

Primary treatments for children with autism education essay



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This report reviews the effective management services in India, the educational strategies and associated therapies that are the primary treatments for children with autism spectrum disorders. Optimization of health care is likely to have a positive effect on habilitative progress, functional outcome, and quality of life; therefore, important issues, such as management of associated medical problems, pharmacologic and nonpharmacologic intervention for challenging behaviors or coexisting mental health conditions, and use of complementary and alternative medical treatments, are also addressed.

INTRODUCTION

Recent estimates have placed the prevalence of autism in the U. S. at approximately 1 in 150 people. At India's current population, this means there are more than 2 million autistic persons in the country. Of course, this estimate assumes that there are no significant variations in this rate worldwide, which is a question that has not yet been addressed by epidemiologists outside the West. While the disorder is not rare, the majority of autistic people in India has not been diagnosed and do not receive the services they need. This problem occurs in many countries, but is especially true in India where there is a tremendous lack of awareness and misunderstanding about autism among the medical professionals, who may either misdiagnose or under diagnose the condition.

One of the major difficulties faced by parents of children with autism in India is obtaining an accurate diagnosis. A parent may take their child to a paediatrician only to be reassured that their child is just "slow." Unsatisfied,

they may visit a psychologist, to be told their child is “mentally subnormal.” Convinced that their child does not fit the typical picture of mental retardation, they may visit a psychiatrist, to be told that their child has attention deficit disorder, and must be put on medication to control hyperactivity. After months of sedation and unsatisfactory progress, they may again begin a cycle of searching for the correct name for their child’s problem. Some doctors may feel that nothing can be gained by a diagnosis of autism if the services are not there; yet, as more children are diagnosed as autistic and more awareness of the disorder spreads, there will be a demand for services. Schools will be forced to educate themselves if they find that more of the population they serve is autistic.

Admittedly, there are not enough services to meet the needs of mentally retarded children and adults in India, let alone those who are autistic. Let this then be an impetus to create more, and ensure that the special needs of autistic children are not ignored. There is also an urgent need to begin planning homes and centres for these children when they become adults: people with autism have a normal life span and many will require supervision after their parents’ death. Currently, the needs of autistic children in India are not being met in either the regular or special education systems. With an understanding teacher or possibly an aide, a more able autistic child could function very well in a regular school, and learn valuable social skills from his peers. However, even children with very high I. Q.’s are often not permitted in regular classes. Also, the rigidity and pressure of schools in India can make it difficult for an autistic child to cope without special allowances. Some middle and lower functioning children, who form the majority of

autistic children, may attend special schools, but these schools almost always lack an understanding of effective methods of handling the challenging behaviors of autistic children. As one psychologist noted, “ The kids just get ‘ dumped’ or ignored at the special schools.” Children with autism are frequently refused admission in these special schools because officials protest they are not equipped to handle autistic children, who are sometimes more challenging than children with mental retardation alone. I believe that special schools should invest in learning these techniques, rather than turning parents away!

In India, a concrete beginning was made in 1991, when Merry Barua formed Action for Autism in Delhi, the first exclusive centre for children with autism. Earlier, the children were put in schools for the mentally retarded though the two disabilities needed different treatments.

The 1990s was a decade of change both in mindsets and policy framework. The Rehabilitation Council of India Act (1992), the Persons With Disability Act (1995) and the National Trust Act for persons with Autism, Cerebral Palsy, MR and Multiple Disabilities (1999) came with a mandate for early intervention programmes, training of schoolteachers and professionals in Rehabilitation and Special Education.

As more people trained to work with autism, more children were identified.

Autism is resource-intensive, calling for regular evaluation to track development, but lack of trained manpower is putting services on hold.

There are about 25, 000 Special Educators in India today, but in the

curriculum used in their training autism was just a cursory mention. B. Ed
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programmes have no paper on autism. Rehabilitation Council of India's diploma course in autism is offered only in a few cities and Disability Management is not in medical courseware.

EDUCATIONAL INTERVENTIONS

Education has been defined as the fostering of acquisition of skills and knowledge to assist a child to develop independence and personal responsibility; it encompasses not only academic learning but also socialization, adaptive skills, communication, amelioration of interfering behaviors, and generalization of abilities across multiple environments. Physicians and other clinicians are often in a position to guide families to empirically supported practices and help them evaluate the appropriateness of the educational services that are being offered.

Comprehensive Programs for Young Children

In the last 2 decades, research and program development in the area of educational intervention have focused largely on very young children with ASDs because of earlier identification and evidence that early intensive intervention may result in substantially better outcomes. Model early childhood educational programs for children with ASDs have been described in thorough reviews. These model programs are often categorized as behavior analytic, developmental, or structured teaching on the basis of the primary philosophical orientation. Although the approaches have important differences, they also overlap. For example, contemporary comprehensive behavioral curricula borrow from developmental or cognitive approaches (such as addressing joint attention, reciprocal imitation, symbolic play, and theory of mind and using indirect language stimulation and contingent

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imitation techniques), and some developmental models (eg, the Denver model) and the structured teaching approach of the Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH) program use behavioral techniques to fulfill their curriculum goals.

Although programs may differ in philosophy and relative emphasis on particular strategies, they share many common goals, and there is a growing consensus that important principles and components of effective early childhood intervention for children with ASDs include the following:

entry into intervention as soon as an ASD diagnosis is seriously considered rather than deferring until a definitive diagnosis is made;

provision of intensive intervention, with active engagement of the child at least 25 hours per week, 12 months per year, in systematically planned, developmentally appropriate educational activities designed to address identified objectives;

low student-to-teacher ratio to allow sufficient amounts of 1-on-1 time and small-group instruction to meet specific individualized goals;

inclusion of a family component (including parent training as indicated);

promotion of opportunities for interaction with typically developing peers to the extent that these opportunities are helpful in addressing specified educational goals;

ongoing measurement and documentation of the individual child's progress toward educational objectives, resulting in adjustments in programming when indicated;

incorporation of a high degree of structure through elements such as predictable routine, visual activity schedules, and clear physical boundaries to minimize distractions;

implementation of strategies to apply learned skills to new environments and situations (generalization) and to maintain functional use of these skills; and

use of assessment-based curricula that address:

functional, spontaneous communication;

social skills, including joint attention, imitation, reciprocal interaction, initiation, and self-management;

functional adaptive skills that prepare the child for increased responsibility and independence;

reduction of disruptive or maladaptive behavior by using empirically supported strategies, including functional assessment;

cognitive skills, such as symbolic play and perspective taking; and

Traditional readiness skills and academic skills as developmentally indicated.

Specific Strategies

A variety of specific methodologies are used in educational programs for children with ASDs. Detailed reviews of intervention strategies to enhance communication, teach social skills, and reduce interfering maladaptive behaviors have been published in recent years. Brief descriptions of selected methodologies are provided below.

Applied Behavior Analysis

Applied behavior analysis (ABA) is the process of applying interventions that are based on the principles of learning derived from experimental psychology research to systematically change behavior and to demonstrate that the interventions used are responsible for the observable improvement in behavior. ABA methods are used to increase and maintain desirable adaptive behaviors, reduce interfering maladaptive behaviors or narrow the conditions under which they occur, teach new skills, and generalize behaviors to new environments or situations. ABA focuses on the reliable measurement and objective evaluation of observable behavior within relevant settings including the home, school, and community. The effectiveness of ABA-based intervention in ASDs has been well documented through 5 decades of research by using single-subject methodology and in controlled studies of comprehensive early intensive behavioral intervention programs in university and community settings. Children who receive early intensive behavioral treatment have been shown to make substantial, sustained gains in IQ, language, academic performance, and adaptive behavior as well as some measures of social behavior, and their outcomes have been significantly better than those of children in control groups.

Highly structured comprehensive early intervention programs for children with ASDs, such as the Young Autism Project developed by Lovaas at the University of California Los Angeles, rely heavily on discrete trial training (DTT) methodology, but this is only one of many techniques used within the realm of ABA. DTT methods are useful in establishing learning readiness by teaching foundation skills such as attention, compliance, imitation, and discrimination learning, as well as a variety of other skills. However, DTT has been criticized because of problems with generalization of learned behaviors to spontaneous use in natural environments and because the highly structured teaching environment is not representative of natural adult-child interactions. Traditional ABA techniques have been modified to address these issues. Naturalistic behavioral interventions, such as incidental teaching and natural language paradigm/pivotal response training, may enhance generalization of skills.

Functional behavior analysis, or functional assessment, is an important aspect of behaviorally based treatment of unwanted behaviors. Most problem behaviors serve an adaptive function of some type and are reinforced by their consequences, such as attainment of (1) adult attention, (2) a desired object, activity, or sensation, or (3) escape from an undesired situation or demand. Functional assessment is a rigorous, empirically based method of gathering information that can be used to maximize the effectiveness and efficiency of behavioral support interventions. It includes formulating a clear description of the problem behavior (including frequency and intensity); identifying the antecedents, consequences, and other environmental factors that maintain the behavior; developing hypotheses

that specify the motivating function of the behavior; and collecting direct observational data to test the hypothesis. Functional analysis also is useful in identifying antecedents and consequences that are associated with increased frequency of desirable behaviors so that they can be used to evoke new adaptive behaviors.

Structured Teaching

The TEACCH method, developed by Schopler and colleagues, emphasizes structure and has come to be called “structured teaching.” Important elements of structured teaching include organization of the physical environment, predictable sequence of activities, visual schedules, routines with flexibility, structured work/activity systems, and visually structured activities. There is an emphasis on both improving skills of individuals with ASDs and modifying the environment to accommodate their deficits. Several reports have documented progress in children who have received TEACCH services as well as parent satisfaction and improvement in parent teaching skills, but these reports were not from controlled studies of treatment outcomes. In a controlled trial, Ozonoff and Cathcart found that children treated with a TEACCH-based home program for 4 months in addition to their local day treatment programs improved significantly more than children in the control group who received local day treatment services only.

Developmental Models

Developmental models are based on use of developmental theory to organize hypotheses regarding the fundamental nature of ASDs and design approaches to address the deficits. The Denver model, for example, is based largely on remediating key deficits in imitation, emotion sharing, theory of <https://assignbuster.com/primary-treatments-for-children-with-autism-education-essay/>

mind, and social perception by using play, interpersonal relationships, and activities to foster symbolic thought and teach the power of communication. This program has shifted from a center-based treatment unit to service delivery in homes and inclusive school environments. Several studies have demonstrated improvements in cognitive, motor, play, and social skills beyond what would be expected on the basis of initial developmental rates in children who are treated according to the Denver model, but controlled trials are lacking.

Relationship-focused early intervention models include Greenspan and Wieder's developmental, individual-difference, relationship-based (DIR) model, Gutstein and Sheely's relationship-development intervention (RDI), and the responsive-teaching (RT) curriculum developed by Mahoney et al. The DIR approach focuses on (1) "floor-time" play sessions and other strategies that are purported to enhance relationships and emotional and social interactions to facilitate emotional and cognitive growth and development and (2) therapies to remediate "biologically based processing capacities," such as auditory processing and language, motor planning and sequencing, sensory modulation, and visual-spatial processing. Published evidence of the efficacy of the DIR model is limited to an unblinded review of case records (with significant methodologic flaws, including inadequate documentation of the intervention, comparison to a suboptimal control group, and lack of documentation of treatment integrity and how outcomes were assessed by informal procedures) and a descriptive follow-up study of a small subset (8%) of the original group of patients. RDI focuses on activities that elicit interactive behaviors with the goal of engaging the child in a social

relationship so that he or she discovers the value of positive interpersonal activity and becomes more motivated to learn the skills necessary to sustain these relationships. Some reviewers have praised the face validity of this model, which targets the core impairment in social reciprocity. However, the evidence of efficacy of RDI is anecdotal; published empirical scientific research is lacking at this time. One study reported beneficial effects of RT on young children with ASDs or other developmental disabilities. Parents were taught to use RT strategies to encourage their children to acquire and use pivotal developmental behaviors (attention, persistence, interest, initiation, cooperation, joint attention, and affect). Children in both groups improved significantly on nonstandardized play-based measures of cognition and communication and standardized parent ratings of socioemotional functioning. Although a control group was lacking and the potential role of concurrent educational services was unclear, the improvements were beyond what the authors expected from maturational factors alone.

Speech and Language Therapy

A variety of approaches have been reported to be effective in producing gains in communication skills in children with ASDs. Didactic and naturalistic behavioral methodologies (eg, DTT, verbal behavior, natural language paradigm, pivotal response training, milieu teaching) have been studied most thoroughly, but there is also some empirical support for developmental-pragmatic approaches (eg, Social Communication Emotional Regulation Transactional Support, Denver model, RDI, Hanen model).

People with ASDs have deficits in social communication, and treatment by a speech-language pathologist usually is appropriate. Most children with ASDs

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can develop useful speech, and chronologic age, lack of typical prerequisite skills, failure to benefit from previous language intervention, and lack of discrepancy between language and IQ scores should not exclude a child from receiving speech-language services. However, traditional, low-intensity pull-out service delivery models often are ineffective, and speech-language pathologists are likely to be most effective when they train and work in close collaboration with teachers, support personnel, families, and the child's peers to promote functional communication in natural settings throughout the day.

The use of augmentative and alternative communication modalities, including gestures, sign language, and picture communication programs, often is effective in enhancing communication. The Picture Exchange Communication System (PECS) is used widely. The PECS method incorporates ABA and developmental-pragmatic principles, and the child is taught to initiate a picture request and persist with the communication until the partner responds. Some nonverbal people with ASDs may benefit from the use of voice-output communication aids, but published evidence for these aids is scant. Introduction of augmentative and alternative communication systems to nonverbal children with ASDs does not keep them from learning to talk, and there is some evidence that they may be more stimulated to learn speech if they already understand something about symbolic communication.

Social Skills Instruction

There is some objective evidence to support traditional and newer

naturalistic behavioral strategies and other approaches to teaching social
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skills. Joint attention training may be especially beneficial in young, preverbal children with ASDs, because joint attention behaviors precede and predict social language development. A recent randomized, controlled trial demonstrated that joint attention and symbolic play skills can be taught and that these skills generalize to different settings and people. Families can facilitate joint attention and other reciprocal social interaction experiences throughout the day in the child's regular activities. Examples of these techniques are described in the American Academy of Pediatrics parent booklet "Understanding Autism Spectrum Disorders."

A social skills curriculum should target responding to the social overtures of other children and adults, initiating social behavior, minimizing stereotyped perseverative behavior while using a flexible and varied repertoire of responses, and self-managing new and established skills. Social skills groups, social stories, visual cueing, social games, video modeling, scripts, peer-mediated techniques, and play and leisure curricula are supported primarily by descriptive and anecdotal literature, but the quantity and quality of research is increasing. A number of social skills curricula and guidelines are available for use in school programs and at home.

Occupational Therapy and Sensory Integration Therapy

Traditional occupational therapy often is provided to promote development of self-care skills (eg, dressing, manipulating fasteners, using utensils, personal hygiene) and academic skills (eg, cutting with scissors, writing).

Occupational therapists also may assist in promoting development of play skills, modifying classroom materials and routines to improve attention and organization, and providing prevocational training. However, research <https://assignbuster.com/primary-treatments-for-children-with-autism-education-essay/>

regarding the efficacy of occupational therapy in ASDs is lacking. Sensory integration (SI) therapy often is used alone or as part of a broader program of occupational therapy for children with ASDs. The goal of SI therapy is not to teach specific skills or behaviors but to remediate deficits in neurologic processing and integration of sensory information to allow the child to interact with the environment in a more adaptive fashion. Unusual sensory responses are common in children with ASDs, but there is not good evidence that these symptoms differentiate ASDs from other developmental disorders, and the efficacy of SI therapy has not been demonstrated objectively. Available studies are plagued by methodologic limitations, but proponents of SI note that higher-quality SI research is forthcoming. “Sensory” activities may be helpful as part of an overall program that uses desired sensory experiences to calm the child, reinforce a desired behavior, or help with transitions between activities.

Comparative Efficacy of Educational Interventions for Young Children

All treatments, including educational interventions, should be based on sound theoretical constructs, rigorous methodologies, and empirical studies of efficacy. Proponents of behavior analytic approaches have been the most active in using scientific methods to evaluate their work, and most studies of comprehensive treatment programs that meet minimal scientific standards involve treatment of preschoolers using behavioral approaches. However, there is still a need for additional research, including large controlled studies with randomization and assessment of treatment fidelity. Empirical scientific

support for developmental models and other interventions is more limited, and well-controlled systematic studies of efficacy are needed.

Most educational programs available to young children with ASDs are based in their communities, and often, an “eclectic” treatment approach is used, which draws on a combination of methods including applied behavior analytic methods such as DTT; structured teaching procedures; speech-language therapy, with or without picture communication or related augmentative or alternative communication strategies; SI therapy; and typical preschool activities. Three studies that compared intensive ABA programs (25-40 hours/week) to equally intensive eclectic approaches have suggested that ABA programs were significantly more effective. Another study that involved children with ASDs and global developmental delay/mental retardation retrospectively compared a less intensive ABA program (mean: 12 hours) to a comparably intensive eclectic approach and found statistically significant but clinically modest outcomes that favored those in the ABA group. Although the groups of children were similar on key dependent measures before treatment began, these studies were limited because of parent-determined rather than random assignment to treatment group. Additional studies to evaluate and compare educational treatment approaches are warranted.

Programs for Older Children and Adolescents

Some model programs provide programming throughout childhood and into adulthood. More commonly, the focus of specialized programs is on early childhood, and published research evaluating comprehensive educational programs for older children and adolescents with ASDs is lacking. However, <https://assignbuster.com/primary-treatments-for-children-with-autism-education-essay/>

there is empirical support for the use of certain educational strategies, particularly those that are based on ABA, across all age groups to increase and maintain desirable adaptive behaviors, reduce interfering maladaptive behaviors or narrow the conditions under which they occur, teach new skills, and generalize behaviors to new environments or situations.

When children with ASDs move beyond preschool and early elementary programs, educational intervention continues to involve assessment of existing skills, formulation of individualized goals and objectives, selection and implementation of appropriate intervention strategies and supports, assessment of progress, and adaptation of teaching strategies as necessary to enable students to acquire target skills. The focus on achieving social communication competence, emotional and behavioral regulation, and functional adaptive skills necessary for independence continues. Educational programs should be individualized to address the specific impairments and needed supports while capitalizing on the child's assets rather than being based on a particular diagnostic label.

Specific goals and objectives and the supports that are required to achieve them are listed in a child's individualized education plan and should be the driving force behind decisions regarding the most appropriate, least restrictive classroom placement. Appropriate settings may range from self-contained special education classrooms to full inclusion in regular classrooms. Often, a mix of specialized and inclusive experience is appropriate. Even highly functioning students with ASDs often require accommodations and other supports such as provision of explicit directions, modification of classroom and homework assignments, organizational

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supports, access to a computer and word-processing software for writing tasks, and social communication skills training. When a paraprofessional aide is assigned, it is important that there be an infrastructure of expertise and support for the child beyond the immediate presence of the aide. The specific duties of the aide should be outlined, the strategies to be used should be defined, and the aide should receive adequate training.

In adolescence, the term “ transition” is used to describe the movement from child-centered activities to adult-oriented activities. The major transitions are from the school environment to the workplace and from home to community living. In schools, transition-planning activities may begin as early as 14 years of age, and by 16 years of age, the individualized education plan should include an individualized transition plan. The emphasis may shift from academic to vocational services and from remediating deficits to fostering abilities. A vocational assessment is often conducted to evaluate the adolescent’s interests and strengths and to determine the services and supports needed to promote independence in the workplace and in the community. Comprehensive transition planning involves the student, parents, teachers, the medical home, and representatives from all concerned community agencies. Depending on the individual’s cognitive level, social skills, health condition, work habits, and behavioral challenges, preparation for competitive, supported, or sheltered employment is targeted. Regardless of the type of employment, attention to skill development should never stop. Skills necessary for independent living should be taught to the degree possible given the abilities of the person. Sexuality education instruction

should be included, and there is a growing body of literature that has addressed the topic.

FAMILY SUPPORT

Management should focus not only on the child but also on the family.

Although parents once were viewed erroneously as the cause of a child's ASD, it is now recognized that parents play a key role in effective treatment. Having a child with an ASD has a substantial effect on a family. Parents and siblings of children with ASDs experience more stress and depression than those of children who are typically developing or even those who have other disabilities. Supporting the family and ensuring its emotional and physical health is an extremely important aspect of overall management of ASDs.

Physicians and other health care professionals can provide support to parents by educating them about ASDs; providing anticipatory guidance; training and involving them as cotherapists; assisting them in obtaining access to resources; providing emotional support through traditional strategies such as empathetic listening and talking through problems; and assisting them in advocating for their child's or sibling's needs. In some cases, referral of parents for counseling or other appropriate mental health services may be required. The need for support is longitudinal, although the specific needs may vary throughout the family life cycle.

One of the chief strategies for helping families raise children with ASDs is helping to provide them with access to needed ongoing supports and additional services during critical periods and/or crises. Natural supports include spouses, extended family members, neighbors, religious institutions,

and friends who can help with caregiving and who can provide psychological and emotional support. Informal supports include social networks of other families of children with ASDs and community agencies that provide training, respite, social events, and recreational activities. Formal supports include publicly funded, state-administrated programs such as early intervention, special education, vocational and residential/living services, respite services, Medicaid, in-home and community-based waiver services, Supplemental Security Income benefits, and other financial subsidies. The breadth and depth of services vary, even within the same state or region. Few services exist in many rural areas, and public programs may have long waiting lists.

Sibling support groups offer the opportunity to learn important information and skills while sharing experiences and connecting with other siblings of children with ASDs. Although the research on support groups for siblings of children with disabilities is difficult to interpret because of study-design problems and inconsistent outcome effects on sibling adjustment, these groups generally have been evaluated positively by participating siblings and parents, and there is some evidence of beneficial effects for siblings of children with ASDs.

Because each state has organized its services and access mechanisms differently, physicians and families must learn their own state's unique rules to access supports by contacting the state or county offices of the states' Department of Health and Human Services or Mental Health and Mental Retardation or the state developmental disabilities organization. In addition, local parent advocacy organizations, national autism and related

developmental disability organizations, early intervention administrators,
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and school district special education coordinators often are knowledgeable about various programs and their respective eligibility requirements.

CONCLUSION

Enhance the quality of life of pa