Article 1: New Technical and Alternative Treatment Options (1,004 words)

Exploring Treatment Options for Patients with Autism

Although there is no known cure for autism, a combination of specialized treatment and education programs can often help many patients. The most common autism treatment options involve occupational and physical therapy. Occupational therapy helps improve independent function and teaches patients basic skills, such as buttoning a shirt or bathing, while Physical therapy involves using exercise and other physical measures, such as massage and heat, to help patients control body movements.

Other common autism treatment options include:

- Behavior modification
- Communication therapy
- Dietary modifications
- Medication

Behavior modification:

Several methods of behavior modification are used to treat autistic patients. Most behavior modification principles are based on the theory that rewarded behavior is more likely to be repeated than ignored behavior. For instance, Sensory Integration Therapy focuses on helping autistic patients cope with different sensory stimulation. The treatment may include having the patient handle materials with different textures or listening to different sounds.

Play therapy is yet another type of behavior modification used to improve emotional development. Play therapy most often helps patients understand and cope with their own feelings and involves adult-child interaction that the child controls. Along the same lines, another behavior modification technique called "social stories" can also prove helpful in improving an autism patient's undeveloped social skills. Using social stories helps a patient better understand their feelings and ideas, as well as the points of view of others. It may suggest to the patient an alternate response to a particular situation.

Communication therapy:

Many other alternate treatment options for autistic patients involve the use of communication therapy. Communication therapy is used to treat autistic patients who are unable to communicate verbally, or it also may be used to initiate language development in young children with the disorder.

Today, clinical studies show that Video Modeling Therapy Programs are highly effective in teaching autistic children. One such program entitled "Special Kids" (www.specialkids.com) was pioneered by a father of a boy with autism. Special Kids maintains a distribution to over 500 different school systems within the USA as well as 30 different countries. The program helps children with a variety of developmental, cognitive, and learning disabilities acquire speech, reading, writing, early academics, personal hygiene, self-help, social, and play skills.

Another program, called "Safety Harbor" is the brainchild of two school therapists, Anne Pesacov and Betty Dixon, and teaching artist Emily Harris. This series of eight workshops is designed to teach social skills to children with Asperger's syndrome through the use of puppets. To learn more about puppet-assisted relationship therapy, contact Betty S. Dixon of Tampa at (813) 431-9790, Emily Harris of Tarpon Springs at (727) 934-5890, or Anne Pesacov of Safety Harbor at (727) 738-9232.

The use of music has also proven to be an effective communication therapy for autism patients. Professor Tony Wigram, Head of PhD Studies in Music Therapy at the Institute for Music and Music Therapy at the University of Aalborg, Denmark has authored several books on the subject. He has concluded that since music therapy can be easily adjusted to an individual child's strengths and weaknesses it is often quite helpful in improving the patient's deficiencies in social and communication skills.

Yet another alternate treatment option for patients with autism is the use of Dolphin Assisted Therapy. The foundation of the Dolphin Assisted Therapy program in dates back to Eastern Europe, the former Soviet Union, and the Black Sea. This field of medicine has shown extraordinary results in relation to the conventional methods of treatments such as prescribed medication.

An overview of Dolphin Assisted Therapy is available at: http://www.dolphinassistedtherapy.com/

Dietary modifications:

Autism is not caused by diet so the use of dietary modifications and supplements to treat the disorder is somewhat controversial. Changing the diet or adding vitamin supplements may improve digestion and eliminate food intolerances or allergies, which may contribute to behavioral problems in autistic patients.

Scientific Researchers have discovered the byproducts found in wheat, oats and rye (gluten) and casein (protein in dairy products) have appeared at elevated levels in patients with autism. This may suggest that the digestion of these substances may affect brain function. However, eliminating foods that contain gluten and casein from the diet may cause side effects and should not be done without the advice of a health care practitioner.

Studies have also shown that vitamin B, magnesium and cod liver oil supplements (which contain vitamins A and D) may improve behavior, eye contact, attention span and learning in autistic patients. Vitamin C has been shown to improve depression and lessen the severity of symptoms in patients with autism.

The DAN (Defeat Autism Now) Protocol is another dietary modification program gaining popularity. The protocol involves a combination of changes to the diet and implementation of vitamin supplement therapy in order to produce changes in autistic behaviors. These diet changes include eliminating certain dairy and grains while supplementing the patient's diet with the vitamin and mineral therapy.

An overview of the DAN Protocol is available at: http://autism.about.com/cs/medicaltreatments/a/danprotocol_2.htm

Medication:

Medication may be also be used to treat various symptoms of autism and can also be used to help other conditions that may accompany the disorder.

Depression, obsessive-compulsive behavior and anxiety may be treated using anti-depressants. These drugs often reduce the frequency and intensity of repetitive behavior; decrease irritability, tantrums and aggression. They may also improve eye contact and responsiveness.

Benzodiazepines such as diazepam (Valium®), lorazepam (Ativan®), and alprazolam (Xanax®) can also be used to treat behavioral problems. While antipsychotic medications such as clozapine (Clozaril®), risperidone (Risperdal®), olanzapine (Zyprexa®), and quetiapine (Seroquel®) may decrease hyperactivity, behavioral problems, withdrawal, and aggression in autistic patients.

Stimulants such as methylphenidate (Ritalin®), amphetamine (Adderall®) and dextroamphetamine (Dexedine®) may also be prescribed for autism. These drugs may increase focus and decrease impulsive behavior and hyperactivity in patients.

It's best to consult a medical expert before considering any medications as the patient's medical history needs to be taken into consideration, as well as possible side effects.

Article 2: Celebrities Connected to Autism (479 words)

The Connection Between Hollywood, Celebrities and Autism

In 1988 Dustin Hoffman performed his Oscar winning role as the autistic patient Raymond Babbitt in the motion picture Rain Man. In the film, Tom Cruise (Charlie) plays opposite Dustin Hoffman as the two men embark on a cross country journey together.

The film explores Charlie's relationship with Ray – and how both characters develop a newfound understanding for the very different worlds they both live in. As a result of the film's popularity, Hollywood actors and actresses became more aware of the conditions that may accompany the disorder. Although many experts have questioned the realism of Rain Man - there is no denying the impact of the film in helping to raise the overall awareness both in Hollywood and to the general public at large.

Since the release of Rain Man, many celebrities have continued to help the cause of autism awareness. More recently in 2002, Rene Russo (who is best known for her roles in Lethal Weapon 3 and The Thomas Crown Affair) helped raise autism awareness by drawing attention to research efforts within the field. Russo's introduction to the world of autism began years ago when she met Dov Shestack, the young autistic son of Jon Shestack and Portia Iversen, the founders of Cure Autism Now (CAN).

http://www.usatoday.com/news/health/spotlight/feb02/2002-02-04-russo.htm

Similarly in 2002, R&B singer and 8-time Grammy Award winner Chaka Khan began hosting an event called "Walk Now" in order to help raise money for autism research. Khan's five year old nephew is one of many children with autism, and the Walk Now event was held in Los Angeles by Cure Autism Now, a leading advocacy group that uses proceeds to fund research into better treatments and ultimately a cure for the disorder. Founded in 1995, Cure Autism Now has dispersed more than \$18 million to researchers.

More funding will hopefully enable researchers to identify the cause or causes of autism, which has exploded in the past decade. In California, autism has increased 238% in the last 12 years, according to Cure Autism Now.

http://www.usatoday.com/news/health/spotlighthealth/2004-04-14-khan-spot_x.htm

More recently, in March of 2004, Richard Schiff ("The West Wing") and actress Annette Benning ("American President") performed monologues on parenting children with autism. Schiff portrayed a father who has mixed feelings about his son with autism. Benning presented a monologue about a mother who is preparing to send her child with autism to his first day of school. These events were also performed to raise funds for Cure Autism Now.

Also in 2004, front man Craig Nicholls for the Rock group The Vines revealed publicly that he suffers from Asperger's Syndrome. The singer was diagnosed after a Vines crew member noticed symptoms of the disorder and brought them to the attention of the band's management. Psychologists and psychiatrists had been attempting to diagnose Nicholls for years.

http://www.mtv.com/news/articles/1493980/20041119/vines_the.jhtml?headlines=true/

Article 3: The Latest Books and Resources Available on Autism (923 words)

An Overview of the Latest Books and Resources Available on Autism

The following is a brief overview of the various books and resources available on autism:

I. Books:

- Could It Be Autism? : A Parent's Guide to the First Signs and Next Steps by Nancy Wiseman (January 10, 2006)

This book is written for parents worried about their children's development. The author, President of a developmental disorder awareness organization and the mother of an autistic child, provides a detailed approach to identifying autism warning signs and stresses the importance of early diagnosis as a crucial component of securing proper treatment.

Wiseman covers all the autism bases - symptom detection, diagnosis, treatment options - and is a valuable resource for parents facing weighty questions about their child's behavior.

- The Autism Sourcebook : Everything You Need to Know About Diagnosis, Treatment, Coping, and Healing by Karen Siff Exkorn (October 1, 2005)

This book provides practical advice and information from the world's foremost experts on autism and a mother's own lessons from helping her son recover from the disorder. The author explains that early detection and early intervention are two of the key factors in improving prognosis. The author shares valuable knowledge about the following:

- What the diagnosis really means
- Understanding and accessing treatment options
- Knowing your child's rights in the school system
- Coping with common marital and familial stress
- Making the stigma of autism a thing of the past

The Autism Sourcebook is a comprehensive, practical resource available to parents and loved ones of children with autism.

- Preparing for Life: The Complete Guide for Transitioning to Adulthood for Those With Autism And Asperger's Syndrome by Jed Baker (December 30, 2005)

This easy-to-follow resource provides an assortment of social skills, and the means to attain them, so that students may approach their futures with excitement rather than anxiety. The author addresses a variety of issues faced by individuals across the spectrum, such as perspective-taking, nonverbal communication skills, conversational skills, and stress management. He explains the

laws and services that provide assistance, offers a multitude of options and resources, and encourages an emphasis on the student's assets as tools for meeting social goals.

- Sometimes My Brother: Helping Kids Understand Autism Through a Sibling's Eyes by Angie Healy (December 30, 2005)

This book is written from the perspective of an autistic child and explains to readers the challenges and the obstacles they must overcome. The book teaches others what autism is all about, and for useful for explaining to siblings of children with autism the struggles the patient often faces.

- Different Like Me: My Book of Autism Heroes by Jennifer Elder and Marc Thomas (November 30, 2005)

Who knew Andy Kaufman, Glen Gould, Issac Newton, Dian Fossey, Nikola Tesla, Andy Warhol & many others had so much in common. In fact, many of the individuals studied in this book, such as the philosopher Kant, actually predated the terms "autism" and "Asperger's". The book describes how these individuals learned to live with their sensory and perceptual differences.

- Ten Things Every Child With Autism Wishes You Knew by Ellen Notbohm (October 30, 2005)

This book focuses on the importance of sensory issues and thoroughly explains their direct link to an autistic child's behavior. The author guides parents through reformatting their own beliefs and suggests ways to identify and work with the child's sensory structure.

II. TOYS

http://www.nlconcepts.com

This website makes flash cards and other educational tools in order to assist autism patients. The website is dedicated to helping children with autism and speech & language delays. The instructional tools offered are for use with ABA, Verbal Behavior and Special Education.

http://enablingdevices.com/home.aspx

The Enabling Devices website is dedicated to providing affordable assistive and learning devices for the physically challenged since 1976. Toys for Special Children (the children's catalog) focuses on the needs of children with disabilities while products for Independent Living (the adult catalog) focuses on the needs of the adult disabled population.

III. CD/ DVD/VIDEO

http://route2greatness.com/

The Route 2 Greatness website offers unique CDs called SOUND-EAZE and SCHOOL-EAZE which help children with autism spectrum disorders who have auditory sensitivities. The CDs are a collection of sounds found at home, community and school settings set to music and rhythms to provide a fun way for children to have control over loud noises.

Autism is a World - DVD

This Oscar-nominated documentary is about Sue Rubin, who is autistic. Sue was diagnosed and treated as mentally retarded until the age of 13 when she began to communicate using a keyboard. Now she is a junior in college. In Sue's own words, "Autism is a World" takes the viewer on a journey into her mind, her daily world, and her life with autism. A co-production of CNN Productions and State of the Art, Inc., the film has been honored with numerous awards including a 2004 Academy Award nomination for Documentary Short Subject. With Closed Captioning and two additional audio tracks: Audio Description of the Visually Impaired and Spanish.

V.COMPUTER SOFTWARE

http://www.animatedspeech.com

Children with Asperger's Syndrome often have difficulty communicating because they aren't able to connect ideas and tell a sequential story. Team Up with Timo: Stories is a computer software program offered by AnimatedSpeech.com that assists autistic patients in building language skills. The program has been shown to be effective with children from late pre-school to second grade developmental levels.

http://www.monarchmaterials.com/

Monarch Educational Materials is dedicated to helping individuals diagnosed with autism by creating tools that promote identification, generalization, social skills, conversational skills and recall ability. The videos & CD-ROMs offered by the company have proven to be effective when incorporated with other educational programs that are offered by consultants, therapists, educators and parents.

Article 4: Article about Autism Today Leading Resource and Event Center (700 words)

AutismToday.com – The Leading Autism Resource Distributor Online

Recent studies have shown that there is a worldwide epidemic of autism. More than 1.5 million people are effected in the United States alone, with one in every 166 children diagnosed.

With over 2,500 pages of content, and growing daily, AutismToday.com remains the largest autism resource online and one of the leading autism and Asperger's Syndrome information distributors in

the world. The Autism Today website receives over 2 million hits a month from all walks of life, both urban and rural, from remote locations worldwide. These numbers confirm not only that the need for information is vast, but also that the information provided by the site is relevant to the worldwide community.

Since 2004, AutismToday.com has secured exclusive distributorships for several autism-related publishing houses and product manufacturers. The site's product list has more than doubled to include almost 250 items including; educational toys, CDs, guided visualizations, interactive software, reference texts and helpful "quick tip guides."

AutismToday.com continues to expand its offerings in order to provide the most comprehensive autism-related resources available to the ASD community by offering an extensive archive of articles and research summaries, a resource store, advice from a wide array of Autism Experts, an Online Gallery of creative works from the international autism community, Autism Education OnlineTM, live Tele-Classes and much more.

Autism Today.com was the first to provide a cutting edge tool for people within the autism community to list and locate events and conferences as well as other services like professionals, camps, employment and many more. These regional listings can help visitors connect with families and specialists. In January 2006, AutismToday.com held its first autism conference in Honolulu, Hawaii. The website also hosts the well-recognized and well-received Keys to the Treasure Chest conferences across the country, inviting Dr. Tony Attwood, Maria Bird-West Wheeler, Carol Gray, Nathan Ory, Catherine Faherty, Dr. Temple Grandin, Dr. Barry Prizant, Stephen Shore, Dr.Jed Baker and other notable experts to share their wisdom and insight on the treatment of autism. These world-renowned experts provide skill-building opportunities for educators, professionals, parents and people with autism in all areas of the understanding, treatment and management of autism related disorders.

A list of upcoming events include:

2/2/2006 - 2/2/2006

Speaker or Presenter

Auditory Processing Deficits Martha Burns, Ph.D.

Wichita, KS USA

2/2/2006 - 2/4/2006

Conference

2006 Annual ASA-Greater GA Chapter Autism/Asperger Conference and Wrightslaw preconference Duluth, GA USA

2/3/2006 - 2/3/2006

Speaker or Presenter

Nonverbal Learning Disorders and Apraxia Martha Burns, Ph.D.

Wichita, KS USA

2/4/2006 - 2/5/2006

Workshop

Dr. Steve Gutstein dramatically illustrates the Relationship Development Intervention Program (RDI) via audience participation and hours of video taken from actual intervention sessions. As he guides you through a new way of thinking, you will discover a path for how people on the autism spectrum can develop friendships, empathy and the love of sharing their world with others. Language comes alive when integrated with real emotion. People with Autism, Asperger's and NLD learn not only to tolerate, but to enjoy change, transition and to go with the flow. The goal of RDI is for each person to be excited about expanding their world, rather than to be afraid of it. Find out what motivates people on the autistic spectrum to develop relationships. Understand the contrasts between RDI and social skills programs that emphasize socially acceptable behaviors but fail to develop the functions, the desire or reasons, essential to the formation of relationships. RDI is rich in "non-social" objectives, including: flexible thinking, rapid attention shifting, executive functioning and emotional regulation. These objectives are easily translated into specific IEP objectives.

Kelowna, BC CAN

2/4/2006 - 2/4/2006

Conference

NEW DIRECTIONS CONFERENCE. Focusing on children with autism spectrum disorders and other sensory processing and learning difficulties. Speakers include Cindy Griffin on homeopathy, Devin Houston on digestive enzymes, Chris Butz on making your home environment healthier, Cathy Weinmann on alternatives for auditory processing disorder and Tara Mirchanadani on sensory processing disorders. Cost \$30 until 1/1/06. After 1/1/06, \$50 per person. See www.omalleytherapysolutions.com for more information and to register online. Vendor opportunities available. www.omalleytherapysolutions.com

Indianapolis, IN USA

The Autism Today website is focused to remain the premier information supplier to the autism community worldwide.

Article 5: Current Strategies and Techniques for Intervention for People with Autism (1,392 words)

An Overview of Current Strategies and Techniques for Intervention for People with Autism

Parents and patients diagnosed with autism spectrum disorders are frequently overwhelmed when confronted with the many treatment approaches that are available. The following is a list and brief explanation of some of the most widely used techniques:

I. Applied Behavior Analysis

Applied Behavior Analysis (more commonly referred to as ABA) is a scientifically-based treatment and teaching approach. All actions are thought of as behavior, and each action is analyzed to determine what precedes it, how it occurs, and what follows the behavior in order to make it occur more often.

There are some differences between many of the more specific approaches in Applied Behavior Analysis which include Discrete Trial Training and Pivotal Response Training.

Discrete Trial Training is based on Applied Behavior Analysis principles. This method involves breaking down tasks into simple elements and teaching the child through repetition. As skills are mastered, new teaching builds on previously acquired skills.

The most common programs of DTT for individuals with autism include a program developed by Dr. Ivar Lovaas (the author and researcher of a scientific study based on his approach) and an applied verbal behavior program developed by Dr. Vincent Carbone along with and some specific intervention techniques promoted by Dr. Jim Partington.

Pivotal Response Training focuses on using an instructional method which teaches that there are specific ways of communicating with individuals that are pivotal in eliciting a certain response. This form of ABA offers a structured way to interact during the individual's daily routine in a comfortable, more naturalistic manner.

II. Developmental Approaches

Floor Time

This therapeutic approach seeks to improve developmental skills through analysis and intervention in six areas of functioning. The first area relates to a child's ability to regulate his or her attention and behavior while being presented with a full range of sensations. The second area involves the child's ability to maintain quality and stability of engagement in relationships. Third is a child's

ability to enter into two-way, purposeful communication. At its most basic level, this program involves helping the child open and close circles of communication.

The fourth area involves stringing together many circles of communication into larger patterns, while the fifth level deals with the child's ability to create mental representations or emotional symbols through engagement in pretend play and emotional intention. Finally, the last level works on the ability to build bridges or make connections between different emotional ideas.

III. Picture Exchange Communication System (PECS)

The Picture Exchange Communication System (PECS) is a communication training system developed within the Delaware Autistic Program by Dr. Andy Bondy. PECS is used at the Delaware Autistic Program with students from the ages of 2 through 21.

Individuals using PECS are required to give a picture of a preferred item to a communicative partner in exchange for the item. The initial communicative behavior targeted is requested with preferred items being presented as reinforcement of the response. This training is designed to take place in a social context. Teaching students to request is a useful skill, and often facilitates the teaching of other communicative intents. Physical prompts are quickly faded in order to ensure independent communication. Once the request with pictures is firmly established, the child is then encouraged to verbalize the request.

IV. Social Stories

All individuals with autistic spectrum disorders have deficits in the ability to think in ways necessary for appropriate social interaction. This deficit can be addressed by a technique developed by educator Carol Gray of Michigan, which helps individuals with autism "read" and understand social situations. Referred to as "Social Stories," this technique presents appropriate social behaviors in the form of a story. These stories can be read by a teacher or parent, or even by the individual with ASD. Typically, the author introduces the story by reading it twice with the person. If able, the person with ASD then reads it once a day independently. For a person who cannot read, the author may record the story on an audiotape with cues for the person to turn the page as he/she "reads" along. Once the individual successfully enacts the skills or appropriately responds in the social situation depicted, use of the story can be faded. This can be done by reducing the number of times the story is read each week or by only reviewing the story once a month or as necessary.

V. TEACCH

TEACCH is a state-funded public health program available in North Carolina that provides services from the level of diagnosis and early counseling for parents and professionals to adult community

based centers. Longtime proponents are Dr. Eric Schopler and Dr. Gary Mesibov, who oversee the program. The strategies of the program are visually based and relate individually on the basis of a detailed assessment of needs and abilities, trying to identify potential for acquisitions rather than focusing on deficits. TEACCH also involves frequent program revisions according to the child's maturation and progress.

A basis for this type of intervention is the concept of "structured teaching." This technique is based upon the observation that children with autism learn and integrate information differently than other children. It assumes that many non-compliant behaviors of children with autism are the result of a difficulty understanding what is expected.

VI. Sensory Integration/Occupational Therapy

Children and adults with autism, as well as those with other developmental disabilities, may have dysfunctional sensory systems. Sometimes one or more senses are either over or under-reactive to stimulation. Such sensory problems may be the underlying reason for such behaviors as rocking, spinning and hand flapping. Although the receptors for the senses are located in the nervous system, it is believed that this problem likely stems from the brain. Sensory integration techniques such as deep pressure can facilitate attention and awareness, thus reducing overall arousal.

Sensory integration therapy focuses primarily on three of the basic senses – tactile (which includes the nerves under the skin's surface that send information to the brain), vestibular (structures within the inner ear that detect movement and changes in position of the body) and proprioceptive (the subconscious ability to tell where the body is in space, including motor planning). These three systems are not only interconnected, but are also connected with other systems in the brain and are critical to human survival.

Occupational and sometimes Physical therapists who have been specially trained in sensory integration techniques can evaluate and provide treatment of basic sensory integrative processes. Although hard scientific research data are difficult to find concerning this approach, numerous anecdotal accounts exist to support this intervention. First advocated by occupational therapist Jean Ayres, sensory integration therapy has been reported by many verbal adults with autism as being an extremely useful tool in treating some of their symptoms.

VII. Speech Therapy

Often times, basic speech and language therapy can be a useful adjunctive treatment for autism. Many individuals with ASDs use their behavior as a tool for communication due to the fact that their verbal and non-verbal communication abilities are impaired. In general, speech therapy which builds on an individual's strengths can greatly improve both communication and behavior. Often

times, an assistive technology device can be used to bridge the gap for non or low-verbal individuals. Additionally, even higher-functioning individuals who have adequate speech can benefit from speech therapy which addresses the use of language pragmatics, or the give and take of conversation for social purposes.

VIII. Music Therapy

Many individuals with autism have been treated with music therapy with varying degrees of success. This therapy uses music as a facilitating agent to teach a variety of skills including academic/cognitive skills, communication skills and social skills. Specially trained music therapists include activities such as singing, moving to music and playing instruments in their sessions. The idea behind music therapy is that music has been shown to affect a different part of the brain than verbal communication does. So, if concepts can get into the brain through a different pathway that may be functioning more normally than the impaired communication sphere than the patient can learn skills through this different pathway. Additionally, music is by nature very structured; thus, it often provides the best environment for learning. The sound stimulus can also aid in sensory integration as well as aid in socialization. Finally, a music therapy program can be easily instituted in a private as well as a public school setting.

Article 6: Diagnostic Criteria for Adults Being Diagnosed with Autism (1,174 words)

A Brief Overview of the Criteria for Diagnosing Adults with Autism

Currently, there is no one single medical test that will definitively diagnose adults with autism. Instead, the diagnosis is made on the basis of observable characteristics of the individual.

Here is an overview of some of the different diagnostic standards:

Autism Diagnostic Interview-Revised (ADI-R)

The Autism Diagnostic Interview-Revised (ADI-R) is a clinical diagnostic instrument for assessing autism in children and adults. The ADI-R is a semi-structured instrument for diagnosing autism in children and adults with mental ages of 18 months and above. The instrument has been shown to be reliable and to successfully differentiate young children with autism from those with mental retardation and language impairments. The ADI-R focuses on behavior in three main areas and contains 111 items which specifically focuses on behaviors in three content areas – they are:

1. Quality of social interaction, (e.g., emotional sharing, offering and seeking comfort, social smiling and responding to others); 2. Communication and language (e.g., stereotyped utterances, pronoun reversal, social usage of language); and... 3. Behavior (e.g., unusual preoccupations, hand and finger mannerisms, unusual sensory interests).

(ADI-R) Scoring

The interview generates scores in each of the three content areas. Elevated scores indicate problematic behavior. For each item, the clinician gives a score ranging from 0 to 3. A score of 1 is given when "behavior of the type specified is probably present but defining criteria are not fully met"; a score of 2 indicates "definite abnormal behavior"; and a score of 3 is reserved for "extreme severity" of the specified behavior.

ICD 10 (World Health Organisation 1992) Diagnostic Criteria

Diagnosis requires that single words should have developed by two years of age or earlier and that communicative phrases be used by three years of age or earlier. Self-help skills, adaptive behaviour and curiosity about the environment during the first three years should be at a level consistent with normal intellectual development. However, motor milestones may be somewhat delayed and motor clumsiness is usual (although not a necessary diagnostic feature). Isolated special skills, often related to abnormal preoccupations, are common, but are not required for diagnosis.

Diagnosis requires demonstrable abnormalities in at least 3 out of the following 5 areas:

- 1. Failure adequately to use eye-to-eye gaze, facial expression, body posture and gesture to regulate social interaction;
- 2. Failure to develop (in a manner appropriate to mental age, and despite ample opportunities) peer relationships that involve a mutual sharing of interests, activities and emotions;
- 3. Rarely seeking and using other people for comfort and affection at times of stress or distress and/or offering comfort and affection to others when they are showing distress or unhappiness;
- 4. Lack of shared enjoyment in terms of vicarious pleasure in other people's happiness and/or a spontaneous seeking to share their own enjoyment through joint involvement with others;
- 5. A lack of socio-emotional reciprocity as shown by an impaired or deviant response to other people's emotions; and/or lack of modulation of behavior according to social context, and/or a weak integration of social, emotional and communicative behaviours.

Diagnosis also requires demonstrable abnormalities in at least 2 out of the following 6 areas:

- 1. An encompassing preoccupation with stereotyped and restricted patterns of interest;
- 2. Specific attachments to unusual objects;
- 3. Apparently compulsive adherence to specific, non-functional, routines or rituals;
- 4. Stereotyped and repetitive motor mannerisms that involve either hand/finger flapping or twisting, or complex whole body movement;
- 5. Preoccupations with part-objects or non-functional elements of play materials (such as their

odor, the feel of their surface/ or the noise/vibration that they generate);

6. Distress over changes in small, non-functional, details of the environment.

Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) Diagnostic Criteria

- A. Qualitative impairment in social interaction, as manifested by at least two of the following:
- 1. Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction;
- 2. Failure to develop peer relationships appropriate to developmental level;
- 3. A lack of spontaneous seeking to share enjoyment, interests or achievements with other people (e.g.: by a lack of showing, bringing, or pointing out objects of interest to other people);
- 4. Lack of social or emotional reciprocity.
- B. Restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:
- 1. Encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus;
- 2. Apparently inflexible adherence to specific, non-functional routines or rituals;
- 3. Stereotyped and repetitive motor mannerisms (e.g.: hand or finger flapping or twisting, or complex whole-body movements);
- 4. Persistent preoccupation with parts of objects.
- C. The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning.
- D. There is no clinically significant general delay in language (e.g.: single words used by age 2 years, communicative phrases used by age 3 years).
- E. There is no clinically significant delay in cognitive development or in the development of ageappropriate self-help skills, adaptive behavior (other than social interaction), and curiosity about the environment in childhood.
- F. Criteria are not met for another specific Pervasive Developmental Disorder or Schizophrenia. International Classification of Diseases (ICD-10) issued by the World Health Organization.

DIAGNOSTIC CRITERIA FOR AUTISM DISORDER (ICD-10) (WHO 1992)

At least 8 of the 16 specified items must be fulfilled.

- A. Qualitative impairments in reciprocal social interaction, as manifested by at least three of the following five:
- 1. failure adequately to use eye-to-eye gaze, facial expression, body posture and gesture to regulate social interaction.
- 2. failure to develop peer relationships.
- 3. rarely seeking and using other people for comfort and affection at times of stress or distress and/or offering comfort and affection to others when they are showing distress or unhappiness.
- 4. lack of shared enjoyment in terms of vicarious pleasure in other peoples' happiness and/or spontaneous seeking to share their own enjoyment through joint involvement with others.
- 5. lack of socio-emotional reciprocity.
- B. Qualitative impairments in communication:
- 1. lack of social usage of whatever language skills are present.
- 2. impairment in make-believe and social imitative play.
- 3. poor synchrony and lack of reciprocity in conversational interchange.
- 4. poor flexibility in language expression and a relative lack of creativity and fantasy in thought processes.
- 5. lack of emotional response to other peoples' verbal and non-verbal overtures.
- 6. impaired use of variations in cadence or emphasis to reflect communicative modulation.
- 7. lack of accompanying gesture to provide emphasis or aid meaning in spoken communication.
- C. Restricted, repetitive and stereotyped patterns of behavior, interests and activities, as manifested by at least two of the following six:
- 1. encompassing preoccupation with stereotyped and restricted patterns of interest.
- 2. specific attachments to unusual objects.
- 3. apparently compulsive adherence to specific, non-functional routines or rituals.
- 4. stereotyped and repetitive motor mannerisms.
- 5. preoccupations with part-objects or non-functional elements of play material.
- 6. distress over changes in small, non-functional details of the environment.
- D. Developmental abnormalities must have been present in the first three years for the diagnosis to be made.