

**PERCEPTION OF PARENTS AND TEACHERS ON THE EDUCATIONAL  
INTERVENTIONS OF CHILDREN WITH AUTISM SPECTRUM DISORDER**

**\* NEHA KHATRI**

**CHAPTER 1**

**1.1) INTRODUCTION**

Autism is a complex neurobehavioral condition that include impairments in social interaction and developmental language and communication skills combined with rigid, repetitive behaviors. Because of the range of symptoms, this condition is now known as "AUTISM SPECTRUM DISORDER". It covers a large spectrum of symptoms, skills, and level of impairments. ASD ranges in severity from a handicap that somewhat limits an otherwise normal life to a devastating disability that may require institutional care.

Children with autism have trouble in communicating. They have trouble understanding what other people think and feel. This makes them very difficult for them to express themselves either with words or through gestures, facial expressions and touch.

It is associated with a combination of genetic and environmental factors. Risk factors during pregnancy include certain infections such as rubella, toxin including alcohol, cocaine, pesticides, air pollution, fetal growth and autoimmune diseases.

A child with ASD who is very sensitive may be greatly troubled sometimes even pained by sounds, touches, smells or sights that seem normal to others.

Children who are autistic may have repetitive, stereotyped body movements such as rocking, pacing or hand flapping. They may have unusual responses to people, attachments to objects, resistance to change in their routines, or aggressive or self-injurious behavior. At times they may seem not to notice people, objects or activities in their surroundings. Some children with autism may develop seizures. And in some cases those seizures may not occur until adolescence.

### **CLASSIFICATION:**

Autism is one of the five pervasive developmental disorders that is characterized by the wide spread abnormalities of social interactions and communication and severely restricted interests and highly repetitive behavior. These symptoms do not imply sickness, fragility or emotional disturbance.

The manifestation of autism covers a wide spectrum ranging from individual with severe impairments who may be silent, developmentally disabled and locked into hand flapping and rocking to high functioning individuals who may have active but distinctly odd social approaches, narrowly focused interest and communication. Sometimes the syndrome is divided into low medium or high functioning autism based on IQ threshold or on how much support the individual requires in the daily life, these sub divisions are not standardized and are controversial. It can also be divided into syndrome and non-syndrome autism. The syndrome is associated with severe or profound intellectual disability or a congenital syndrome with physical symptoms. Although individuals with Asperger syndrome tend to perform better cognitively than those with autism the extent of the overlap between Asperger syndrome, HFA and non-syndrome autism is unclear.

### **SYMPTOMS:**

Autism appears during the first three years of life. Some children show signs from birth. Others seem to develop normally at first, only to slip suddenly into symptoms when they are 18 to 36 months old.

It is four times more common in boys than in girls. It knows no racial, ethnic, or social boundaries.

It is just one syndrome that now falls under the heading of AUTISM SPECTRUM DISORDERS. The disorders that are now classified under the umbrella diagnosis of ASD or a social communication disorder include:

- **Autistic disorder :**

It refers to the problems with social interactions, communication and imaginative play in children younger than 3 years.

- **Asperger's syndrome:**

These children don't have a problem with language, in fact they tend to score in the average or above average range on intelligence tests. But they have the same social problems and limited scope of interests as children with autistic disorder

- **Pervasive developmental disorder:**

This is a kind of catch-all category for children who have some autistic behaviors but who don't fit into other categories.

- **Childhood disintegrative disorder:**

These children develop normally for at least two years and then lose some or most of their communication and social skills.

- **Rett syndrome:**

Children with this syndrome, primarily girls start developing normally but then begin losing their communication and social skills. Beginning at the age of 1 to 4 years, repetitive hand movements replace purposeful use of the hands.

### **CAUSES:**

It has been presumed that there is a common cause at the genetic, cognitive and neural levels for autism's characteristic trait of symptoms.

- a) It has a strong genetic basis, although the genetics of autism are complex and it is unclear whether ASD is explained more by rare mutations with major effects or by rare multigene interactions of common genetic variants.
- b) Complexity arises due to the interactions among multiple genes, the environment and epigenetic factors that do not change DNA sequencing but are heritable and influence gene expression.
- c) Many genes have been associated with autism through sequencing the genomes of affected individuals and their parents.
- d) It may be underdiagnosed in women and girls due to assumption that it is primarily a male condition but genetic phenomena such as imprinting and X linkage have the ability to raise the frequency and severity of conditions in males, and theories have been put forward for a genetic reason why males are diagnosed more often such as imprinted brain theory and the extreme male brain theory

- e) **Maternal nutrition and inflammation during perception and pregnancy influences fetal neuro development. Intrauterine growth restriction is associated with ASD in both terms and preterm infants. Maternal inflammatory and auto immune diseases may damage fetal tissues, aggravating a genetic problem or damaging the nervous system.**
- f) **Exposure to air pollution during pregnancy, especially heavy metals and particulates, may increase the risk of autism. Environmental factors that have been claimed without evidence to contribute to or exacerbate autism include certain foods, infectious diseases, smoking, alcohol, parental stress and illicit drugs.**
- g) **Parents may first become aware of autistic symptoms in their child around the time of a routine vaccine. This has led to unsupported theories blaming vaccine “overload”, a vaccine preservative or the MMR vaccine for causing autism.**

### **DIAGNOSIS:**

**Autism is characterized by persistent deficits in social communication and interaction across multiple contexts, repetitive patterns of behavior, interest or activities. These deficits are present in early childhood, typically before the age of three and lead to clinically significant functional impairment. Sample symptoms include lack of social or emotional reciprocity and repetitive use of language with unusual objects.**

**Several diagnostic instruments are available. Two are commonly used in autism research:**

- i) **The Autism Diagnostic Interview Revised (ADI-R) a semi structured parent interview**
- ii) **The Autism Diagnostic Observation Schedule (ADO-S) uses observation and interaction with the child.**

**The Childhood Autism Rating Scale is used widely in clinical environment to assess severity of autism based on observation of children.**

**ASD can sometimes be diagnosed by the age of 14 months, although diagnosis becomes increasingly stable over the first three years of life.**

**It is particularly hard to diagnose autism among the visually impaired, partly because some of its diagnostic criteria depends on vision, and partly because autistic symptoms overlap with common blindness syndrome.**

### **SCREENING:**

About half of parents of children with ASD notice their child's behaviors by age 18 months and about four-fifths notice by age of 24 months. Delay in referral for such testing may delay in early diagnosis and treatment and affect the long term outcome.

- i) No response to name by 6 months
- ii) No babbling by 12 months
- iii) No gesturing by 12 months
- iv) No single word by 16 months
- v) No two- word phrases by 24 months
- vi) Loss of any language or social skills at any age.

Screening tools include the Modified Checklist for Autism in Toddlers, the Early Screening of Autistic Traits Questionnaire and the First Year Inventory, the Checklist for Autism in Toddlers on children aged 18-30 months suggests that it is best used in clinical setting and that it has low sensitivity but good specificity. Screening tools designed for one culture's norms for behaviors like eye contact may be inappropriate for a different culture.

### **MANAGEMENT:**

The main goal when treating children with autism are to lessen associated deficits and family stress, and to increase quality of life and functional independence. In general, higher IQs are correlated with greater responsiveness to treatment and improved treatment outcome. Families and educational system are the main resources for treatment.

Intensive, sustained special education programs and behavior therapy early in life can help children acquire self-care, communication and job skills and often improve functioning and decrease symptoms of severity behaviors claims that intervention by around age three years is crucial are not sustained.

### **A) EDUCATION:**

Education interventions often used include applied behavior analysis (ABA), developmental models, structured teaching, speech and language therapy, social skill therapy and occupational therapy. The quality of research for early intensive behavioral intervention (EIBI) a treatment procedure incorporating over thirty hours per week of structured type of ABA that is carried out with very young children is currently low and more vigorous research design with larger samples are needed. Two theoretical frameworks outlined for early childhood intervention include structured and naturalistic ABA intervention and developmental social pragmatic models (DSP). Various DSP programs have been developed to explicitly deliver intervention systems through at home parent implementation.

A teacher implemented intervention that utilizes a more naturalistic form of ABA combined with a developmental social pragmatic approach has been found to be beneficial in improving social-communication in young children, although there is less evidence in its treatment of global symptoms.

The appropriateness of including children with varying severity of ASD in general education population is a subject of current debate among educators and researchers.

### **B) MEDICATION:**

Medications may be used to treat ASD symptoms that interfere with integrating a child into home or school when behavioral treatment fails. They may also be used for associated health problems such as ADHD or anxiety. The most common drug classes being antidepressants, stimulants and antipsychotics. A typical antipsychotic drugs risperidone and aripiprazole are FDA approved for treating associated aggressive and self-injurious behaviors. However, their side effects must be weighed against their potential benefits and people with autism may respond typically. Side effects may include weight gain, tiredness, drooling and aggression. SSRI antidepressants such as fluoxetine and fluvoxamine have shown to be effective in reducing repetitive and ritualistic behaviors while the stimulant medication methylphenidate is beneficial for some children with co-morbid inattentiveness or hyperactivity. There is scant reliable data about the effectiveness or safety of drug treatments for adolescents and adults with ASD. No known medication relieves autism core symptoms of social and communication impairments.

### **C) ALTERNATIVE MEDICINE:**

Although many alternative therapies and interventions are available, few are supported by scientific studies. Treatment approaches have little empirical support in quality of life contexts and many programs focus on success measures that lack predictive validity and real-world relevance. The preference that children with autism have for unconventional foods can lead to reduction in bone cortical thickness with the being greater in those on casein-free diets, as a consequence of the low intake of calcium and vitamin D.

Another alternative medicine practice with no evidence is CEASE therapy, a mixture of homeopathy, supplements and vaccine detoxing.

#### **1.2) BACKGROUND OF THE STUDY:**

Over half a century has passed since Kanner (1943) first observed young children with a behavioral syndrome he labelled "autistic disturbances of affective contact", characterized by delayed language development, impaired social interaction, poor eye contact, repetitive behavior and an intense desire for routine. Based on Kanner's work the medical community began to treat some children with what became early known as early infantile autism, but educators remained largely unaware of the condition. By the mid-twentieth century the condition was thought to be quite rare, with the prevalence of autism estimated to be only 4 to 5 in 10,000 children (American Academy of Pediatrics, 2001).

Since Kanner's (1943) early work the definition of autism has been revised and expanded by American Psychiatric Association (2000) in the Diagnostic and Statistical Manual of Mental Disorders (4<sup>th</sup> ed., text version, DMS IV TR) to include a broad range of autism spectrum disorders including Autistic Disorder, Pervasive Developmental Disorder- Not Otherwise Specified, Asperger's Disorder, Rett's Disorder and Childhood Disintegrative Disorder. Although symptoms vary, children with autism spectrum disorders exhibit significant impairments in social interaction and communication skills along with restricted interests and repetitive behavior.

Children with autism were largely unrecognized by the educational community until 1975 when the Education for all Handicapped Children Act (EHA) established the right of children with disabilities to receive a free and appropriate public education (FAPE). However this law did not list autism as a specific disability category. The limited number of children with autism who received special education services began in 1975 was often served under the disability such as mental retardation. In 1990 a seismic shift occurred when "autism" was specifically listed as a disability category in the Individual with Disabilities Education Act (IDEA, 1990), a federal law that reauthorized and expanded EHA, ensuring the right to a public education including special education and related services for children with disabilities.

The Centers for Disease Control and Prevention (2010) currently estimates that an average of 1 in 110 children has an autism spectrum disorder, with boys 4 to 5 times more likely to be affected than girls.

The impact of increasing prevalence of autism on families and educators who provide services to children with Autism Spectrum Disorder (ASD) cannot be underestimated. "An ASD diagnosis forges a relationship between professionals and parents that is necessary, interdependent, and similar to an arranged marriage with no possibility of divorce.

The No Child Left Behind Act of 2001 and the 2004 reauthorization of IDEA, the Individuals with Disabilities Education Improvement Act require educators to adopt research based practices when working with the students with disabilities. IDEA also mandates parental involvement in all aspects of the child's education. Hundreds of quantitative research studies have been conducted documenting research based practices for teaching with children with autism spectrum disorder, yet parents, educators find the research literature time consuming.

### 1.3) TITLE:

**RESEARCH ON THE PERCEPTIONS OF PARENTS AND TEACHERS ON THE EDUCATIONAL INTERVENTION FOR CHILDREN WITH AUTISM SPECTRUM DISORDER.**

### 1.4) KEY WORDS:

- **AUTISM SPECTRUM DISORDER**
- **PERVASIVE DEVELOPMENT DISORDER**
- **TEACHING METHODS**
- **INTERVENTIONS**
- **PARENTS PERCEPTION**
- **TEACHERS PERCEPTION**
- **RETT'S DISORDER**
- **INDIVIDUALIZED EDUCATION PROGRAM TEAM (IEP TEAM)**

### 1.5) PURPOSE OF STUDY:

The purpose of this qualitative study was to investigate the perceptions of parents of children with autism disorder, special education teachers and general teachers regarding educational interventions for children with autism spectrum disorder.

**1.6) RESEARCH QUESTION:**

1. What educational interventions have parents of children with autism spectrum disorder, special education teachers and general classroom teacher used to address the needs of children with autism spectrum disorder and what have been their experience?
2. What educational methods, practices do parents, teachers perceive to be helpful and effective in meeting the needs of children with autism spectrum disorder?
3. What are the barriers and challenges that parents of children with autism spectrum disorder, special education teacher and general school teacher have experienced in meeting the educational needs of children with autism spectrum disorder?
4. What are the perceptions of parents of children with autism spectrum disorder, special education teachers, general teachers regarding their experiences and relationships with one another in meeting the educational needs of children with autism spectrum disorder?

**1.7) OBJECTIVES OF THE STUDY:**

- ❖ To explore the personal world of the children with Autism Spectrum Disorder and the communication strategies used to express it
- ❖ Understand their different perception of the world and of their place in the world
- ❖ Understand the perceptions of parents regarding their children with Autism Spectrum Disorder.
- ❖ Understand the perceptions of general teachers and special education teachers of children with Autism Spectrum Disorder
- ❖ To interact with the parents, general teachers and special education teachers regarding the educational interventions for children with Autism Spectrum Disorders.

### 1.8) SIGNIFICANCE OF THE STUDY:

Although hundreds of quantitative studies have been conducted on the effectiveness of numerous educational and behavioral interventions for children with autism spectrum disorder, only a handful of qualitative studies have been conducted. The study is designed to add the knowledge of about parents and teachers perception for children with autism disorder.

My purpose of examining this study is to record the views and experience of parents and teacher was to provide a richer understanding of multiple perspectives regarding the efficacy of various educational interventions, the barriers and the problems faced with implementation and the impact of specific interventions on the lives of the children, their families and their teachers.

Parents and teachers need to build strong collaborative relationships of planning and implementing Individual Education Programs for children with autism spectrum disorder.

### 1.9) SCOPE OF STUDY:

The study is qualitative study bounded by the parameters of school sampling six parents, five special education teachers and four general education teachers. The study was delimited to six parents in grades VI- VIII who were receiving special education.

The study also delimited to a sample of five special education teachers and four education teachers.

Data was collected by individual interviews and questionnaires.

The research study was further limited to by the nature of qualitative research in which data collected represented the perceptions and experience of all parents of children with autism spectrum disorder, all special education teacher and normal teacher.

### 1.10) DEFINITION OF TERMS:

- AUTISM SPECTRUM DISORDER:

A broad range of autistic disorders that vary in severity of symptoms, age of onset, and association with other disorders such as mental retardation.

- **PERVASIVE DEVELOPMENT DISORDER:**

This diagnosis includes "atypical autism" and is made when some but not all of the criteria for Autistic Disorder or other Pervasive Development Disorder are met.

- **RETT's DISORDER:**

This relatively rare autism spectrum disorder has an age of onset sometimes between 6 and 18 months. This disorder is found almost in females and is associated with severe language impairments and severe to profound mental retardation.

- **INDIVIDUALIZED EDUCATION PROGRAM TEAM (IEP TEAM):**

A group of individuals responsible for determining the eligibility for special education services under the provision of IDEA, and for developing and revising an Individualized Education Program for a student eligible for special education.

### 1.11) **DELIMITATION OF THE STUDY:**

This study is confined to the private schools as qualitative approach is used. Only interview and questionnaire tools were used to study the case to study the perception of the parents and teachers on the educational interventions for children with Autism Spectrum Disorder.

### 1.12) **OVERVIEW OF THE STUDY**

This qualitative case study is presented in six chapters.

- ❖ Chapter 1 provides an introduction, the purpose of the study, research questions, and the significance of the study, limitations and delimitations of the study.
- ❖ Chapter 2 contains review of the related literature, a review of the qualitative studies of parents and teachers of children with ASD.
- ❖ Chapter 3 describes the methodology and procedures of the study.
- ❖ Chapter 4 presents the study finding and analysis of data gathered through interview and questionnaire
- ❖ Chapter 5 contains a summary of findings, summary and recommendations for practice and future research
- ❖ Chapter 6 contains references



**REVIEW OF**  
**RELATED**  
**LITERATURE**

## CHAPTER 2

### REVIEW OF THE RELATED LITERATURE:

#### 2.1) INTRODUCTION:

Review of related research is a comprehensive summary of previous research on the topic. It surveys scholarly articles, books and other sources related to the particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research. It should give a theoretical base for research and help the researcher to determine the nature of the research. It acknowledges the work of previous researchers doing, assures that the work has been well conceived. It is assumed that by mentioning a previous work in the field of study, the author has read, evaluated and assimilated all previous significant works in the field into the research.

It creates a "landscape" for the researcher giving the full understanding of the developments in the field. This landscape informs the researcher has assimilated all previous, significant works in the field of research. It is a critical analysis of a segment of a published body of knowledge through summary, classification and comparison of prior research studies, reviews of literature and theoretical articles.

It is extremely important part of any research as it shows what other researchers have already done and what other investigators are doing. In other words, it basically helps the investigators to find the various research gaps. It provides a critical review and appraisal of the related studies and shows how the related studies contribute towards advancing the present knowledge regarding the specific area under supervisors.

It serves a variety of background functions preparatory to the actual collection of data. In these research approaches the literature is reviewed to create the context from the past for the new study to be conducted with new subjects and newly gathered data. The researcher formulates the hypothesis on the basis of review of literature.

#### 2.2) IMPORTANCE OF REVIEW OF THE RELATED LITERATURE:

- 1) It guides or helps the researcher in searching for or selecting a better research problem or topic.
- 2) It helps the investigator to understand his topic or research better.

- 3) It ensures that there will be no duplication of other studies
- 4) It provides conceptual or theoretical frame work of planned research.
- 5) It gives the researcher a feeling of confidence
- 6) It provide information about the research methods used
- 7) It provides findings and conclusions of past investigations.
- 8) It may be an end in itself to publish it as a review.

### **2.3) CHARACTERISTICS OF REVIEW OF THE RELATED LITERATURE:**

- 1) The surveyed materials must be as recent as possible.
- 2) Material reviewed must be objective and unbiased
- 3) Materials surveyed must be relevant to the study
- 4) Surveyed materials must have been based upon genuinely original and true facts or data to make them valid and reliable.

### **2.4) PURPOSE OF REVIEW OF RELATED RESEARCH:**

- 1) To understand the purpose and expectations of the prompt for research so as to place appropriate emphasis in the analysis and summary
- 2) It enables to continue the tradition cohesively and enables to integrate past works and sources to the body of knowledge and also to say something new about them
- 3) To demonstrate knowledge of available sources
- 4) To identify gaps in theories
- 5) To check consistency and continuity of existing studies and their results
- 6) Enables to delimit the scope and to narrow down the research problem
- 7) To ascertain availability of expected data and techniques for the research problem
- 8) To compare ones finding with that of past studies and to place the work in the context
- 9) To avoid duplication of work
- 10) To learn from earlier endeavors i.e. to know the type of difficulties encountered and to get insight for new line of approach.

## **2.5) PROCESSES OF REVIEW OF RELATED LITERATURE:**

- 1) Determine the clear purpose of review
- 2) Search, access and gather literature
- 3) Skim through literature followed by a detailed reading of significant ones
- 4) Notice similarities and differences in terms of methodologies, philosophies, choice and interpretation of evidence, reliability
- 5) Observe gaps in research or areas that require further study
- 6) Note any particular issue or problem that stands out.
- 7) Look for prompt to compare texts in general on a specific issue or question
- 8) Avoid going back and forth and changing direction and focus of review
- 9) Notes taking with classification and creating structure
- 10) Note significance of each work to research problem
- 11) Build reference database
  - i) Working bibliography
  - ii) Cyclic method of building references
  - iii) Eliminating duplication
  - iv) Managing reference with style
- 12) Build a data base of notes integrating references, texts, quotes and comments.

## **2.6) LITERATURE REVIEW**

Autism is a neurobiological disorder that is present from birth or very early in child's development (National Research Council, 2001). This disorder is diagnosed before the age of three through childhood and has no definite cure (American Academy of Pediatrics, 2001). Autism is typically described as a spectrum of disorders that vary in severity of impairment and associations with other disorders. Although symptoms differ from one child to another, all ASD are marked by significant impairment in reciprocal social interaction and communication skills and the presence of repetitive and stereotyped behaviors and interest.

One of the core features of autism spectrum disorder is significant impairment in the ability to initiate and maintain reciprocal social interaction. (DSM-IV-TR, 2000).

Children with autism spectrum disorder often avoid eye contact and appear disengaged and uninterested in interaction with people.

They have difficulty in learning to interpret and imitate skills and inability in sharing activities.

They become descriptive or aggressive or engage in self injurious behavior.

The other major feature with autism spectrum disorder is a stereotyped pattern of behavior, extreme behavior such as hand flapping, arm waving, walking on toes may occur.

Children with autism spectrum disorder may exhibit persistent, intensive, preoccupations or obsessive interest in one topic. They may be pre occupied with parts of objects rather than engaging in functional or creative play.

Many children with autism spectrum disorder display a typical sensory motor behavior such as decreased responsiveness to certain sound, hyper sensitivity to other sound and hyper sensitivity to certain tastes, textures and smell.

- **Perceptions of parents:**

In order to build strong collaborative relationship with children with autism spectrum disorder and truly include parent as equal partners in planning and implementing educational program as mandated by the amendments to IDEA, it is imperative that educators seek to understand the thoughts, feelings and experience of these families.

- **Perceptions of teachers:**

All the children with autism in this study received speech and language therapy services and teachers relied on speech and language therapists for advice on communication and social skills .

The teachers perceived special assistance as a critical link among all services. They reported generally.

A positive relation was made with children with autism spectrum disorder in their general classes. Both general and special teachers were provided with opportunities for training and in service program on educating children with autism.

Autism is a complex developmental disability that causes problems with social interaction and communication. Autism causes children to experience the world differently from the way most other children do. It is hard for children with autism to talk with other people and express themselves using words. Children who have autism usually keep to themselves and many can't communicate without special help.

They may also react to what is going on around them in unusual ways.

Autism causes children to act in abnormal ways. They might flap their hands, say certain words again and again, have temper tantrums or play only with a particular toy. Most children with autism do not like to change the routines. They like to stay on a schedule that is always the same. They also may insist that their toys or other objects be arranged in a certain way and get upset if these items are moved or disturbed.

Autism affects about 1 in every 150 children. Knowing the exact cause is hard because the human brain is complicated. For some reason some of the cells and connections in the brain of the child with autism do not develop properly or get damaged.

Autism spectrum disorder is a heterogeneous group of neurodevelopmental conditions, characterized by impairments in social skills, verbal and nonverbal communications and restricted stereotyped patterns of behavior (American Psychiatric Association 2000). The term "ASD" refers to a specific group of pervasive developmental disorders (PDD), listed here in order from least common to most common.

ASDs are found in all socioeconomic, ethnic and age group. However, males are almost five times more likely to have an ASD than females (NIH Autism Fact Sheet, 2012). The majority (62%) of children identified as having ASDs do not have intellectual disability (IQ < 70, AADM, 2012).

Autism is known as a "spectrum" disorder because there is wide variation in the type and severity of symptoms people experience. ASD occurs in all ethnic, racial, and economic groups. Although ASD can be a lifelong disorder, treatments and services can improve a person's symptoms and ability to function. The American Academy of Pediatrics recommends that all children be screened for autism. All caregivers should talk to their doctor about ASD screening or evaluation.

Autism spectrum disorder (ASD) is a developmental disorder that affects communication and behavior. Although autism can be diagnosed at any age, it is said to be a "developmental disorder" because symptoms generally appear in the first two years of life.

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), a guide created by the American Psychiatric Association used to diagnose mental disorders, people with ASD have:

- Difficulty with communication and interaction with other people
- Restricted interests and repetitive behavior.
- Symptoms that hurt the person's ability to function properly in school, work, and other areas of life

Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges. There is often nothing about how people with ASD look that sets them apart from other people, but people with ASD may communicate, interact, behave, and learn in ways that are different from most other people. The learning, thinking, and problem-solving abilities of people with ASD can range from gifted to severely challenged. Some people with ASD need a lot of help in their daily lives; others need less.

An increasing number of students with Autism Spectrum Disorder (ASD) are being integrated into inclusive classrooms. The general education curriculum can suit the needs of students with ASD depending on the severity of the disorder. However, students with ASD can thrive when being accommodated in a classroom of typically-developing students. An increasing number of professors that excel in special education and behavioral analysis (Anderson, 2001; Harrower & Dunlap, 2001; Hart & Whalon, 2011; Leach & Duffy, 2009; Chandler-Olcott & Kluth, 2009) have conducted quantitative and qualitative studies and

have provided extensive literature reviews. Their work provides insight on the difficulties students with ASD experience, how general education teachers feel about inclusion, and how they can accommodate them successfully into inclusive classroom.

Children with autism spectrum disorder exhibits a core deficit in verbal and nonverbal interactions and communications. (National Research Council, 2001). Many display delayed language development, and some remain nonverbal throughout their lives. Some learn through signs and pictures. Those who do acquire functional speech often combine normal language. They may speak in a flat, robotic like voice or display typical pitch, tone and rhythm (National Research Council, 2001).

Children with ASD have significant difficulty engaging in reciprocal conversations. Even children with mild ASD may have broad vocabularies and yet unable to follow social rule for speaking and listening in a two way conversation (National Research Council, 2001). Children with ASD also have significant problems developing nonverbal communication skills such as the use of conventional and descriptive gestures. They often have difficulty in coordinating the use of gestures with eye contact and words when communicating with others. (National Research Council, 2001).

Children with ASD is a restricted or stereotyped pattern of behavior and interest. Extreme behaviors like hand flipping, arm waving, body rocking or walking on toes may occur. Some children exhibit more subtle behaviors such a lining up toys in a certain way or engaging in rituals and demanding sameness in the daily routine.

Children with ASD may exhibit persistent, intensive preoccupations or obsessive interest in one topic such as dinosaurs or maps. They may become preoccupied with parts of objects (repeatedly spinning the wheels of a toy car) rather than engaging in functional or creative play.

Many students with ASD display a typical sensory motor behaviors such as decreased responsiveness to certain sounds, hypersensitivity to other sounds and hypersensitivity to certain tastes, texture and smell. Some may scream or cover their ears in the presence of sound such as fire alarm or noise in a school. (National Research Council, 2001).

The characteristics of children with ASD make it quite challenging for parents and teachers to provide appropriate and effective educational programs for these children.

Autism means the developmental disability significantly affecting verbal and nonverbal communication and social interaction.

Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance.

A child who manifests the characteristics of autism after age of three could be identified as having autism if the criteria is satisfied.

The American Academy of Pediatrics (Kogen et al. 2009) published a study based on parent report that indicates an autism prevalence rate of 1 in every 91 American children including 1 in 50 boys. These statistics were based on data gathered as part of the 2007 National Survey of Children's Health(NSCH), a national survey funded by the Health Resource and Service Administration(HRSA) and centers for Disease Control and Prevention (CDC).

In the NSCH survey more than 78,000 parents of children aged 3 to 17 were asked to report whether their child currently had an autism spectrum disorder diagnosis or whether their child had received that diagnosis in the past from a doctor or other health care provider but was no longer diagnosed with ASD(Kogen et al.2009)

Multiple factors including wider public awareness, improved diagnostic methods, and the broadening of diagnostic criteria to include milder forms of autism such as Asperger's Disorder may have contributed this explosive increase in the prevalence of autism disorder (Wing, 1996).

Autism was not recognized as a specific disability for public education purpose until 1990 with federal passage of the individuals with Disability Education Act. After "autism" was included as a specific disability for special education purpose increased dramatically.

The Individuals with Disability Education Act (IDEA) of 1990 included "Autism" as one of the several disability categories mandated to receive a free and appropriate education (FAPE) in the least restrictive environment(LRE) appropriate to meet the child's individual needs in accordance with the Individual Education Program (IEP).

IDEA 1990 also mandated early intervention for any child younger than age 3 with a known developmental disability or developmental delay.

Under Part C of the 1997 and 2004 reauthorizations of the Individuals with Disability Education Act of 1990, children from birth to age 3 who have disability (including autism or developmental delay) are eligible to receive appropriate developmental, therapeutic and family support services under an Individual Family Service Plan (IFSP). Under the provision of Part B of IDEA (1997,2004) the local public is responsible for providing special education and related services to the children ages 3-21 who have disability.

There is no medical test for autism. Because symptoms typically appear before the age of 3, some young children receive a diagnosis of autism by a physician based on developmental screening, parent interview and observation of child (American Academy of Pediatrics, 2001). For children ages 3-21 IDEA requires school system to evaluate and identify students suspected of having a disability. An Individualized Education Program Team (IEP Team) is responsible for determining whether a child has a disability and is eligible for special education services under the provisions of IDEA.

Diagnosis and determination of eligibility for special education services due to autism is based on parent interview, developmental history, speech and language assessment,

educational and psychological testing and observing the child's behavior. A comprehensive evaluation may also include the use of one or more autism diagnostic scales such as the Autism Diagnostic Observation Schedule (ADOS) (Lord, Rutter, DiLavore, & Risi, 1999). The Childhood Autism Rating Scale (CARS) (Schopler, Reichler, & Renner, 1988), the Gilliam Autism Rating Scale – Second Edition (GARS-2) (Gilliman, 2009) and the Asperger Syndrome Diagnostic Scale (ASDS) (Myles, Bock, & Simpson, 2001).

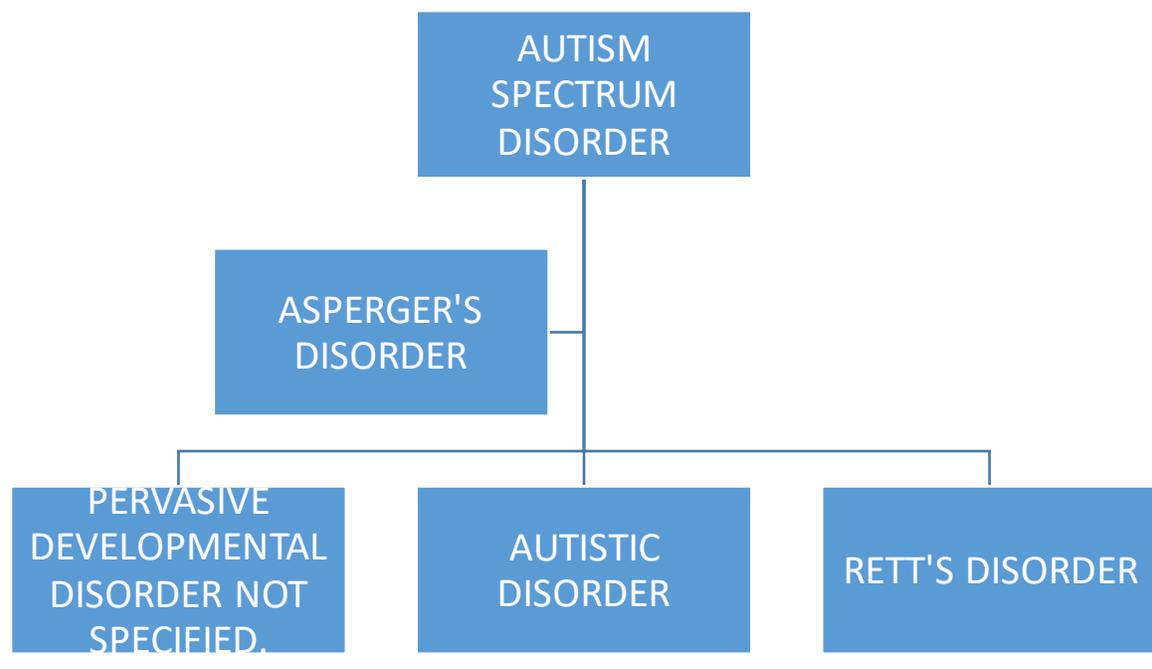
After the IEP Team determines a child eligible for special education services due to autism, the team must develop a written Individual Education Program (IEP) for the child in accordance with the provision of IDEA (2004). The IEP must include information about the child's current levels of academic performance; measurable annual goals and how progress towards goals will be measured; information about special education services and supplementary aids and services to be provided on assessments and an explanation of the extent to which the child will not participate with non-disabled children in the general education program.

## **2.7) SUMMARY**

A review of the research literature on educational intervention for children with autism spectrum disorder revealed a vast body of empirical support for a broad range of approaches and educational practices. Such interventions include comprehensive approaches using various forms of applied behavior analysis ranging from more traditional discrete trial training to naturalistic teaching methods as well as alternative approaches such as structured teaching.

This review of the literature also revealed a very limited number of studies exploring the perceptions of parents of children with autism spectrum disorders and their teacher regarding various educational interventions for these children. Studies of teacher perceptions have focused almost entirely on attitudes of general and special education teachers regarding the vast array of educational intervention for children with ASD. Studies of parents perception are somewhat more revealing but limited in scope and number.

**PERVASIVE DEVELOPMENTAL DISORDER**



# RESEARCH METHODOLOGY

## **CHAPTER 3**

### **3.1) RESEARCH METHODOLOGY:**

The purpose of this qualitative study was to investigate the perceptions of parents, teachers, and special education teachers of children with autism spectrum disorder. I explored the attitudes, opinions and experiences of the three key stakeholders i.e. parents, general teachers and special education teachers regarding the success and barriers they have experienced in meeting the educational needs of the children, what intervention and strategies they have found most effective and how were the relationships with each other.

This study provides the description of the design of the study, the selection of participants, the methods and procedures used for data collection and data analysis, and measures taken to ensure trustworthiness.

### **3.2) DESIGN OF THE STUDY:**

Qualitative research is an effort to understand situations in their uniqueness as a part of a particular context and the interactions. This understanding is an end in itself, so that it is not attempting to predict what may happen in the future. As qualitative research is undertaken in natural setting, the researcher is the primary instrument of data collection. I selected a qualitative research design not only to an obvious void in research literature but also this design was particularly suited to my purpose of exploring the lives experiences of parents of children with autism spectrum disorder and their teachers in educating these children with the goal of understanding this phenomenon from participant's perception.

### **3.3) DATA COLLECTION:**

The primary method of data collection were questionnaire and interviews. These were conducted at a convenient place and time of the participants chosen. Teachers were interviewed after their completion of the class. Parents were interviewed in the office and some in their homes.

They included semi structured and open ended questions.

**“Qualitative interviews and questionnaires are the conversation in which the researcher gently guides a conversational partner in an extended discussion. The researcher elicits depth and detail about the topic by following up on the answers given by the interviewee during the discussion. In qualitative interview each conversation is unique, as researcher match their questions to what each interviewee knows and willing to share”.**

**As a qualitative researcher assuming priori, I engaged in interviews and questionnaires with study of participants as conversational partners to elicit their understandings and meanings concerning the overarching research questions: What are the perception of parents of children with autism spectrum disorders, special teachers and general teachers regarding educational interventions of children with autism spectrum disorder, the efficacy of various practices and facilitators and barriers to successful intervention. The purpose of this interview and questionnaire was to provide depth, detailed and richness of the study of the participants.**

### **3.4) CONTENT VALIDITY:**

**After supplementing the theoretical knowledge and the skill of the investigator and the expertise of the supervisor, the tools were constructed. The tools have carefully designed ensuring that the information was elicited. The tools were also improved upon in the terms of efficiency as they provide significant aspects of their purposes, providing the estimate of content validity.**

### **3.5) TECHNIQUES USED FOR DATA ANALYSIS:**

**The data was analyzed by the content analysis.**

**Content Analysis is a research tool or technique that helps to analyze the actual content and it is feature of any kind, whether it was a word, picture, themes, text, and try to present the content in objective and quantitative manner.**

**Content Analysis is a technique for objective, systematic and quantitative description of the manifest of the communication. Since the content analysis is concerned with the classification, evaluation and comparison of the content of communication of the document, it is sometimes referred as documentary activity or information analysis. The communication may be in the form of response to open ended questionnaires, conversations as a result of interview or description of an observed activity. It may also be in the form of official records, judicial decisions, laws, budgets and financial records, cumulative records, course of study etc.**

**Content Analysis is the procedure for the categorization of verbal or behavioral data for the purpose of classification, summarization and tabulation.**

The content can be analyzed on two levels

- i) **DESCRIPTIVE:** what is the data?
- ii) **INTERPRETATIVE:** what was meant by the data?

### **PROCESS OF CONTENT ANALYSIS:**

Six questions must be addressed in every content analysis:

- 1) Which data are analyzed?
- 2) How are they defined?
- 3) What is the population from which they are drawn?
- 4) What is the context relative to which the data are analyzed?
- 5) What are the boundaries of the boundaries of the analyzed?
- 6) What is the target of the inferences?

### **ADVANTAGES OF CONTENT ANALYSIS:**

- It offers several advantages to the researchers who consider using it.
- Looks directly at communication via texts or transcripts, and hence gets at the central aspect of social interactions.
- Can allow for both quantitative and qualitative operations.
- Can provide valuable historical/ cultural insights over time through analysis of texts.
- It is easier to see patterns in the data
- Easier to summarize and present data
- Statistical analysis can be carried via texts or transcript and can get the central aspect of social interactions.
- It can be virtually unobstructed
- It is cost effective
- It provides a means of study a process.
- Trend identification over time

### **DISADVANTAGES OF CONTENT ANALYSIS:**

- Limited to examining already recorder messages
- Ineffective for testing casual relationships

- Can be extremely time consuming
- It is a subject to increased error, particularly when relational analysis is used to attain a higher level of interpretation
- It is often devoid of theoretical base, or attempts too liberally to draw meaningful inferences about the relationships and impacts implied in a study.
- Validity may be subjective or nonscientific.

### 3.6) DESCRIPTION OF THE TOOLS:

The tools used in the study are:

- 1) Interview
- 2) Questionnaire

#### 1) INTERVIEW:

Any person to person interaction between two or more individuals with a specific purpose in mind is called an interview. The interview is a process of communication or interaction in which the subject or the interviewer gives the needed information verbally in a face to face situation. Although, the interview is generally associated with counselling or psychotherapy, it can be used effectively to collect useful information about individuals in many research situations. It is commonly used method of collecting information from people. There are two types of interview schedule i.e. structured and non-structured interview.

##### i) STRUCTURED INTERVIEW:

It comprises of rigid structures, interview contents and also there is rigidity in interview questions and their wording. In structured interview, the investigator structures the interview in a planned way.

##### ii) UNSTRUCTURED INTERVIEW:

It comprises of flexible interview structure, interview contents and interview questions. The investigator may formulate questions and raise issues on the spur of the moment and have complete freedom in terms of using the words.

## 2) QUESTIONNAIRE:

A questionnaire is defined as the research instrument that consists of a set of questions or other types of prompts that aims to collect information from the respondent. These are the mixture of close ended and open ended questions.

It is a set of questions used for research purposes that can be used both as "qualitative" and "quantitative".

There are two types of questionnaire i.e. structured and unstructured questionnaire.

### i) STRUCTURED QUESTIONNAIRE:

It collects qualitative data. The questionnaire is prepared in such a way that it collects very specific information. It initiates formal enquiry, supplements data and checks previously accumulated data and helps to validate any prior hypothesis.

### i) UNSTRUCTURED QUESTIONNAIRE:

The questionnaire in this case has a basic structure and some branching questions but nothing that limits the response of the respondents. The questions are more open ended.

In the present study an open ended interview schedule was used. The interview schedule consisted of eight questions.

## SUMMARY:

Chapter 3 provided an overview of the methodologies and procedures that were used for the qualitative study investigating the perceptions of parents and teachers of children with autism spectrum disorder. The purpose of this chapter was to provide a description of the design of the study, the sampling process, tools used for data collection and data analysis.

# ANALYSIS OF DATA

## CHAPTER 4

### 4.1) ANALYSIS OF DATA:

The purpose of this qualitative study was to investigate the perception of parents, teachers and special education teachers of children with autism spectrum disorder. I explored the attitudes, opinions and the experiences of the three stakeholders regarding the success and barriers they have experienced in meeting the educational needs of children with ASD, what interventions and teaching strategies they have found most helpful and effective and how they view their interaction and relationship with one another.

Data collected through 15 interview and questionnaires with the sample of five special education teachers, four teachers and rest six were parents. Maximum variation sampling was used in an effort to select the parent and teachers participation representing children at all levels of autism spectrum, a variety of grade levels and a variety of educational settings.

Interviews lasted for approx. 40-45 minutes and were conducted at the time and place of each participants choosing. All the five special education teachers decided to have interview in their classroom and the four general teachers after or during the free class period.

### 4.2) DOCUMENTS COLLECTED:

In addition to participating in individual interview five special education teachers and four general teachers voluntarily provided documents of their choice of review. Documents provided by teachers included teacher made materials that are used in the classroom to support the educational intervention for children with ASD, program manuals for specific educational interventions, materials from professional development training on educating children with ASD, samples of visual aids and schedules used in classroom and samples of behavior plan. No personal identifiers were included in the copies of documents.

After the collection of documents and analyzed I found that the data were unique as it was shared by the two groups but not the third. The themes describing parent and teacher fell into three broad categories:

- 1) Perceptions of effective educational interventions and teaching methods for children with ASD
- 2) Perceptions of barriers and challenges experienced
- 3) Perceptions of relationships among parents and teachers in meeting the educational needs of children with ASD.

Seven themes emerged regarding the barriers and challenges that parents, special education teachers and general teachers have experienced in meeting the educational intervention of children with ASD. Six themes were endorsed by all the three participants as follows:

- 1) Lack of training and knowledge
- 2) Lack of time
- 3) Challenges caused by ASD itself
- 4) Problematic attitude of teacher
- 5) Problematic attitude of parents
- 6) Transition issues.

A seventh theme was endorsed by parents and special education teachers was need for additional services and therapies.

The perception of parents of children with ASD, special education teachers and general teachers regarding their relationships with one another were analyzed first with regard to parent teacher relationship the with regard to relationship with special education teachers and general teachers. Four major themes emerged among all the three study groups to build positive parent teacher relationships. These are:

- 1) Collaboration, teamwork and support
- 2) Ongoing communication
- 3) IEP team meetings and IEP itself
- 4) Positive teacher relationship with children with ASD.

Two themes emerged that summarizes the perceptions of relationships of special education teacher and general education teachers. These are:

- 1) Collegiality and closeness
- 2) Divergent needs

The data collected is attached in the appendix.

#### **4.3) SUMMARY:**

This chapter presented an analysis of research of data collected through interview and questionnaires. Documents gathered for analysis included teacher made materials like visual aids, schedules and behavior plans etc. emerging themes describing parent and teacher perception fall into three broad categories:

- 1) Perceptions of effective educational interventions and teaching methods for children with ASD.
- 2) Perception of barriers and challenges experienced

**3) Perception of relationships between parents and teachers in meeting the educational needs of children with ASD.**

**The perceptions of parents of children with ASD, special education teachers and general teacher regarding their relationship with each other was analyzed with regard to parent teacher relationship. Four major themes emerged among all three study regarding factors they believe to facilitate the family relationship and positive parent teacher relationships. These were:**

- 1) Collaboration, team work and support**
- 2) Ongoing communication between teachers and parents**
- 3) IEP team meetings**
- 4) IEP itself**

**Parents and teacher perceived their relationship with one another as generally positive due to a high level of teamwork and support from all the three teams as they were fully included in collaborative decision making;**

**SUMMARY,**  
**CONCLUSION AND**  
**RECOMMENDATIONS**

## CHAPTER 5

### 5.1) SUMMARY, CONCLUSION AND RECOMENDATIONS:

The purpose of this qualitative case study was to investigate the perceptions of parents of children with ASD, special education teacher and general teacher regarding educational interventions of children with ASD. I observed the attitudes, opinions and the experiences of three stakeholders regarding the successes and barriers they have experienced in meeting the educational needs of children with ASD, what interventions and teaching strategies they have found most helpful and effective, and how they view their interactions and relationships with one another. There were several reasons for conducting the study.

Interview and questionnaire data and documents were analyzed using the constant comparison analysis method. Emerging themes describing parent and teacher perception of educational interventions for children with ASD fell into three broad categories:

- 1) Perception of effective educational intervention and teaching methods for children with ASD
- 2) Perception of barriers and challenges experienced
- 3) Perception of relationships among parents and teachers in meeting the educational needs of the children with ASD.

A summary of the findings and conclusions in relationship to the research literature are presented as they relate to the four main research questions that are as follows

### 5.2) SUMMARY OF FINDINGS:

- 1) What educational interventions have parents of children with autism spectrum disorder, special education teachers and general education teachers used to address the educational needs of children with autism and what have been their experience with those specific inventions?
  - The parents and teachers reported positive perceptions that is to be effected in meeting the educational interventions with autism spectrum disorders. Consistent with the research literature parents and teachers in the study did not identify one approach or a single program as clearly better than all others. They reported positive experiences with all specific educational interventions of children with ASD. Additional summary and conclusions regarding parent and teacher perceptions of effective interventions and the relationship of the study findings to the research literature are presented in the context of the next question.

- 2) **What educational methods, practices or interventions do parents of children with autism spectrum disorder, special education teacher and general education teacher perceive to be helpful and effective in meeting the educational needs of children with autism spectrum disorder?**
  - **Nine themes emerged summarizing the educational methods, practices and interventions of parents of children with autism spectrum disorder. Parents, special education teachers and general education teacher perceived the effectiveness of:**
    - a) Intensive early intervention using multiple methods**
    - b) A structured learning environment**
    - c) Adult mediated interventions for social and communication skills**
    - d) Peer mediated interventions for social and communication skills**
    - e) Inclusion with a balance of direct service**
    - f) Adequate support staff to facilitate inclusion**
    - g) A functional approach to problem behaviours**
    - h) Alternative and argumentative communication interventions**
    - i) Sensory motor interventions**
  
- 3) **What are the barriers and challenges that parents of children with autism spectrum disorder, special education teachers, and general teachers have experienced in meeting the educational needs of children with autism spectrum disorder?**
  - **Seven themes emerged as the barriers and challenges that parents, special education teachers and general teachers faced:**
    - a) Lack of training and knowledge**
    - b) Lack of time**
    - c) Challenges caused by characteristics of autism spectrum disorder**
    - d) Problematic teacher attitudes**
    - e) Problematic parent attitudes**
    - f) Transition issues**
    - g) Need for additional services and therapies**
  
- 4) **What are the perceptions of parents of children with autism spectrum disorder, special education teachers and general teachers regarding their experiences and**

relationship with one another in meeting the educational needs of children with autism spectrum disorder?

- Four major themes emerged summarizing parent teacher perception:
    - a) Collaboration, teamwork and support
    - b) Ongoing communication
    - c) IEP team teaching
    - d) Positive teacher relationship with autistic children
- Two themes emerged summarizing special education teacher and general teacher perception:
- a) Collegiality and closeness
  - b) Divergent needs

### **5.3) RECOMMENDATIONS OF THE STUDY:**

The purpose of this study was to provide a voice for parents of children with ASD, special education teachers and general teachers regarding their perceptions of educational interventions of children with ASD.

- 1) The limited scope of this study suggest a need to conduct other qualitative studies on the perceptions of parents of children of ASD and their teacher in other settings.
- 2) Findings from this study could be used to develop a survey further to investigate the attitudes, perceptions and experiences of broader sample of parents of children with ASD, special education teacher and general teaching.
- 3) Parents of children with ASD often advocate for one –on-one assistants.
- 4) Exercise and massage/ touch therapy have been identified as “emerging treatments” for individuals with ASD by the National Autism Center.
- 5) There is also a need for sensory integrative treatments such as brushing, weighed backpacks and sensory integrative based occupational therapy that were endorsed by participants.

### **5.4) CONCLUSION:**

In order to build strong collaborative relationship with families of children with autism spectrum disorder and truly include all as equal partners in planning and implementing educational interventions as mandated by IDEA it is essential that educators and parents seek to understand one other’s perceptions, attitudes and experiences. This qualitative study has opened a window to those understanding by providing an opportunity for parents of children of autism spectrum disorder, special education teachers, general

**education teachers to share their perceptions of educational interventions for children needs and strategies they have found most helpful and effective and how they view their relationship with one another.**

**Based on the themes that emerged from this study, recommendations were made to strengthen educational programs and services for children with ASD.**

**Findings from this qualitative research help to fill the gap in the existing research literature by adding to knowledge about parents and teachers perceptions of educational interventions for children with autism spectrum disorder and providing voice for parents and educators to explore the perspectives and experiences of multiple literature.**

# **REFERENCES**

## CHAPTER 6

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