

**A STUDY ON THE EDUCATIONAL NEEDS OF CHILDREN  
WITH AUTISM SPECTRUM DISORDER**

*Abstract*

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**Guide**

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## **ABSTRACT OF THE THESIS**

### **INTRODUCTION**

Education is an integral part of developmental process of an individual. The aim of education is to help one from the childhood to develop his/ her individuality, inborn potentialities and innate capabilities. Hence, education plays a vital role for the holistic development of child's personality and it is of immense need for each and every child irrespective of their physical and mental health. The clarion call of Education for all (1990), Right to Education Act (2002) and Right to Education (2010) as a fundamental Right has attracted the attention of every common person. It has been discussed at every forum of educational planning and development, in pursuit of universalisation of Elementary education and fulfilment of Constitutional mandate for quality elementary education to all children up to the age of 3 to 14 years. Various projects and programmes have been undertaken by various agencies of state and central governments, voluntary agencies, individuals and groups at different levels including remote, rural and urban areas for different types of children including special children. Government has also created provisions for the special children in different forms like special schools, special provisions and inclusion in the general schools through inclusive education. National Policy on Education (1986) and the Programme of Action (1992) has given emphasise on special children as a part of the education. It also includes mission of providing quality elementary education for all including special children is done through SarvaShikshaAbhiyan (SSA, 2000). In this ways, India has come a long way and made a good progress in the education of special children including physical and mental disability. It has also made some remarkable progress in the field of disability rehabilitation through different institutions and programmes. In spite of it, there are some areas of mental disabilities where the progress is not so distinct and significant. One of such area of mental disability is Autism Spectrum Disorder (ASD). It is one of the greyareas in the mental disability where much research work has not been done. ASD also called as autism is a pervasive developmental disorder which is characterized by impairments in communication and social interaction, and restricted, repetitive and stereotypic pattern of behaviour, interests, and activities (American Psychiatric Association 1994). Previously, it was not considered as a form of mental disability in India and it was treated as mental retardation though it is

significantly different from other forms of mental disability. It is one of the most ignorant areas in medical as well as educational field due to the lack of knowledge in this area. Recently, National Education Policy 2020 has given provision for autism in inclusive education as per RPWD Act 2016, Autism was considered as one of the disabilities among the 21 disabilities stated by in the Rights of Persons with Disabilities (RPWD) Act, 2016 of the government of India. Autism is not a single disorder, but rather it is a spectrum of closely related disorders with a shared core of symptoms. The perception of medical and psychological practitioners about autism is changing from time to time with the progress in this area. But unfortunately the progress in this area is not so significant to give a clear cut direction about the treatment and rehabilitation of the children with ASD. Even the causes of ASD are not exactly known to scientists and medical practitioners. There are many causes and factors for multiple types of ASD, including environmental, biologic and genetic factors. Likewise, there is no sight of any treatment for the people with ASD. However, there are many schools of thoughts for the treatment of autism, which is/are not found so effective in the holistic and scientific treatment of children with ASD. Obviously, as the causes for ASD are not clear, there is nothing to prevent ASD among newly born children. There are few specific tests (developmental tests) for the diagnosis of autism mostly found in developed countries and now used in India but only in big cities there are centres for autism. In other parts of the country, it is very difficult to diagnose ASD in an early stage. In many cases it is considered as mental disorder even if in the educated circles. Hence, in many cases the children with ASD get the similar treatment (medicine and therapy) and similar education which are common for children with mental disorder. The number of children with ASD in India and worldwide is increasing in an alarming speed. It was found that the prevalence rates of ASD have increased nearly 17% annually worldwide (CDC, 2014) and there are more than 13 million children in India suffer from this developmental disorder. (HINDUSTAN TIMES APRIL 3, 2017; CENSUS, 2011). The major part of the autism is related to behavioural disorder without having any treatment. Hence, education and training is considered to be the only scientific measure for modifying the behaviour of the children with autism to some extent for their survival. Though there are few models like, Applied Behaviour Analysis (ABA), Relationship Development Intervention (RDI), Sensory Integration Therapy (SIT), Treatment and Education of Autistic and Related Communication-Handicapped Children (TEACCH) are used for the education and training of the children with ASD. Most of them are

originated from developed countries where educational facilities for children with ASD are up to the marks. Some of these models are used randomly in some of the centres for autism in India. Even, researches on the education and training of autism are very less worldwide and it is quite insignificant in number in India. However, most professionals agree that school-age children with ASD respond well to highly structured, specialized education programs designed to meet individual needs (Rahman et al., 2011), which are quite uncommon in India. It is felt that there is a strong need for the research in the areas related to the education of the children with ASD. Though some models of education are used in India for the children with autism, it may not be related to the actual educational need of the children. Due to which many of the education programmes in many of the centres in India found not to be so effective in mainstreaming the children with ASD. ASD is one of the worst types of mental disorder among all other types of disorders without any treatments. Parents of these children at least hope for some sorts of education for the survival of these children. Though some educational centres provide education to the children with ASD in the subjects like mathematics, reading, writing, drawing, dancing, music etc., sometimes it is felt like meaningless for these children. It is not very sure whether these educations are necessary for the survival of the children with ASD.

There is strong need for research in the area of actual educational need of the children with ASD, as there are very few researches in the area of ASD in different fields including medicine, education, psychology and alternative therapies. Hence, the proposed study is an attempt in this direction to study the actual educational need of the children with autism perceived by parents, teachers, and experts, medical practitioners, helping hands and observed from the children with ASD. Present study is an attempt in this area where an attempt is made to study the educational need of the students with ASD which may facilitate special educators to prepare suitable curriculum for the education of the children with ASD.

## **MEANING AND DIFINITION**

According to **Rights of Persons with Disability Act (RPWD,2016)**, “Autism Spectrum Disorder” means a neurodevelopment condition typically appearing in the first three years of life that significantly affects a person's ability to communicate, understand relationships and relate to

others, and is frequently associated with unusual or stereotypical rituals or behaviours”.

According to **Individuals with Disabilities Education Act (IDEA,2017)**, “(i) Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three, that adversely affects a child’s educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotyped movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences. (ii) Autism does not apply if a child’s educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c) (4) of this section. (iii) A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1) (i) of this section are satisfied.”

According to **National Institute of Mental Health(NIMH, 2018)**, “Autism spectrum disorder (ASD) is a developmental disorder that affects communication and behaviour. Although autism can be diagnosed at any age, it is described as a “developmental disorder” because symptoms generally appear in the first two years of life.”

Hence, on the basis of these definitions, autism or Autism Spectrum Disorder (ASD) can be defined as a poorly understood complex neurological condition or brain disorder or Pervasive Developmental Disorder(PDD), having developmental and performance deficiencies in verbal and non-verbal communication, social and cognitive behaviours those appear prior to the age of around 3 years. It adversely affects the child in terms of the educational performance and day to day adjustment with the abnormal behaviours like, (a) engagement in repetitive activities and stereotyped moments due to rigid pattern of thinking, (b) resistance to environmental change or change in daily routine and (c) unusual responses to sensory experiences.

### **1.3 CAUSES OF AUTISM**

Scientists do not know all of the causes of Autism Spectrum Disorders. However, they have learned that there are many causes for multiple types of ASD. There are many factors that make a child more likely to have ASD, including environmental, biological and genetic factors.

- Most of scientists agree that genes are one of the risk factors that can make a person more likely to develop an ASD.
- Parents and sibling Children with ASD have higher risk of having an ASD.
- ASD tend to occur more often in people who have certain other medical problem. About 10% of children with an ASD have an identifiable genetic disorder, such as Fragile X syndrome, tuberous sclerosis, Down syndrome and other chromosomal disorders.
- If some mother has taken harmful drugs i.e. thalidomide during pregnancy have higher risk of ASD.
- There is some evidence that the critical period for developing ASD occurs before birth. However, infection due to vaccination before and after birth has risk factors on children with ASD. (Boyle,2015).
- In the most cases no single cause like genetic, metabolic, or radiographic markers help in diagnosis or predict the severity of symptoms of children with ASD (Barnhil, et al., 2015).

## **SIGNS AND SYMPTOMS**

ASD begin before the age of 3 and last throughout a person's life, although symptoms may improve over time. Some children with an ASD show hints of future problems within the first few months of life, but in some case the symptoms might not show up until 24 months or later. Some children with an ASD seem to develop normally until around 18 to 24 months of their age and then they stop gaining new skills, or they lose the skills they once had. A person with an ASD might:

- Not respond to their name by 12 months.
- Not point at objects to show interest (point at an airplane flying over) by 14 months.
- Not play "pretend" games (pretend to "feed" a doll) by 18 months.
- Avoid eye contact and want to be alone.
- Have trouble understanding other people's feelings or talking about their own feelings.
- Have delayed speech and language skills.
- Repeat words or phrases over and over (echolalia).

- Give unrelated answers to questions.
- Get upset by minor changes.
- Have obsessive interests.
- Flap their hands, rock their body, or spin in circles.
- Have unusual reactions to the way things sound, smell, taste, look, or feel.

**(Sources: Centre for disease Control and Prevention (CDC,2015)**

## **1.8 MANAGEMENT OF AUTISM**

In case of Autism, there is no specific treatment available for the people with autism either partial or full cure. Even if, there is no prevention recommended to avoid the child from being autism. However, few researchers, medical practitioners and psychologists claim some sorts of treatments that may help to reduce some of the symptoms to some extent.

Some articles on autism in India recommended play therapy (Batliwalla, 1959; Bassa, 1962; Chacko, 1964) while others mentioned the used of electroconvulsive therapy (Ray &Mathur, 1965; Gamat, 1968), and parental counselling and family therapy (Chacko, 1964; Hoch, 1967; Gamat, 1968). Only drugs have been widely recommended and prescribed for treatment of autism up to 1960s (Ray &Mathur, 1965; Gamat, 1968). Some of the researchers suggest yoga is useful technique for autistic children (Radhakrishna, Nagarathna, and Nagendra, 2010; Kenny, 2002; Ehleringer, 2010;Serwacki& Cook, 2012 N. Jayaram, Varambally&Behere 2013) and music and dance training therapy (Nandi, 2010; Sengupta, 2010).

Over the years, assistive and augmentative modes of communication have evolved greatly as have techniques to bring about sensory integration. Intensively and early implementation of such educational strategies has proved major improvement in terms of skill development among the children with ASD. Few organisations like Karnataka Parents' Association for Mentally Retarded Citizens (KPAMRC) in Bangalore, Ummeed Child Development Centre in Mumbai, Action for Autism in Delhi and Autism Society West Bengal, Kolkata focus on training parents to educate and empower them to be able to provide training to their children in the areas of functional academics, self-help, socialization, language, and to make use of the valuable hours spent in the school. Many children are getting parental training because of there is no proper

facilities for the children with autism, and facilities not affordable. In recent year focus has been shifted ‘education’ to alternative therapy.

Therapy has shown positive effect on children with autism. It include activities such as yoga, keeping dogs as pets, horse riding etc., but no therapy has proven to bring change in core area of children with ASD acupuncture, acupressure, Auditory Integrated Therapy, Ayurveda medicine, homeopathy medicine, behaviour therapy, magneto therapy, Dimethylglycine facilitated communication, etc. (Daley, 1997).

### **CURRENT STATUS OF EDUCATION OF CHILDREN WITH DISABILITIES**

An estimated of 7.8 million children present under 19 years of age with disabilities in India and it much lower than international estimation as per (**State of the Education Report for India 2019**).

### **PRESENT STATUS OF AUTISM IN THE GUJARAT**

**Table 1-PRESENT STATUS OF AUTISM IN THE GROUP OF CWSN IN GUJARAT**

<b>Category</b>	<b>No. of Identify</b>			<b>No. of Enrolled in School</b>		
<b>Disability</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
<b>Autism Spectrum Disorder</b>	<b>622</b>	<b>463</b>	<b>1085</b>	<b>359</b>	<b>289</b>	<b>648</b>

**Table 2- CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN GUJRAT**

	<b>All school</b>			<b>Government school</b>		
	<b>Boys</b>	<b>Girls</b>	<b>Total</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>

Gujarat	65012	45160	110172	51009	36612	87621
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**Table 3- CHILDREN WITH SPECIAL EDUCATIONAL NEEDS IN VADODARA DISTRICT**

Districts	All school			Government school		
	Boys	Girls	Total	Boys	Girls	Total
Vadodara	3150	2187	5337	2238	1621	3859

(SamagraShiksha, Annual Report, 2018-19)

#### **1.14 EDUCATION FOR AUTISM**

We should pay attention on education for autistic children is equally important with normal children. In researches it is found that individualized strategies are best for the autistic children although it is clear from the characteristics that there is wide range of basic problems of these children. Most professionals agree that school-age children with autism respond well to highly structured, specialized education programs designed to meet individual needs. Based on the major characteristics associated with autism, it is important to consider Social skill development, Communication, Behaviour and Sensory integration.

Integrated Educational programme Programs sometimes include several treatment components coordinated to assist a person with autism. For example, one child’s plan may consist of speech therapy, social skill development and medication, all within a structured behaviour program. Another student may be working on social skill development, sensory integration and dietary changes. No one program or diet is perfect for every person with autism. It is important to try several approaches and find which one work best. As the Autism Society’s Options Policy states: “Each family and individual with autism should have the right to learn about and then select the options that they feel are most appropriate for the individual with autism.” Hence it can be said

that Need based individualised strategy may be quite useful for the education of the children with ASD.

## **EDUCATIONAL NEED OF CHILDREN WITH ASD**

The educational need of the children with ASD includes all the skill and activities which would help them in the survival by modifying their behaviour with the help of training, teaching and behaviour modelling. These educational need may be related to the survival needs like, feeding practice including eating and drinking, toilet training, brushing and cleaning, wearing dress, walking on the road, taking own safety, purchasing needed material, taking bath, cleanliness skills, doing simplest works in the house, understand difference between eatable and non eatable things, differentiating drinking liquid from other liquids which could be harmful to health; social needs like, way of greeting people, using manners while being with the group in the family and outside the family; communication needs including both verbal and non-verbal communication, language and mathematical needs like, learning of language and numbers etc. Though these are the need seems for every child, it is very difficult to fulfil these needs for a child with ASD. Even for many children and parents with severe ASD, it is like dream to fulfil few of these needs. These needs may even vary from children to children according to the intensity and severity of the ASD. Fulfilling these needs may enable these students to work independently all the routine task so that they can work without helpers as well. These are the needs which can be fulfilled with the help of education through teaching, training, practicing etc.

## **IMPLICATION OF THE REVIEWED STUDIES**

A total of 51 studies were reviewed, out of which 32 studies were Indian and 19 studies were from abroad. Studies were found conducted in the discipline of medicine (eleven), bioscience and technology (two), psychology (twelve), social science (three), social work (one) education (seventeen) home science (two), yoga (two), linguistic (one).

Methodologically, (Seventeen) studies were found in experimental in nature (Sigman et al., 1992; Konstantareas and Homatidis, 1992; Micheli, 1999; Ray, 2008; Ray, 2009; Nandi, 2010; Santha, 2010; Alli, 2011; Rahman et al., 2011, Bali, 2012; Reddy, 2013; Chaturvedy, 2014;

Naniwadekar, 2015; Sasikumar, 2016; Kumar, 2017; Dey, 2018, Kaur 2023), Seventeen studies were found descriptive survey type (Knott et al., 1995; Gaitonde, 2010; Shyamsundar, 2002; Bineesh, 2008; Patil, 2012; Beark and Fearon, 2012; Allen et al., 2013; Sunayan, 2014; Chacko, 2015; Parmar, 2015; Khan and Humatse, 2016; Manandhar, 2017; Arun&Chavan, 2018; Tarek et al., 2018; Kalaiavnai and Kalimo, 2018, Hussain and Balarmula, 2019, Mayur et al., 2021), Seven studies were found qualitative type (Bhargva, 1997; Shetty, 2014; Singh, 2017; Jegan, 2018; Kocabiyik, 2018; Katsarou, 2018; Duggal and Dua et al., 2020), One study was found Case study (Moneta &Anthi, 2019), One study was found ethnographic type (Johansson, 2015), two studies were found Mixed method type (Brown, 2012; Prabha, 2014), five studies were found narrative analysis of review (Rincover et al.,1978; Sullivan and Caterino, 2008; Kahane and El- Tahir, 2015; Jenes, 2015; Pearce and Barney, 2016) and one was ex-post facto research type (Mishra and Sreedevi, 2017).

The intervention programme enabled parents to identify the needs of their children in various areas. (Bineesh; 2008) The intervention programme was found effective in the development of cognitive and behavioural patterns in skill & the social skills of children with autism (Rincover et al.,1978; Ray 2008; Santha, 2010; Bali, 2012; Reddy, 2013; Naniwadekar, 2015; Sasikumar, 2016, Kumar, 2017; Kaur, 2023). (Kahane and–E- tahir, 2015) showed the security and organisation of attachment behaviour are affected by the severity of the diagnosis of autism and the co-morbidities associated. Intervention programmes bring more positive changes if the parents continue to do so and create a conducive and pleasant environment for learning (Santha, 2010; Bali, 2012). Parenting stress was higher among parents of children with autism compared to both parents of children with mental retardation and parents of normal children (Gaitonde, 2010; Patil, 2012; Sunayan, 2014) while (Gaitonde, 2010) found that parents experienced stress in the parenting role, their general stress was similar to people who do not have children with disabilities. (Chaturvedy, 2014) There was significant parental stress among mothers of children with autism. (Allen et al., 2013) showed that deficits in social skill and behaviour problems caused higher stress in mothers whereas not significantly associated with parental stress. (Shyamsundar, 2002) parents could hardly think of anything to choose, as far as the schooling of their children, due to the non-availability of different services in such schools. (Chturvedy, 2014) mothers of children with autism have parental distress and high parent-child dysfunctional interaction; they feel their child is difficult to manage. Yoga intervention-related studies showed

positive improvement in the abnormal behaviour of children with autism spectrum disorder (Santha, 2010; Kumar, 2017). Problem behaviour could not be reduced completely even after the interventions but a trend of improvement in this sphere was noticed (Ray, 2008.) Parental training intervention is effective in improving the cognitive and behavioural skills of children with autism (Bineesh, 2008). Improvement in the autistic behaviour of ASD children after the practice of yoga resulted in a better quality of life for parents (Santha, 2010). Exposure to classical music reduced problem behaviour in children with autism (Nandi, 2010).

Sex education as a comprehensive curriculum was very effective in changing odd sexual behaviour and problem behaviour significantly (Ray, 2009 & Sullivan and Caterino, 2008). Mothers' families were found more cohesive and adaptable than fathers' families; mothers experience more social support from friends and family than fathers (Konstantareas and Homatidis, 1992 & Sunayan, 2014). Negotiating access to schools still remains a concern for autistic children even in urban areas (Johansson, 2015). Computer Games were found effective in improving communication among autistic children. Further, it was suggested that individualised games as per the nature of individual autistic children for better results. (Rahman et al., 2011; Kaur, 2023). The majority of the parents observed signs and symptoms in their autistic children like unable to follow inability to communicate needs and requirements, poor eye contact, and delay in language, social and moral skills (Bhargava, 1997; Khane and El-tahir, 2015; Mishra and Sreedevi, 2017, Jagan, 2018). (Parmar, 2016) showed that good education emphasises on good parenting system. (Rincover et al., 1978) educating autistic children is viewed as an ever-changing process, rather than a single circumscribed program, educational techniques evolved as the result of research and will continue to be revised as a function of new research findings. (Chacko, 2015) showed that there were no significant differences among the three groups of teachers in their satisfaction with planning the teaching procedures this reveals that these three groups of teachers have similar satisfaction in planning the teaching procedures. The ethnographic study on autistic children in the metropolitan city of Kolkata conducted by (Johansson, 2015) showed the poor condition and the concern the schooling, education, and coordination between the policy makers and the practitioners. (Shetty, 2014) showed that the verbal autistic subjects produced a statistically significant lower number of sentences per turn and mean sentence length. (Singh, 2017) studies also showed that overall language skills of mild CWA were better than moderate CWA. (Chacko, 2015) Special teachers were found to have only

a moderate level of satisfaction in teaching children with autism. (Rehman et al., 2011) suggested that if we can encourage vocalization at the age of 3 a pivotal age for children with ASD this could be increased communicative ability. (Bineesh, 2008) Expressive language and overall communication ability significantly differ in children with average and above-average children with autism. (Micheli, 1999) studies showed observing and evaluating the child's behaviour and learning how best to manage that behaviour and to give appropriate rewards. (Sasikumar, 2016) studies showed web web-based systems will provide better learning and monitoring mechanisms for autistic children. (Prabha, 2014) the training has helped them to express their needs meaningfully through gestures for nonverbal children, The intervention given is found to be effective as results showed that the behaviour technology applied was statistically significant. (Sullivan and Caterino, 2008) studies showed that the specific content should be individualized according to the needs of the individual and their families. (Janes, 2015) studies showed that the Montessori philosophy also allows for the flexibility of curriculum to assist children with autism and accommodation of individual needs. Studies were conducted in the disciplines of psychology, education, special education, sociology, yoga, home science, bio-science technology and medicine. Most of the Indian intervention studies were based on the needs identified for the foreign children with autism mostly in American and European countries. No studies were reported in India related to the identification of the educational needs of autistic children in India perceived by the experts, counsellors, teachers, parents and caretakers. Most of the studies reviewed in India in another discipline rather than education were on interventions for the improvement of autistic children and many studies were found effective. As autism is a comparatively new area of research in education discipline, the inclusion of autism in the RPWD Act 2016 and National Education Policy 2020, for the success of RTE (2009) and the increase in the number of children with autism (more than 10 million), there is a need to conduct more research on the children with autism. Even, there is a need to conduct more studies in the area of the education of autistic children. It is also needed to identify the educational needs of autistic children based on which research on the intervention programmes could be conducted for the improvement of these children and no study was found in this area. Hence the present study is an attempt in this direction to identify the educational needs of autistic children

## **OBJECTIVE OF THE STUDY**

The present study is conducted to achieve the following objectives.

1. To study the education provided to the children with ASD in terms of types of education, purpose, and approach in the centres providing education to the children with ASD in Vadodara.
2. To study the educational needs of the children with ASD perceived by parents, helpers, Special Educators, doctors and experts.
3. To study the educational needs of the autistic children conveyed by themselves.

## **RATIONAL OF THE STUDY**

Autism or ASD refers to a range of conditions characterized by challenges with social skills, speech and nonverbal communication with repetitive behaviours (IDEA, 2000). It is one of the worst types of mental disorder for which no medication and prevention have been approved because the exact causes of disease are unknown and less research work in this area. The only thing, one can do is the use of intervention programme through education to bring some sort of changes in their behaviour and to make them much capable so that they can at least fulfil their daily needs.

ASD is not like other mental disorders. In fact, the need, strength and challenges of ASD are quite different from other mental disorders. Children with ASD may find difficult to adjust in deferent settings. So controlling these problems become the priority for each and every person concerned with these children. Generally it has been found that all children with autism have behaviour problems (Inclean, 2013). These problem arise because of impairment in communication and social interaction, and restricted, repetitive and stereotypic patterns of behaviour as a result of which they have difficulty in expressing themselves so in order to express them and to reach out to other people they develop certain kind of behaviour which cause hindrance in their daily living activities (Naniwadekar, 2015).

These challenges make parents suffer a lot because of having less knowledge to tackle the problem facing by them as well as by their autistic children. Through study it was found that parenting stress was higher among parents of children with autism in comparison to other parents (Gaitonde, 2010; Patil, 2012). Considering all these things in mind, some efforts need to be made for the children with ASD not only for their basic needs but also to take care of their educational needs. Various education committees from time to time have suggested the need of educating children with special needs which is implemented through inclusive education. NCF, 2005 & 2009 also have suggested curriculum for the special children. But in these all efforts, no separate attention is given to the children with ASD and their needs. Johansson (2015) in his study also found that the prevailing poor condition and the concern of the schooling, education, coordination between the policy makers and the practitioners had made ASD untreatable in terms of educational and behavioural aspects.

In this way it can be conclude that the educational needs of these children with ASD need to be focused differently focussing on each individual's needs and some efforts to be made to develop education needs especially for these children. Although various NGOs and institutions are working all over the country for the children with ASD, there is no efforts done from the government side. So it can be said that it is one of the most neglected area of consideration. If we see other developed countries, children with ASD are taken care very efficiently by their parents through the help of government machinery. Even the government takes the responsibility of these children and assures the proper training for them not only in basic day to day needs but also in educational needs by giving them training for basic calculation like addition, subtraction, letter recognition etc. Even in India educational centres working especially for children with ASD provide education to the children with ASD in the subjects like mathematics, reading, writing, drawing, dancing, music etc. But the question arises, whether they need all these education provided by these centres? Whether, this education is as per their mental level? Will this education help them for their future survival and can make them independent? There are endless questions related to the existing system of education of the children with ASD. Sometimes all these efforts (education practices) seem to be meaningless for these children as it does not bring much change in the behaviour of these children as it is reported by Sasikumar (2016) that mental task performance was poor for the children with ASD in comparison to the children with other mental disorder. It is felt that there is a mismatch in the educational need and

the educational practice of the children with ASD. Mode of Education for these children should be based on practical and skills because many children with autism have special challenges like impairment in communication, social interaction, unusual behaviours and interest, attention difficulty, cognitive deficits, anxiety so their teaching should be based on the skills (Bondy, 1994).

Rehabilitation Council of India (2017) emphasizes on the Universal Design for Learning (UDL) which is an educational framework based on research in the learning sciences, including cognitive neuroscience that guides the development of flexible learning environments that can accommodate individual learning differences. UDL will be applicable for all type of learners including all types of disabilities. It also states the learning of children with ASD using UDL through multi-sensory learning approaches considering the strength and interest of the learners. It seems like an excellent approach for the learning of students with and without any types of disability. It talks about imparting the needed education of the children. But the question arises, what are the needed education for the children with ASD? Whether the needed education for them would be in the areas of their impairments like, lack of social skills, repetitive behaviours and lack of communication or they need education in the survival skills like, training for their day to day behaviours, for their survival without direct help from others. It is one of the very big questions for the children with ASD. Apart from the discussed impairments, they have a spectrum of other impairments differing from child to child for which autism is also called as ASD. Hence, it is the time to identify their educational needs on the basis of which need based individualised strategy can be designed using UDL which may be effective for the children with ASD.

The researcher want to conduct the study in Vadodara city as here various centres are there who are working for the ASD children like, Disha Autism centre, Arpan, Reach-Centre for autism, Sai centre, Aarambh. Continuously making efforts to make their life smooth and better through education and training. But it has been observed that all these centres are to some extent working only with the basic trainings and education following some foreign models. Researcher felt that the children with ASD need education more on their survival and basic needs to be independent and to survive in the future which can be possible through education and behaviour modification techniques. So in the present study an attempt has been taken to study the actual educational

need of the children with ASD perceived by their parents, teachers, and experts, medical practitioners, helping hands and observed from the children with ASD.

Very few studies were found on autism in education in India. Other studies were conducted in other allied disciplines related to interventions. Most of the intervention studies were based on the needs identified for the children with ASD in developed countries. No studies were reported in India related to the identification of educational needs of the children with ASD in India perceived by the immediate helping hand to them. Hence, there is a need to conduct more studies in the area of the education of the children with ASD on the basis of which researches on the intervention programmes could be conducted. Hence, the present study is an attempt in this direction to identify educational needs of the children with ASD.

## **STATEMENT OF THE PROBLEM**

A STUDY ON EDUCATIONAL NEEDS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

## **EXPLANATION OF THE TERM**

**ASD:** Autism Spectrum Disorder is a spectrum of brain disorders having developmental and performance deficiencies in verbal and non-verbal communication, social and cognitive behaviours those appear prior to the age of around 3years.

**EDUCATIONAL NEEDS:** Needs those can be fulfilled with the help of education through the modification of behaviour.

## **DELIMITATION OF THE STUDY**

The present study is delimited to the children diagnosed as ASD within the age group of 3-18 years of age enrolled indifferent centers in Vadodara.

## **METHODOLOGY OF THE STUDY**

The present study was qualitative, for achieving the objective qualitative research methodology was used. In detail methodological procedure including the research area of the study, population, sample, tools for data collection, procedure of data collection and data analysis are given as follows study was a descriptive survey where the survey will be conducted on the educational needs of the children with ASD.

### **POPULATION FOR THE STUDY**

The population of the present study consisted of all the children with ASD, their parents, their teachers (special educators), their helpers, experts, and doctors treating the children with ASD from Vadodara city. Total special school and autism centre (Disha, Kalrav, Arpan, Spandan, Karishma, Reach, Asha, Balbhavan, Sai Residential school, Vermi ), and Kasiba Child & Autism Hospital in 2018-2019.

### **SAMPLING TECHNIQUE USED**

The Sample for the present study was selected purposively. Centres working for children with ASD were selected purposively. Children with ASD were selected from each centre purposively as well. Hence, 30 students were selected for the present study. These 30 students, their parents (30), their helper (3), and their special teachers (10) were considered as the sample. Experts (8) working in the area of autism in different organizations in Vadodara and (4) doctors working for autism also were selected purposively from Vadodara city as the sample of the present study.

### **TOOLS AND TECHNIQUES FOR DATA COLLECTION**

The following tools and techniques were used for the data collection to achieve the objectives of the present study.

The researcher prepared an observation schedule and structured interview schedule in connection with data collection from different stakeholders. In connection with the interview preparation

researcher made questions dimension-wise and then validated all five stakeholders (Parents, Teachers, Experts, Doctors, and Helper) interview schedules by the subject expert, after that, the interview was based on suggestions of the experts and finally prepared structure interview.

## **DATA ANALYSIS**

Researcher Tran scripted (All stockholders) the data on the paper from the interview recorder then question-wise responses arranged. The data was analysed using content analysis-summarizing method of every stock holder separately. Those schools/ centres/ were caring for and teaching children with autism spectrum disorder, researcher was done participant observation in the school and noted down in the dairy. Noted information dimension wise written and after that triangulated between all interview analysis and observation.

## **MAJORE FINDINGS**

The following findings are derived from the analysis and interpretation of the collected data to achieve the educational needs of children with autism spectrum disorder.

1. Educational needs to improve behavioural problems like sleeping disorders, hyperactivity, and self-injury.
2. Communication, social behaviour and sensory skills are needed for children with autism spectrum disorder to convey their needs and feelings to others.
3. Training, intervention and integrated therapy are considered as educational needs.
4. Social awareness, social support and public education are found as the educational needs

Of children with autism spectrum disorder

5. Affection can be modified by removing the Parental stress in children with autism spectrum disorder
6. Parental counselling in front of their child
7. Cognitive development reading writing arithmetic, Special education for survival behaviour and devotees special teacher is needed for the children with autism spectrum disorder
8. Sex education in adolescent children with autism spectrum disorder

9. Group plays an important tool to nurture a good way to children with autism spectrum disorder.

Along with these major findings researcher also found the following point related to the educational needs of children with autism spectrum disorder

1. Educational needs regarding daily activities
2. Educational needs regarding vocational and recreational
3. Educational needs for the survival in absence of parents
4. Educational needs of children with autism spectrum disorder outside of the school at an unknown place

### **IMPLICATION OF THE PRESENT STUDY**

Research institution, special school and policy maker, government and non government organization can use this study to implement educational needs of children with autism spectrum disorder in special school for better education, present study also give insight to special teacher to train children with autism spectrum disorder according to their needs. Educational needs of children with autism spectrum disorder can be implemented in special schools as support of curriculum based study. Different special institution can be used study to impart proper education to children with autism spectrum disorder. This research study can be used to check out policies and strategies for special education governing body rehabilitation council of India.

### **SUGGESTION FOR FUTURE STUDIES**

The study should be conducted to expand on the educational needs of children with autism spectrum disorder with specific age limits of the children with autism spectrum disorder.

Similar studies can be conducted with specific cultures in another state in India.

For an in-depth understanding of the children with autism spectrum disorder behaviour of the child and institutions, a case can be conducted.

A comparative study can be conducted on the educational needs of children with autism spectrum disorder abroad and in India.

A study integrated approach of children with autism spectrum disorder can be matched with 21st-century skills.

A study can be conducted on the educational needs of children with autism spectrum disorder in an inclusive schooling environment.

## **DISCUSSION AND CONCLUSION**

The aim of the present study was (i) To study the education provided to the children with ASD in terms of types of education, purpose, and approach in the centres providing education to the children with ASD in Vadodara. (ii) To study the educational needs of the children with ASD perceived by parents, helpers, Special Educators, doctors and experts. (iii) To study the educational needs of the autistic children conveyed by themselves. In the study of the educational needs of children with autism spectrum disorder, researchers developed the structured interview to get the interview from the stakeholders like- Teachers, Parents, Doctors, Experts, Helpers as well as special school observed also. After analysis of interviewee data about the educational needs of children with autism spectrum disorder, results came out are- sensory therapy is needed for both hypo and hyper children with autism spectrum disorder, and communication skills are also needed for children with autism spectrum disorder to convey their needs and feeling to other, social skill also needed for the children with autism spectrum disorder. All these findings are supported by

Ray (2009) and Nandi (2010), Sunayan (2014) revealed that social support to autism and Therapists helps to reduce the behavioural problems as well as Janes (2015) whose study was based on a study entitled Autism in Early Childhood Education Montessori Environments:

Parents and Teachers Perspectives, however, it was found that children with autism spectrum disorder from learning their sensory need to touch, rub, and feels objects and people present another challenge in the classroom incorporating a balance between tolerating and strengthening a child's interests in an appropriate mode while respecting both the individual and others whom their behaviour may affect. There are many opportunities to develop communication skills, social competence and self-care despite learning difficulties or sensory issues as the Montessori program incorporates lessons on social graces and basic skills such as washing hands and dressing oneself. Bark and Fearon (2012) found that significant association between having autism spectrum disorders and being reported as having lower levels of communication skills so it is indirectly indicating and supporting for the present study. Mishra and Sreedevi (2017) it was found that children have poor attention spans, an inability to communicate needs and requirements, and developmental delays in language, social and motor skills The study showed that communication and social aspects are educational needs for children with autism spectrum disorder directly support to present study.

Education of children with autism spectrum disorder came out after the discussion activity for daily living should be, communication, socialization, social support in society, cognitive and sensory therapy, recreational, and vocational needs, survival behaviour, unusual behaviour, sex education, and parental stress. It was perceived from the findings of the present study the real meaning of education. Most parents do not need any high standard of education for their children; they need only the education which can make their children survive in this world in their absence. But our system seems to be helpless in providing such minimum required education when education is our fundamental right. It is very high time to work in this area. It is also one of the duties of the government agencies at least to safeguard these children through different measures.