Emotional Problems of Childhood and Adolescence

Infantile Autism or Infantile Psychoses

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Until recently the situation in relation to childhood psychoses was extremely confused. There was little agreement among authors about terminology and a general uncertainty about their nature and aetiology. Masterly reviews by Eisenberg[1 2] in the United States and Rutter[3 4] in the United Kingdom have brought some order to this complex field. Perhaps the most important contribution was the introduction of a simple subclassification of psychotic disorders.[5 6] Anthony proposed three major groups of psychoses, based on the clinical features and the age of the child. Group I had an early onset and a slow chronic course; Group II an onset from 3 to 5 years of age with an acute course followed by regression; and Group III an onset later than 5 and a fluctuating subacute course.

For practical purposes only two of the above three clinical groups of childhood psychoses merit elaboration in any detail. The first is that syndrome which has an onset in the first or right up to the end of the second year of life[2] which was so brilliantly described by Kanner[7] and labelled infantile autism and subsequently infantile psychosis.[8] Kanner[7] saw the condition as being characterized by three primary features: profound aloneness (autism); an obsessional desire for maintaining environmental "status quo" (sameness); and an onset within the first two years of life—together with secondary symptoms in the sphere of communication and motor behaviour. Kolvin's (1971) criteria are broadly similar—in terms of age of onset, a self-isolating pattern of social behaviour, catastrophic reactions to environmental changes and/or stereotyped motor movements.

The second important group comprises that which occurs during the school period of childhood and which has been labelled late onset psychoses[8] or the schizophrenic syndrome of later childhood.[2]

Finally, Anthony's second clinical group has proved to be very rare; in it the child initially develops normally and thereafter deteriorates or regresses badly. These children have mostly been found to be suffering from clear-cut organic disorders of varying aetiology and clinical pictures.[4-6 9 16]

Definitions

These two major clinical groups will now be considered, using the term psychoses as a general one referring to continuously bizzare and unpredictable behaviour,[11 16] and where the form of the symptoms cannot be understood in relation to the behaviour customarily seen at the particular stage of development.[12 13]

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Prevalence, Social Class, and Sex Factors

For a long while the incidence and salient features of autism were difficult to ascertain because most research has used highly selected hospital series. For instance, Kanner excluded cases with associated organic abnormalities and then went on to describe an excess of cases with professional parents with an average or above average potential. Quite naturally this excess was originally thought to be a referral bias. Nevertheless the United Kingdom hospital series[10 14 15] and an epidemiological study[17 18] have shown similar excesses, and hence this suggests that infantile psychoses is validly tied to social class. Further research[18] has confirmed that these parents do in fact have a high intellectual endowment, and also showed a prevalence of 4 per 10,000 children of school age.

The United Kingdom hospital series[10 14 15] describe very high male/female ratios, varying between 4·25 : 1 and 3·3 : 1. On the other hand, epidemiological research has disclosed a lower ratio —of 2·8 : 1.[17 18]

Behaviour of Infantile Psychotic Children

The features of autism or infantile psychosis tend to differ at different ages and stages of development. In early infancy a characteristic feature is a failure to cuddle. At the toddler stage avoidance of gaze and social withdrawal associated with the more florid symptoms of abnormal preoccupation with unusual objects, stereotyped movements, and difficulties with speech and language are particularly evident. The frequency of these symptoms reach a peak and then slowly and irregularly decline over the next five years. Subsequently, when the child attends infant school, inactivity, inertia, and educational difficulties are mostly evident.

ONSET

Originally Kanner thought that infantile autism had an onset in early infancy, but later agreed that it could occur up to the end of the second year of life. In one series[35] about 45% of the mothers reported oddities in their children long before the condition became clear cut, while others reported an initial period of apparent normal development. Furthermore, parents often reported that in early infancy the baby responds poorly to cuddling and then later lacks curiosity and exploratory behaviour.[11] Some have been reported as being unduly passive or unpredictably irritable, often indulging in primitive repetitive behaviour such as rocking or head banging.

SOCIAL RELATIONSHIPS

The poor relational difficulty which these children display is most disconcerting and distressing for the parents and relatives. In essence this consists of a maintainance of social

distance and aloofness (autism). Children generally avoid contact with people and mix and play very poorly with other children. This has been likened to a type of perceptual cocoon which in an irregular fashion effectively shuts out social and other stimuli. Some think that the tendency of these children to avoid gaze eye to eye (gaze avoidance) is part and parcel of the above relational difficulty.

RITUALISTIC AND COMPULSIVE BEHAVIOUR

Autistic children often obsessionally insist on a particular routine in their daily lives, and their resistance to any change —either of the routines or of objects or people in their environment—make for major management problems. Some children develop a deep attachment to an unusual object, such as a lid or a cup from which they cannot easily be parted. These behaviours have been interpreted as an attempt by the child to create some order in a confusing and chaotic world.[11]

CATASTROPHIC REACTIONS

Autistic children tend to cling to these rituals or compulsions and react with considerable "catastrophic" distress to any interruption of these or change in their routine. Nevertheless, these reactions do not always seem to have obvious determinants. Some children are apparently suddenly abnormally distressed by an everyday object, such as a table, or a jug, but for other catastrophic reactions there are no obvious explanations. The stimuli to which the children react so disastrously appear to be specific to each child—for instance, some may react to reorganization of furniture within the home; another to an unfamiliar road on a journey; and yet another to a change in a dressing routine.

MOTOR ABNORMALITIES

These are particularly evident when the child is distressed or excited. The most characteristic consists of finger flicking near the eyes (finger stereotypes) and hand flapping. Facial grimaces, jumping, and toe walking are also seen, as is pirouetting.

DISORDERS OF COMMUNICATION

The vast majority of autistic children have difficulties in communication. While some remain mute, most have serious delays or abnormalities of speech and language. The more common abnormalities consist of a tendency to echo or repeat words or phrases; use of meaningless words or phrases; and general immaturity of speech.[19 35] When it develops their speech is frequently stereotyped, monotonous, and pedantic. These together with difficulties of comprehension and poor development and use of gestures[11] tend to suggest a disorder similar to developmental receptive dysphasia[20-22] underlies the condition. Rutter points out that such children cannot cope with the nuances of communication or the subtleties of humour.

SENSORY DISORDERS

One of the conundrums of autism is that these children tend to show a preferential response for proximal sensory stimuli to distal ones. So while they simultaneously ignore aural or visual stimuli they seem to explore the external world by touching, tasting, and smelling objects. There are notable exceptions to these general tendencies, in that they often transiently alert to new, strange noises and appear fascinated by rotatory or pendular movements. Nevertheless, the ignoring of sound stimuli and the failure to respond to startle stimuli[5] suggests a form of deafness. Some autistic children display a combination of a lack of response to painful stimuli combined with a fearlessness, which has obvious dangers.

MOOD AND ATTITUDE CHANGES

Rages and tantrums and self-directed aggression are relatively frequent, and while they do not appear to have obvious precipitants, many authors speculate that these may be a reaction either to frustration following on a poor ability to communicate or to boredom.[11] Self-destructive behaviour—such as biting of hands, face slapping, and head banging—generates considerable anxiety in parents. These children show little in the way of appropriate variation in facial expression, which seems to tie in well with their poor response to the nuances of humour. In addition, bouts of silly or inappropriate giggling are not uncommon.

ACTIVITIES

Especially in the preschool years, autistic children tend to wander aimlessly around. These wanderings appear to have no particular purpose and they are not of the usual constructive and exploratory variety seen in toddlers, who normally display considerable curiosity about their environment. In autistic children play tends neither to be creative, imaginative, nor constructive and they seem to prefer pursuits that have a mechanical or repetitive basis.

INTELLECTUAL DEVELOPMENT

The impression of good intellectual potential which was gained by earlier authors was probably based on the attractive physical appearance, the seemingly alert expression, and the ability of some autists on non-verbal tasks, especially the jig-saw variety. A few autistic children show better ability in circumscribed areas, such as with jig-saws or have remarkable memories for numbers or tunes. Subsequent research[14 23] has shown that autism is more frequently associated with major intellectual deficits than with average or above average intellectual potential. Nevertheless, Rutter and Lockyer[14] point out that autistic children with low I.Q.s have similar symptoms to those with high I.Q.s and so "mental subnormality as a concept is insufficient to account for the autism."[4]

Theories of Aetiology

There are a plethora of theories of the aetiology of autism and for the sake of brevity only three will be reviewed.

PSYCHOGENIC

It is a common assumption in child psychiatry that the personality and attitudes of parents exert a fundamental influence on the developing child. Such assumptions are often accepted as proved without checking whether there is a correlation between the parental personality and the childhood disorder. Nevertheless, systematic research[10 15 21] has not supported this theory, which has done immeasurable harm to parents and families.[25]

ORGANIC

One of the major concepts is that autism is partly explicable on the basis of organic brain disease. This might either release

mechanisms in infants with a psychotic predisposition or interfere more specifically with neurophysiological pathways for integration of incoming stimuli.

More recent studies[14 18 26] support the suggestion that considerable cerebral dysfunction is present in infantile psychotics. Further, it is not uncommon for them to develop epileptic fits. The fact that half the cases do not show this dysfunction does not invalidate an organic theory. It may just mean that part, but not the whole, of the variance is determined by cerebral dysfunction. One research group[26] on the basis of diversity of both EEG and seizure patterns argue against an homogenous pathological mechanism underlying infantile psychosis. They argue for different types of structual disorganization within the central nervous system leading to a homogenous function abberation.

Variations of this aetiological theme are based on the autistic child's unusual or lack of response to sounds and hence the view that the basic defect in autism is "a relative inability to comprehend sounds."[20-22] On this basis even social withdrawal could be explained as a reaction to a defect in comprehension of language. Other thematic variations focus on the handicaps of autistic children. Some[27] implicate an impaired ability to conceptualize and symbolize. Others[28] attempt to explain autism in terms of one or more neurological dysfunctions leading to such handicaps as abnormalities of speech, pronunciation, comprehension, ability to use gesture, coping with visual input, and so on. Commonly occurring combinations of such dysfunctions are described as syndromes.

GENETIC

It has been suggested that autism may be genetically determined.[29] The evidence in support of this theory is scanty but this does not preclude a remote possibility. The theory is mainly based on the somewhat higher parental intellectual endowment and the slightly higher rate of autism in the siblings compared with the general population.[4] However, the rate is low for a hereditary disorder unless, for instance, low penetrance of the gene is hypothesized. Furthermore, chromosomal studies have also shown no abnormalities.[30]

Treatment

The great variety and diversity of treatment which have been used in autism are an index of the poor success of any of them. Extravagant claims have been made for most, but these were based on clinical impressions, mostly unsupported by evaluation and in the course of time have tended to be discarded. The treatments used include electroconvulsive therapy, intensive psychotherapy of the parents and/or the child, pharmacotherapy, and the more recently introduced vitamin therapy. Not only has intensive psychotherapy not worked but it has probably done considerable harm. On the other hand, supportive psychotherapy of the parents is often indicated. Parents need help with their anxieties and "genetic" guilt (which in the last was iatrogenically induced); practical advice and support about the day-to-day management of the child; and guidance and direction about management and education.

While pharmacotherapy cannot modify the course or the severity of the disorder,[31] it may be both useful and essential where seizure disorders co-exist. Furthermore, sedatives and tranquillizers may be useful with specific symptoms such as sleep problems, over activity, or severe aggressiveness.[11] Unfortunately, the response to these drugs tends to be idiosyncratic and their dosage has to be tailored to the individual. Moreover, often drugs do not work at all.

OPERANT CONDITIONING AND EDUCATIONAL MEASURES

Considerable optimism was engendered by the introduction of the operant conditioning variation of learning theory techniques.[32] This is essentially a system mostly of rewards (positive reinforcement) and seldom or hopefully never of punishments (negative reinforcement) for building in desirable responses and eliminating undesirable behaviour. Nevertheless, its usefulness has been exaggerated, as any improvement is often circumscribed, specific to a particular situation and transient.[4] The method works best in conjunction with educational measures as part of a general training approach aimed at helping these children to overcome their handicaps.[11] A further variation of the operant conditioning techniques was developed by Schopler and Reicher,[33] who use the parents' frequent high motivation to help their children to learn and to acquire practical and social skills. Hence the parents are helped either to participate in treatment or to be the main vehicle for carrying this out. The value of educational approaches needs to be underlined as it has been shown that many autistic children can acquire useful educational skills. Finally, in treating these children, patience and dedication are bye-words—as improvement (when it occurs) usually tends to proceed at a snail's pace.

OUTCOME

In spite of modern methods of treatment, the outcome is mostly poor in terms of both intellectual development and overall adjustment.[3] Just over 10% develop satisfactorily intellectually and become adequately socially adjusted.[34] The most important prognostic factor is the testable level of intelligence:[14] cases with I.Q.s over 60 have a considerably better outcome. An improved prognosis is also associated with the development of useful speech by the age of 5 years and with the rate of losing the more florid autistic symptoms. If substantial improvement is to occur, it will usually show itself by the age of 7 years.[3]

(Part II of this article will appear in next week's issue together with the references.)