*Original Article*

# A clinical study of child mental health inpatient care

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(Key words: Clinical study, child mental health, inpatient care)

**Abstract**

***Objectives*** To explore whether admissions to a child mental health inpatient unit in a tertiary care paediatric hospital were justified and estimate whether inpatient unit provided a beneficial service to patients and their families.

***Method*** A retrospective analysis of 191 consecutive admissions to unit over 15 months. Relevant information was obtained from clinical case notes recorded and maintained during hospital stay. Additional data was obtained from standardized assessment schedules used for validation of diagnoses and neuropsychological assessment carried out during admission.

***Results*** Ages ranged from 2-12 years. Most patients were referred by paediatricians. Medically unexplained somatic symptoms and disruptive behaviour were the most prevalent presenting features. Multidisciplinary approach to care and objectively supported assessment and intervention strategies were beneficial in over 80% of patients. Average duration of hospitalisation was 6.4 days. None dropped out of treatment. There was a 12% readmission rate and an 18.4% unsatisfactory rating for outcome.

## Introduction

From an entirely community based child guidance clinic concept in 1950s and 60s, child mental health services have gradually developed into more hospital based settings. This change was brought about by increasing knowledge of neuropsychiatric disorders affecting children, better treatment methods, and growing public expectations / demand for better care[1]. Hospital based services included inpatient and outpatient care and consultation / liaison work offered to other service units. While most children with mental health problems still receive outpatient rather than inpatient care, benefits of latter have been clearly shown. Psychological function of children is reported to increase significantly during inpatient care which was sustained at 1-6 month follow up[2,3]. Health gain from hospitalization is related not only to changes in presenting complaints but also to better therapeutic alliance with healthcare professionals and improved family functioning[2,3,4]. Coping in parents, too, was shown to improve during hospitalization due to support received from both healthcare sources and family. Other interventions, thought to be of particular therapeutic value, are structured and intensive inpatient treatment packages in specific disorders, cognitive-based problem-solving skills training, planned discharge and aftercare[3,4,5].

Though many positive factors are identified, it is acknowledged that inpatient care is expensive. Thus, in a low-income country like Sri Lanka, existence of any inpatient unit has to be justified through positive scores on performance indicators and benefits to patients. Though Lady Ridgeway Hospital (LRH) is a tertiary care setting and an academic centre, mental health inpatient care was never consistently available in the past. An inpatient unit was set up in February 2002, which provided the opportunity to plan and implement a new service structure and processes for mental health care of children. We present here a retrospective analysis of its functioning.

## Objectives

Objectives of this study were twofold:

1. To explore whether admissions to inpatient unit were justified.

2. To estimate whether inpatient unit provided a beneficial service to patients and their families.

## Method

Study sample comprised all patients admitted to new inpatient unit over a period of 15 months. Relevant information was obtained from clinical case notes recorded and maintained during hospital stay by both medical and nursing staff. Additional data was obtained from standardized assessment schedules used for validation of diagnoses and neuropsychological assessment carried out during admission.

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To fulfil first objective, mode of referral, pre-admission assessment and interventions and diagnosis were considered. To fulfil second objective, assessment and therapeutic interventions offered during admission, duration of stay in hospital and outcome of intervention were analyzed. Regarding outcome, data was obtained from 3 different sources.

1. Feedback from parents on their level of satisfaction about clinical management.

2. Clinical assessment of symptom alleviation.

3. Maintenance of improvement at one month follow up as outpatients.

SPSS statistical software was used to analyse data.

**Results**

Case notes of 191 patients were available for analysis. Age distribution of inpatient population was 2-12 years with a mean of 8.5 (SD 2.85) years. 51.3% were children aged 5-10 years. 53.4% were males. 44.5% were resident in Colombo District and 62.8% were from Western Province. Rest came from all other provinces including North and East. Paediatricians were the main source of referral. 56.4% of referrals were received from within LRH and 21.5% from peripheral hospitals. 20.4% of admissions were from within the mental health services at LRH. Referrals from non-specialists at LRH were 1.6%. Mean duration in hospital was 6.4 (SD 4.6) days.

Medical staff of inpatient unit assessed every patient before admission to evaluate need for inpatient care. Two main reasons for admission could be identified.

1. Where outpatient care alone did not produce desired therapeutic outcome;

2. Where more intensive assessment or intervention was considered necessary following a preliminary screening;

Two cases were admitted for other reasons. One was a case of a destitute child who needed residential placement. The other was for a forensic assessment and provision of a report.

Medically unexplained somatic symptoms were the main presenting complaint in 81 (42.4%) children. Other frequent presenting complaints were hyperactivity and disruptive behaviour (25.1%) and emotional distress (11.5%). In terms of a psychiatric diagnosis, 102 (53.4%) suffered from emotional disorders, 37 (21.8%) from behaviour disorders, 8 (4.2%) from psychotic disorders, 6 (3.1) from mood disorders and 8 (4.2%) from development disorders. 16 (8.4%) were not considered to have a psychiatric diagnosis.

Assessments following admission were made by both medical and nursing staff, using their respective semi-structured assessment formats. Assessment also included psychometric testing where necessary. Both groups were actively involved in psychological and behavioural managements. 111 (58.1%) patients received mainly medication and basic psychological care. Psychological intervention and psychoeducation were received by 49 (25.6%) children, 134 (70.2%) sets of parents and 7 (3.6%) families. Psychological interventions with parents were aimed at education and training to improve their effectiveness in managing the child. A practical manual of cognitive behaviour therapy strategies was designed, tested and used as guidance for individual therapy with children. In addition, attention was paid to continuing schoolwork while in hospital as far as possible.

According to clinical documentation, almost 100% of patients showed improvement in functioning across several domains compared to level at time of admission. This improvement was sustained at one-month follow up. None dropped out of treatment or took voluntary discharge against advice. However, when parental opinion was also taken into account, outcome was good in 80 (41.9%), satisfactory in 85 (44.5%) and unsatisfactory in 35 (18.3%). There was a 12% readmission rate, which was mainly due to recurrence of behaviour problems.

**Discussion**

Diagnostic profile of our patient population has similarities and differences with that found with inpatients in other developing countries. For example, an Indian study too showed that the majority of patients presented with somatic complaints6. This high prevalence of somatic symptoms is explained as a cultural bias where having a “medical” illness is one of the more acceptable means of seeking psychiatric help. At the same time, prevalence of disruptive behaviour disorders in our patient population was nearly three times higher than that shown in Indian study[6].

Assignment to a treatment setting, inpatient or outpatient, should be based on the intensity of treatment needed as recognized by clinicians[7]. Our criteria for admission complied with this requirement where hospital admission helped to satisfy aspects of care not possible in outpatient setting. Therapeutic input needed by such children and families was too labour intensive and could not have been managed in crowded outpatient clinics. However, careful and objective pre-admission screening was best applied only in those patients who were initially seen in psychiatric outpatient setting. Some proportion of the 77.9% of patients referred by

paediatricians may not have received the same intense level of screening. The main reason for this is a pressure to "take over" patients as they were cleared of having a physical illness and are now polarized into a psychiatric category. This institutional dynamics may have taken priority over other needs and expectations of the children concerned, at least in the 8.4% that did not have a psychiatric disorder. However, by being the referral source for over ¾ of the patients, the paediatricians had played a significant role as gatekeepers in mental health care of children.

A satisfactory outcome in 86.4% of patients was achieved in a relatively short hospital stay of less than a week on average. This may have been possible due to the objectively supported assessment and intervention strategies and the multidisciplinary approach to clinical care. The potential of the nurses was much in evidence in team work[8]. However, the 12% readmission rate indicates that discharge from hospital may have been premature in the readmission group, who were mostly the children with disruptive behaviour. It is known that children with disruptive behavioural disorder, severe initial dysfunction and high antisocial and hyperkinetic symptoms have a less favourable outcome compared to children with emotional disorders[9]. At the same time, the initial outcome and after care may not always influence readmission rates[10]. Hence, those children with a likelihood of readmission may not be easily predictable. The fact that the unsatisfactory outcome was reported in 18.3% too cannot be dismissed lightly. This emphasizes need to understand child and family variables that predict outcome in a much broader perspective than be restricted to clinical assessment and symptom alleviation.

**Limitations of the study**

Stigma, which may have a negative influence to psychiatric hospitalization and undermine the benefits, was not studied. Also, retrospective analysis of clinical records may have led to less than perfect data gathering. Another shortcoming is absence of a structured format to obtain parent feedback, which would have provided more valid information regarding satisfaction about clinical care and support.

**Implications for future service development**

Opportunity to work as a proper multidisciplinary team was a specific strength of this inpatient unit. Making the team more resourceful in knowledge and skills in evidence-based practices is important. In addition, maintaining a proper database would facilitate future research, which should focus on understanding consumer needs and more stringent outcome measures.

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