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Abstract This prospective follow-up study reports the outcome of children and adolescents discharged from short-term inpatient treatment based on teacher evaluations with Rutter's Questionnaire. There was a significant reduction in deviant behaviour between pretreatment and 5-month follow-up assessment but not between 5-month and 1-year follow-up. However, relatively few children fell within the normal range of non-clinically referred children. The child's more impaired general functioning, more frequent individual behaviour symptoms, antisociality and disengaged family interaction were associated with less favourable outcome. Pure affective or anxiety disorder predicted functioning within normal range and improvement in behaviour problems at follow-up. Treatment variables were not found to be associated with the outcome.

Key words Child psychiatric - inpatient - outcome - predictors - short-term treatment

Introduction

Inpatient admission is an expensive psychiatric treatment and potentially stigmatising. Studies of its value are clinically highly relevant. Previous follow-up studies on child and adolescent psychiatric inpatient treatment have focused mainly on hospitalization of children and adolescents in programs with long-term treatments (8, 12, 26). A few empirical studies have documented reduced overall dysfunction and improved child adjustment after short-term child psychiatric inpatient treatment (6, 18, 19, 21, 22, 23). Follow-up prognosis was related to the severity of initial dysfunction, parental psychopathology and family dysfunction. Only a few previous studies have investigated effects of treatment variables on outcome (15, 20, 21, 33). Previous follow-up studies differ widely with respect to the nature of the population, the source of measures and the type of setting studied. Follow-up intervals have varied both within and across studies, ranging from 2 months to 20 years, with most studies reporting 1 to 2 year outcomes (8, 26). For example, only four of the 34 studies reviewed by Pfeiffer et al. (26) described follow-up data for a period of less than 6 months.

Only a few studies have investigated the outcome based on teacher ratings of the child’s behaviour problems. However, parents and teachers often disagree in their reports of the child’s problem behaviour (2). Parental psychopathology and concurrent chronic stress in the family may introduce systematic bias into the reporting of problem behaviours in children (14). Furthermore, school is a central developmental arena in which problems arise that may not be evident elsewhere. Parents and teachers may in fact be evaluating different phenomena because the children may behave differently in different situations or manifest inner states differently in different situations. Teachers may report aspects of children’s functioning not evident to parents and teachers are often involved in the referral and assessment of children for special services.

Our previous paper (30) on outcome of short-term inpatient treatment relied on parental ratings at 5-month follow-up. There was a low agreement between parental and teacher ratings on admission. The aim of the pre-
sent study was to investigate the outcome of short-term inpatient treatment, evaluated by teacher assessments, in three child psychiatric units in Finland, 5 months (4 to 6 months) and 12 months (11 to 13 months) after discharge. No parental ratings were collected at 1-year follow-up. A major question of the study was to which extent patients’ behaviour problems change over time and whether or not the changes are consistent over the course of two follow-up periods. The aim was also to investigate patient, family, behaviour and treatment variables on admission and during the inpatient treatment which were associated with the 5-month and 12-month outcome. Predictor variables were based on structured admission and multiple inpatient assessments sources.

Material and methods

Hospital settings and subjects

The sample consisted of school-age children and adolescents who were admitted for short-term psychiatric inpatient treatment at Turku University Child Psychiatry Department 1/1991–2/1993 and at the Child Psychiatric Units of Satakunta and Seinäjoki Central Hospitals 1/1992–12/1992. All three child psychiatric wards were the only ones in the respective area. The staff at each hospital were multidisciplinary and headed by a child psychiatrist. The number of beds in the hospitals varied from 8 to 11, of which two to three beds were reserved for short-term treatment programs and the remaining beds for long-term treatment programs. The standard length of the short-term treatment program was usually 4 to 6 weeks.

The initial sample consisted of consecutive admissions for short-term treatment to the units. None of the patients had received child or adolescent psychiatric inpatient treatment during the 12 months prior to admission. The present sample was different from the sample we described in our previous paper based on parental evaluations, which also included children under school-age. Seventy-two of the children were attending school on admission and two patients started school immediately after short-term inpatient treatment. One patient died accidentally during the treatment process and was thus excluded from the study.

Of our sample of 73 school-age inpatients 60 (82%) were male and 13 (18%) female. The mean age was 10.6 years (SD=1.9; range from 6.5 to 15.0). Twenty-nine (40%) children resided, at the time of admission, with both biological parents, 24 (33%) in a single parent household, 10 (14%) in a remarried household with one biological parent, 5 (7%) in an adoptive or foster household and 5 (7%) in an institutional care setting.

The reasons for admissions are discussed in previous papers (30, 31).

Diagnoses

DSM-III-R diagnoses (4) were made at the time of discharge by the child psychiatrist who had been primarily responsible for inpatient treatment. Thirty-six (49%) of the patients received at least two psychiatric diagnoses. Patients were divided into four groups:

1) Antisocial group (N=12; 16%) if the patients fulfilled the DSM-III-R criteria for conduct disorder.
2) Mixed behaviour disorder group (N=34; 47%) if the criteria were fulfilled for pure behavioural disorder or mixed behavioural and emotional disorder but not for antisocial conduct disorder.
3) Pure emotional disorder group (N=22; 30%) if the criteria were fulfilled for an affective or anxiety disorder.
4) Organic group and pervasive development group (N=5; 7%) which included patients with moderate mental retardation, pervasive development disorder and patients with neurological syndromes.

Grouping according to diagnoses was done by the child psychiatrist responsible for inpatient treatment and by one of the researchers (AS). The grouping carried out by the researcher was based on information collected from patient records. The reliability between evaluations of respective child psychiatrist and AS was satisfactory; kappa coefficient was between 0.53 and 0.68. In case of disagreement the grouping was based on consensual agreement.

Treatment modes

The principal treatment modes included milieu therapy and dyadic nurse relationship in all cases in the sample, parental guidance (N=23; 32%) or family therapy (N=50; 68%), individual psychotherapy (at least once a week) in seven (10%) cases and psychiatric medication in five (7%) cases. The mean length of stay in inpatient treatment for the sample was 35 days (range from 7 to 70).

Inpatient assessment procedures and measures

Informed consent was obtained from parents. The research plan was approved by the Joint Commission on Ethics of Turku University and the Turku University Central Hospital.

Inpatients and their families completed study measures as part of standard intake and follow-up evalua-