

PSYCHIATRIC DISORDERS IN PRE-SCHOOLERS

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ABSTRACT

The psychiatric disorders seen in preschoolers are reviewed. Behaviour problems are the most commonly seen. These may be due to reaction to stress, developmental problems of attachment and temperamental characteristics such as shyness and aggressiveness. Related to behaviour problems are the developmental disorders of enuresis, encopresis and constipation. The rate of behaviour problems in Singapore was found to be 7% which compares favourably with studies overseas.

Disorders that have their onset in the preschool period include Attention Deficit Hyperactivity Disorder(ADHD) and Pervasive Developmental Disorders. ADHD is increasingly important because of the response to Ritalin and pervasive disorders because of the recognition that autistic states probably cover a spectrum of disorders.

Aetiological factors of preschool psychiatric disorders include biological and psychosocial contribution. The latter is associated with the quality of the home environment and quality of care experienced by the child.

Assessment methods include the gathering of developmental data such as the IQ and appropriate behavioural checklists. Direct observation is increasingly practised. Management methods range from drug therapy (mainly in ADHD), to traditional psychodynamic, family and behavioural therapy.

Keywords: *psychiatric disorders, preschoolers, toddlers, behaviour problems*

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INTRODUCTION

The preschool period is a period of intense development. From a helpless infant at the time of birth to that of a young schoolgoing child, the newborn would have undergone rapid developmental changes physically. In parallel with this physical development, there is also intense psychological and social development so that by the time the child is of schoolgoing age, he is now capable of complex thought, language and social behaviour within an ever widening social context. With such dramatic physical and psychological changes as the child grows, there is ample opportunity for development to deviate from the normal or even to be arrested due either to inherent causes or to the influence of the child's physical and social environment. When development is thus compromised, behaviour problems often result.

Strictly speaking, the preschool period includes that of infancy. However the problems of infancy had been intensively studied in recent years and there has been a proliferation of books and studies in infant psychiatry⁽¹⁻⁴⁾. In fact, infant psychiatry is now an established subspecialty within child psychiatry itself. Hence I shall limit this review to the preschool toddler to about five years.

WHAT ARE BEHAVIOUR PROBLEMS?

Behaviour problems are probably the most common psychiatric condition seen in the preschool. Behaviour problems are persistent difficulties in behaviour which are maladaptive^(5,6). In the course of development, there would be problems encountered in various bodily and social function such as in control of aggression, sleep sphincter control, peer

relationships and dependence-independence difficulties. Thus, symptoms of behaviour problems include temper tantrums, problems with sleep, appetite, soiling and bedwetting, poor concentration, social difficulties, fears and disobedience.

Most of the time, such symptoms are transient and not severe. It would not be right to label such transient difficulties as behaviour problems in the preschooler. However if the preschooler has such difficulties which are severe and persistent, then the preschooler would have a clinical disorder which is diagnosable by standard diagnostic criteria such as the American DSM-IV⁽⁷⁾.

In the past, authorities tend to think of behaviour problems of preschoolers as symptoms of stress reaction. However such symptoms may not be as transient as they should be if they are indeed symptoms of adjustment. There is evidence to suggest that behaviour problems in preschoolers are likely to persist to middle childhood⁽⁸⁻¹²⁾. The type of problems that will persist depend not only on the severity but also on the type. Thus problems of hyperactivity and extreme shyness for example, are more likely to persist than others⁽¹³⁻¹⁵⁾.

Statistical analyses of data gathered on preschoolers indicated that problem behaviours fall into three clusters. They roughly corresponded to the three fairly standard categories of emotional disorders, conduct disorders and hyperactivity^(16,17). Other investigators such as Richman et al⁽¹¹⁾, identified other groupings such as that of sphincter problems, nightwetting, restlessness/food fads. In general however, it would be true to say that there are three broad groups, that of apathy/withdrawal/fears, anger/defiance and hyperactivity problems independent of conduct difficulties.

Emotional Disorders

These are diagnosed when there is a distinct pattern of fears, social withdrawal and clinginess instead of being able to cooperate and participate. The main symptom is usually a fear of the external environment and a return or regression to the comfort of earlier childhood behaviours such as being cuddled and carried. Fears may be precipitated by life events or by parental behaviours that reinforced dependency

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behaviours in the child.

Attachment disorders that arise from faulty attachment in infancy may persist into the preschool unrecognised. They are the reactive and disinhibitive types respectively. In the reactive type the child is anxious and fails to thrive, while in the disinhibitive type the child appears disinterested and ambivalent⁽¹⁸⁾.

Conduct Disorders

This is rarely diagnosed in the preschooler, although the behaviours that will give rise to conduct disorders in the schoolgoing age may be identified in the preschooler such as aggression⁽¹⁹⁾. When not appropriately channelled, these behaviours become a part of the repertoire of the child in later life and develop into conduct disorders and delinquency.

In the preschooler, some parents would find such inappropriate aggressive behaviour to be "cute" and may subtly encourage them. When such behaviours are curbed and controlled, the child learns to behave morally. Moral learning will fail to take place if parents do not control aggressive behaviours or if they themselves exhibit such traits of aggressiveness in their daily life^(18,19).

Because conduct problems in the preschool generally present itself as aggression and are often associated with considerable anxiety as well as being the result of some life events, some authorities would diagnose it as a Behavioural Adjustment Disorder⁽¹⁸⁾ instead of distinguishing between Emotional or Conduct Disorders. Nonetheless, it should be borne in mind that such disorders can persist into later childhood if not properly managed.

Childhood Depression

While it is widely recognised that depressive syndromes can occur in infancy and early childhood, the study of depression in the preschool child is plagued by the fact that the young child cannot verbally report the negative cognitive mindset that is characteristic of depression. The behavioural characteristics of depression can, however be observed such as depressed mood, social withdrawal and apathy⁽²⁰⁾. Using such measures, the prevalence of depression in preschoolers has been estimated at 0.26⁽²¹⁾.

Of course, in the absence of a diagnostic category for depression, clinicians would diagnose an emotional disorder based on the behavioural characteristics. A valuable technique has been the use of play behaviour for the inference and understanding of the child's inner psychological process⁽²²⁾. This technique has been invaluable for therapeutic assessment and intervention.

DEVELOPMENTAL DISORDERS

Enuresis

Enuretic problems are fairly common in childhood and most physicians would have encountered them in the schoolgoing child. In the preschool period, some 13% of both boys and girls would still be bedwetting. By about 7 years, this rate would drop to about 5% with a preponderance of boys⁽²³⁾.

Euresis is often tolerated by caregivers during the preschool period and therefore do not present themselves in a medical setting. It is when the child gets to school or much later on when enuresis is associated with social difficulties and embarrassment that medical advice is sought.

Encopresis

Children usually achieve control of their anal sphincters during their preschool period and by 4 years, only 4% would still be soiling. However, studies indicated that after 3 years, children with encopresis have a higher rate of behaviour problems⁽¹¹⁾. Hence a child after 3 years who is still soiling should be managed actively.

Constipation

Constipation is often associated with congenital malformations such as a stenosis. Psychosocial stress in the toddler sometimes can precipitate constipated motion. Some authorities have linked constipation with child sexual abuse. But as has been rightly pointed out, this may be a generalised response to stress⁽¹⁸⁾. Nonetheless, the constipated child with no organic cause should be evaluated for psychiatric distress and behaviour problems.

ATTENTION DEFICIT HYPERACTIVITY DISORDER

The key features of Attention Deficit Hyperactivity Disorder (ADHD) are inattentiveness, impulsiveness and hyperactivity, difficulty with gratification. In the past, authorities focussed on hyperactivity as the key symptoms, hence variants of the name "hyperkinetic syndrome". It is now recognised that children with ADHD have the greatest difficulty with sustaining attention^(24,25). The average preschooler should be able to sustain attention for about 9 minutes for a 3-year-old to 15 minutes for a 5-year-old. ADHD are behaviourally disinhibited because of their inability to stay on task. And it is this disinhibition that leads to distractibility and impulsivity. They are also overactive, easily aroused and restless. ADHD typically present themselves during the preschool age and continue into middle childhood, affecting their school performance greatly.

ADHD is to some extent associated, though not correlated, with minimal brain damage⁽²⁶⁾. It is also associated with exposure to lead and food additives.

The prevalence of ADHD depends on the criteria adopted. Thus American authorities which use a wider definition of ADHD quoted a prevalence rate of 5% to 15%, while British psychiatrists who use a much more stricter criteria quoted a rate of 0.1%^(25,26). The widening of the ADHD basket by American clinicians is in my view unwarranted as they lead to multiple diagnoses, viz that of conduct disorder or a learning disorder being made in conjunction with that of an ADHD⁽²⁵⁾.

AUTISM AND PERVERSIVE DISORDERS

Autism and pervasive disorders include diagnoses such as Asperger's, Rett's and Disintegrative Psychosis of childhood. The prevalence is estimated at 0.03% to 0.04% with a preponderance of boys. A familial tendency is noted⁽²⁷⁾.

They are widely recognised as syndromes that arise in infancy and early childhood. Autistic children are impaired in their social, linguistic and cognitive functioning. Behaviourally they avoid eye-to-eye gaze and cannot develop normal emotional and social bonds with others. Their deficits also lead them to have stereotype and rigid play with little variety and imagination. A whole lot of characteristics ranging from food fads, overactivity, short attention span, aggression to extreme fears have been described and observed.

A related disorder, Asperger's Syndrome, share a lot of

the characteristics of autism except that the child with Asperger's shows pedantic and stereotypical speech. Reports that Asperger's and Autism may occur in the same family suggest that the two conditions may have a common aetiology⁽¹⁸⁾.

INTELLIGENCE AND LEARNING DISORDERS

A major group of learning difficulties is due to a global arrest or slowing down of cognitive development. These are the various diagnoses that give rise to Mental Handicap. Mental handicap are of interest because not only do they give rise to behaviour problems, but more importantly, their psychological development need to be assisted by behavioural and other intervention in the form of educational and training programs⁽²⁸⁾.

Learning disorders such as reading disorder may be recognised in the preschooler. It is however rarely diagnosed before the end of the kindergarten years with some authorities insisting that it should not be diagnosed at all in the preschool years⁽²⁹⁾. In the preschooler, learning disorder may manifest as a delay in the ability to read and may not present as a psychiatric morbidity. Its association with disorders of conduct is seen more in the schoolgoing child than in the preschooler.

PREVALENCE OF BEHAVIOUR PROBLEMS

There have been various studies on the prevalence of behaviour problems in preschoolers carried out mostly in the West. By and large, these were carried out using a behaviour screening questionnaire devised by Richman & Graham dealing with 12 different behaviours⁽⁵⁾. This is a semi-structured interview administered to mothers. Behaviour problems detected were then rated according to their severity ranging from normal, dubious, mild, moderate to severe behaviour problems. Estimates of studies done in the West range from 7% to 15.5%⁽³⁰⁻³³⁾. A recent study from Hong Kong by Luk et al noted a rate of 12.75 %⁽³⁴⁾ while in Singapore, Kong & colleagues observed a rate of 7% in a study involving children attending MCH clinics⁽³⁵⁾. Cultural factors were not observed to significantly influence the prevalence rates of behaviour disorders.

When the symptom pattern of the behaviour problems was examined and compared, it was noted that the following symptoms were generally lower in the Singapore sample, viz eating, overactivity, unhappy mood, worries and sleeping difficulties^(30,32,35). The significantly lower rate of sleeping difficulties here ($p < 0.0001$) may well be due to the fact that local mothers tend to sleep with their children in contrast with western mothers who tend to put the child in a separate room⁽³⁶⁾. No encopresis was detected in the local sample and again this may be due to local parenting practice of toilet training the child very early in infancy.

The prevalence of other psychiatric disorders such as ADHD and autistic and pervasive disorders have already been discussed above under their respective headings.

AETIOLOGICAL FACTORS

Biological factors

Many factors can affect the biological growth in infancy which can be compromised and give rise to psychiatric morbidity in the preschool period. Genetic and chromosomal abnormalities such as Down's Syndrome; insults by infections, toxic chemicals such as thalidomide; birth injuries, accidents,

malnutrition, neglect and child abuse all can contribute to increase a child's susceptibility to having psychiatric disturbance and behaviour problems. Not infrequently, psychiatric sequelae are mediated by brain injury and manifest in clinical syndromes such as mental handicap, autistic states, epilepsy and attention deficit disorders^(19,37).

Psychosocial factors

A large number of psychosocial factors can contribute to psychiatric disorders in preschoolers. Among social variables, the most important is that of low socio-economic class. There is evidence to show that children of low socio-economic status families have a higher incidence of behaviour problems⁽¹⁹⁾. This may be due to the privation and neglect common in such families because of their need to survive. For similar reasons, it is not surprising to find that children born to teenage mothers show poorer social and intellectual competence compared to children born to older mothers⁽³⁸⁾.

The stress of life events may also produce behaviour difficulties ranging from the very mild to severe⁽³⁹⁾. Examples of life events that may have an impact on preschoolers include accidents, deaths, separation, parental discord, parental separation, and the arrival of a new sibling. In the case of marital separation and divorce, the genesis of behaviour problems may be mediated by maternal depression besides the stress of the life event⁽⁴⁰⁾.

Some people believe that any form of institutional care is inferior to the care provided for by mothers for their children. There is in fact evidence that children in institutional care have a higher rate of both physical illness and psychiatric disorder⁽⁴¹⁾. The above is however true of impersonal care associated with orphanages of the past. We now know that high quality day care has no adverse effect on cognitive development. More importantly a review by Scarr et al⁽⁴²⁾ indicated that the effects of daycare are probably complex and behaviour problems may not be significantly higher in children reared in a day care setting. Similar findings were obtained in a local study some years ago⁽⁴³⁾.

ASSESSMENT METHODS

The psychiatric assessment of the preschooler will necessarily include the interview with the caregiver, usually the mother. It is the adults who will give the factual information for assessing the preschooler. An aid to interview is the use of behavioural checklists administered to or completed by the mother. Examples of such checklists include Richman's Behavioural Screening Questionnaire⁽⁵⁾ and Behar's Behaviour Rating Scale⁽⁴⁴⁾. Psychometric assessments of temperament are sometimes carried out.

Because preschool psychiatric morbidity is often developmental, a psychometric IQ assessment is often necessary. Available tools for this purpose include the WPPSI, the MacCarthy and the Leiter⁽⁴⁵⁻⁴⁷⁾. The MacCarthy is said to test a wider range of abilities but is less accurate at extreme ends of the scale as in mental handicap and the gifted child. Leiter has the advantage that the items of the instrument are relatively culture-free.

Behavioural assessment of children is increasingly practised. The child is observed directly either alone or in interaction with a caregiver. Much information can be gained of both the child's emotional state as well as his relationship to others by such techniques. Protocols for behavioural assessment have been developed and used both in research and in clinical settings^(19,22).

PSYCHIATRIC MANAGEMENT IN PRESCHOOLERS

The treatment approaches available for managing preschool psychiatric disorders are pharmacotherapy, psychotherapy, behaviour therapy and family therapy.

Pharmacotherapy

Drug treatment is certainly not indicated in the preschooler, except in cases where there is an organic condition such as epilepsy where anticonvulsants are indicated⁽³⁷⁾.

The use of methylphenidate (Ritalin) has been widely associated with ADHD. However besides medication ADHD need to be managed by behavioural techniques and remedial help for the cognitive deficits. This is because methylphenidate improves only the attentional deficits and not the cognitive and other defects^(25,26).

Psychotherapy

Child analysis has been practised in the West, but it is time consuming and expensive. Currently, most psychotherapy practitioners would practise a psychoanalytically oriented therapy with the child while the family would be counselled by a social worker. Such therapy would be effective in children where there is a strong emotional component⁽¹⁹⁾.

Behaviour Therapy

This would be effective in most psychiatric disorders especially longstanding ones like enuresis, mental handicap, ADHD and pervasive disorders. Both classical conditioning and operant techniques may be used. The parent is often enlisted as a co-therapist⁽⁴⁸⁾.

Family Therapy

Whether used as an adjunct to other forms of therapy or as the main intervention technique, family therapy or counselling is important in preschool psychiatric disorders because of the contribution of family social factors. In family counselling, parenting skills may need to be taught if parents are coping inadequately. Intensive therapy would be indicated where family adjustment to previous grief or trauma have not been satisfactorily resolved and the child's behaviour problems become symptomatic of the family's grief^(18,37).

REFERENCES

1. Minde K, Minde R. Infant psychiatry: An introductory textbook. London: Sage Publications, 1986.
2. Call JD, Galenson E, Tyson RL. Frontiers of infant psychiatry I. New York: Basic Books, 1983.
3. Call D, Galenson E, Tyson RL. Frontiers of infant psychiatry II. New York, Basic Books, 1984.
4. Minde K, Benoit D. Infant psychiatry: its relevance for the general psychiatrist. Br J Psychiatry 1991; 159: 173-84.
5. Richman N, Graham PJ. A behavioural screening questionnaire for use with 3-year-old: preliminary findings. J Child Psychol Psychiatry 1971; 12: 5-33.
6. Jenkins S, Bax M, Hart H. Behavioural problems in preschool school. J Child Psychol Psychiatry 1980; 21: 5-17.
7. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th edition.(DSM-IV). Washington DC: APA, 1994.
8. Abe K, Ohta M, Amatomi M, Oda N. Persistence and predictive value of behaviours of 3 year-olds: a follow-up study at 8 years. Acta Paedopsychiatr 1982; 48: 185-91.
9. Baker I, Hughes J, Street E, Sweetnam P. Behaviour problems in children followed from 5 to 8 1/2 - 9 years of age and their relation to educational attainment. Child Care, Health Dev 1983; 9: 339-48.
10. Coleman J, Wolkind S, Ashley L. Symptoms of behaviour disturbance and adjustment to school. J Child Psychol Psychiatry 1977; 18: 201-9.
11. Richman N, Stevenson JE, Graham PJ. Preschool to school: A behavioural study. London: Academic Press, 1982.
12. Lerner JA, Inui TS, Trupin EW, Douglas E. Preschool behaviour can predict future psychiatric disorders. J Am Acad Child Adolesc Psychiatry 1985; 24:42-8
13. Fagot BI. The consequences of problem behaviour in toddler children. J Abnorm Child Psychol 1984; 12: 385-96.
14. Campbell SB, Breaux AM, Ewing LJ, Szumowski EK, Pierce EW. Correlates and predictors of hyperactivity and aggression: a longitudinal study of parent-referred problem preschoolers. J Abnorm Child Psychol 1986; 14: 217-34.
15. Kagan J, Reznick JS, Snidman N. Biological bases of childhood shyness. Science 1988; 240: 167-71.
16. O'Donnel LJP, Tuinan MV. Behavioural patterns of preschool children: dimensions and congenital correlates. J Abnorm Child Psychol 1979; 7: 61-5.
17. Kohn M, Rosman BL. A social competence scale and symptom checklist for the preschool child: factor dimensions, their cross-instrumental generality and longitudinal persistence. Developmental Psychology 1972; 6: 430-44.
18. Graham PJ. Child psychiatry: a developmental approach. 2nd edition. Oxford: OUP, 1991.
19. Erickson MT. Behaviour disorders of children and adolescents: assessment, etiology, and intervention. 2nd edition. Englewood Cliffs, New Jersey: Prentice-Hall, 1992.
20. Pataki CS, Carlson GA. Affective disorders in children and adolescents. In: Tonge BJ, Burrows GD, Werry JS. eds. Handbook of studies on child psychiatry. Amsterdam: Elsevier, 1990.
21. Kashani JH, Carlson GA. Seriously depressed preschoolers. Am J Psychiatry 1987; 144: 348-50.
22. Gabarino J, Stott FM. What children can tell us: eliciting, interpreting and evaluating information from children. San Francisco: Jossey-Bass, 1989.
23. Rutter ML, Yule W, Graham PJ. Enuresis and behavioural deviance: some epidemiological considerations. In: Kolvin I, MacKeith, Meadow SR. eds. Bladder control and enuresis. Clinics in developmental medicine. Nos. 48/49. London: Heinemann, 1973.
24. Douglas VI. Attention and cognitive problems. In: Rutter M. ed. Developmental neuropsychiatry. New York: Guilford Press, 1983.
25. Gaddes WH, Edgell D. Learning disabilities and brain function: A neuropsychological approach. 3rd edition. New York: Springer-Verlag, 1994.
26. Taylor E. Syndromes of overactivity and attention deficit. In: Rutter M, Hersov L. eds. Child and adolescent psychiatry: Modern approaches. Oxford: Blackwell, 1985.
27. Gillberg C. Autism and pervasive developmental disorders. J Child Psychol Psychiatry 1990; 31: 99-119.
28. Aman MG, Schroeder SR. Specific learning disorders and mental retardation. In: Tonge BJ, Burrows GD, Werry JS. eds. Handbook of studies on child psychiatry. Amsterdam: Elsevier, 1990.
29. Aaron PG. Dyslexia and hyperlexia. Diagnosis and management of developmental reading disabilities. Dordrecht: Kluwer Academic Publishers, 1989.
30. Richman N, Stevenson JE, Graham PJ. Prevalence of behaviour problems in 3-year old children: an epidemiological study in a London borough. J Child Psychol Psychiatry 1975; 16: 277-87.
31. Earls F, Richman N. The prevalence of behaviour problems in three-year-old children of West Indian born parents. J Child Psychol Psychiatry 1980; 21: 99-106.
32. Earls F. Prevalence of behaviour problems in 3-year-old children: a cross-national replication. Arch Gen Psychiatry 1980; 37: 1153-7.
33. Cornely P, Dromet EJ. Prevalence of behaviour problems in three-year-old children living near Three Mile Island: a comparative analysis. J Child Psychol Psychiatry 1986; 27: 489-98.
34. Luk SL, Leung PWL, Bacon-Shone J, Chung SY, Lee PWH, Chen S, et al. Behaviour disorder in preschool children in Hong Kong: A two-stage epidemiological study. Br J Psychiatry 1991; 158: 213-21.
35. Kong DSG, Wong ST, Goh CW, Kok LP, Lam SL. Behaviour problems of 3-year-olds in Singapore (abstract). 5th ASEAN Forum on Child and Adolescent Psychiatry, Singapore, 1985.
36. Trilling JS. Nighttime waking in children: A disease of civilisation. Family Systems Medicine 1989; 7: 17-29.
37. Richman N. Preschool. In: Rutter M, Hersov L. eds. Child and adolescent psychiatry: modern approaches. 2nd edition. Oxford: Blackwell, 1985.
38. Roosa MW, Fitzgerald HE, Carlson NA. Teenage parenting and child development: a literature review. Infant Mental Health Journal 1982; 3: 4-18.
39. Johnson JH, Bradlyn AS. Life events and adjustment in childhood and adolescence. In: Cohen LH. ed. Life events and psychological functioning. Newbury Park, NY: Sage Publications, 1988.
40. Fergusson DM, Horwood LJ, Shannon FT. Relationship of family life events, maternal depression and childrearing problems. In: Miller TW. ed. Stressful life events. Madison, CT: International Universities Press, 1989.
41. Bowlby J. Maternal care and mental health. Geneva: World Health Organisation, 1952.
42. Scarr S, Phillips D, McCartney K. Working mothers and their families. Am Psychol 1989; 44: 1402-9.
43. Kong DSG. A comparison of children in daycare and maternal care setting - preliminary report of a longitudinal study. The Working Committee for the Study of Effects on Children in Different Childcare Settings. Presented at the IXth Biennial Meeting of the International Society for the Study of Behavioural Development. Tokyo, 1987.
44. Behar R, Stringfield S. A behaviour rating scale for the preschool child. Developmental Psychology 1974; 10: 601-10.
45. Weschler D. Manual for the Weschler preschool and primary scale of intelligence. San Antonio: Psychological Corporation, 1967.
46. MacCarthy D. MacCarthy scales of children's abilities manual. Cleveland: Psychological Corporation, 1972.
47. Leiter RG. Leiter International Performance Scale. Chicago: Stoelting Co., 1948.
48. McAuley R. Training parents to modify conduct problems in their children. J Child Psychol Psychiatry 1982; 23: 335-42.