

Factors associated with involuntary admission to psychiatric facilities in Newfoundland

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To assess what factors determine the involuntary status of psychiatric patients, we reviewed the case records of 5729 patients consecutively admitted to one of four inpatient psychiatric facilities, including a mental hospital, in St. John's between October 1975 and October 1978. Of the 5729 patients 5005 (87.4%) were voluntary and 724 (12.6%) involuntary. Involuntary patients were more likely than voluntary patients to be male, single and unemployed and to have been referred by police or transferred from another facility to the mental hospital, where most of the involuntary admissions occurred. They had higher rates of previous admissions to a psychiatric facility and of suicidal and violent behaviour, were more likely to have a diagnosis of schizophrenia or mania and were less likely to be suffering from depression or a neurotic disorder. In correspondence with differences in diagnosis, involuntary patients stayed in hospital more than twice as long as voluntary patients, were less likely to receive electroconvulsive therapy, minor tranquillizers and antidepressants, and were more likely to receive neuroleptics and lithium carbonate. Stepwise logistic regression analysis revealed that only the source of referral and a diagnosis of neurotic disorder had an independent effect on admission status. The findings are discussed in the context of the controversy over the *parens patriae* approach v. the legal approach to involuntary admission of psychiatric patients.

Quels facteurs sont reliés au statut du malade mental interné involontaire? Afin de le savoir,

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nous avons passé en revue les dossiers de 5729 sujets hospitalisés consécutivement dans un des quatre services de psychiatrie (dont un hôpital psychiatrique) de St-Jean (Terre-Neuve) entre octobre 1975 et octobre 1978. De ce nombre, 5005 (87,4%) sont internés volontaires et 724 (12,6%) involontaires. Plus souvent que les premiers, ces derniers sont du sexe masculin, célibataires et chômeurs et ont été soit transférés à l'hôpital psychiatrique à la demande d'un autre service, soit adressés par la police à ce même hôpital, où la plupart des internements involontaires ont eu lieu. Ces malades ont les plus hauts taux d'hospitalisation antérieure en milieu psychiatrique, de comportement suicidaire ou violent et de schizophrénie ou de manie. Au contraire, ils sont moins portés à se présenter pour des états dépressifs ou névrotiques. En rapport avec ce tableau diagnostique, on note chez ces malades une durée de séjour plus de deux fois plus grande que pour les internés volontaires et, quant à la thérapeutique, moins d'électrochocs, de tranquillisants mineurs et d'antidépresseurs, mais plus de neuroleptiques et de carbonate de lithium. L'analyse par étapes de la régression logistique montre que les seuls facteurs qui influent sur le statut volontaire ou involontaire de l'internement sont la personne ou le service qui adresse le malade et un diagnostic d'entrée de trouble névrotique. On discute de ces trouvailles par rapport au débat qui oppose l'attitude tutoriale à la voie juridique dans l'internement involontaire du malade mental.

Involuntary admission to hospital of psychiatric patients for the purpose of observation and treatment of mental disorders has become a major issue of public interest and debate.¹ Most jurisdictions have mental health acts that govern the involuntary admission of psychiatric patients. The content of such legislation varies greatly between countries as well as between regions within the same country.²⁻⁶ The debate on involuntary commitment has usually centred on a conflict between the medical approach and the legal ap-

proach.^{1,7} The former is concerned primarily with the treatment of the patient suffering from a mental disorder who may not be aware of his or her need for treatment (the *parens patriae* approach). This approach identifies the patient's illness as the main target for any intervention and views disturbed or destructive behaviour as only one of the many manifestations of the illness.

The legal approach, on the other hand, is usually most concerned with protecting the person from unjustified involuntary commitment and loss of freedom. It assumes that the temporary loss of freedom of choice has graver consequences than the uncontrolled continuation of symptoms of the underlying mental illness. Under the legal approach only obviously destructive behaviour would justify involuntary detention: patients would require involuntary admission to a psychiatric facility only if they showed violent or self-destructive behaviour or a propensity toward such behaviour. Most provincial mental health acts are designed to reflect a definite bias toward the legal approach, yet the decision to commit a patient under involuntary status remains the responsibility of medical practitioners, who are inclined to use a medical approach.

Possibly in response to the medical-legal debate and growing concern by the public, there has recently been increased scientific interest in the involuntary admission of psychiatric patients. This research has concentrated primarily on assessing the criteria for involuntary commitment and on compliance with relevant procedures laid down by various mental health acts.⁸⁻¹² A number of researchers have also reported descriptions of involuntary patients and comparisons with voluntary patients in the same treatment setting.¹³⁻¹⁸ Most of these studies have revealed differences in psychopathology,^{13,17,18} the likelihood of violence,¹³ diagnosis,^{13,15,17} history of admission to psychiatric facilities^{15,17} and demographic characteristics.¹⁶⁻¹⁸ Studies of characteristics of involuntary patients help to assess the actual practice of involuntary commitment vis-à-vis the assumptions implicit in the mental health acts.

However, findings from other countries (usually the United States) cannot be directly generalized to Canada because of important differences in legislation and the systems of mental health care delivery. Studies in involuntary patients in Canada have generally addressed physicians' compliance with mental health legislation.⁸⁻¹² Riley and Richman¹⁹ reported overall trends in involuntary admission in various Canadian provinces, but in only one small Canadian study have the characteristics of involuntary patients been compared with those of voluntary patients.¹⁷ Previous research on differences between voluntary and involuntary patients has concentrated on each variable separately, and little attempt has been made to assess the relative significance of each variable. What remains undetermined are the specific characteristics of psychiatric patients that primarily influence their ad-

mission status, without the confounding effect of other characteristics.

We conducted a study in voluntary and involuntary patients in an attempt to assess what factors determine the involuntary status of patients admitted to psychiatric facilities in St. John's. The study was carried out between 1975 and 1978, 4 to 7 years after the introduction of new provincial mental health legislation.²⁰

Definition of involuntary admission

According to section 6 of the Mental Health Act of Newfoundland and Labrador,²⁰ a patient may be admitted to a treatment facility without his consent if "in the opinion of a physician he is suffering from mental disorder to such a degree that the person requires hospitalization in the interest of his own safety, safety to others, or safety to property". This certificate by one physician is only of "sufficient authority for any person to convey the person to a safe and comfortable place, and to detain him there until he is medically examined by another physician". The certificate of involuntary admission is complete only upon examination by another physician in the treatment facility (section 7). The involuntary status thus granted lapses after 2 weeks unless renewed. For the purpose of this study, patients who were committed under these procedures were regarded as involuntary regardless of whether the certificates were renewed within the first 2 weeks. Patients whose status was changed from voluntary to involuntary during their hospital stay were also considered involuntary. Patients admitted under court orders or Lieutenant Governor's warrants or for other forensic purposes were excluded.

Methods

At the time of the study the inpatient psychiatric services in St. John's consisted of psychiatric units at three general hospitals and the provincial mental hospital, with a total of 125 admission beds. In addition, within Newfoundland and Labrador there are psychiatric units at three small general hospitals, in Gander, Grand Falls and Cornerbrook, which, at the time of the study, contained 14, 10 and 25 beds respectively. The hospitals in St. John's were providing services to a population within a radius of at least 200 km of the city. The nearest general hospital unit outside St. John's was 300 km to the west. All three general hospital units in St. John's and the mental hospital are affiliated with the Faculty of Medicine at Memorial University of Newfoundland.

The case records of all patients consecutively admitted to one of the three general hospitals in St. John's or the mental hospital between Oct. 17, 1975, and Oct. 17, 1978, were examined retrospectively. The status on admission was recorded as

voluntary or involuntary. Sociodemographic variables noted were age, sex, marital status, occupation and education.

The following clinical variables were noted: source of referral, total number of previous admissions to a psychiatric facility and number of previous admissions to the same psychiatric facility, presence of suicidal or violent behaviour before or during admission, and diagnosis. Suicidal behaviour here refers to any self-harmful or self-destructive act, with or without clear suicidal intention, while violent behaviour was recorded if there was actual mention of such behaviour or if a special security arrangement had to be made for the patient. Diagnoses had been recorded under DSM-II categories²¹ and were reclassified under the following headings: schizophrenia, affective disorder (depression), affective disorder (mania), neurotic disorder (including depressive neurosis), personality disorder, organic brain disorder, alcohol or drug dependence and other diagnoses. The last category included behaviour disorders, situational crises and conditions not classified under the other categories.

Finally, treatment-related variables noted were length of stay, use of electroconvulsive therapy (ECT), and number and type of psychotropic drugs used. Six groups of psychotropic drugs were identified for this purpose: neuroleptics, minor tranquilizers, antidepressants, hypnotics, lithium carbonate and antiparkinsonian drugs.

Comparisons between the voluntary and involuntary patients were made for each variable with *t*-tests for interval data and contingency tables (chi-square) for categorical data. In an attempt to determine the most significant variables that determined admission status we conducted a multivariate analysis using the stepwise logistic regression technique with the BMDP statistical software package.²² All variables for which significant differences were found between the two groups in univariate analysis were entered into the logistic regression procedure. A number of theoretically relevant bivariate interactions between various variables (e.g., sex and diagnosis, and diagnosis and suicidal or violent behaviour) were also entered into the procedure as independent variables. Given the large number of independent variables (52), the analysis was conducted twice, on two randomly split halves of the data (1372 cases in the first analysis and 1355 in the second). A certain number of cases were lost for analysis because of missing variables. Only variables that were found to be significant in both sets of analyses are reported.

Results

Over the study period there were 5729 psychiatric admissions in the four hospitals, 5005 (87.4%) voluntary and 724 (12.6%) involuntary. Most of the involuntary admissions (93.8%) occurred at the mental hospital. Records from the

Department of Mental Health Services, Ministry of Health, Newfoundland, in Labrador and St. John's, showed that on average only two to three involuntary admissions occurred each year in units outside St. John's.

The sociodemographic characteristics of the voluntary and involuntary patients are shown in Table I. Compared with voluntary patients, involuntary patients were younger and more likely to be male and single. There were no differences in education or occupation between the two groups other than that involuntary patients were more likely to be unemployed.

More than 20% of both voluntary and involuntary patients were admitted on referral by family physicians and by psychiatrists (Table II). Involuntary patients were more likely than voluntary patients to have been transferred from another hospital or referred by police, whereas voluntary patients were more likely to have been referred by the emergency department of a general hospital.

Involuntary patients had had more previous admissions to a psychiatric facility as well as more previous admissions to the mental hospital.

Suicidal behaviour and violent behaviour were more common among the involuntary patients than among the voluntary patients. Altogether, 25.6% of the involuntary patients had demonstrated suicidal or violent behaviour.

The diagnoses in the two groups are shown in Table III. Patients with diagnoses of schizophrenia, mania or personality disorder were more likely than those with diagnoses of depression or neurotic disorder to have been admitted involuntarily.

Involuntary patients stayed in hospital more than twice as long as voluntary patients (Table IV). Contrary to what might be expected, involuntary patients were less likely than voluntary patients to receive ECT. Both groups of patients were subject to polypharmacy (three or more psychotropic drugs), in almost equal proportions. There were, however, differences between the two groups in the type of psychotropic drugs prescribed.

The results of stepwise logistic regression

Table I — Sociodemographic characteristics of 5729 patients admitted to psychiatric facilities in St. John's between 1975 and 1978

Characteristic	No. (and %) of patients; group	
	Voluntary (n = 5005)	Involuntary (n = 724)
Sex		
Male	2512 (50.2)	451 (62.3)
Female	2493 (49.8)	273 (37.7)
Marital status		
Married	2423 (48.4)	220 (30.4)
Single	1682 (33.6)	379 (52.3)
Other	900 (18.0)	125 (17.3)
Unemployed	1758 (35.1)	461 (63.7)
Mean age, yr (and standard deviation [SD])	41.5 (16.0)	36.5 (14.1)

analysis showed that only the source of referral and a diagnosis of neurotic disorder were significant determinants of admission status (Table V). Patients transferred from other hospitals or referred by police had a significant likelihood of being assigned involuntary status on admission ($p < 0.001$). On the other hand, those referred from general hospital emergency departments were least likely to be admitted involuntarily ($p < 0.01$). Patients with a diagnosis of neurotic disorder were unlikely to be admitted involuntarily ($p < 0.01$). None of the possible relations between variables was found to be significantly associated with admission status.

Discussion

A fairly small proportion (12.6%) of the psy-

Table II — Clinical characteristics of the two groups

Characteristic	No. (and %) of patients; group	
	Voluntary	Involuntary
Source of referral*		
Psychiatrist	1681 (33.6)	168 (23.2)
Family physician	1468 (29.3)	150 (20.7)
Emergency department	1150 (23.0)	19 (2.6)
Transfer from other hospital	206 (4.1)	230 (31.8)
Transfer within hospital	172 (3.4)	1 (0.1)
Police	92 (1.8)	139 (19.2)
Other	228 (4.6)	15 (2.1)
Presence of suicidal behaviour	475 (9.5)	88 (12.2)
Presence of violent behaviour	123 (2.4)	97 (13.4)
Mean no. (and SD) of previous admissions to psychiatric facility		
Total	3.2 (4.3)	4.2 (4.6)
To mental hospital in St. John's	1.8 (3.7)	2.8 (4.1)

*Not recorded for eight voluntary and two involuntary patients.

Table III — Diagnoses in the two groups

Diagnosis*	No. (and %) of patients; group	
	Voluntary	Involuntary
Schizophrenia	764 (15.3)	214 (29.6)
Affective disorder		
Depression	790 (15.8)	41 (5.7)
Mania	153 (3.0)	80 (11.0)
Neurotic disorder	1073 (21.4)	19 (2.6)
Personality disorder	438 (8.8)	88 (12.2)
Organic brain disorder	170 (3.4)	29 (4.0)
Alcoholism or drug dependence	984 (19.7)	124 (17.1)
Other	633 (12.6)	88 (12.2)

*Not recorded for 41 involuntary patients.

chiatric patients in our study were admitted involuntarily. The rate of involuntary admission is known to vary among jurisdictions and depends on a number of factors, such as mental health legislation, access to appropriate facilities, composition of the patient population, and geographic and ethnic issues.²³ Riley and Richman¹⁹ reported high rates for New Brunswick, Nova Scotia and Prince Edward Island (28.8% to 31.9%) and lower rates for Ontario and Newfoundland (7.4% to 11.2%). Elliott and colleagues¹⁸ reported a slightly lower rate (9%) of compulsory admission (part 4 of the Scottish Mental Health Act) in Scotland, and Tomilleri and associates¹⁴ reported an even lower rate (4%) in St. Louis, Missouri. In the last study patients were considered committed only after having been in hospital for 10 days under involuntary status, in accordance with the Missouri State Mental Health Act.

The differences in the clinical characteristics of the patients in our study were interrelated. For example, patients with a diagnosis of neurotic disorder, who were least likely to have been admitted involuntarily, were also likely to have had fewer previous admissions to hospital, particularly to the mental hospital. On the other hand, patients with diagnoses of schizophrenia, mania or personality disorder, who had higher rates of involuntary admission, were also likely to have stayed in hospital longer and to have had more previous admissions to hospital, both in total and

Table IV — Characteristics of treatment in the two groups

Characteristic	No. (and %) of patients; group	
	Voluntary	Involuntary
Electroconvulsive therapy	1111 (22.2)	125 (17.3)
Three or more psychotropic drugs	2099 (41.9)	344 (47.5)
Neuroleptic	3028 (60.5)	577 (79.7)
Minor tranquillizer	2466 (49.3)	258 (35.6)
Antidepressant	1990 (39.8)	138 (19.1)
Lithium carbonate	333 (6.6)	81 (11.2)
Mean duration of stay, d (and SD)	35.7 (104.6)	87.0 (217.0)

Table V — Results of stepwise logistic regression analysis

Variable	Coefficient	Standard error	z
Referral from emergency department	-0.67	0.24	-2.7*
Transfer from other hospital	1.23	0.23	5.3†
Referral by police	1.25	0.22	5.7†
Diagnosis of neurotic disorder	-0.76	0.25	-3.1*

* $p < 0.01$.

† $p < 0.001$.

to the mental hospital. These findings are consistent with previous Canadian data.¹⁷ In a previous study we reported that the proportion of schizophrenic patients was higher among patients admitted to the mental hospital than among those admitted to the general hospitals in this geographic area.²⁴ We also reported that patients admitted to the mental hospital tended to be readmitted to this institution, whereas those admitted to a general hospital tended to be readmitted to a general hospital. The tendency to stay within the mental hospital system may be particularly true of involuntary patients.

The characteristics of treatment of the involuntary patients also reflected their diagnostic distribution. For example, the higher proportions of schizophrenic and manic patients in the involuntary group explain the higher rate of use of neuroleptics and lithium and the relatively lower rate of use of ECT and antidepressants among these patients. Involuntary status as such is unlikely to have influenced treatment independently of the patient's diagnostic characteristics.

In our study the overwhelming majority of the involuntary admissions occurred at the mental hospital, whereas in other Canadian provinces most involuntary admissions have been reported to occur in general hospital psychiatric units.¹⁹ The admission of involuntary patients to general hospital units has been a matter of debate and controversy for a number of years, particularly since general hospitals have become the main focus for the delivery of inpatient psychiatric care. Some commentators consider the admission of highly disturbed involuntary patients to general hospital units as a threat to the units' therapeutic milieu,^{25,26} but others see providing care for both voluntary and involuntary patients as a definite role of the general hospital.²⁷⁻²⁹ However, it is well recognized that if general hospitals are to assume this responsibility they need to be well equipped, in terms of both physical structure and staffing, to deal with patients who require close supervision, security and protection.²⁸⁻³⁰

Our findings indicate that only one quarter of the involuntary patients had demonstrated suicidal or violent behaviour. However, neither of these variables appears to have had any independent effect on admission status. Our data do not allow an examination of the patient's expressed intent or threat of such behaviour, which might have influenced a physician's decision about admission status. On the other hand, the results of the multivariate analysis strongly indicate that transfer from other hospitals, referral by police and a diagnosis of neurotic disorder were the only significant variables that independently determined involuntary status. It is therefore unlikely that behaviour destructive toward self or others was the only criterion used for the certification of patients and, in most cases, for involuntary admission to the mental hospital.

Other clinical features that are directly related

to the severity of a patient's illness and that impair the patient's judgement about the need for treatment may also have influenced the physician's decision to admit the patient under involuntary status. For example, patients with diagnoses of schizophrenia or mania who had high rates of involuntary admission would likely have been admitted to the mental hospital involuntarily if their symptoms remained uncontrolled despite a period of treatment in a general hospital or if they could not be managed in an open-door unit of a general hospital. None of the general hospitals had a secure observation unit at the time of the study.

However, there may also be factors inherent in the process of admission or transfer to the mental hospital that result in the assignment of involuntary status. It is beyond the scope of this paper to examine these factors, although there is some evidence to support this possibility. During a 4-month period in 1977 when all the mental hospital admission beds were closed owing to a labour strike, all involuntary admissions occurred in the general hospitals.³¹ However, during this period the rate of involuntary admissions dropped drastically, and no serious incidents were reported from the general hospitals. The pattern of admission of involuntary patients almost exclusively to the mental hospital resumed after the strike was over.

In conclusion, our findings indicate that there are significant differences between voluntary and involuntary psychiatric patients in clinical and nonclinical variables. In a substantial proportion of cases involuntary patients may be assigned this status as a result of factors that are not strictly considered as the legal criteria for compulsory admission, such as suicidal or violent behaviour. The decision to certify a patient may in such cases be based on clinical factors that necessitate transfer to a more secure facility, such as a mental hospital — essentially a *parens patriae* approach. This is consistent with a report by Page³² that despite changes in the Ontario Mental Health Act toward the use of the "dangerousness criteria" most patients continued to be committed on the basis of the physician's perception of clinical psychopathology and need for treatment and the patient's refusal to be hospitalized. The use of clinical criteria for involuntary admission is not necessarily inconsistent with findings reported by McCready and Merskey¹² on physicians' compliance with the requirements of the Ontario Mental Health Act. Physicians may be forced to use criteria that reflect a legal bias in order to comply with legislation, but the basic decision to admit a patient under involuntary status may in many cases be based on clinical findings and a perceived need for treatment.

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References

1. Toews J, Prabhu V, El-Guebaly N: Commitment of the mentally ill: current issues. *Can J Psychiatry* 1980; 25: 611-618
2. Curran WJ, Harding TW: *The Law and Mental Health: Harmonizing Objectives*, WHO, Geneva, 1978: 101-154
3. Soothill KL, Harding TW, Adserhale H et al: Compulsory admissions to mental hospitals in six countries. *Int J Law Psychiatry* 1981; 4: 327-344
4. Government of Manitoba: *Mental Health Act. Revised Statutes of Manitoba*, chap M110, Queen's Printer, Winnipeg, 1974
5. Government of Ontario: *Mental Health Act. Revised Statutes of Ontario*, chap 50, Queen's Printer, Toronto, 1978
6. *Mental Health Act*, HMSO, London, 1959
7. Strong HR: Civil commitment: a review of traditional arrangements in the provision of involuntary hospitalization of the mentally ill. *Can J Psychiatry* 1983; 28: 307-313
8. Page S, Firth J: Civil commitment practices in 1977: troubled semantics and/or troubled psychiatry. *Can J Psychiatry* 1979; 24: 329-335
9. Page S, Yates E: Civil commitment and the danger mandate. *Can Psychiatr Assoc J* 1973; 18: 267-271
10. Idem: A note on semantic and civil commitment. *Can Psychiatr Assoc J* 1974; 19: 413-414
11. Idem: Power, professionals and arguments against civil commitment. *Prof Psychol* 1975; 6: 381-393
12. McCreedy J, Merskey H: Compliance by physicians with the 1978 Ontario Mental Health Act. *Can Med Assoc J* 1981; 124: 719-724
13. Grove W, Fain J: A comparison of voluntary and committed psychiatric patients. *Arch Gen Psychiatry* 1977; 34: 669-676
14. Tomilleri CJ, Lakshminarayan N, Herjanic M: Who are the "committed"? *J Nerv Ment Dis* 1977; 165: 288-293
15. Zwerling I, Karasu T, Plutchick R et al: A comparison of voluntary and involuntary patients in a state hospital. *Am J Orthopsychiatry* 1975; 45: 81-87
16. Sata LS, Goldenberg EE: A study of involuntary patients in Seattle. *Hosp Community Psychiatry* 1977; 28: 834-837
17. Toews J, El-Guebaly N, Leckie A et al: Patients' attitudes at the time of their commitment. *Can J Psychiatry* 1984; 29: 590-595
18. Elliott WA, Timbury GC, Walker MM: Compulsory admission to hospital: an operational review of the Mental Health (Scotland) Act, 1960. *Br J Psychiatry* 1979; 135: 104-114
19. Riley R, Richman A: Involuntary hospitalization in Canadian psychiatric inpatient facilities 1970-1978. *Can J Psychiatry* 1983; 28: 536-541
20. Government of Newfoundland and Labrador: *Mental Health Act*, no 80, Queen's Printer, St. John's, 1971
21. Committee on Nomenclature and Statistics, American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders*, 2nd ed [DSM-II], Am Psychiatr Assoc, Washington, 1968
22. Dixon WJ: *BMDP — 83. Biomedical Computer Programs: P Series*, U of Cal Pr, Berkeley, 1983
23. Ineichen G, Harrison G, Morgan HG: Psychiatric hospital admission in Bristol: I. Geographical and ethnic factors. *Br J Psychiatry* 1984; 145: 600-604
24. Malla A, Norman RMG: Mental hospital and general hospital psychiatric units: a comparison of services within the same geographic area. *Psychol Med* 1983; 13: 431-439
25. Leeman CP: Involuntary admissions to general hospitals: progress or threat? *Hosp Community Psychiatry* 1980; 31: 315-318
26. Leeman CP, Sederer LI, Rogoff J et al: Should general hospitals accept involuntary psychiatric patients? A panel discussion. *Gen Hosp Psychiatry* 1981; 3: 245-253
27. Pinsker H, Raskin M, Winston A: The treatment of involuntary patients in the general hospital psychiatric unit. *Ibid*: 301-305
28. Davis EB: Treating involuntary patients: a challenge to psychiatry. *Hosp Community Psychiatry* 1979; 30: 273-274
29. Lawall JS: Involuntary patients in general hospitals. A positive view. *Bull Am Acad Psychiatry Law* 1982; 10: 183-188
30. Leeman CP, Berger HS: The Massachusetts Psychiatric Society's position paper on involuntary psychiatric admissions to general hospitals. *Hosp Community Psychiatry* 1980; 31: 318-324
31. Norman RMG, Malla A: The effect of a mental hospital strike on general hospital psychiatric services. *Psychol Med* 1984; 14: 913-921
32. Page S: Civil commitment: operational definition of new criteria. *Can J Psychiatry* 1981; 26: 419-420

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