

Two years of admissions to Natal's first inpatient child mental health centre

S. V. MOODLEY, A. L. PILLAY

Abstract The need for increased provision of mental health services for children has long been expressed. Equally, there is a shortage of training opportunities for mental health workers in this specialised field. The establishment of the first inpatient child mental health centre in Natal, together with clinical and demographic characteristics of the first 100 patients admitted to the unit, is discussed. Almost one-third of the children were diagnosed as having disruptive behaviour disorders, including conduct disorder, attention-deficit hyperactivity disorder and oppositional defiant disorder. Parent-child problems were also very prevalent. While a variety of therapeutic modalities were employed, behavioural management formed the mainstay of the treatment programme. Recommendations for additional child mental health centres are made.

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Mental health services for children are both under-developed and in short supply in South Africa, where child psychiatry is still a very young discipline. However, academic meetings and conferences focusing on child mental health reveal a fair amount of interest in this area, as does the existence of the South African Association for Child and Adolescent Psychiatry and Allied Professions. Unfortunately the scarcity of specialised child mental health services, and especially inpatient facilities, means that, firstly, the appropriate clinical services are not available to children in need, and, secondly, the opportunity for training mental health workers in this important area is lost; this creates a vicious circle, since the shortage of training opportunities means fewer child mental health specialists who can implement additional services.

The Child Mental Health Care Centre (CMHCC) at Midlands Hospital in Pietermaritzburg was established in August 1989 and is the only inpatient facility for psychiatrically disturbed children and adolescents in Natal. While the efficacy of psychiatric inpatient treatment for children is still being researched, particularly in terms of what constitutes a successful treatment programme,¹ it is the opinion of the authors that the CMHCC does address some of the present needs in child mental health in South Africa. Being situated within a teaching hospital, it also provides training in the fields of psychiatry, clinical psychology, nursing, occupational therapy and social work. The CMHCC caters for both outpatients and inpatients, although the present study focuses on the latter.

The physical facilities of the CMHCC provide for 30 beds, although a maximum of 10 are utilised at present, due mainly to shortage of staff. At present the unit is

staffed by up to 4 nurses at any one time, a psychiatric registrar and an intern clinical psychologist who spend 80% of their time in the unit, a consultant psychiatrist, a consultant clinical psychologist, a part-time occupational therapist and 2 part-time social workers. The staff complement falls well below the recommended staff/patient ratio for such a unit.

Against this background the authors considered it important to examine some of the demographic and clinical characteristics of children admitted to the CMHCC. Such data would be valuable for the ongoing development of the unit and its programme as well as for future planning of mental health care services for children nationally. Issues such as staff requirements and training, programme development considering the needs of the children (e.g. limit setting and other control measures), and the need for parent training programmes, among others, are, to a certain extent, dependent upon the characteristics of the children admitted.

Patients and methods

The study involved a prospective descriptive analysis of demographic and clinical data pertaining to the first 100 patients admitted to the CMHCC during the 2 years since its inception in August 1989. The following details were noted and recorded for each case: age, gender, presenting problem or reason for referral, source of referral by geographical area, referral agent, admission status (first or re-admission), diagnoses on axes I, II and III according to the 3rd edition (revised) of the *Diagnostic and Statistical Manual of Mental Disorders*² (DSM III-R), type of management (e.g. pharmacotherapy, play therapy, family therapy, behaviour modification, parent counselling), and length of stay in the CMHCC.

Results

The majority of patients were under the age of 12 years (Table I). Seventy-one per cent were male and 29% female (male/female ratio 2,4:1). Over 80% presented with behavioural problems, which included verbal and physical aggression, stealing, running away from home and other antisocial behaviours. Table II reflects the distribution of presenting problems (reasons for referral).

TABLE I.
Age distribution

Age (yrs)	%
Under 5	5
5 - 8	18
9 - 12	40
13 - 16	36
17	1
Total	100

It was found that 40% of the children were referred from the Pietermaritzburg area within a radius of about 10 km from the CMHCC and 30% were referred from the greater metropolitan area of Durban (80 - 100 km from the CMHCC). The remaining 30% were referred from more distant areas (up to 400 km away). Thirty-

Department of Psychiatry and Sub-Department of Medically Applied Psychology, University of Natal, Durban, and Midlands Hospital, Pietermaritzburg

S. V. MOODLEY, M.B. B.S., M.MED. (PSYCH.)
A. L. PILLAY, M.SC., PH.D.

TABLE II.
Presenting problem/reason for referral

	%
Behavioural problem	82
Poor school progress	2
Parasuicide	1
Child abuse	2
Psychotic symptoms	3
Other	10
Total	100

eight per cent of the children were referred by social workers, 23% by medical practitioners, 15% by psychologists, 12% by community nurses and 12% by other individuals. Of the first 100 children admitted to the CMHCC, 92% were new patients and 8% re-admissions.

Table III shows the distribution of axis I diagnoses according to the DSM III-R. Almost one-third of the patients (31%) showed disruptive behavioural disorders (conduct disorder, attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder), with conduct disorder predominating (17 of 31). Parent-child problems comprised the largest of the V-code diagnostic groups. No axis I diagnosis was made in 24% of the cases. Axis II diagnoses are reflected in Table IV, which shows that 35% of the patients were mentally retarded, most mildly. Epilepsy was the most common axis III diagnosis, evident in 24% of the children. Nine per cent of the patients suffered from other physical conditions, while no axis III diagnoses were made in the remainder (67%).

TABLE III.
DSM III-R axis I diagnoses

Diagnosis	%
Conduct disorder	17
ADHD	8
Oppositional defiant disorder	4
ADHD + conduct disorder	2
V code	22
Organic mental disorder	10
Major depression	4
Schizophrenia	4
Other	5
No diagnosis	24
Total	100

TABLE IV.
DSM III-R axis II diagnoses

Diagnosis	%
Mental retardation	35
Pervasive developmental disorder	2
Specific developmental disorder	2
Personality disorder	3
No diagnosis	58
Total	100

With regard to management, 57% of the children received pharmacotherapy, anti-epileptic drugs being most frequently used. Table V shows the distribution of psychopharmacological treatments used. The different psychotherapeutic modalities employed together with frequencies are reflected in Table VI. Parental counselling was undertaken in virtually all cases. Just over half the patients (51%) stayed in the unit for up to 30 days, with 26% spending between 31 and 60 days and 16% between 61 and 90 days. Only 7 children stayed longer (between 91 and 154 days).

TABLE V.
Psychopharmacological treatments used

Drug class	%
Anti-epileptic	25
Antipsychotic	10
Stimulant	9
Combination	7
Antidepressant	6
Nil	43
Total	100

TABLE VI.
Psychotherapeutic modalities employed

	%
Individual play therapy	60
Group play therapy/adolescent group therapy	63
Family therapy	30
Behaviour modification	87
Parental counselling	92

Discussion

The age distribution noted in the present study is in keeping with the finding that there is a slight increase in the rate of psychiatric disorder between late childhood (9 - 12 years) and early adolescence (13 - 16 years).³ Another explanation may be that children over the age of 6 years are being identified through the educational and school health systems, whereas younger children, particularly in disadvantaged communities, do not receive mental health care as readily.

The gender distribution in this study is consistent with earlier reports of higher rates of mental health problems in boys than in girls.⁴ Also, the disruptive externalising behaviours, more often seen in boys, may result in their being brought to mental health attention more than girls, whose disturbed behaviours are less impinging on or harmful to the environment.

The finding that 82% of the patients were referred because of behavioural problems such as aggressiveness and other antisocial behaviours explains the necessity for admission. The authors gained the impression that most parents (or other caregivers) of these children had reached the end of their tether in coping with the children. In many instances the children's behaviour disrupted or threatened family life. In such cases inpatient management provided some respite for the families in addition to allowing for the close daily monitoring, limit setting and structuring of the child's environment indicated in the treatment of such conditions.

The fact that children admitted to the CMHCC came from distant areas as well as from the Pietermaritzburg area is not surprising, since this is the only inpatient child mental health facility in Natal. The referral of children from distant rural areas is an encouraging sign in terms of awareness of health workers in these regions. However, it also implies a need for the development of community mental health facilities or clinics for children in rural areas. The large proportion of referrals from social workers (38%) is accounted for by the fact that many of the patients were referred from child welfare agencies, children's homes, places of safety and other similar organisations where social workers are involved. Most of the medical practitioners (who referred 23% of the children) were based at provincial hospitals. It is common practice for parents (especially those from poorer backgrounds) to take psychologically disturbed children to general hospitals, since they do not know who else they should turn to. Of course, this has implications for child mental health services which should be located at general hospitals where many of the

problems are first presented. The 12% of patients referred by community nurses were mainly from rural areas, and again, it is encouraging to note that these children are being identified and referred for management. Continuing education programmes focusing on child mental health care are, therefore, important for community nurses and other health workers in the rural areas and could help in the provision of supportive mental health programmes aimed at parent training and other child rearing issues. It is also important that community nurses, who are in the front line of health care in rural areas, be kept abreast of developments in the early identification and prevention of childhood psychopathology.

While the low readmission rate (8%) is a positive sign, it must be remembered that this study focused only on the first 100 patients admitted to the CMHCC. Follow-up studies over a longer period are necessary.

The finding that almost one-third of the patients had diagnoses reflecting disruptive behaviour disorders is consistent with the reasons for referral, and has important implications for staffing and the need for appropriate control measures in the unit. The authors have noted that these children impose greater demands on the staff, particularly nurses, than children with other disorders. Also there is a need for male nurses, who would be better able to restrain violently aggressive boys and moreover would provide an appropriate role model within the therapeutic milieu. The predominance of parent-child problems in the V-code diagnostic group is not surprising. Characteristics of parental behaviour and parent-child interactions are known to be strongly associated with certain psychopathologies of childhood.^{5,6} The fact that 24% of the patients received no axis I diagnosis is not unusual. It is consistent with the view that diagnostic terms be employed strictly where applicable, since in many cases diagnostic evaluations are formulated on the basis of psychological principles and child development rather than specifically orientated to standardised nosology.⁷

The axis II diagnoses showing mental retardation in 35% of the patients reflect the international trend in the developing stages of a child psychiatric service.⁸ This could, in part, be related to the referring practitioners' misconceptions or bias regarding a child mental health service. Of course, another explanation is the high rate of psychopathology in mentally retarded children.⁹ Similarly, the finding that 24% of the patients had epilepsy (on axis III) may be explained by the fact that seizure disorders commonly coexist with behavioural and emotional problems. Research to date shows a definite association between neurological dysfunction and psychiatric symptomatology.¹⁰

While a large proportion of the patients (57%) received pharmacotherapy, this must be seen in the context of the conditions being treated. Almost half of these children (25 of 57) were treated with anti-epileptic drugs. Drug therapy in these cases is virtually mandatory. Therefore, 32 children were treated with drugs for psychiatric symptomatology. In this regard it must be noted that of all children seen at the CMHCC (inpatients and outpatients) those treated as inpatients are usually more severely disturbed. Also, drug therapy is used only when absolutely necessary, when behavioural and other psychological techniques prove ineffective or to make children more amenable to psychological intervention.

The finding that almost all cases involved parental counselling is consistent with international reports.^{6,11} It must be noted that the broad term 'parent counselling' used in this paper includes the practices of parent training, counselling and even psychotherapy as suggested in child psychiatric units abroad.^{11,12} The fact that family therapy was undertaken in only 30% of cases is not reflective of the theoretical orientation of the clinical

team or its members; rather it reflects a practical difficulty, since many of the children (60%) came from well outside the Pietermaritzburg area and regular family therapy sessions were not possible. Nevertheless, the parents were seen at least once for some form of parental counselling. The finding that behaviour modification was used in 87% of the cases is not surprising, since behavioural management forms the mainstay of the CMHCC programme.

Analysis of the length of stay in the unit indicates that the majority of patients (51%) were discharged within 30 days. This compares favourably with a recent American study, where 60% were discharged within 30 days.¹³ The Americans also found that a small number of children stayed for very long periods.

Conclusion

The CMHCC at Midlands Hospital appears to be playing a significant role in facilitating the delivery of mental health services to children. The authors believe that admission to such an inpatient facility substantially aids the diagnosis and management of severely disturbed children. Certainly there is a need for empirical investigations into the effectiveness of the treatment programme. Nevertheless, the quest for improvements in the delivery of psychiatric services to children¹⁴ must continue in view of the shortage of such facilities nationally.

It is recommended that future units be located within easy reach of the community in order to facilitate family involvement in the child's treatment. Also, in view of the excessive demands on staff in such units they should be built to cater for a maximum of 10 children. Therefore, in order to avoid wastage of physical facilities, which is currently a critical issue in South Africa, it is suggested that clinicians be consulted in the planning and design of hospitals and health centres. Finally, it is important to keep in mind the unavoidable stigma attached to psychiatric hospitals; if child mental health centres were to be located in general hospitals or community health centres, parents might be less reluctant to seek help for their children.

REFERENCES

1. Pfeiffer SI, Strzelecki SC. Inpatient psychiatric treatment of children and adolescents: a review of outcome studies. *J Am Acad Child Adolesc Psychiatry* 1990; **29**: 847-853.
2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 3rd ed. (rev.). Washington, DC: APA, 1987.
3. Offord DR. Child psychiatric disorders: prevalence and perspectives. *Psychiatr Clin North Am* 1985; **8**: 637-652.
4. Kosky R, McAlpine I, Silburn S, Richmond J. A survey of child psychiatry outpatient clinical and demographic characteristics. *Aust NZ J Psychiatry* 1985; **19**: 158-166.
5. Kazdin AE. Advances in child behavior therapy. In: Call JD, Cohen RL, Harrison SI, Berlin IN, Stone LA, eds. *Basic Handbook of Child Psychiatry*. Vol 5. New York: Basic Books, 1987: 405-413.
6. McGuire J, Earls F. Prevention of psychiatric disorders in early childhood. *J Child Psychol Psychiatry* 1991; **32**: 129-153.
7. Pillay AL. Paediatric psychology in general hospital practice. *S Afr Med J* 1987; **71**: 707-709.
8. Simmons R. Observations of child psychiatry in China. *Can J Psychiatry* 1983; **28**: 124-127.
9. Feinstein C, Berger K. The chronically ill or disabled child. In: Call JD, Cohen RL, Harrison SI, Berlin IN, Stone LA, eds. *Basic Handbook of Child Psychiatry*. Vol 5. New York: Basic Books, 1987: 122-131.
10. Kindlon D, Sollee N, Yando R. Specificity of behavior problems among children with neurological dysfunctions. *J Pediatr Psychol* 1988; **13**: 39-47.
11. Hooks MY, Mayes LC, Volkmar FR. Psychiatric disorders among pre-school children. *J Am Acad Child Adolesc Psychiatry* 1988; **27**: 623-627.
12. Strayhorn JM, Weidman CS. A parent practices scale and its relation to parent and child mental health. *J Am Acad Child Adolesc Psychiatry* 1988; **27**: 613-618.
13. Grosser RC, Armstrong MI, Hornik JA. Developing new certificate-of-need regulations for inpatient care of children in New York State. *Hosp Community Psychiatry* 1991; **42**: 829-833.
14. Moodley SV. Child psychiatry in a general hospital: a two-year retrospective cross-cultural comparison. M.Med. (Psych.) thesis, University of Natal, 1988.