

## ORIGINAL PAPER

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# Involuntary commitment in psychiatric care: what drives the decision?

Accepted: 16 February 2007 / Published online: 29 March 2007

■ **Abstract** *Background* Psychiatric commitment laws have been reformed in many European countries. We assessed the relative importance of the different legal criteria in explaining involuntary commitment under the Belgian Mental Health Act of 1990. *Method* Psychiatric assessments were requested for 346 patients living in Brussels who were randomly selected from a larger group and were being considered for involuntary commitment. A retrospective study of these patients' files was carried out. *Results* More than half of the requests for involuntary commitment were turned down. The lack of a less restrictive alternative form of care was the criterion most crucial in decisions in favour of commitment. Alternative forms of care were more likely to be unavailable for psychotic individuals, foreigners, and patients not living in a private household. *Conclusion* Involuntary commitment is mainly due to the inability of the mental health care system to provide more demanding patients with alternative forms of care.

■ **Key words** commitment of mentally ill – public health services – emergency treatment – fairness

## Introduction

In Europe, compulsory admission is used to start treating patients with mental illness and applies to at least one psychiatric admission out of 10 in France, Germany or the UK [28]. The search for predictive factors for compulsory admissions has put the emphasis on the patient-side, evidencing the role of clinical and socio-demographic characteristics [5, 13, 30, 34]. More specifically, the risk of compulsory admission has been shown to be greater for ethnic minority groups [3, 21, 22, 27, 34]. This may suggest a problematic implementation of the legal criterions for involuntary treatment.

In order to better protect psychiatric patients, most European countries have reformed their mental protection laws and reviewed their criteria for involuntary commitment [2, 38]. Despite these reforms, recent studies have suggested that involuntary commitment is increasing in England [33] and elsewhere [11, 15, 28]. Moreover, cross-national differences in these legal criteria are not associated with differences in the rate of compulsory admission [7]. This may suggest a heterogeneous implementation of the legal criteria for involuntary treatment. As a consequence, it is unclear what role these legal criteria actually play in the decision to commit a patient for involuntary treatment. We undertook a study aimed at assessing the relative importance of the different legal criteria in explaining decisions on involuntary commitment and examining how these criteria have been applied by clinicians to different socio-demographic groups of patients referred to a psychiatric emergency service under the Belgian Mental Health Act of 1990.

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## Subjects and methods

### ■ Setting and participants

Under the Belgian Mental Health Act, the decision to commit a patient is made by a public prosecutor (*Procureur du Roi/Procureur des Konings*). A detailed description of the formal procedure for commitment in Belgium, and a comparison with the UK system, can be found elsewhere [7, 32]. Before committing a patient to a psychiatric hospital, the public prosecutor requests a psychiatric assessment, which is carried out in a certified psychiatric emergency ward and aims to assess whether the criteria are met: the presence of a mental disorder (but excluding substance-related disorder), danger for the patient or others, urgent need for treatment, refusal of treatment by the patient, and, finally, the lack of a less restrictive alternative form of care [20].

In 2004, at the request of the public prosecutor, 1,200 individuals living in Brussels were randomly referred to one of the six psychiatric emergency wards in the city that were certified to carry out psychiatric assessments. Randomisation was guaranteed thanks to a single phone number, which dispatched randomly and systematically the public prosecutor's call to one of the six psychiatric emergency wards: the first call dispatched the patient 1 to hospital 1, the second call the patient 2 to hospital 2, etc. This administrative procedure was designed to avoid an hospital being overloaded with commitment requests and warrant that hospital will not be assessing patients coming from their own geographical hinterland. We studied 346 of these 1,200 patients, who were assessed in one important academic hospital. A retrospective study of these 346 patients was carried out.

### Variables

The data were extracted by one professional investigator from the patients' medical files, from the reports addressed to the public prosecutor, and from the minimum psychiatric summary. Given the relevance of clinical status for involuntary commitment [15], clinical data were collected such as axis 1 DSM IV diagnosis as well as the presence of any psychiatric comorbidity. For the analysis, patients were grouped into six diagnostic categories: none, organic disorder, substance use disorder, psychotic disorders, affective disorder, and anxiety disorder. Because social support and socio-demographics have been shown to be associated with compulsory admission [6, 19, 25, 34], we collected data on gender, age, nationality, living arrangement, and employment status.

### Analysis

We first cross-tabulated the legal criteria and the resulting decision on involuntary commitment, and a Fisher's exact test was computed. However, these legal criteria may not be independent. In order to describe the interdependence between these criteria, our second step involved running a factorial correspondence analysis, a factorial technique designed for categorical variables [12]. We retained the first two axes (out of seven), which accounted for 66% of total variance. Even when the criteria are associated, this does not

imply that they are equally important for the decision to commit a patient: some criteria may be more crucial to a decision in favour of commitment, while some criteria may depend on other criteria. As a consequence, in a third step, we proceeded to build a decision tree to find out whether a smaller number of criteria (less than five) might correctly classify the commitment status of the patients (yes or no). The sample was separated into a training sample (80% of the patients) and a test sample (20%); we then built a classification tree [4]. We carried out this procedure 100 times until all patients were well classified. In our fourth step, finally, we assessed whether the most crucial criteria and the resulting decision were equally applied to the different clinical and socio-demographic groups. By way of a multivariate logistic regression, we analysed the association between the clinical and socio-demographic covariates and the criteria.

### Results

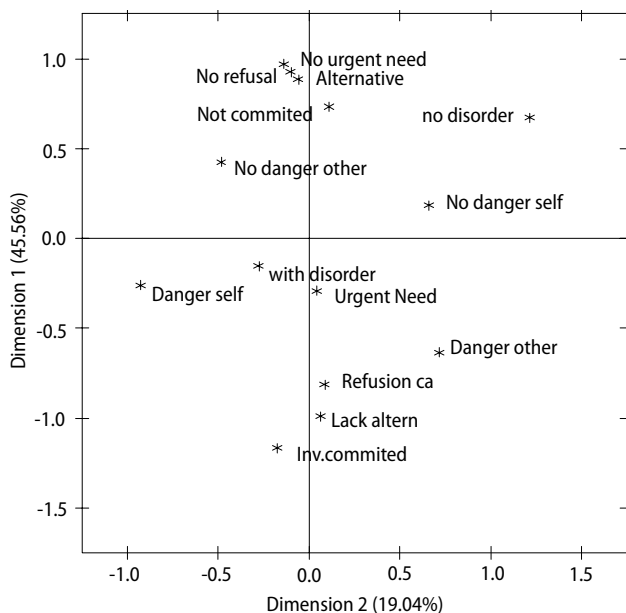
The modal patient had an age of 32 years (mean = 39.9, std = 15.2), was male (61.9%), and Belgian (67.3%). The most frequent diagnoses were psychotic disorders (51.5%), affective disorders (15.6%), none (15.6%), substance disorder (9.8%), anxiety (4.0%), and organic disorders (3.5%). The mental disorder criterion was present for 83.2% of the patients, urgent need of treatment for 79.2%, refusal of treatment for 57.8%, lack of a less restrictive alternative for 52.3%, danger to oneself for 45.1%, and danger to others for 40.2%. For more than half of the cases (55.5%), the request for involuntary commitment was rejected.

The percentage of involuntary committed was particularly high in the absence of a less restrictive alternative of care (85.1%) or when the patient refused care (77%) (Table 1). As expected, the risk of involuntary commitment was also increased for patients deemed dangerous or having a mental disorder.

The result of the correspondence analysis is displayed in Fig. 1. The first factor (down) accounted for 46.4% of the total variance, while the second factor (across) accounted for 19.3%. The first factor contrasted two groups of patients: at the top of the factor, patients had no urgent need, had access to a less restrictive alternative of care, and did not refused care; at the bottom, patients were deemed to lack an alternative and were refusing care. The second factor contrasted patients dangerous to themselves (left side of the axis) with patients dangerous to others (right side of the axis). Committed patients departed from the centre of the first axis (down) but were close to the centre of the second axis (across). As a consequence, when considering jointly the five criteria, involuntary commitment was more related to lack of an alternative and refusal of care.

**Table 1** Involuntary commitment by legal criteria: percentage and chi-square

	Involuntary commitment		n	Fisher's exact test
	No %	Yes %		p value
Mental disorder				
No	100	0	58	<0.001
Yes	46.5	53.5	288	
Urgent need for treatment				
No	100	0	72	<0.001
Yes	43.8	56.2	274	
Refusing care				
No	100	0	146	<0.001
Yes	23	77	200	
Lack of alternative				
No	100	0	165	<0.001
Yes	14.9	85.1	181	
Danger to oneself				
No	68.9	31.1	190	<0.001
Yes	39.1	60.9	156	
Danger to others				
No	68.6	31.4	207	<0.001
Yes	36	64	139	
Total	55.5	44.5	346	

**Fig. 1** Factorial correspondence analysis graph of legal criteria and decision of involuntary commitment

The classification tree (Fig. 2) was able to classify all patients in two groups (involuntarily committed and not committed) by three out of five legal criteria: lack of a less restrictive alternative of care, presence of a mental disorder, and dangerousness. The presence of a less restrictive alternative of care was the most discriminative criterion because it protected 165 patients against commitment. Urgent need for treatment and refusal of treatment were not in the tree because there was no patient who combined a lack of alter-

native with a mental disorder and danger but who did not refuse care and did not need urgent treatment.

The three most crucial criteria and the decision were related to the clinical and socio-demographic groups (Table 2). Psychotic patients, foreigners, young people (<25), adults (45–64), and patients not living in a private household were more at risk of lacking alternative care. The elderly were less likely to lack alternative care. Both psychotic and affective disorders were likely to be deemed dangerous. Elderly people were less likely to be assessed as dangerous. Young people were less likely to be diagnosed with a mental disorder, while patients without a paid occupation and individuals not living in a family were more likely to be assessed as disordered. Involuntary commitment (last column, Table 2) was less likely for elderly patients and more likely for foreigners, patients without a paid occupation, and patients not living in a family.

## Discussion

### Main findings

We found that more than half of the requests for involuntary commitment were refused after a psychiatric assessment. The lack of a less restrictive alternative of care was the criterion most crucial to the decision to compulsorily admit a patient. Psychotic individuals, foreigners, patients not living in a private household, and adults were more likely to be deemed as lacking a less restrictive alternative form of care.

The importance of the lack of a less restrictive alternative form of care is consistent with previous studies carried out in the US [18, 30]. Segal et al. showed that the availability of a less restrictive alternative form of care and patient willingness to cooperate dramatically decreased the risk of being committed [30]. Other studies showed that involuntary commitment was related to access to outpatient or inpatient mental care [8, 18]. To this body of knowledge our study has added the observation that commitment is more related to the lack of a less restrictive alternative form of care than to mental disorder or to dangerousness. It also shows that, although lack of alternative forms of care and refusal of care are strongly related, it is the former and not the latter that carries the most weight in a decision on commitment.

Foreigners and psychotic individuals, who are more demanding patients, are more likely to be committed—not so much because they are dangerous or mentally ill but because it is concluded that alternative forms of care are unavailable or they are deemed to be refusing care. This is consistent with a previous review, which suggested that ethnic minority refusal of care is an important explanation for their

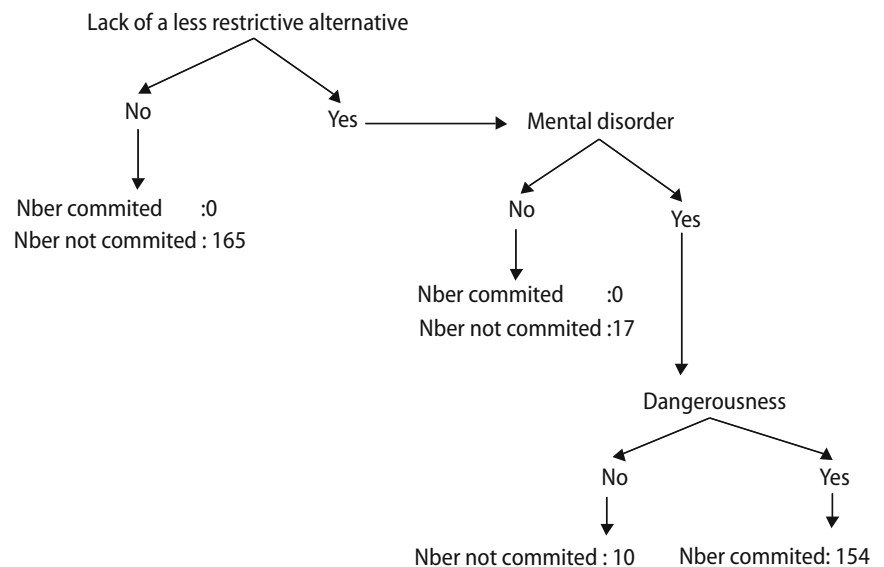
**Table 2** Socio-demographic and clinical risk factor and legal criteria for involuntary commitment: odds ratio and 95%CI from the logistic regressions

	Lack alternative		Dangerousness		Mental disorder		Commitment	
	OR <sup>a</sup>	95%CI	OR <sup>a</sup>	95%CI	OR <sup>a</sup>	95%CI	OR <sup>a</sup>	95%CI
<b>Mental disorder:</b>								
None (ref)	1.0		1.0					
Organic	0.7	(0.1–3.6)	2.1	(0.5–10.0)				
Substance	0.5	(0.1–1.4)	1.1	(0.4–3.0)				
Psychotic	2.9**	(1.4–6.1)	2.3*	(1.2–4.8)				
Affective	2.2	(0.9–5.9)	4.3**	(1.4–12.6)				
Anxiety	0.4	(0.1–1.9)	1.3	(0.4–4.5)				
<b>Comorbidity:</b>								
None (ref)	1.0		1.0					
With comorbidity	1.9	(0.9–4.1)	2	(0.8–4.8)				
<b>Age:</b>								
25–44 (ref)	1.0		1.0		1.0		1.0	
<25 years of age	2.5*	(1.1–6.2)	1.7	(0.7–4.6)	0.2**	(0.1–0.6)	1	(0.5–2.2)
45–64	2.3*	(1.2–4.3)	1.5	(0.8–3.0)	0.7	(0.3–1.4)	1.4	(0.8–2.5)
>64	0.2*	(0.1–0.8)	0.3*	(0.1–1.0)	0.4	(0.1–1.4)	0.1**	(0.0–0.4)
<b>Gender:</b>								
Women (ref)	1.0		1.0		1.0		1.0	
Men	0.9	(0.5–1.6)	0.9	(0.5–1.5)	0.6	(0.3–1.1)	0.6	(0.4–1.1)
<b>Nationality:</b>								
Belgian (ref)	1.0		1.0		1.0		1.0	
Foreign	2.2**	(1.3–3.9)	1.2	(0.7–2.1)	1.2	(0.6–2.4)	1.9*	(1.1–3.1)
<b>Occupational status:</b>								
Paid (ref)	1.0		1.0		1.0		1.0	
Not paid	2.0	(0.7–5.4)	1.3	(0.5–3.6)	4.0*	(1.3–12.3)	3.5*	(1.3–9.7)
<b>Living arrangement:</b>								
Family (ref)	1.0		1.0		1.0		1.0	
Alone	1.6	(0.9–2.9)	1	(0.5–1.8)	2.5*	(1.2–5.2)	1.9*	(1.0–3.4)
Not in a private household	2.1*	(1.0–4.2)	1.5	(0.7–3.2)	3.1**	(1.3–7.4)	2.1*	(1.1–4.1)

\* $p < 0.05$ ; \*\* $p < 0.01$

<sup>a</sup>multivariate odds ratios controlled for the other covariates displayed in the table

**Fig. 2** Classification tree of involuntary commitment. Numbers indicate the numbers of patients not committed and number of patients committed according the decision tree



higher risk of being committed [22]. These two implications point to the difficulties of the mental health care system in providing more demanding patients with attractive alternative forms of care. These could include assertive outreach [37], outpatient commitment [31], advance agreement between patients and careers [14, 23], or partnership with families [24].

## Limitations

A retrospective case file analysis faces methodological limitations that we need to acknowledge. Professionals may have recorded inaccurate information or omitted important clinical data. However, we are confident of the quality of the information because clinicians are legally required to be able to justify their

decisions. Secondly, although we faced some missing data, these were limited to occupational status and living arrangement, which are often quite difficult to assess in an emergency psychiatric ward. Nevertheless, because more vulnerable socio-demographic groups are more likely to have missing data [10, 16], it is possible that missingness has led to a slight underestimation of these socio-demographic risk factors. More critically, our naturalistic design makes the reliability of our criteria questionable. The criteria were rated without the use of a structured questionnaire, making our study vulnerable to inter-clinicians heterogeneity. Previous studies have indeed suggested that some clinicians features (such as experience or training) may play a role in the risk rating or in the commitment decision [8, 29]. However, this variability is unlikely to affect strongly our results: first because the psychiatric emergency room was located within a teaching hospital and each internship commitment decision was reviewed by a senior psychiatrist; second, the study run over a one-year period and involved 22 different psychiatrists; third, previous studies suggested that, although this variability did exist, the legal criteria were actually the most important factors explaining the commitment [1, 17]. Finally, our objective was not so much about the validity of the criteria but about the relative importance of each criteria on the decision.

Our percentage of involuntary commitment was higher than in other studies in Belgium or abroad [9, 19, 30]. This is because most previous studies were carried out with psychiatric admissions while, in our design, we analysed requests for involuntary commitment made under the Mental Health Act. However, we think that our denominator is more relevant to addressing the decision-making process of involuntary commitment because it is defined as the population for which a request for commitment is made but for which the decision has not yet been taken. Moreover our rate of involuntary commitment is similar to that found in a US study of psychiatric emergency ward visits, which is more similar to our population [18].

The generalisation from our sample might be questioned, particularly because legal procedures and criteria differ between countries as well as the overall mental care availability and organisation [7, 28]; We are however confident that these differences would not jeopardize comparison with other setting from abroad. Indeed, Belgium 's overall rate of commitment (12%) is much similar to other European countries [19] and the commitment criteria are very similar to those used in European countries. True, in most other European countries, it is the psychiatrist who has the final say, meanwhile in Belgium the decision-making authority relies in the Prosecutor's hands, although, in practice the prosecutor relies heavily on the psychiatrist expertise. Further, preferably cross-sectional comparison studies are required to confirm our results.

## Conclusion

Our study shows that involuntary commitment is strongly related to the lack of a less restrictive alternative form of care and that it affects more vulnerable groups of patients. This does not imply that mental care facilities are scarce in Belgium. On the contrary, supply is rather good [35] and the Belgian commitment law includes less restrictive alternative such as coercitive outpatient treatment. The fact that the lack of an alternative is more acute for more demanding groups of patients suggests that, possibly, providers and mental health care system are unable to cope with these vulnerable patients, a group that should be a priority of the mental health care system [36]. A possibility is that competition for limited resources has eroded core mental health care delivery, as evidenced in some OECD countries [26]. An other one is that alternative measures such as assertive outreach, outpatient commitment, advance agreement or partnership with families are much more time consuming, particularly for these vulnerable patients. The shift away from the asylum, after the Second World War, was designed to improve the lot of these patients. Our study suggests that involuntary commitment might be a step backwards towards the asylum system. The accessibility of the psychiatric care system and the provider's ability to promote alternatives of care for patients at risk of commitment should be improved.

■ **Acknowledgment** Fonds de la Recherche Scientifique Collective, grant F 5/4/5 -OL-ME 127 ;VD received an unrestricted grant from Astra Zeneca.

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