Article *NIMHANS Journal*

Infantile Autism - Case Studies

Volume: 07 Issue: 01 January 1989 Page: 87-90

Suman O Kapur, - *Audiology and Speech Therapy School, T N Medical College, Dr A L Nair Road, Bombay 400 008 India*

There has been considerable disagreement as to what constitutes 'autism'. Currently, the most popular and widely used criteria is the depreciation given by DSM III classification.

However, determination of the presence or absence of the criteria in a given child is still a very difficult and subjective task. The criteria are not operationally defined, such that a variety of behaviours might be used for diagnosis. The reliability for the diagnosis amongst professionals has been quite low and the prognosis in this disorder has been rated poor [1].

Behaviour therapy has been utilized in the treatment of autistic individuals for the last two decades and lays emphasis on a systematic approach to teaching language in small progressive steps. Reinforcement is employed to increase frequency of vocalizations and to shape correct verbalizations. These approaches also help parents in the treatment programmes and has led to improved generalizations of treatment. Lovaas [2] provide data indicating that the extent of self-stimulation displayed by autistic children varied inversely with obtaining reinforcement for other behaviour. The type of interventions that have been attempted, include differential reinforcement, extinction, time-out, over-correction and punishment.

Case reports

Annie was 2 years 3 months old at the beginning of the training programme. She was the youngest of the two children. There was no history of pre-natal and post-natal complications.

During the first year of Annie's life, her parents noted certain noticeable differences in her as compared to their older child. 'A' was, reported to be irritable and rocked excessively in her bed. She would make 'animal-like' sounds and would not respond to when spoken. She never smiled or laughed, and would remain alone over a long duration of time.

The interview with 'A's family revealed that she was subjected to severe emotional and environmental problems. Her parents had problems both on the economic and the domestic fronts. Unlike the father who was affectionate towards 'A' the mother was extremely unco-operative and displayed a tendency of rejection towards the child.

During her second year, the parents observed that 'A' was socially unresponsive and the rocking behaviour increased considerably so much so, she spent quite a few hours of sleepless nights regularly. Her feeding habits was limited to liquids as she was aversive to solids. She would walk on toes.

On admission, 'A' obtained a Social Quotient of 38 on the Vineland Social Maturity Scale. Her vocalization consisted primarily of grunts, screams and squeals. Her failure to imitate meaningful sounds and respond to verbal commands led to suspect a hearing deficit initially. However testing,

showed her hearing ability to be normal.

Detailed medical evaluations prior to the treatment showed no evidence of neurological involvement. There was not indication of brain damage or other cerebral dysfunction.

Treatment

The first six months of therapy focussed on reducing the rocking behaviour and screaming. Initially play therapy was carried out for a duration of 2-3 hours a day in a conducive atmosphere. A wide variety of toys were employed to stimulate self play. The child's activities were observed through a one way mirror.

On observation 'A' was found to lack concentration. Constructive play was absent. Protests and loud yells were her main vocal communications. Rocking behaviour dominated in her activities and occassionally she would bounce a small red ball, which she seemed to enjoy.

Initially the investigator sat passively in the room without attempting to disturb her in her rocking or play. An extinctive procedure was tried. Simultaneously, no appreciable progress was achieved during the six months, except that she accepted the investigator's presence and would at times look at her, while she pretended to play with some mechanical toys or while offering biscuits of 'A'.

The therapy was continued on similar lines. 'A' had gradually begun to appreciate the reinforcing behaviour of the investigator. Her parents were counselled to follow the same routine at home.

After about 7 month's therapy, Annie began to respond to her name, whenever called she would enjoy walking around the room with the investigator and started talking interest in the other objects in the room. At home, she had begun to take interest in observing family members (particularly an aunt who loved her very much). Therapy now continued for one hour a day, but the parents were counselled and guidelines were provided. However, there was no improvement in her speech.

After one year of therapy she started showing signs of social awareness. She would maintain eye-contact appreciably. There was considerable reduction in her rocking behaviour specially in the presence of the investigator.

She would no longer make grunts or hissing sounds, but used expressive speech. However, the expressive speech remained at oneword level eg. give, ball, no. The therapy was gradually reduced to alternate days, and then to twice a week. Slowly, she began using 2 word sentences.

At this juncture keen interest in communication began to show. She progressed from responding to her name, to showing the parts of her body when asked. Her behaviour was close to normal and rocking had disappeared totally. She was now seen as a cute, playful and mischievous girl, yet, at times obstinate.

Meanwhile, she was referred for intensive speech therapy and schooling was advised. However, before her admission to school she had a fall from about 3 ft approx. and was admitted to our hospital for observation, as a case of head-injury. She was discharged on 31st March, after treatment. No untoward incident had occurred.

Subsequently after 3 weeks she developed severe vomitting and had a convulsive seizure. On readmission, showed E.E.G abnormalities. Unfortunately, she die due to cardiorespiratory arrest. Post-mortem revealed presence of a "Medulliblastoma".

Ajay was 7 years old when he came to us for treatment. On admission a variety of autistic behaviours were observed. In particular, his language development was retarded. According to the parents report he used single words (Mama, Papa, Bye-bye) fairly consistently at the age of about the age of 2 years. His receptive speech was grossly delayed. He would engage himself extensively in self-stimulatory activities.

'A' hails from a happy and economically sound family and is the eldest child. His sibling is a 4 years old girl.

Ajay was born full-term and cried immediately at birth. Developmental milestones were reached within normal limits. He sat up at 7 months, crawled at 8 ½ months, and walked by his first birth-day. Teeth erupted by 10 months. He would grasp at the objects by the age of 7 months. He vocalised few words by the age of 14 months, but stopped speaking by the time he reached the age of 2 years. By about the same time, he gave-up grasping and reaching for other objects.

His parents became aware that he was definitely different from other children, when he was around 2 and 2 and ½ years of age, when he seemed to avoid all social interaction with adults or other children. He was content to remain alone for long periods of time. He would respond to other people's attempts to show affection by screaming and crying. Emotional and social development were almost absent. His parents also noted that 'A' showed strong resistance to any interference/change in his stereotyped activities.

He also resisted to anybody petting him. He preferred to play with toys than with his peers. He enjoyed listening to music.

He appeared to be insensitive to pain and hearing. However auditory tests revealed normal hearing.

At the age of 4 years an E.E.G. was taken, but was found within normal limits. At the time of admission he obtained a Social Quotient was 41 on the Vineland Social Maturity Scale.

Treatment

Ajay was taken-up for therapy daily for about one hour. Initially play therapy was used, followed by behaviour therapy. The first 4-5 months of therapy focussed on elimination of his highpitched screaming and jumping when people approached him. Extinction concept was employed. Towards the end of 5 months period, he accepted the presence of the investigator and would also try to maintain eyecontact when she was talking to him. By the end of sixth month, the parents reported that 'A' expressed keen interest in attending the therapy sessions.

Therapy continued on similar lines for another 4-5 months. Attempts were also made to make him obey small commands. The progress was satisfactory. The mother reported that jumping and screaming spells had reduced both in terms of duration and frequency.

Ajay was admitted to a 'special class' in a normal school. The teacher was counselled about the problem of the child and the therapy programme by the investigator.

It is now almost 1 year and 3 months that Ajay has been coming to us for treatment. The mother reports that 'A' is very cooperative and now follows simple instructive very easily. She also noted that he mixes with other people to a little extent, especially with those who give him more attention.

Recently, a CAT scan was done and it revealed normal findings.

The therapy is now continued on alternative days. He now replys to questions with 'yes' or 'no' - generally by nodding his head but sometimes, by speaking.

1.De Myer M K, et al, A comparison of five diagnositic systems for childhood schizophrenia and infantile autism
Journal of Autism & Childhood Schizophrenia Page: 1: 175-188, 1971
2.Lovaas O I, *The Autistic Child New York: Irvington*1977