas.
- Evitar el contacto visual y querer estar solos.
- Tener dificultades para comprender los sentimientos de otras personas y para hablar de sus propios sentimientos.
- Preferir que no se los abrace, o abrazar a otras personas solo cuando ellos quieren.
- Parecen no estar conscientes cuando otras personas les hablan, pero responden a otros sonidos.
- Estar muy interesados en las personas, pero no saber cómo hablar, jugar ni relacionarse.
- Repetir o imitar palabras o frases, o repetir palabras o frases en lugar del lenguaje normal.
- Tener dificultades para expresar sus necesidades con palabras o movimientos habituales.
- No jugar juegos de simulación (por ejemplo, no jugar a "darle de comer" a un muñeco).
- Repetir acciones una y otra vez.
- Tener dificultades para adaptarse cuando hay un cambio en la rutina.
- Tener reacciones poco habituales al olor, el gusto, el aspecto, el tacto o el sonido de las cosas.
- Perder las habilidades que antes tenían (por ejemplo, dejar de decir palabras que antes usaban).

Diagnóstico

El diagnóstico de los TEA puede ser difíciles de hacer debido a que no existen pruebas médicas, como un análisis de sangre, para diagnosticarlos. Para llegar a un diagnóstico, los médicos observan el comportamiento y el desarrollo del niño. El diagnóstico requiere una evaluación del Desarrollo y una evaluación diagnóstica integra. La evaluación del desarrollo es una prueba corta que indica si los niños están aprendiendo las cosas básicas a su debido tiempo o si es posible que tengan retrasos. El segundo paso del diagnóstico es una evaluación integral.

En algunos casos, el médico de atención primaria podría decidir remitir al niño y su familia a un especialista para que le haga más evaluaciones y determinar el diagnóstico. Los especialistas que pueden hacer este tipo de evaluación incluyen los siguientes:

- Pediatras del desarrollo (médicos que tienen una capacitación especial en el desarrollo de los niños y en los niños con necesidades especiales)
- Neurólogos pediatras (médicos que tratan el cerebro, la columna vertebral y los nervios)
- Sicólogos o siquiatras para niños (médicos que saben sobre la mente humana)

Tratamiento

Actualmente, no existe una cura para los TEA. Sin embargo, las investigaciones muestran que los servicios de tratamiento de intervención temprana pueden mejorar el desarrollo de estos niños. Estos servicios pueden incluir terapia para ayudar al niño a hablar, caminar e interactuar con los demás. Por lo tanto, es importante hablar con el médico de su hijo lo antes posible si piensa que su hijo tiene un TEA u otro problema del desarrollo. Es posible que los medicamentos no afecten a todos los niños de la misma manera. Es importante trabajar con un profesional de atención médica que tenga experiencia en el tratamiento de niños con TEA.

Si tiene alguna pregunta o quisiera recibir más información

Comuníquese con el médico de su hijo y coméntele sus inquietudes. Si usted o el médico siguen teniendo inquietudes, pídale al médico que lo remita a un especialista que pueda evaluar a su hijo en mayor profundidad. **Al mismo tiempo,** llame al sistema público de intervención infantil temprana de su estado para solicitar una evaluación gratuita a fin de saber si su hijo reúne los requisitos para recibir servicios de intervención. A veces, a esta evaluación se la llama evaluación "Child Find". No es necesario que espere a que el médico le dé una remisión o haga un diagnóstico para hacer esta llamada.

El lugar al que debe llamar para obtener una evaluación gratuita del estado depende de la edad de su hijo:

- Si su hijo aún no ha cumplido los 3 años, comuníquese con su sistema local de intervención temprana.
- Si su hijo tiene 3 años o más, comuníquese con el sistema de educación pública local.

Las investigaciones muestran que los servicios de intervención temprana pueden mejorar considerablemente el desarrollo del niño.

Referencias

Diagnostic and statistical manual of mental disorders DSM-5. (2013). Washington: American Psychiatric Association.

What is Autism Spectrum Disorder? | CDC. (n.d.). https://www.cdc.gov/ncbddd/autism/facts.html

BIOGRAPHICAL SKETCH

Karla Cecilia Vidaurri was born in Brownsville, Texas and currently resides in San Antonio, Texas. She obtained her Bachelor of Science degree in Communication Disorders in Spring 2017 at The University of Texas Rio Grande Valley (UTRGV). She later obtained her Master of Science degree in Communication Disorders in May 2019 at UTRGV. Her areas of interest as a Speech Language Pathologist are Autism Spectrum Disorders (ASD), Culturally Linguistic Diverse populations, and Neurogenic Communication Disorders. In the future, she hopes to continue her education and take advantage of her Spanish and English proficiency to educate patient and their families on their swallowing and communication disorders.

Moreover, Karla enjoys being involved in her Christian church and she is devoted to her faith in Christ. She loves to spend time with family and friends. She enjoys, reading, hiking, camping, and nature. For comments or questions, you can reach her at karla92610@hotmail.com