

## ORIGINAL PAPER

Riittakerttu Kaltiala-Heino

# Increase in involuntary psychiatric admissions of minors

## A register study

Accepted: 18 June 2003

**Abstract** *Objective* The aim of this study was to assess the frequency and trend over time of involuntary psychiatric admissions of minors, and to examine the psychiatric diagnoses in involuntary admissions of minors as compared to those admitted on a voluntary basis. *Method* A retrospective register study was made during the period 1996–2000 of a nationally representative hospital discharge register in Finland. *Results* Involuntary admissions of children (aged <12) and adolescents (aged 12–17) increased vastly over the study period, both in absolute figures and in proportion to all admissions in the age groups. Although some disorders were more likely to be linked to compulsory admission than others, a variety of individual diagnoses were represented under compulsory admission. *Conclusion* More comprehensive guidance for clinicians is needed regarding the involuntary admission of minors. More theoretical and empirical research is needed on minors' competence to consent to or refuse treatment.

**Key words** commitment of mentally ill – minors – register study – epidemiology – psychiatric health services research

### Introduction

In Finland, the Patients' Rights Act (1992/785) defines a patient's right to decide about her/his own treatment. Patients have an explicit right to refuse treatment, even

when their choice is considered harmful by the experts. The best interest of a patient is no longer automatically assumed to be the maximum health gain defined by medical experts; the patient is acknowledged to be an active party in the process of planning and implementing the treatment, possessing specific knowledge of her/his own experience and priorities [1–4]. Self-determination is also a central aspect of patients' rights elsewhere [5].

In psychiatric illnesses, however, involuntary treatment is allowed. Mental health legislations vary as to what kind of disorders are considered severe enough to justify involuntary treatment, and what other conditions must be fulfilled before compulsory treatment can be initiated. The specific additional conditions defined in various laws usually include the categories of need for treatment, dangerousness to self and dangerousness to others in different combinations [6]. Mental illnesses are assumed to impair a patient's competence so that s/he is no longer able to make decisions serving her/his best interests according to her/his own longstanding values [7, 8].

In Finland, a psychiatric patient can be involuntarily hospitalised if s/he is mentally ill and, due to the illness, in need of treatment because failure to treat her/him would result in a deterioration of her/his mental illness (need for treatment), or would endanger her/his health or safety (dangerousness to self), or other persons' health or safety (dangerousness to others), and other treatment options are inadequate [9–11]. As to minors, the commitment criteria differ so that while adult patients need to be diagnosed as mentally ill (psychotic) before involuntary treatment can be undertaken, for minor patients the basic criterion is serious mental disorder (Mental Health Act 1990/1116). In most European countries, the commitment criteria are the same for patients of all ages [11]. Broader commitment criteria for minors have been discussed elsewhere, for example, in Israel [12].

The more permissive commitment criteria for minors are motivated by the minors' need for greater pro-

R. Kaltiala-Heino, MD, BSc, Dr Med Sci  
Psychiatric treatment and research unit  
for adolescent intensive care (EVA)  
Tampere University Hospital  
and Tampere School of Public Health  
University of Tampere, Finland

R. Kaltiala-Heino, MD, BSc (✉)  
Tampere School of Public Health  
33014 University of Tampere, Finland  
Fax: +358-3/215-6057  
E-Mail: merihe@uta.fi

tection than adults from harmful treatment refusals. The concept of competence is not mentioned in the Mental Health Act, but it is implied in the Patients' Rights Act and Mental Health Act that minors need a more paternalistic approach due to the fact that their age and developmental level do not enable them to understand information and rationally consider the ramifications of their choices.

Hardly any research is available concerning the involuntary psychiatric care of minors. Most of the scientific articles available on self-determination, informed consent and the competence of minor patients are theoretical with some case presentations [13–20].

### ■ The process of involuntary admissions in Finland

In Finland, the decision-making about involuntary admission is medical, with legal control by the administrative court when a minor patient is concerned. Firstly, a physician, independently of the welcoming hospital, evaluates the patient and finds it likely that the commitment criteria are fulfilled. The physician writes a referral for observation (M I). In the hospital, the patient is placed under observation which can last for a maximum of 4 days. At the end of the observation period, the psychiatrist in charge of the observation writes a recommendation (M II) of whether or not the patient should be detained. The chief psychiatrist in charge then makes the decision (M III) of whether the patient is detained in involuntary treatment or not. Before the decision is made, the opinion of the patient her/himself has to be heard. If the patient is under age (less than 18), her/his parents or guardian are heard before the decision is made. The decision concerning a minor patient is immediately subjected to confirmation by the administrative court. (Concerning adult patients, the first legal control takes place if the detainment is prolonged beyond 3 months.) The parents or guardian, and a minor her/himself if s/he has turned 12, have the right to appeal about the decision.

### ■ The aim of the study

This study set out to evaluate: 1) how common involuntary psychiatric hospitalisation of children (aged 11 or less) and adolescents (aged 12–17) is; 2) whether the number of involuntary psychiatric hospitalisations of minors is stable regionally and over time; and 3) the diagnostic distribution among involuntarily admitted minors as compared to voluntarily admitted minors, and whether it is similar among committed girls and boys.

## Subjects and methods

The design was a retrospective register study. The data were taken from the National Hospital Discharge Register (NHDR), which in-

cludes information on all inpatient treatment in all health care institutions in Finland. The NHDR records the inpatient's age, sex, diagnoses, date of admission, date of discharge, type of health care setting (primary care, specialist level ward), speciality, and in some specialities specific additional information (ethnic background is not registered in Finland). In psychiatric specialities (psychiatry, child psychiatry, adolescent psychiatry, forensic psychiatry), additional information is collected on the mode of referral (voluntary/involuntary), the number of days spent in the hospital with involuntary status, and events of seclusion, restraint, compulsory medication and physical holding.

This study covers all new psychiatric inpatient treatment periods of minors (aged < 18 on admission) in psychiatric specialist level hospitals and wards, in all psychiatric specialities in the period 1996–2000. The number of involuntary admissions (commitments) and the distribution of involuntary admissions among minors according to age and sex, diagnoses related to involuntary admissions and regional variation in commitments are studied. The information utilised comprises the patient's age and sex, year of admission, mode of admission, main diagnosis and the health care district of the patient's municipality of residence.

Diagnoses in the NHDR are recorded according to the ICD-10 classification. The age of the patients was classified to those younger than 12 (children) and those aged 12–17 (adolescents).

### ■ Statistical analyses

The data are described using percentages and age standardised rates per 10 000 inhabitants. Comparisons between groups are carried out using chi-square test and by comparing the 95 % confidence intervals of the standardised figures. When studying regional variation, percentages are also compared by 95 % confidence intervals.

### ■ Ethical issues

This research is part of an evaluation project ordered by the Ministry of Health and Social Affairs. The Ministry and the National Research and Development Centre for Health and Welfare (STAKES) permitted the use of the register data from which person identifications were excluded.

## Results

### ■ Involuntary admissions

Between 1996 and 2000, 4.8 % of psychiatric inpatient admissions of children (< 12 years) and 22 % of admissions of adolescents (12–17 years) were involuntary ( $p < 0.0001$ ). Of the admissions of boys, 13.7 %, and of girls, 19.1 % were involuntary ( $p < 0.0001$ ). The proportion of involuntary admissions did not differ according to sex either among children (4.8 % for boys and 5.1 % for girls,  $p = 0.35$ ) or among adolescents (22.2 % for boys and 22 % for girls,  $p = 0.41$ ).

There was considerable variation in the proportion of involuntary admissions according to health care districts, from 2.6 % (95 % CI 1.5 %–4.1 %) to 31.9 % (95 % CI 23.3 %–40.4 %). Stratifying for age revealed that eight of the 21 health care districts had not used commitment for children. If commitment had been applied to children, the proportions of involuntary admissions of children would have varied significantly, from 0.3 % (0.006 %–1.9 %) to 20.1 % (17.1 %–23.1 %). Adolescents had been committed in all health care districts. The pro-

portions of involuntary admissions of adolescents also varied significantly, from 5.6% (3.3%–8.7%) to 35.6% (26.3%–45%) of all admissions of adolescent patients.

Psychiatric admissions of minors increased during the study period, from 2562 in 1996, to 2656, 2911, 3537 and 4192 in 1997, 1998, 1999 and 2000, respectively. The proportion of involuntary admissions also increased steadily: from 10.9% in 1996 to 12.4% in 1997, 15.4% in 1998, 18.7% in 1999 and 19.7% in 2000. Among children, the proportion of involuntary admissions increased from 0.4% to 6.8% ( $p < 0.0001$ ), and among adolescents from 17% to 26% ( $p < 0.0001$ ).

Standardised for 10 000 under-aged inhabitants, involuntary admissions of minors were 2.4/10 000 (95% CI 2.1–2.7) in 1995. Showing a steady annual increase, the commitment rate was 7.2/10 000 (6.7–7.7) in 2000. Regional variation was studied over the whole study period. In the health care district using the least involuntary admissions of minors, the rate was 6.9/10 000/5 years (95% CI 2.8–11.0). The highest figure was 45.1/10 000/5 years (95% CI 40.9–49.3).

## ■ Diagnoses

In the total sample, involuntary admissions more frequently than voluntary admissions concerned a diagnosis of substance use-related disorders (f10–19, 8.3% vs. 2.4%), of schizophrenia spectrum disorders (15.1% vs. 8%) and of mood disorders (23.5% vs. 20.9%). In voluntary admissions, the conduct disorder group (f90–99) diagnoses were more common (36.3% in involuntary and 45.5% in voluntary admissions) ( $p < 0.0001$ ).

The diagnostic differences between voluntary and involuntary admissions were smaller among children than among adolescents. In treatment periods of children, involuntary admissions were related to developmental

disorders and voluntary admissions to conduct disorder group diagnoses. Among adolescents, substance use disorders and schizophrenia group diagnoses were more common among those committed (Table 1).

In girls, in both age groups commitment most frequently concerned diagnoses of affective disorders and of neurotic, stress-related and somatoform disorders. Among boys, conduct disorders were most frequently involved in commitment of both age groups, but while in children developmental disorders were the other pronounced diagnostic category for boys, among adolescent boys commitments were associated to schizophrenia group diagnoses and substance use disorders (Table 2).

In children, involuntary admissions of girls more frequently concerned a diagnosis of affective disorders and of neurotic, stress-related and somatoform disorders or disorders related to physiological and somatic conditions, whereas involuntary admissions of boys more often related to conduct disorders. In children, differences in diagnostic distribution in commitments were, however, only borderline significant (Table 2). Among adolescents, involuntary admissions of boys were more frequently related to substance use disorders, schizophrenia and conduct disorders, and involuntary admission of girls more frequently concerned affective and stress-related disorders as well as disorders related to physiological and somatic conditions, including eating disorders. Differences were greater among adolescents (Table 2).

Because of the small number of cases, it was not relevant to compare the diagnostic distributions in involuntary admissions of children between health care districts. Among adolescents significant regional variation was observed, even if calculating the 95% confidence intervals to the proportions of the different diagnostic groups showed that differences regarding mood disorders and schizophrenia group disorders, two of the three

**Table 1** Main diagnoses in psychiatric inpatient treatment periods of children (< 12 years) and adolescents (12–17 years) according to mode of admission (involuntary vs. voluntary) in Finland 1996–2000 (%)

|  | Children    |           |                      | Adolescents |           |                         |
|--|-------------|-----------|----------------------|-------------|-----------|-------------------------|
|  | Involuntary | Voluntary | P* (df)<br>0.003 (9) | Involuntary | Voluntary | P* (df)<br>< 0.0001 (9) |
| Organic disorders F00–09   | 0.4         | 0.1       |                      | 0.1         | 0.3       |                         |
| Substance use disorders F10–19                                   | –           | –         |                      | 9.2         | 3.9       |                         |
| Schizophrenia group F20–29                                       | 0.4         | 3.2       |                      | 16.8        | 11.0      |                         |
| Mood disorders F30–39  | 10.7        | 10.4      |                      | 25.0        | 27.4      |                         |
| Neurotic, stress-related and somatoform disorders F40–49         | 5.7         | 7.0       |                      | 8.7         | 12.7      |                         |
| Disorders related to physiological and somatic conditions F50–59 | 1.1         | 1.0       |                      | 3.1         | 5.7       |                         |
| Personality disorders F60–69                                     | –           | 0.5       |                      | 2.5         | 2.4       |                         |
| Mental retardation F70–79  | 0.4         | 0.8       |                      | 0.5         | 0.6       |                         |
| Developmental disorders F80–89                                   | 19.2        | 11.7      |                      | 0.8         | 3.0       |                         |
| Conduct disorders F90–99   | 62.5        | 65.5      |                      | 33.1        | 33.1      |                         |
| N  | 261         | 4824      |                      | 2218        | 7715      |                         |

\* Statistical significance of the difference in diagnostic distribution between voluntary and involuntary admissions

**Table 2** Main diagnoses in involuntary admissions of children (< 12 years) and adolescents (12–17 years) according to sex in Finland 1996–2000 (%)

|  | Children |       |             | Adolescents |       |                |
|--|----------|-------|-------------|-------------|-------|----------------|
|  | Boys     | Girls | P*<br>0.047 | Boys        | Girls | P*<br>< 0.0001 |
| Organic disorders F00–09   | 0.5      | –     |             | 0.3         | –     |                |
| Substance use disorders F10–19                                   | –        | –     |             | 11.6        | 7.3   |                |
| Schizophrenia group F20–29                                       | 0.5      | –     |             | 21.2        | 13.2  |                |
| Mood disorders F30–39  | 9.8      | 14.0  |             | 19.2        | 29.6  |                |
| Neurotic, stress-related and somatoform disorders F40–49         | 4.8      | 8.8   |             | 6.4         | 10.4  |                |
| Disorders related to physiological and somatic conditions F50–59 | –        | 5.3   |             | 0.2         | 5.5   |                |
| Personality disorders F60–69                                     | –        | –     |             | 2.0         | 2.9   |                |
| Mental retardation F70–79  | 0.5      | –     |             | 0.7         | 0.4   |                |
| Developmental disorders F80–89                                   | 19.6     | 17.5  |             | 1.5         | 0.2   |                |
| Conduct disorders F90–99   | 64.2     | 54.4  |             | 36.8        | 30.4  |                |
| N  | 204      | 57    |             | 993         | 1225  |                |

\* Statistical significance of the difference in diagnostic distributions between boys and girls

most important diagnostic groups among adolescents treated on involuntary basis, were not significant (Table 3).

## Discussion

Involuntary psychiatric admissions of minors increased steadily over a period of 5 years. They not only increased apace with the general increase in admission figures, but also their proportion of all admissions increased, both among children and among adolescents. During this time, compulsory admissions of adults remained almost stable in Finland, with only a slight increase from 1999 to 2000 [11].

Changes in prevalence of serious mental disorders of minors hardly explains the increase in commitments of minors. Epidemiological studies with a potential for assessing changes in the prevalences of child and adolescent mental disorders in Western countries suggest some increase in depressive disorders [21] and substance use disorders [22] among adolescents over the

past few decades, but not in eating disorders [23, 24], or conduct disorders [25]. The incidence of schizophrenia may even be decreasing [26]. Reported epidemiological changes have been much slower than the changes in inpatient treatment of minors now reported.

It is possible that treatment is nowadays increasingly seen to be necessary in situations which were earlier left untreated, and consequently commitment may also be used more readily than before. In Finland, public discussion at the end of the 1990s and in the early 2000s has been concerned about the allegedly increasing psychosocial problems of children and adolescents. Public discussion has also been increasingly worried about the violent behaviour of minors. Psychiatric treatment has been evinced as an important solution to this. As a result of these discussions, for example, Parliament has since 1999 granted an extra budget to enhance the chances of children and adolescents of obtaining psychiatric treatment. Increasing concern for the right to receive treatment expressed in public discussions may have resulted in more frequent commitments.

The treating agents may also be increasingly aware of

**Table 3** Differences between health care districts: lowest and highest proportions of diagnostic groups in involuntary treatment periods of adolescents (12–17 years) 1996–2000 (%) (95% CI)

|  | Lowest proportion | Highest proportion |
|--|-------------------|--------------------|
| Organic disorders (F00–09)                                       | Not used at all   | 1.6 (0.04–8.8)     |
| Substance use disorders F10–19                                   | Not used at all   | 40.0 (12.2–73.8)   |
| Schizophrenia group F20–29                                       | 11.4 (7.0–15.8)   | 31.8 (13.9–54.9)   |
| Mood disorders F30–39  | 10.0 (0.3–44.5)   | 46.8 (40.2–53.4)   |
| Neurotic, stress-related and somatoform disorders F40–49         | Not used at all   | 18.9 (13.5–24.3)   |
| Disorders related to physiological and somatic conditions F50–59 | Not used at all   | 12.3 (7.3–17.4)    |
| Personality disorders F60–69                                     | Not used at all   | 12.5 (4.7–25.3)    |
| Mental retardation F70–79  | Not used at all   | 4.3 (0.1–22.0)     |
| Developmental disorders F80–89                                   | Not used at all   | 4.5 (0.1–22.8)     |
| Conduct disorders F90–99   | 24.3 (20.3–28.3)  | 54.7 (42.7–66.2)   |

the legal right of adolescents to participate in the planning of their own treatment. The Patients' Rights Act made this explicit in Finland in 1993, stating that minors' wishes must be taken into account and their opinion must be respected relative to how competent they are regarding their age and developmental level. Parental consent is no longer automatically deemed to be sufficient grounds for hospitalising adolescents, or even children. Public discussion is also increasingly constructing adolescents as all the more competent persons deserving a greater right of self-determination, which is reflected in legislation. The Mental Health Act and the Child Welfare Act (1983/683) define 12 years as the limit, the new Administrative law (currently being prepared) is to lower the age at which an adolescent has the general right to a say in administrative processes from 15 to 12 years. Concern for legal and civil rights of minors may have paradoxically increased commitments through more awareness of the obligation to act legally instead of simply deciding over minors without formally recording coercion.

Parental attitudes might also play a role in the increase in involuntary admissions of minors. In Finland, the involuntary admission process does not include that relatives of patients of any age should sign commitment papers or allow or deny the admission, but it is likely that also concerning adolescents aged 12 and over who have a say in administrative and legal processes, some of the legally voluntary admissions are actually involuntary from the adolescent's point of view, and occur "voluntarily" simply due to the parents' agreement. On the other hand, some of the officially involuntary admissions may be formally involuntary because otherwise the parents would prevent the admission whether or not the adolescent her/himself agreed with it. Thus, if parental attitudes to inpatient treatment change over time, official records of involuntary admission are likely to be influenced. However, this cannot be studied in the present material.

Since figures illustrating involuntary treatment as a proportion of all treatment are influenced by overall admission patterns, rates standardised for the population concerned are needed to produce numbers comparable between regions. Rates will also be internationally comparable, even if so far it has not been possible to locate publications presenting rates or quotas of involuntary admissions for minor psychiatric patients elsewhere. The standardised rate of involuntary admissions of minors (7.2/10 000 in 2000) was a third of that among adults in Finland (21.8/10 000 in 2000) [10]. The commitment rate of adult patients is high in Finland compared to other European countries [11]. The proportion of the committed of all those admitted (22%) among adolescents was on the same level as among adult patients in Finland (21.6% in 2000) [10, 11].

Involuntary treatment can be seen both as protection of a patient who is incompetent to judge for her/his own good, and as infringement of personal freedom. These views differ fundamentally in what is considered the

most important right of an individual (to be free; to be taken care of), and actually also as to what is considered as freedom and autonomy (physical freedom; freedom from illness) [3, 27]. Nevertheless, involuntary treatment should only take place when a patient is incompetent to decide her/himself. Adults are normally assumed competent except in severe exceptions, such as when mental illness lowers an adult's competence, and it can be seen as justified when others intervene [4, 7, 8]. Children and adolescents can be incompetent to decide about their health care due to the restrictions set by their developmental level, and mental disorders can further lower their competence. In Finland, treatment independent of a minor's will is considered justified in a wider variety of situations than when the patient is an adult, as illustrated in broader commitment criteria for minors. Involuntary treatment of minors is, however, a more complex situation than that of adults, because there are three parties involved: the minors, her/his parents (or other guardian) and health care. Involuntary treatment as defined in the Mental Health Act should concern situations where the patient her/himself resists treatment. If commitment is in fact involved because of parental resistance, an ethical problem may arise that the potentially stigmatising information of having been in involuntary care follows the minor when actually coercion should have been directed towards the parents (by taking the minor's custody under the Child Welfare Act). However, in Finland, a history of involuntary treatment does not result in any official discrimination, such as disqualification from studies, jobs, military service, or from receiving a passport.

Among adolescents, schizophrenia group diagnoses and substance use disorders were more common among the committed than among the voluntarily admitted. As far as schizophrenia is concerned, this is in accordance with the general assumption that commitment is used in the most severe cases. Among adults, substance use disorders alone do not justify involuntary psychiatric hospitalisation unless they give rise to psychotic symptoms, and among minors it is a matter of discussion in Finland whether they should or should not.

Among children, the proportion of schizophrenia group diagnoses (f20–29) was higher among voluntary admissions, and developmental disorders (f80–89) formed the category that was prominent in involuntary admissions. The present study cannot explain these findings.

Conduct disorder group (f90–99) diagnoses made up the largest main diagnosis category in both voluntary and involuntary admissions in both age groups. Conduct disorders are not the most prevalent mental disorders among minors and hospitalisation is not recommended as the treatment of first choice, but they can be considered severe disorders given the high risk of persistent behavioural problems, substance use, criminality and adult personality disorders that are associated with adolescent conduct disorder [28]. In Finland, a minor person with conduct disorder or substance use disorder

may also be subjected to compulsory interventions under the Child Welfare Act. This requires that social services take a minor who seriously endangers her/his own health and development by abusing substances or committing a significant criminal act into protective custody, in order to ensure preventive conditions and necessary treatment. Kaivosoja [29] reported that four-fifths of minors in protective custody present with conduct problems. In Israel too, conduct disorders along with personality disorders were the prominent diagnosis among committed minors [30].

Among the committed boys, diagnosis of the conduct disorder group was more common than among committed girls. Among girls, commitment was more frequently related to mood disorders and neurotic and stress-related disorders. These differences by sex were similar in both the age groups studied. However, pronounced sex differences in prevalence of depression and anxiety disorders only occur from adolescence. It is also noticeable that girls were committed more due to mood disorders even if boys commit more suicides that are mainly associated with severe mood disorders [31]. Schizophrenia group diagnoses were more common among the committed adolescent boys than among the girls. The incidence of schizophrenia is somewhat greater and age of onset younger among males [32]. Epidemiological differences might, thus, partially explain the gender-specific commitment pattern of schizophrenia. Perhaps differences in symptom patterns and different expectations of violent behaviour from male and female patients also play a role. Factors influencing sex differences in involuntary admissions warrant more research.

The Mental Health Act does not explicitly state what kind of conditions qualify as serious mental disorders justifying involuntary treatment. The present findings revealed that although some disorders were more likely to be linked to compulsory admission than others, a variety of individual diagnoses were represented under compulsory admission. However, the diagnostic category may not be as important in minors as it is in adults. In minors, the progress of development is of the utmost importance in assessing the severity of a mental disorder in an individual, and family circumstances also play a greater role than in assessing adults. It may not be appropriate to set conditions for compulsory treatment only on the level of ICD- or DSM-diagnosis. Possibly the diagnostic profiles of the voluntary and committed minor patients reflect the fact that problems in psychological and social development are not seen as tied to specific diagnostic categories. Nevertheless, the lack of specific instructions as to what is meant by "serious mental disorder" in the Mental Health Act has been admitted by the Ministry of Health and Social Affairs who appointed the author to evaluate the current practices and understanding of the concept and to propose amendments to guidelines (to be reported later).

Considerable regional variation was observed in involuntary psychiatric admissions of minor patients.

Among adults, the figures for compulsory psychiatric care are influenced, for example, by legislation, availability of psychiatric and social services, treatment practices, treatment culture and ideology, and other societal features like migration, urbanisation and attitudes to mental illness [33–39]. Epidemiology of mental disorders cannot explain differences in commitment figures. In Finland, considerable regional variation has also been found in the involuntary treatment of adults, but comparisons of the present data with national statistics show that the health care districts most frequently using commitment for minors and those using it most for adults were not systematically the same [40]. It can be assumed that factors influencing commitment rates of minors are generally similar to those significant among adults, but availability of social services and practice traditions in such services – how high they maintain the threshold for child welfare activities – may have more influence on commitments of minors. Accidental variation has been minimised in this study by calculating the regional figures for a 5-year period. The annual numbers of cases are so small that reliable comparison of annual figures between regions is not possible.

The regional differences in diagnostic profiles of the involuntarily treated minors were also considerable. Substance use disorders, stress-related diagnoses, disorders related to physiological and somatic conditions (f50–59, including eating disorders) and personality disorders especially deserve attention. While in some districts no commitments were made due to these disorders, in others they were common among the committed minors. Of these, substance use disorders might be more common in the biggest cities. Otherwise, regional variation in treatment patterns is a more likely explanation than epidemiological differences.

The data were derived from the National Hospital Discharge Register (NHDR), which is exhaustive and reliable. Reporting all inpatient treatments to the NHDR is mandatory. The process of reporting data to the NHDR did not change between 1996 and 2000. The data are nationally representative. Covering a period of 5 years makes it possible to study trends over time and also brings enough data into the analyses to assess regional variation.

The figures presented for involuntary admissions do not include forensic admissions of mentally disordered juvenile delinquents. The number of forensic admissions of minor persons was marginal and without notable variation throughout the study period. Thus, excluding forensic admissions does not bias the results of the study.

---

## Conclusion

Involuntary psychiatric admissions of minors increased significantly from the mid-1990s to 2000. The most likely explanations are suggested to be changes in treatment practices and increasing awareness of legal issues

in the treatment of minors. Differences in compulsory hospitalisation according to age and sex did not logically reflect the known distribution of mental disorders by age and sex among minors. The legal rights of minor psychiatric patients may need greater protection. Optimal use of compulsion in psychiatric care is not known. Compulsory treatment is a serious encroachment on personal liberty and self-determination, and it is most important to follow the trends of using coercion and to maintain critical discussion about what is justifiable and whether the practices develop according to society's explicit values. Legislation, additional guidelines and continuous evaluation of practices need to be clear and consistent. The involuntary treatment of minors has not been researched sufficiently.

## References

- Cahn C (1980) Consent in psychiatry. *Can J Psychiatry* 25:78–85
- Hamilton M (1983) On informed consent. *Br J Psychiatry* 143: 416–418
- Chodoff P (1984) Involuntary hospitalization of the mentally ill as a moral issue. *Am J Psychiatry* 141:384–389
- Draper R, Dawson D (1990) Competence to consent to treatment: a guide for physicians. *Can J Psychiatry* 35:285–289
- Fallberg LH (2000) Patients' rights in the Nordic countries. *Eur J Health Law* 7:123–143
- Appelbaum PS (1997) Almost a revolution: an international perspective on the law of involuntary commitment. *J Am Acad Psychiatry Law* 25:135–147
- Appelbaum P, Grisso T (1988) Assessing patients' capacities to consent to treatment. *N Engl J Med* 319:1635–1638
- Grisso T, Appelbaum P (1995) Comparison of standards for assessing patients' capacities to make treatment decisions. *Am J Psychiatry* 152:1033–1037
- Kaltiala-Heino R, Välimäki M (2001) Involuntary commitment in health care. An analysis of the status and rights of involuntarily treated psychiatric patients in comparison with patients treated involuntarily under other acts. *Eur J Health Law* 8: 299–316
- Kaltiala-Heino R (2002) National chapter for Finland. In: Salize HJ, Dressing H, Peitz M (eds) *Compulsory admission and involuntary treatment of mentally ill patients – legislation and practice in EU-member states*. European Commission – Health & Consumer Protection Directorate-General Research Project. Final Report. Mannheim
- Salize HJ, Dressing H, Peitz M (2002) *Compulsory admission and involuntary treatment of mentally ill patients – legislation and practice in EU-member states*. European Commission – Health & Consumer Protection Directorate-General Research Project. Final Report. Mannheim
- Jaworowski S, Nachmias S, Zabow A (1995) Enforced psychiatric treatment of minors in Israel: the interface between the Mental Health Act and the Youth Law. *Isr J Psychiatry Relat Sci* 32: 114–119
- Brody JL, Waldon HB (2000) Ethical issues in research on the treatment of adolescent substance users. *Addictive Behav* 25: 217–228
- Casimir K, Billick S (1994) Competency in adolescent inpatients. *Bull Am Acad Psychiatry Law* 22:19–29
- Billick S, Edwards J, Burgert W, Serlen J, Bruni S (1998) A clinical study of competency in child psychiatric inpatients. *J Am Acad Psychiatry Law* 26:587–594
- Batten D (1996) Informed consent by children and adolescents to psychiatric treatment. *Aust New Z J Psychiatry* 30:623–632
- Kluge EH (1995) Informed consent by children: the new reality. *CMAJ* 152:1495–1497
- Blondeau M (1995) Legal protection or legal threat: ethical conflicts in the process of medical decision making. *Med Law* 14: 325–329
- Koren G, Carmeli D, Carmeli Y, Haslam R (1993) Maturity of children to consent to medical research: the babysitter test. *J Med Ethics* 19:142–147
- Susman E, Dorn LD, Fletcher J (1992) Participation in biomedical research: the consent process as viewed by children, adolescents, young adults, and physicians. *J Pediatrics* 121:547–552
- Fombonne E (1994) Increased rates of depression: update of epidemiological findings and analytical problems. *Acta Psychiatr Scand* 90:145–156
- Weinberg N, Rahdert E, Colliver J, Glantz M (1998) Adolescent substance use: a review of the past 10 years. *JAACAP* 37:252–261
- Fombonne E (1995) Anorexia nervosa: no evidence of an increase. *Br J Psychiatry* 166:462–471
- Fombonne E (1996) Is bulimia nervosa increasing in frequency? *Int J Eat Dis* 19:287–296
- Loeber R, Burke J, Lahey B, Winters A, Zera M (2000) Oppositional defiant and conduct disorder: a review of past 10 years. Part I. *J Am Acad Child Adol Psychiatry* 39:1468–1484
- Suvisaari J, Haukka J, Tanskanen A, Lönnqvist J (1999) Decline in the incidence of schizophrenia in Finnish birth cohorts born 1945–1965. *Arch Gen Psychiatry* 56:733–740
- Hoaken P (1986) Psychiatry, civil liberty, and involuntary treatment. *Can J Psychiatry* 31:222–226
- Steiner H, The Work Group on Quality Issues (1997) Practice parameters for the assessment and treatment of children and adolescents with conduct disorder. *JAACAP* 36(10S):122S–139S
- Kaivosoja M (1999) Coercive help of children and adolescents in Finland. *Psychiatria Fennica* 30:214–224
- Jaworowski S, Zabow A (1995) Involuntary psychiatric hospitalisation of minors. *Med Law* 14:635–640
- Diekstra R, Gulbinant W (1993) The epidemiology of suicidal behaviour. *World Health Statistics Quarterly – Rapport Trimestriel de Statistiques Sanitaires Mondiales* 46:52–68
- Häfner H, Maurer K, Löffler W, Riecher-Rössler A (1993) The influence of age and sex on the onset of early course of schizophrenia. *Br J Psychiatry* 162:80–86
- Engberg M (1991) Involuntary commitment in Greenland, the Faroe Islands and Denmark. *Acta Psychiatr Scand* 84:353–356
- Riecher A, Rössler W, Löffler W, Fätkenhauer B (1991) Factors influencing compulsory admission of psychiatric patients. *Psychol Med* 21:197–208
- Dunn J, Fahy TA (1990) Police admissions to mental hospitals. Demographic and clinical differences between ethnic groups. *Br J Psychiatry* 156:373–378
- Owens D, Harrison G, Boot D (1991) Ethnic factors in voluntary and compulsory admissions. *Psychol Med* 21:185–196
- Thomas C, Stone K, Osborn M, Thomas PF, Fisher M (1993) Psychiatric morbidity and compulsory admission among UK-born Europeans, Afro-Caribbeans and Asians in Central Manchester. *Br J Psychiatry* 163:91–99
- Engleman NB, Jobes DA, Berman AL, Langbein LI (1998) Clinicians' decision-making about involuntary commitment. *Psychiatr Serv* 49:941–945
- Cohen NL, Marcos LR (1990) Law, policy and involuntary emergency room visits. *Psychiatr Quarterly* 61:197–204
- Tuori T (1999) Coercion and restrictions in Finnish psychiatric hospitals. In: Kaltiala-Heino R, Välimäki M (eds) *Should we restrict use seclusion and restraint in psychiatry (in Finnish)*. Tampere School of Public Health, Publications 2. Tampereen yliopistopaino Oy, Tampere