Soc Psychiatry Psychiatr Epidemiol (2003) 38 : 515–519 DOI 10.1007/s00127-003-0664-x

ORIGINAL PAPER

Valentina Cabral Iversen · Gunnar Morken

Acute admissions among immigrants and asylum seekers to a psychiatric hospital in Norway

Accepted: 9 April 2003

Abstract *Objective* The purpose of the present study was to compare admission rates, including admission by coercion, length of hospital stay and diagnosis among immigrants, asylum seekers and Norwegian-born patients. *Material* All admissions (n = 3053) to Østmarka Hospital during the period 1995–2000 were examined. A sample including all immigrants (94) and asylum seekers (39) as well as a control group of 133 Norwegians was analysed. *Results* Immigrants and Norwegians had the same relative risk of admission (1.07). The relative risk of admission was higher for asylum seekers compared to Norwegians (8.84). There were differences in the diagnoses given at discharge in the three groups of patients, both among men ($\chi^2 = 22.33$, df = 6, $p < 0.001$) and women ($\chi^2 = 15.31$, df = 6, $p < 0.001$). Schizophrenia was frequent among female immigrants. The number of admissions by coercion was highest among immigrants, and lowest among asylum seekers ($\chi^2 = 12.03$, df = 2, $p < 0.005$). *Conclusion* Compared to Norwegians and immigrants, asylum seekers had high admission rates and low frequency of admissions by coercion. Schizophrenia was frequent among female immigrants admitted to hospital.

Key words immigrants – asylum seekers – schizophrenia – transcultural psychiatry

Introduction

Migration may affect the mental health of immigrants. Studies from various parts of the world describe an increased frequency of psychiatric morbidity among immigrants [1–3].

Asylum seekers make up a special group of immigrants as they feel forced to emigrate for different reasons, running away from war, organised violence, political persecution or the effects of poverty [4]. Their legal status in their new country is insecure.

Most studies on mental health problems among migrants have taken place during the last three decades. However, one early epoch-making study should be mentioned.

In 1932, Ørnulv Ødegaard [2] published the results of a study of psychiatric disorders amongst the Norwegian population of Minnesota. He examined and compared the different admission rates of Norwegian-born immigrants to Minnesota psychiatric hospitals with the rates of admission of both native-born patients in Minnesota mental hospitals and Norwegian-born patients in Norwegian mental hospitals. He found that the rate of psychiatric illness among the Norwegian-born patients in Minnesota was higher than in Norway. Eitinger and Schwarz briefly summed up the results of this pioneering work and said that the Norwegian immigrants in Minnesota had, in both comparisons, higher admission rates than the two controls. Ødegaard thus showed that the higher admission rate of Norwegian immigrants in Minnesota could not be related to the "Norwegian race", but must be in some way connected to the problem of migration [3].

Mavreas and Bebbington [5] note that one reason why immigrants may break down is the immediate stress of relocation to a foreign culture. They argue that the stress comes from a variety of sources: the loss of friends, relatives and familiar surroundings as well as former status, the need to deal with strangers and a foreign language, the experience of prejudice and prospective hardships. In 1970, Fitzpatrick and Gould found that the higher incidence of schizophrenia among Puerto Ricans in New York is likely due to intercultural misunderstanding and to flaws in the provision of mental health services [6].

V. C. Iversen (✉) · G. Morken
Østmarka Hospital
Dept. of Neuroscience
Faculty of Medicine, NTNU
Box 3008, Lade
7441 Trondheim, Norway
Tel.: +47-73/864-500
Fax: +47-73/864-902
E-Mail: valentina.iversen@medisin.ntnu.no

The main purpose of this study was to compare admission rates, including admission by coercion, length of hospital stay and diagnosis among immigrants, asylum seekers and Norwegian-born patients.

Subjects and methods

Description of the department

All admittances to a Norwegian psychiatric hospital in the years 1995–2000 were included in the study. The catchment area consists of a population of 140000 persons, with half residing in the city of Trondheim and the remainder in its rural surroundings. Acute admissions to other psychiatric hospitals occur only when inhabitants reside temporarily outside the catchment area at the time of admission.

The number of admissions in the studied period was approximately 500 per year. On admission, a psychiatrist or psychologist and two members of the nursing staff are designated as the patient's primary therapists and continue to treat the patient throughout his/her stay. The therapists examine the patient and make a plan for subsequent treatment together with the chief psychiatrist of the ward.

Definitions

Inhabitants at risk:

The official standard for immigrant classification in Norway (Statistics Norway 1994) defines first-generation immigrants as those who are born abroad and whose parents (both) are also born abroad [7]. Both the number of inhabitants with an immigrant background and the total number of inhabitants in the catchment area of the hospital were based on figures from Statistics Norway.

Approximately 238500 first-generation immigrants lived in Norway as of January 1, 2000. This represents 6.3 % of the total population of Norway. The mean number of first-generation immigrants in the catchment area of the hospital from 1995 to 2000 was 4072. There was, however, a high frequency of mobility in and out of the area.

The numbers of asylum seekers in the catchment area were gathered from the Directorate of Immigration, Central Norway Region, and from the asylum seekers reception centres in the catchment area. All asylum seekers in Norway live in asylum seekers reception centres until they either get permission to stay in Norway or are expelled from the country.

The mean number of asylum seekers in the catchment area of the hospital from 1995 to 2000 was 205 per year, and the mean length of time of their residence there was 455 days. The number of Norwegians in the catchment area was stable between the years 1995 and 2000 and included 135723 inhabitants as of January 1, 2000.

In the present study, patients admitted from an asylum seeker reception centre were defined as asylum seeker patients. Those patients who had non-Scandinavian names and were born outside of Norway were defined as immigrants (first generation) if they were not included in the group of asylum seekers. The group defined as Norwegians included all the other patients admitted to the hospital. Due to the close cultural and linguistic relationship between the inhabitants of the Scandinavian countries, patients from all Scandinavian countries were included in the Norwegian group.

The admissions were divided in three groups according to the Norwegian Law of Psychiatry (NLP): coercion (paragraph 5 in NLP), observation by coercion (paragraph 3 in NLP) and voluntary admission (paragraph 4 in NLP).

Collection of data

The sample studied included all patients admitted to the hospital from 1995 to 2000. The data were collected from the patient records and the hospital protocols. An experienced psychiatric nurse from the emergency department, together with the authors, examined the protocols. The number of admissions and the length of hospital stays among immigrants, asylum seekers and Norwegians were compared. Analyses were based on the number of inhabitants in the respective groups in the hospital's catchment area. All admissions in the years 1995–2000 were included in the study.

For illustration of diagnoses among Norwegian patients, a case-control group was selected by choosing the first Norwegian patient whose admission immediately followed an asylum seeker or an immigrant.

Some patients were readmitted. We have no data about a possible earlier admission to other hospitals. This means that when we refer to patients that are readmitted, we refer to patients that were readmitted to our hospital.

For comparison of diagnoses among the different groups, only the diagnoses from each patient's first admission were included. Diagnoses were set in a consensus meeting headed by one of the chief psychiatrists of the department and attended by all therapists in the hospital, including the patient's therapist(s).

Diagnoses were defined as the patient's clinical diagnosis at the time of discharge and were made according to ICD-9 and ICD-10 criteria (International Classification of mental and behavioural disorders). In order for all diagnoses to conform to ICD-10 criteria, those diagnoses that were based on ICD-9 were transposed to ICD-10 diagnoses by the authors.

Statistics

The significance level of the comparisons was $\alpha < 0.05$. ANOVA was used to compare age in the three groups and the Kruskal-Wallis test was used to compare length of stay at the hospital in the three groups. Chi-square test was used to compare nominal variables.

Results

Table 1 shows the countries of origin.

Hospital admissions in the years 1995–2000 were made up of 94 immigrants (38 women and 56 men), 39 asylum seekers (10 women and 29 men), and 2920 Norwegians (1698 women and 1222 men). The difference in sex distribution between the three groups was significant ($\chi^2 = 28.28$, df = 2, $p < 0.0001$).

The mean age was 34.5 years for immigrants, 30.8 years for asylum seekers, and 41.4 years for Norwegians.

Table 1 Countries of origin of immigrants and asylum seekers admitted to a psychiatric hospital (Countries of origin with more than six admittances are given)

	Immigrants	Asylum seekers
Russia	1	6
Former Yugoslavia	12	9
Rest of Europe	19	1
Sri-Lanka	7	
Iran	21	10
Rest of Asia	6	8
Ethiopia	9	1
Rest of Africa	10	4
Latin-America	6	
North-America	2	
Australia	1	
Total	**94**	**39**

The Norwegian patients were significantly older than the patients in the other two groups ($F = 16.09$, $df = 2$, $p < 0.0001$). Among the 133 Norwegians in the case-control group, there were 82 women and 51 men, the mean age was 38.3.

There were more repeated admissions among Norwegians (1438 of 2920) than among asylum seekers (4 of 39) or immigrants (23 of 94) ($\chi^2 = 44.83$, $df = 2$, $p < 0.0001$).

No significant differences in length of stay between immigrants (median 10 days, mean 40.9 days), asylum seekers (median 6 days, mean 10.3 days) and Norwegians (median 7 days, mean 29.7 days) were found.

The number of admissions per 100 000 inhabitants in each group per year was 384.7 among the immigrants, 3170.7 among the asylum seekers and 358.6 among Norwegians. The number of first-time admissions per 100 000 inhabitants per year was 290.6 among immigrants, 2845.5 among asylum seekers and 182.1 among Norwegians.

In Table 2, a pair-wise relative risk of admissions and of the number of first-time admissions is given.

There were differences in the diagnoses given at discharge to the three groups of patients among both men ($\chi^2 = 22.33$, $df = 6$, $p < 0.001$) and women ($\chi^2 = 15.31$, $df = 6$, $p < 0.005$).

Table 3 indicates the frequency of the diagnoses among the three groups studied. It appears that the diagnosis schizophrenia was more prevalent among females in the immigrant group than in the other groups.

Table 2 The Relative Risk and 95 % Confidence Interval for the total number of admittances and for the first-time admittances in the years 1995–2000

	Relative Risk	Confidence Interval
Admittances		
Immigrants/Norwegians	1.07	0.88–1.31
Asylum seekers/Norwegians	8.84	6.65–11.75
Asylum seekers/immigrants	8.24	5.83–11.65
First-time admittances		
Immigrants/Norwegians	1.60	1.26–2.02
Asylum seekers/Norwegians	15.63	11.51–21.22
Asylum seekers/immigrants	9.79	6.70–14.30

In all, 20 of 94 admissions of immigrants, 9 of 39 admissions of asylum seekers and 34 of 133 admissions of the Norwegian case-control group resulted in more than one diagnosis at discharge from the hospital. There were no significant differences between the groups in number of diagnoses per patient ($\chi^2 = 0.57$, $df = 2$, ns).

Table 4 shows the frequency of certain categories of patient admissions as defined by Norwegian Law. There were significant differences with respect to these categories among the three patient groups ($\chi^2 = 13.83$, $df = 4$, $p < 0.001$). The frequency of admission by coercion was higher among immigrants and lower among asylum

Table 3 ICD-10 diagnoses at discharge for first admissions, p-value and chi-square value for the largest diagnostic groups among immigrants, asylum seekers and Norwegian controls

	Immigrants	Asylum seekers	Norwegians	Total	p	χ^2
Male						
Schizophrenia	18	5	14	37	ns	2.42
Affective	7	0	11	19	0.034	6.79
Reaction to severe stress and adjustment disorders	4	9	2	15	0.005	15.35
Other	14	11	20	43	ns	1.26
Total	**43**	**25**	**47**	**115**		
Female						
Schizophrenia	13	0	19	32	0.016	8.32
Affective	3	1	20	24	ns	4.49
Reaction to severe stress and adjustment disorders	4	4	8	16	ns	5.78
Other	8	5	24	37	ns	1.51
Total	**28**	**10**	**71**	**109**		

Table 4 Numbers admitted by coercion, observation by coercion and voluntarily for immigrants, asylum seekers and Norwegians

	Immigrants	Asylum seekers	Norwegians	Total	p	χ^2
Observation by coercion (Paragraph 3)	18	5	395	418	ns	2.46
Coercion (Paragraph 5)	22	1	443	466	0.008	9.70
Voluntary (Paragraph 4)	54	33	2082	2169	0.002	12.03
Total	**94**	**39**	**2920**	**3053**		

seekers, compared to Norwegians. A comparison of the combined frequency of admissions by coercion and observation by coercion with the frequency of voluntary admissions showed significant differences among the three groups ($\chi^2 = 12.03$, df = 2, $p < 0.005$) and indicated a high frequency of coercion among immigrants, a low frequency among asylum seekers and a medium frequency among Norwegians.

Discussion

Differences in gender and age distribution among patients who were immigrants, asylum seekers and Norwegians were found. The immigrants were younger than the Norwegians, and older than the asylum seekers. The patient groups of immigrants and asylum seekers had a majority of men, while, among the Norwegian patients, there was a majority of women.

The number of male and female immigrants in the catchment area is equal. Among asylum seekers the number of men surpasses the number of women. In both groups, the admission rates are higher for men than for women. The difference may reflect that women underutilise mental health services. These differences should be examined thoroughly in another study.

While half of the Norwegian patients were readmitted to the hospital, only three-eighths of the immigrants and one-tenth of the asylum seekers were readmitted. This difference in the rates of readmission may be explained by the fact that Norwegians maintain a fixed residence in the hospital catchment area, and are likely to be readmitted to the same hospital. Immigrants, however, tend to move more frequently, some even returning to their homeland for treatment [8]. Many asylum seekers are expelled from the country before a possible readmission can occur.

The relative risk for admission was higher among asylum seekers than for Norwegians or immigrants. This could be explained by the fact that many asylum seekers had a personal experience of violence or torture before arriving, which may increase risk of psychiatric illness [9]. Many of the asylum seekers have legal problems connected to their stay in Norway. There were no differences in the relative risk for admission between Norwegians and immigrants.

The diagnosis of schizophrenia was significantly over-represented among female immigrants. Almost half of the female immigrants received the diagnosis of schizophrenia while none of the female asylum seekers received this diagnosis. The increased frequency of schizophrenia among immigrants is described for both sexes in other studies [9–11]. In his study of mental health of Norwegians in Minnesota, Ødegaard (1932) suggested that the high incidence of schizophrenia among Norwegian-born immigrants to Minnesota is probably not a consequence of factors at work after the arrival of the immigrants in America. Hence, the explanation must be that Norwegians with a schizoid character (Kretschmer) are more likely to emigrate than the rest [2]. In contrast to Ødegaard's results, a recent report from the Netherlands showed that Surinamese patients with schizophrenia or unspecified psychosis did not emigrate more frequently to the Netherlands than the general Surinamese population [12, 13]. Cochrane and Singh Bal (1987) claimed in their study that "classical schizophrenia is held to be an endogenous and insidious disorder which is unlikely to be provoked by stress in those who are not already vulnerable" [8]. Thus, it is likely that a combination of different factors increases the frequency of the diagnosis of schizophrenia among immigrants: stressful post-migration, schizophrenia predisposes people to migrate [14–16]. In addition, there may be misdiagnoses of schizophrenia that are possible in some ethnic groups in a new country [8].

Male asylum seekers (9 out of 25) received the diagnoses reaction to severe stress and adjustment disorders more often than male immigrants (4 out of 43) and Norwegians (2 out of 47). This may be due to the traumatic experiences the patients had had in their countries of origin, as well as in the troubles they might have had while trying to adapt to the new situation in exile [17, 18].

The number of admissions by coercion was higher among immigrants than among asylum seekers and Norwegians. Moodley and Perkins indicated in their study that "it was ethnic status rather than diagnostic category that accounted for the higher rates of compulsory detention of Afro-Caribbean people" [19, 20]. In our study, we did not discriminate between the various cultural backgrounds of the patients. Such discrimination might reveal some of the causes for the variations in psychiatric morbidity between immigrants and the native inhabitants in a country.

The group of immigrants and of asylum seekers constitutes a complex group of people with a great variety of cultural backgrounds. Due to the close cultural and linguistic relationship between the inhabitants of the Scandinavian countries, patients from all Scandinavian countries were included in the Norwegian group.

The high frequency of admissions, the low frequency of schizophrenia and the low frequency of coercion in the admissions among the asylum seekers may indicate that the causes for admissions in the group of asylum seekers are different from the causes that led to the admissions of immigrants and Norwegians.

Murphy argues that "it is fully time that we ceased to regard migration as a unitary concept in social psychiatry, and started examining the elements that compromise it" [21], for example, the relative size of the immigrants' own minority group, whether the migration has been forced or free, whether the society or culture of origin predisposes for specific mental illnesses, etc. All these factors should be carefully examined since the patterns of illnesses differ within the different migrant groups. Further studies should be carried out in order to investigate what migration really means to patients from different migrant groups, in order to trace the aetiology of the diseases from which they suffer.

References

1. Dean G, Walsh D, Downing H, Shelly E (1981) First admissions of native-born immigrants to psychiatric hospitals in South-East England 1976. Br J Psychiatry 139:506–512
2. Ødegaard, Ø (1932) Emigration and insanity. A study of mental disease among the Norwegian-born population of Minnesota. Acta Psychiatr et Neurol Scand (Suppl IV):101–151
3. Eitinger L, Schwarz D (1981) Ed. Strangers in the world. Hans Huber Publishers, Bern, Stuttgart, Vienna, pp. 16–26
4. Burnett A, Peel M (2001) Asylum seekers and refugees in Britain: health needs of asylum seekers and refugees. BJM 322:544–547
5. Mavreas V, Bebbington P (1989) Does the act of migration provoke psychiatric breakdown? A study of Greek Cypriot immigrants. Acta Psychiatr Scand 80:469–473
6. Fitzpatrick JP, Gould RE (1970) Mental illness among Puerto Ricans in New York: cultural condition or intercultural misunderstanding? Am J Orthopsychiatry 40:238–239
7. Bjertnæs MK (2000) Immigration and immigrants 2000. Statistics Norway, pp. 10–11
8. Cochrane R, Bal SS (1987) Migration and schizophrenia: an examination of five hypotheses. Soc Psychiatry Psychiatr Epidemiol 22:181–191
9. Cochrane R, Bal SS (1989) Mental hospital admission rates of immigrants to England: a comparison of 1971 and 1981. Soc Psychiatry and Psychiatr Epidemiol 24:2–11
10. Selten JP, Sijben N (1994) First admission rates for schizophrenia in immigrants to the Netherlands. Soc Psychiatry and Psychiatr Epidemiol 29:71–77
11. Selten JP, Veen ND, Feller WG, Blom JD, Hoek HW, Kahn RS (2001) Incidence of schizophrenia in natives and immigrant groups in The Hague. Nederlands Tijdschrift voor Geneeskunde 145:1647–1651
12. Bogers JPAM, de Jong JTVM, Komproe IH (2000) Schizophrenia among Surinamese in the Netherlands: high admission rates not explained by high emigration rates. Psychological Medicine 30:1425–1431
13. Selten J-P, Cantor-Graae E, Slaets J, Kahn RS (2002) Ødegaard's selection hypothesis revisited: schizophrenia in Surinamese immigrants to the Netherlands. Am J Psychiatry 159:669–671
14. Rosmond R, Nilsson A, Bjorntorp P (2000) Psychiatric ill health and distribution of body fat mass among female immigrants in Sweden. Public Health 114:45–51
15. Marcos LR, Alpert M, Urcuyo L, Kesselman M (1973) The effect of interview language on the evaluation of psychopathology in Spanish-American schizophrenic patients. Am J Psychiatry 130:549–553
16. Eytan A, Bischhoff A, Rustemi I, Durieux S, Loutan L, Gilbert M, Bovier PA (2002) Screening of mental disorders in asylum-seekers from Kosovo. Australian and New Zealand Journal of Psychiatry 36:499–503
17. Liebkind K, Jasinskajalahti I (2000) The influence of experiences of discrimination on psychological stress. A comparison of seven immigrant groups. J Community & Applied Soc Psychology 10:1–16
18. Apitzsch H, Ramosruggiero L (1994) Evaluation of psychological trauma – a clinical-psychological investigation of 45 asylum seekers to Sweden. Nordisk Psykologi 46:108–123
19. Perkins RE, Moodley P (1993) Perception of problems in psychiatric inpatients: denial, race and service usage. Soc Psychiatry and Psychiatr Epidemiol 28:189–193
20. Moodley P, Perkins RE (1991) Routes to psychiatric inpatient care in an inner London borough. Soc Psychiatry and Psychiatr Epidemiol 26:47–51
21. Murphy HBM (1977) Migration, culture and mental health. Psychol Med 7:677–684