THE AT RISK AUTISTIC CHILD AND HIS FAMILIY

M. VERA BÜHRMANN, M.B. Ch.B., DPH, DPM.*

SUMMARY

Autism is a poorly understood and obscure condition. This article clarifies some of the diverse causes and symptoms of the condition. The role of the physiotherapist in the treatment of the autistic child has not been explored in South Africa and the author offers some suggestions as to the areas in which physiotherapy could be of use.

OPSOMMING

Outisme is 'n onduidelike toestand wat nie goed verstaan word nie. Dié artikel klaar van die uiteenlopende oorsake en simptome van die toestand op. Die rol van die fisioterapeut in die behandeling van die outistiese kind is nog nie in Suid-Afrika deursoek nie en die skryfster stel voor in welke areas fisioterapie van waarde kan wees.

The autistic child can be seen as an at risk child and he and his family as an at risk group to whom special attention should be paid. For any kind of meaningful professional intervention aimed at prevention or early and late treatment of such a group thorough knowledge of the condition is essential.

In the case of autism it must be recognised that it is not a clear-cut clinically defined condition but a syndrome with fairly wide variations and a multifactorial aetiology.

The aim of this article is to focus on some aspects of the syndrome which could be of interest to physiotherapists, and which might stimulate them to explore their role in the treatment of certain features in the behaviour of autistic children.

The material is drawn from the world literature and my experience with autistic children over a period of 20 years. In Cape Town the problem of autistic children and their families became so pressing in the early 1960's that meetings with parents and interested professional people were started in 1964. From this a Society for Autistic Children was formed in 1966 and a private school for White autistic children was started in 1970. Since 1973 this school has become a government subsidized special school. For Coloured children a class with one teacher was started in 1973; this has developed into a recognized special school subsidized by the Department of Coloured Affairs.

DEFINITION

As a syndrome autism is defined 'as a group of concurrent symptoms which together are indicative of a disease or of maladaptive functioning'. The Committee of Inquiry into the Treatment, Education and Care of Autistic Children (Department of National Education, 1971) laid down the following main criteria:

- The condition must have started before the age of 3 years.
- That there be a fixed pattern of self-absorbed and detached behaviour.
- That there be a language disturbance.
- That there be persistent ritualistic and obsessive and compulsive behaviour.

The diagnostic criteria used by authors and research workers vary considerably from centre to centre, and from country to country. This makes the collecting of comparative data on incidence, methods of treatment and outcome difficult. It has lead to assumptions which are poorly supported. At the 3rd W.H.O. Seminar on Psychiatric Diagnosis (Rutter, *et al.*, 1969) an attempt was made to clarify criteria, but even here difficulties were experienced. It is hoped, however, that the helpful suggestions of the participants will receive general support, and that more uniform criteria will come into general use. Because of these differences, incidence in different countries is difficult to assess. In the United Kingdom and the United States of America 2 - 4 per 10 000 of the school-going population has been reported. One has the impression that in South Africa it is 2 or less per 10 000 in the Whites, much less in the Coloured population and more or less unknown amongst the Black people. No satisfactory explanations are available.

AETIOLOGY

There is little agreement about aetiological factors. Opinions depend largely on the orientation of the clinician and the researcher and the particular area of this protean syndrome on which attention is being focused. In a detailed and painstaking study of 100 autistic children Garcia and Sarvis (1964) clearly tabulated the aetiological factors. These range from family psychopathology, circumstances and traumatic events experienced by the child and his family to organic conditions such as impairment of sensory perception to minor or gross neurological factors.

Because the aetiology is so obscure, diverse and multifactorial, all clues have to be followed up. Apart from organic neurological factors, neurophysiological mechanisms could be of special interest to the physiotherapist. These mechanisms could cause or contribute to the disturbed perceptions, impaired body image, deviant mobility, hand and arm flapping, finger licking and twitching and contortions of the limbs and body. Ornitz *et al.*, (1968) write: 'A fruitful approach might be to look at the autistic child's behaviour as expressing the dissociation of normally occurring neurophysiological states . . . phases of states of hyper-excitation and inhibition alternate', e.g. posturing and wild and aimless activity as opposed to immobility and unresponsiveness to sensory stimuli. They also postulate the possible pathological involvement of the vestibular system to account for the whirling and unusual reactivity to situations affecting equilibrium, and by the excitement evoked by spinning and moving objects.

The aetiology, whatever it is, makes it impossible for the infant to respond normally or to experience infancy in a normal way. The primary result in all cases is that it leads to impaired bonding between mother and infant. Bettelheim (1967) describes this as 'basically a disturbance of the ability to reach out to the world'. In the first instance 'the world' consists of the mother and in this 'mother-world' bonding is crucial.

Bonding can be defined as the development of primary affectional ties between a mother and her newborn infant and toddler. Harlow (1963) has shown how this develops and can be impaired, by experimental work which he did using rhesus monkeys. Close ob-

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* Senior Psychiatrist, Valkenberg Hospital, Cape Town.
Received 1 May 1981.

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servation of mother-infant couples, and discussions with mothers, have confirmed and elaborated on these experimental findings. Sander (1964), working at the Boston University School of Medicine, has described the interaction between mother and infant during the bonding process. He studied couples up to 18 months, and has identified 5 stages of 'adaptive interaction', where both mother and infant must trigger off and respond to appropriate behaviour in the other.

In my experience I have been impressed by the observations of mothers in general about their responses to their newborn babies. The babies either immediately arouse feelings of responsiveness and closeness, or mothers experience little instinctive feelings for a particular infant. This emotional reaction seems to be the first evidence of the presence or absence of bonding. Physical contact immediately after birth seems to facilitate a feeling of closeness and a sense of belongingness which promotes bonding. This pleasurable contact should remain an undercurrent of their relationship whatever their problems and frustrations during the process of growing up.

For effective intervention extensive knowledge of the physical and psychological development and behaviour during early infancy and childhood is essential. A sensitive awareness of the mother-child and parent-child interaction must also be acquired. In this field there is no substitute for painstaking history-taking, not only of the development and events affecting the child, but also of how the child and these events affect the mother and her relationship with this particular child and with the rest of the family.

DEVELOPMENTAL HISTORY AND ASSESSMENT

In cases of suspected autism the history of the milestones of development have to be taken in greater detail than is ordinarily done with relatively intact children. Every effort must be made to obtain accurate and factual data, but the *way* in which the information is given by the mother or parents is equally important. Inaccurate or conflicting data must be noted, apparent 'irrelevancies' to answers or 'irrelevant' spontaneously given information must be evaluated as relevant to the relationship.

Common features of autism are those already mentioned in the definition. In addition the lack of relationship can be seen by:

- The difficulty in mixing with and playing with other children.
- Not being cuddly in the real sense of the word.
- The avoidance of eye contact.
- Treating people like objects, seeming to look *through* them and walk *over* them.
- Not turning to the parents for comfort when hurt or distressed.

The self-absorbed, detached behaviour is also portrayed by the above traits and in addition by:

- Their stand-offish manner — as though they do not need others.
- The oft noted absence of separation anxiety.
- Their tendency to act as though they are deaf, especially not responding to the human voice.
- They usually lack fear about realistic dangers, but can have obsessive fears about apparently ordinary events or minor situations.

Their compulsive behaviour is seen in:

- Their repetitive and sustained odd play, such as spinning objects, flicking pieces of string, etc.
- Their unusual attachment to particular objects and their acute emotional reaction when these are taken away.
- Their resistance to changes in routine of management, food, situations, etc.

No single characteristic should be regarded as being of paramount importance, the clustering of characteristics together with the history makes a diagnosis possible. But perhaps the most important factor is the subtle and difficult-to-define *quality* of the relationships as experienced by the diagnostician in the diagnostic room or at the home. To some extent it is the counter-transference, i.e. the feelings which the various members of the family evoke in the examiner, which must also be given due weight.

From the point of view of the physiotherapist special attention should be paid to gross and fine motor development and co-ordination. A variety of external and physical conditions can interfere with the smooth development of these. If, for example, an infant or child had to be hospitalized or immobilized for longer or shorter periods during critical phases of development, whatever the reason, deviations in development are likely to occur. It must be kept in mind that these will have psychological and physical repercussions which in turn will affect relationships and colour the process of bonding. The above has played a role in a few of the cases I am acquainted with, but it must be clearly understood that such traumatic experiences do not necessarily lead to autism; there must be other factors in these cases also.

The grasp of the potentially autistic child is generally poor. Even during the first year of life this is evident. The approximation of thumb-finger is poorly developed and the grasp remains the whole hand or just the fingers. They either mouth everything, or they refuse to use finger food. Chewing of semi-solids and solids often present difficulties and sucking remains the main mode of imbibing nourishment. They are thus reluctant and slow to use the spoon or other utensils. This ineffectual use of their hands leads to considerable difficulties in the acquisition of manual skills, writing and training in arts and crafts.

Severe rocking and headbanging can develop early and can become a serious and disturbing problem in later years. Injuries caused by headbanging can be so severe that crash-helmets have been prescribed.

Serious self-multilation is not uncommon. This usually occurs during periods of marked and apparently unprovoked hyperexcitement. This behaviour can be a general feature of a particular child or it can occur in a child who is ordinarily quiet and passive. It seems as though inner tension builds up which can only find expression in near volcanic eruptions.

Bizarre posturing is not an uncommon feature. Marked backward arching to the extent that they stand on their head and feet can occur from the second half of the first year — it is usually transitory in nature. Less bizarre but more persistent is twirling and spinning of the body and flapping of arms and hands.

From the first year of life, but particularly noticeable later on, is the way the body is held when the child is picked up. It is either held very rigidly and then the child is called 'not cuddly', or it moulds to one's body as though it is made of dough, and the child is then mistakenly called 'cuddly' by the parents and others. For the examiner it is important to know how the body of the average child responds to being held. The child's body *relates* and *responds* as a separate individual to the body of another separate individual.

The body image of most autistic children is poorly developed. It seems as though their bodies are as poorly integrated as their emotional and intellectual aspects and their social relationships. Apart from organic causes this could account for the poor postures which are not uncommon. Apart from poor postures, many have clumsy and ungainly gaits. Some, however, are graceful and agile.

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The diagnosis of autism is therefore no simple procedure. In psychiatry we distinguish between 'labelling', giving a condition a name, and the psycho-dynamic assessment of the factors which have or are still contributing to the picture as it presents at the time. This requires the skill of a variety of disciplines in the case of autism. A full physical, neurological and, at times, a biochemical investigation is always necessary. Several psychiatric interviews may be indicated; the psychometric assessment can be extremely difficult to establish and their attainments can show a wide scatter. At times it may be necessary to have the opinion of specialists in other fields, particularly to assess hearing and vision. The former requires special knowledge and techniques. In Cape Town the child is also sent for observation to the appropriate school.

These painstaking diagnostic procedures are required because 'autistic features' can occur in a wide variety of other conditions. The detailed procedure is also required so as to assess the aetiological factors as accurately as possible. These must be known to the extent in which it is possible so as to enable the team who will be dealing with the child and his family to work out a treatment and educational programme aimed at the major causes of the condition and to use the strengths in the child and his family to the maximum.

CONCLUSION

In this country the role of the physiotherapist has not been explored in any meaningful way.

In my opinion she can be of great help with the stimulation and development of the sensory modalities. By the various techniques of her speciality she could aid the development of a body image, and the imbalance of the use of muscles, so as to minimize clumsy and bizarre gaits and the posturing mentioned earlier.

It might also be worthwhile exploring the ideas of Ornitz and, with relaxation techniques and other means, get a better understanding of the periods of hyper-excitation.

In a book (Gouws, 1979) on the education of the autistic child the roles of paramedical staff have been briefly mentioned, but the physiotherapist has been omitted. This could be an accidental omission, but it is more likely that the skills of the physiotherapist have not yet been applied in this area. Until the autistic child is seen as an at risk child and until physiotherapists have applied their special skills and knowledge in a practical setting and worked in a team with other disciplines, no one is in a position to give an authoritative opinion.

The family is not the concern of the physiotherapist in terms of physical problems, but she will have to work in close association with them. Families experience extreme tensions of varying kinds and the helping professions have to know about it and understand it as it can undo much of their work.

References

Bettelheim, B. (1967). The empty fortress. Free Press. New York.

Department of National Education (1971). Report of the committee of inquiry into the treatment, education and care of autistic children. Government Printer. Pretoria.

Garcia, B. and Sarvis, M. A. (1964). Evaluation and treatment planning for autistic children. *Arch. Gen. Psychiat.*, **10**, 530.

Gouws, M. (1979). Onderwys vir outistiese kinders. S.A. Raad van Geesteswetenskaplike Navorsing. Pretoria.

Harlow, H. F. (1963). In Determinants of infant behaviour. Ed. Foss, B. M. Methuen. London.

Ornitz, E. M. and Ritvo, E. R. (1968). Neurophysiologic mechanisms underlying perceptual inconstancy in autistic and schizophrenic children. *Arch. Gen. Psychiat.*, **19**, 22.

Rutter, M., Lebovici, S., Eisenberg, L. *et al.* (1969). A triaxial classification of mental disorders in childhood. An international study. *J. Child Psychol. Psychiat.*, **10**, 41.

Sander, L. (1964). Adaptive relationships in early mother-child interaction. *J. Amer. Acad. Child Psychiat.*, **3**, 231.

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