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Less use of compulsory hospitalisation in mental health care?

SHORT REPORT

ESPEN BJERKE

E-mail: espbje@so-hf.no
Department of Psychiatry
Østfold Hospital Trust
He has contributed to all stages of work on the manuscript.
Espen Bjerke, specialist in psychiatry, researcher and psychotherapy supervisor.
The author has completed the ICMJE form and declares no conflicts of interest.

KARI GJELSTAD

Department of Psychiatry
Østfold Hospital Trust
She has contributed to all stages of work on the manuscript.
Kari Gjelstad, specialist in psychiatry and head of department at Halden/Sarpsborg and Fredrikstad district psychiatric centres.
The author has completed the ICMJE form and declares no conflicts of interest.

TORLEIF RUUD

Akershus University Hospital
Division for Mental Health Care
and
Institute of Clinical Medicine University of Oslo
He has contributed to all stages of work on the manuscript.
Torleif Ruud, specialist in psychiatry, senior researcher at the R&D department for mental health care and professor emeritus.
The author has completed the ICMJE form and declares no conflicts of interest.

BACKGROUND

A previous study found a strong increase in the number of emergency admissions in Østfold county from 2000 to 2010, while the number of compulsory hospitalisations remained unchanged. This implied a decrease in the percentage *proportion* of compulsory hospitalisations. The compulsory hospitalisation *rate*, i.e. the number of patients sectioned in relation to the population, on the other hand, remained unchanged. This article addresses the relationship between these two indicators for measuring compulsory hospitalisation in recent years.

MATERIAL AND METHOD

This article presents data on compulsory hospitalisation for 2017 and compares them with the same period in 2010. The material was collected during the period 1 September–30 November 2017. We looked at the proportion (of all admissions) and rate (in relation to the population) of compulsory hospitalisation, according to the definition of this concept in the national quality indicators for coercion in mental health care, issued by the Directorate of Health.

RESULTS

The proportion of compulsory hospitalisations in relation to the total number of admissions was 27 % and had remained virtually unchanged since 2010. The compulsory hospitalisation rate was 1.66 per 1000 adult inhabitants per year, a strong decline since 2010 ($p < 0.001$).

INTERPRETATION

The proportion of compulsory hospitalisations in relation to the total number of admissions remained unchanged from 2010 to 2017. When measured as a rate of the total population, compulsory hospitalisations dropped considerably. The Directorate of Health's quality indicator for compulsory hospitalisation in mental health care should primarily measure the rate in terms of the population as opposed to the proportion of all admissions.

Main message

The number of emergency psychiatric admissions in Østfold county declined in the period 2010–17

The percentage of compulsory hospitalisations remained unchanged, while the number of patients under compulsory hospitalisation as a proportion of the population declined

The *rate* of compulsory hospitalisations in relation to the total population is a better indicator of compulsory hospitalisations in mental health care than the *proportion* of all admissions, since this is less sensitive to structural changes in the population

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The scope of compulsory hospitalisation in mental health care is internationally regarded as a key indicator of quality and legal protection. Despite this, there is a conspicuous lack of good and reliable data on this issue (1).

Quality indicators were introduced in the health service to give users and their families, health personnel, managers, politicians and the public information on the quality of the services provided. The last updated overview of quality indicators in adult mental health care from the Directorate of Health lists 14 indicators, which in addition to compulsory hospitalisation also include failure to meet treatment deadlines, completion of discharge summaries and waiting times (2). One indicator bears the title 'Proportion of compulsory hospitalisations in adult mental health care', another 'Compulsory hospitalisations in adult mental health care'. Both of these report the percentage *proportion* of sectioned patients in relation to the total number of admissions.

In a previous article, we investigated changes in emergency admissions and compulsory hospitalisations in Østfold county in the period 2000–2010 (3). We used the Directorate of Health's quality indicators for compulsory hospitalisation in mental health care. At the time, this indicator was split in two in order to measure both the percentage proportion and the rate as an expression of compulsory hospitalisations per 1000 adults in the catchment area. We found that the proportion of compulsory hospitalisations had declined due to an increase in voluntary admissions. This was caused by an increase in the total number of admissions, while the rate of compulsory hospitalisation remained unchanged from 2000 to 2010. At the time, we argued that the rate was the measure that best reflected the scope of compulsory hospitalisation in a given area. It now seems that the Directorate of Health has decided to use only the proportion as a quality indicator for compulsory hospitalisation in the mental healthcare services (2).

In this article, we investigate compulsory hospitalisations in Østfold county in 2010 and 2017, and assess the consequences that the choice of indicator entails for analyses of compulsory hospitalisation and in terms of opportunities for comparing health enterprises.

We investigate whether the number of compulsory hospitalisations in adult mental health care in Østfold county, measured in relation to the population, has changed during the period, whether the number of compulsory hospitalisations in Østfold county has changed in relation to the total number of emergency admissions, and the impact that the choice of indicator has on assessments of the use of compulsory hospitalisation.

Material and method

The psychiatric department in the new Østfold Hospital, with 91 beds, caters for the entire population of Østfold county. All sections are approved for use of coercion. In addition, the district psychiatric centres have 79 inpatient beds at

their disposal. These are not approved for use of coercion. Since 2010, the number of beds has been reduced by 23 % and 25 % respectively.

We registered the number of emergency admissions during the period 1 September–30 November 2017, i.e. the same time frame as in 2010. For each emergency admission, the receiving doctor registered information including the legal basis for referral and the decision made by the specialist. Our experience indicates that a significant proportion of the referrals for compulsory hospitalisation are converted to voluntary admissions after assessment by a specialist upon arrival (4). All data were anonymised and entered in an Excel spreadsheet.

To obtain an estimate of the number of admissions per year, we multiplied the number observed over the three months by four. The hospital's patient record system (DIPS) is unable to provide figures for the number of annual admissions, only discharges. Three-month measurements in the same time frame over many years indicated that the extrapolated number of admissions was largely consistent with the number of discharges. The figures from DIPS tend to be slightly higher, which mainly can be explained by the fact that some elective admissions are not registered upon arrival at an emergency unit.

We have estimated the admission rates in Østfold county for 2010 and 2017. The rate is defined as the number of admissions per 1000 persons older than 18 years as of 1 January 2011 and 2018 respectively (5).

The project was reported to the Norwegian Centre for Research Data and the Data Protection Officer as a quality-assurance project (case no. 35102).

Descriptive statistics were produced with the aid of IBM SPSS version 23. Significance testing with the chi-square test was undertaken in Microsoft Excel 2010.

Results

The total number of emergency admissions and compulsory hospitalisations during the three-month period declined from 2010 to 2017 (Table 1). Data on five admissions were missing in both 2010 and 2017.

Table 1

Number of emergency admissions distributed by voluntary admissions and compulsory hospitalisations in mental health care in Østfold county over a three-month period in 2010 and 2017, and the rate of emergency admissions and compulsory hospitalisations in 2010 and 2017 per 1000 persons ≥ 18 years

	2010	2017	P-value[1]
Number of emergency admissions, three months	474	359	< 0.001
Voluntary admissions, number (%)	349 (74)	257 (72)	0.707
Compulsory hospitalisations[2], number (%)	120 (25)	97 (27)	

	2010	2017	P-value[1]
Unknown, number (%)	5 (1)	5 (1)	
Population (number)[3]	213 949	234 133	
Estimated rates			
Emergency admissions	8.9	6.1	< 0.001
Compulsory hospitalisations[2]	2.2	1.7	< 0.001

[1]Chi-square test

[2]Compulsory observation and coercive mental health care

[3]Number of persons ≥ 18 years in Østfold county as of 1 January 2011 and 1 January 2018 (5)

The proportion of compulsory hospitalisations has remained more or less unchanged, from 25 % in 2010 to 27 % in 2017, while there is a decline in the rate of compulsory hospitalisation. The number of compulsory hospitalisations per 1000 adults per year fell from 2.24 in 2010 to 1.66 in 2017 ($p < 0.001$).

Discussion

When applying the Directorate of Health's quality indicator, it may seem as though changes have occurred in the amount of compulsory hospitalisations in Østfold county during the period 2010–2017, since the proportion of compulsory hospitalisations has remained unchanged. On the other hand, there has been a reduction in the compulsory hospitalisation rate, which is adjusted in relation to the population of Østfold county.

In our previous study, where we compared compulsory hospitalisations in Østfold county in 2000 and 2010, we found that the *proportion* of compulsory hospitalisations had changed in relation to the total number of admissions. The proportion was reduced because of a strong increase in the number of voluntary admissions, not because the total number of compulsory hospitalisations had declined (3). The prevailing quality indicator for compulsory hospitalisation in mental health care is vulnerable to changes in the population, organisation and legal basis. For example, if the number of beds is reduced and the ambulatory/outpatient services for those who receive help voluntarily are expanded, this may lead to a drop in the number of voluntary admissions, which in turn will push up the proportion of compulsory hospitalisations, despite the fact that the number of patients sectioned remains constant. We need quality indicators that are robust and are able to reflect the use of coercion without being affected by 'external' factors, as in the above example.

We show that there was a marked decline in emergency psychiatric hospitalisations in Østfold county from 2010 to 2017. The number of compulsory hospitalisations has shown a corresponding decline. The

Directorate of Health's quality indicator, which reflects the number of compulsory hospitalisations as a proportion of the total number of admissions, thereby remains unchanged and is misleading. When considering that the Østfold population is increasing, the rate of compulsory hospitalisation has clearly declined. If only one quality indicator is to be used for compulsory hospitalisation in mental health care, it should the one that is expressed a rate of the population.

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