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Purchases of psychotropic drugs among the migrant population in Finland: a nationwide register-based cohort study

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Background: Migrant populations may have different mental health service needs when compared with native populations. One indicator of service use is the use of psychotropic medication. The aim of this study was to compare the purchases of psychotropic drugs among different migrant populations with the native population in Finland. **Methods:** Foreign-born participants ($n = 184\ 805$) and their Finnish-born controls ($n = 185\ 183$) were identified from the Finnish Central Population Register. Information on their purchases of psychotropic drugs in 2011–15 was collected from the National Prescription Register. A washout period of 2009–10 was used to define incident purchases. Cox regression analysis was the statistical method used. **Results:** At least one incident purchase of a psychotropic drug was identified for 11.1% of migrant women, 11.4% of Finnish-born women, 8.7% of migrant men and 9.8% of Finnish-born men. When controlled for age, sex, marital status, socioeconomic status and social assistance, migrants were less likely to purchase psychotropic drugs (adjusted hazard ratio 0.96, 95% confidence interval 0.93–0.98), but there was variation between different drug categories. Recent migrants and migrants from Asia and Sub-Saharan Africa were least likely to purchase drugs. Migrants from Nordic countries and other Western countries most closely resembled the Finnish-born controls. **Conclusions:** Recent migrants in Finland appear to use fewer psychotropic drugs than native Finns. It is important to analyze the reasons for this pattern, as they may indicate delays in access to care or benefits. The heterogeneity of migrant populations must also be considered when developing services to better address their needs.

Introduction

In order to develop equal access and treatment in mental health services, it is necessary to have knowledge of the current service use patterns in different population groups. Many studies have shown an increased incidence of mood disorders[1] and psychotic disorders[2] among migrants in general and increased prevalence of post-traumatic stress disorder among refugees in particular.[3,4] There are, however, reports of a lower incidence of several disorders and great heterogeneity among migrants.[5,6] Migrants appear to have lower utilization of mental health services, although there are differences in terms of the migrants' background, type of services and insurance systems.[7–9] In Finland, lower proportion of migrants than native Finns use psychiatric services[5] and the use of psychiatric services is less intensive among migrants.[10]

Information on the use of psychotropic medication complements what we know about service user visits to different services and about the use of other types of treatments. This is particularly important in relation to migrants who may have more problems accessing services and be subject to more perceived stigma than the native population. Previous studies on the use of psychotropic medication among migrants have shown mixed results. A large study in the Netherlands showed that the use of psychotropic drugs was generally more common among people of Moroccan or Turkish origin than among native Dutch, but less common among Surinamese and Antillean populations.[11] In Sweden, lower rates of medication use were found among recently settled refugees when compared with native Swedes.[12] A study conducted in Spain and Norway showed mostly lower use of anxiolytics and antidepressants among migrants in both countries.[13] Higher use of psychotropic medication among refugee women when compared with non-refugee women has been reported in Norway[14] and in Sweden.[15]

Many previous studies have been limited to migrants from selected countries of origin[11,13–15] or to refugees,[12] or they have not separated first- and second-generation migrants.[11] Furthermore, by analyzing all or most psychotropic drugs together[13,15] and not including possible confounders such as socioeconomic status (SES),[12,13] the comparison becomes complicated.

Knowledge on the use of psychotropic medication among migrants in Finland is limited. A survey focusing on three different ethnic groups found that the use of psychotropic drugs was similar among migrants of Kurdish and Russian origin when compared with the general population, but lower among Somali women.[16] A register study based on a sample of the working-age population in Finland showed a lower rate of antipsychotic drug purchases among migrants than in the native population.[17] A register study conducted in the city of Helsinki showed that the association between social assistance and purchases of psychotropic drugs was similar among migrants and native residents.[18]

The aim of this study was to examine the purchases of different psychotropic drugs among migrant population when compared with the native population in Finland. A second aim was to compare the purchases in different migrant groups according to their regions of origin and the time they had lived in Finland.

Methods

The study protocol of this register-based cohort study was approved by the Ethics Committee of the Finnish Institute for Health and Welfare (THL) in Finland (589/2013 and 798/2018), and the data-keeping organizations authorized the use of their confidential register data.

Participants

People who were born abroad and whose mother tongue is not Finnish were identified from the Finnish Central Population Register (FCPR), a national register that contains information about Finnish citizens and permanent residents in Finland. It includes information on the country of birth, mother tongue, dates of immigration to and emigration from Finland. The reason for migration is not registered. The participants had to be at least 15 years old, alive and resident in Finland on 31 December 2010. One Finnish-born control matched by age, sex and place of residence was identified from the FCPR for each case.

The number of both migrants and their Finnish-born controls was originally 185 605. The sample was followed until 31 December 2015, date of death or emigration from Finland. A total of 799 migrants and 421 native Finnish participants were excluded because their last immigration date to Finland was recorded after the start of the study, but their emigration date was unknown and, therefore, their follow-up time could not be defined. One migrant and one native Finnish participant were excluded because the date of their death was illogical. Finally, 184 805 migrants and 185 183 Finnish-born controls were included.

Classification of migrants

The migrant participants were classified by their region of origin and the time they had lived in Finland. Those whose country of origin was unknown and could not be classified based on their language and those who came from regions with very few participants were not included in the regional analyses. The regional categories were (i) Finland, (ii) other Nordic countries, (iii) Russia and the former Soviet Union, (iv) other Western countries [members of the European Union/European Economic Area (EU/EEA), Switzerland, USA, Canada, Australia and New Zealand)], (v) Eastern Europe (former Eastern European countries not members of the EU), (vi) North Africa and the Middle East, (vii) Sub-Saharan Africa and (viii) Asia.

The classification by the time lived in Finland before the study start included the following categories: (i) Finnish, (ii) migrant, moved to Finland less than 5 years ago, (iii) migrant, moved to Finland 5–15 years ago and (iv) migrant, moved to Finland more than 15 years ago. This information was missing for 17 162 migrants (9.3%).

Information on medication

Information on the purchases of psychotropic medication was collected from the National Prescription Register, which is maintained by the Social Insurance Institution of Finland (Kela).[19,20] All permanent residents in Finland are covered by the National Health Insurance and all purchases of prescription drugs are recorded. The register covers information on the patient, prescriber and the prescribed drug, including the date of purchase. The use of drugs administered during hospital stays is not included.

In this study, we used data on the date of purchase and the anatomic therapeutic chemical class of each drug. Anatomic therapeutic chemical classes, N05A (antipsychotic drugs), N05B (anxiolytics), N05C (hypnotics and sedative drugs) and N06A (antidepressants) were studied separately. When analyzing the use of any psychotropic drug, classes N03 (antiepileptics), N06B (psychostimulants), N06C (combinations of psychotropic drugs) and N07B (drugs used in addictive disorders) were also included. The register had no information on the indication for the drug use. Many drugs have several indications, but each drug is included in only one category.

Data on drug purchases were collected for the whole follow-up time, 2011–15 and for the washout period, 2009–10. Washout period was used when studying incident purchases. A drug purchase was defined as incident if the person bought a psychotropic drug in 2011–15 but had not purchased a drug from the same category in 2009–10. All of the main analyses were also conducted without this restriction; i.e. all purchases were included. Focusing on incident purchases allowed us to compare more homogeneous groups of service users. In addition, comparing incident and prevalent purchases may reveal differences in the duration of treatment.

Information on service use

The Finnish Hospital Discharge Register was used to identify participants who had used specialized psychiatric services. Finnish Hospital Discharge Register is a nationwide register maintained by THL. It covers the days of admission and discharge in all inpatient care units and visits in all public outpatient care units in Finland. Both inpatient and outpatient care was included.

Covariates

Data on sex, age and marital status at the beginning of the study were retrieved from the FCPR. Information on SES was provided by Statistics Finland. Information on receiving social assistance, which is financial support for those whose income is insufficient to cover their daily essential expenses, was collected from the Register of Social Assistance maintained by THL.

For descriptive statistics, age at the beginning of the study was categorized in four categories: 15–29, 30–44, 45–59 and 60 years or more. Age was used in the adjusted analyses as a continuous variable. There were three categories for marital status: unmarried, married or in a registered partnership and other. The SES variable was primarily based on occupation in 2010.[21] A five-categorical variable was used: entrepreneurs, upper white-collar workers, lower white-collar workers, blue-collar workers and others (people not in employment). Information on receiving social assistance in 2009–11 was categorized into two categories: the participant or his/her spouse received assistance for at least 1 month and did not receive assistance during this period.

Statistical analysis

The Cox proportional hazards model was used to assess the association between migrant status and purchases of psychotropic drugs. The follow-up started on 1 January 2011 and ended on the first purchase of a drug, date of death, emigration from Finland or 31 December 2015, whichever came first. The strength of the associations was quantified using hazard ratios (HR) with 95% confidence intervals (CI). Two adjusted models were conducted. The covariates included in the first model were sex, age, and marital status. SES and social assistance were added in the second one. Finnish-born controls were used as the reference group in all analyses. A P values below 0.05 was considered statistically significant. The statistical analyses were conducted using SPSS version 25.

Table 1 Description of the study sample and the proportion of participants with incident purchases of psychotropic medication in 2011–15

	Total sample, *n* (%)		Purchases of any drug (%)		Purchases of antipsychotics (%)		Purchases of antidepressants (%)		Purchases of anxiolytics (%)		Purchases of sedatives (%)	
	Migrants	Finnish	Migrants	Finnish	Migrants	Finnish	Migrants	Finnish	Migrants	Finnish	Migrants	Finnish
Sex												
Female	90,618 (49.0)	90,696 (49.0)	11.1	11.4	2.4	3.2	7.8	8.6	3.2	4.1	4.6	5.5
Male	94 187 (51.0)	94 487 (51.0)	8.7	9.8	2.1	3.1	5.6	6.6	1.8	2.9	3.3	4.3
Age												
15–29	56 885 (31.1)	56 993 (31.1)	8.6	11.1	2.1	3.5	6.1	8.5	1.8	3.4	2.5	4.1
30–44	72 293 (39.6)	72 461 (39.6)	9.9	10.6	2.1	3.0	6.7	7.4	2.3	3.6	3.9	5.3
45–59	41 665 (22.8)	41 751 (22.8)	11.3	10.1	2.5	2.9	7.6	7.0	3.1	3.5	5.3	5.3
60 or over	11 785 (6.5)	11 800 (6.4)	9.9	9.1	2.1	2.6	5.8	5.9	3.2	3.1	5.3	4.9
Marital status												
Married/ registered partnership	95 056 (51.4)	77 580 (41.9)	10.1	9.8	1.8	2.1	6.5	6.4	2.4	2.9	3.8	4.6
Unmarried	34 657 (18.8)	84 340 (45.5)	8.7	10.9	2.5	3.8	6.4	8.1	2.1	3.7	3.0	4.6
Other (divorced, widowed)	55 092 (29.8)	23 263 (12.6)	10.3	12.1	2.7	4.7	7.1	9.4	2.8	4.9	4.8	7.0
SES												
Entrepreneurs	11 417 (7.0)	10 212 (5.7)	9.5	9.9	1.9	2.6	6.0	6.8	2.3	2.9	3.7	4.1
Upper white collar workers	18 855 (11.6)	35 451 (19.8)	8.9	9.8	1.5	2.0	6.0	6.5	2.5	3.1	4.3	5.3
Lower white collar workers	25 024 (15.4)	53 529 (29.9)	10.8	11.0	1.9	2.4	7.3	7.7	3.0	3.4	4.5	5.3
Blue collar workers	46 834 (28.9)	35 120 (19.6)	10.4	11.4	1.7	2.7	6.5	7.5	2.2	3.0	4.0	4.5
Others (students, unemployed)	60 029 (37.0)	44 469 (24.9)	10.7	10.3	3.2	5.2	7.7	8.5	2.8	4.4	4.1	4.7
Social assistance												
Yes	49 170 (26.6)	19 738 (19.7)	12.0	12.4	3.8	8.7	8.8	11.1	3.0	6.4	4.7	6.8
No	135 635 (73.4)	165 445 (89.3)	9.1	10.4	1.7	2.5	5.9	7.2	2.2	3.2	3.6	4.7

Results

The proportion of persons with at least one purchase of a psychotropic drug in 2011–15 and without purchases in 2009–10 is shown in table 1. Altogether, 11.1% of migrant women, 11.4% of Finnish-born women, 8.7% of migrant men, and 9.8% of Finnish-born men had an incident purchase. The distribution of purchases by age, marital status, SES, and social assistance status for both migrants and Finnish-born controls and for each category of psychotropic drugs is also shown in table 1.

The results of the Cox regression analyses for the whole migrant population and by the region of origin are shown in table 2. When all incident purchases of psychotropic drugs and all migrants were pooled together, the difference between migrants and the Finnish-born population was small. The adjusted hazard ratio (aHR) was 0.96 (95% CI 0.93–0.98). Migrants from Eastern Europe were the only group that showed a higher rate of psychotropic drug purchases than the Finnish-born controls. Migrants from Nordic countries and other Western countries did not differ significantly from the Finnish-born population. The rest of the regional groups were less likely to purchase psychotropic drugs. The hazards ratios were particularly low for migrants from Asia and Sub-Saharan Africa.

The analyses conducted for separate categories of psychotropic drugs showed that antipsychotic drugs were significantly less likely to be purchased by all migrants except for those from North Africa or the Middle East in unadjusted analyses and when adjusted for age, sex and marital status (table 2). When SES and social assistance status were added to the adjusted model, the likelihood was lower for all migrants, including those from North Africa or the Middle East.

There was large variation in the use of antidepressant drugs. The pooled aHR for all migrants was 0.87 (95% CI 0.85–0.90). However, migrants from Nordic countries (aHR 1.12, 95% CI 1.03–1.21) and North Africa or the Middle East (aHR 1.21, 95% CI 1.15–1.28) were more likely to purchase antidepressants than the Finnish-born controls. Migrants from Russia and the former Soviet Union, Western countries, Sub-Saharan Africa and Asia were less likely to purchase than the Finnish-born controls and the association was non-significant for migrants from Eastern Europe.

Migrants from all regions were significantly less likely to purchase anxiolytic drugs than the Finnish-born controls. Purchases of sedatives and hypnotics were also significantly less likely to happen in all other migrant groups except among those from Nordic countries for whom the difference was non-significant.

Table 3 presents the results categorized by the length of stay in Finland. When all drugs were pooled together, only migrants who had lived in Finland for less than 5 years had fewer purchases than the Finnish-born controls (aHR 0.91, 95% CI 0.88–0.94). Those who had lived in Finland for 5–15 or for more than 15 years did not differ significantly from the Finnish-born controls. A similar trend was shown for separate drug categories, with the most recent migrants least likely to purchase drugs. However, migrants with longer stays were also less likely to have made drug purchases than native Finns in all separate categories except for sedatives.

All the aforementioned analyses were also conducted using information on all purchases of psychotropic drugs without limitation to incident purchases (Supplementary tables 1–3). The negative associations between migrant status and purchases of psychotropic drugs were even stronger when all purchases were included. All associations were statistically significant.

The proportion of people who used specialist psychiatric services in the public sector and purchased psychotropic drugs during the same period is reported in table 4. The proportion of those who had both purchased drugs and used specialist psychiatric services was 16.2% in the migrant population and 15.6% among the Finnish-born controls. The use of services was more common among migrants who had purchased antipsychotics or antidepressants in comparison with the native Finnish population, but less common among migrants who had purchased anxiolytics, sedatives or hypnotics.

Discussion

This study showed a lower rate of psychotropic drug purchases among migrants than among the native Finnish population. Recent migrants and migrants from Asia and Sub-Saharan Africa were least likely to purchase drugs. Migrants from Nordic countries

Table 2 Association between regions of origin and incident purchases of psychotropic drugs, results of the Cox regression analysis

	n	HR (95% CI), any drug	aHR[a] (95% CI), any drug	aHR[b] (95% CI), any drug	HR (95% CI), antipsychotics	aHR[a] (95% CI), antipsychotic	aHR[b] (95% CI), antipsychotic	HR (95% CI), antidepressants	aHR[a] (95% CI), antidepressants	aHR[b] (95% CI), antidepressants	HR (95% CI), anxiolytics	aHR[a] (95% CI), anxiolytics	aHR[b] (95% CI), anxiolytics	HR (95% CI), sedatives	aHR[a] (95% CI), sedatives	aHR[b] (95% CI), sedatives
Finland (ref)	185 183															
Any foreign country	184 805	0.96 (0.94–0.97)	0.95 (0.93–0.97)	0.96 (0.93–0.98)	0.72 (0.69–0.75)	0.76 (0.73–0.79)	0.62 (0.59–0.65)	0.90 (0.88–0.92)	0.90 (0.88–0.92)	0.87 (0.85–0.90)	0.71 (0.69–0.74)	0.73 (0.70–0.76)	0.70 (0.67–0.73)	0.82 (0.79–0.84)	0.79 (0.77–0.82)	0.81 (0.78–0.84)
Nordic countries	8393	1.01 (0.94–1.08)	1.01 (0.94–1.08)	1.04 (0.96–1.11)	0.81 (0.71–0.93)	0.82 (0.71–0.94)	0.86 (0.74–0.996)	1.08 (0.995–1.17)	1.10 (1.02–1.19)	1.12 (1.03–1.21)	0.77 (0.67–0.88)	0.76 (0.66–0.87)	0.76 (0.66–0.88)	0.98 (0.88–1.08)	0.93 (0.84–1.03)	0.96 (0.86–1.06)
Russia and Soviet Union	47 335	1.01 (0.98–1.05)	0.97 (0.94–1.002)	0.97 (0.93–0.998)	0.75 (0.70–0.80)	0.77 (0.72–0.82)	0.60 (0.56–0.64)	0.91 (0.87–0.94)	0.87 (0.84–0.90)	0.83 (0.79–0.86)	0.97 (0.91–1.02)	0.90 (0.85–0.95)	0.84 (0.79–0.89)	0.96 (0.92–1.01)	0.86 (0.82–0.90)	0.86 (0.82–0.90)
Western countries	49 704	0.95 (0.92–0.98)	0.94 (0.91–0.97)	1.00 (0.94–1.08)	0.68 (0.64–0.72)	0.68 (0.63–0.73)	0.68 (0.63–0.73)	0.89 (0.86–0.93)	0.89 (0.85–0.92)	0.94 (0.90–0.98)	0.78 (0.73–0.83)	0.78 (0.73–0.83)	0.82 (0.77–0.88)	0.83 (0.79–0.87)	0.79 (0.75–0.83)	0.85 (0.81–0.90)
Eastern Europe	8623	1.04 (0.97–1.11)	1.06 (0.99–1.13)	1.24 (1.19–1.30)	0.85 (0.75–0.97)	1.00 (0.88–1.14)	0.67 (0.58–0.77)	1.03 (0.95–1.11)	1.07 (0.99–1.16)	0.95 (0.88–1.03)	0.85 (0.75–0.96)	0.92 (0.81–1.04)	0.80 (0.70–0.91)	0.65 (0.58–0.74)	0.68 (0.60–0.77)	0.65 (0.57–0.74)
North Africa and Middle East	22 884	1.25 (1.20–1.30)	1.30 (1.25–1.35)	0.82 (0.77–0.87)	1.19 (1.11–1.28)	1.35 (1.26–1.46)	0.83 (0.76–0.90)	1.32 (1.26–1.38)	1.40 (1.34–1.47)	1.21 (1.15–1.28)	0.76 (0.70–0.82)	0.86 (0.79–0.94)	0.73 (0.67–0.80)	0.91 (0.85–0.97)	0.97 (0.91–1.03)	0.89 (0.82–0.95)
Sub-Saharan Africa	15 974	0.84 (0.79–0.88)	0.85 (0.80–0.90)	0.66 (0.63–0.70)	0.55 (0.49–0.62)	0.59 (0.53–0.67)	0.39 (0.34–0.44)	0.72 (0.68–0.77)	0.73 (0.68–0.79)	0.65 (0.60–0.70)	0.29 (0.25–0.34)	0.32 (0.27–0.37)	0.28 (0.24–0.33)	0.64 (0.59–0.70)	0.67 (0.61–0.74)	0.67 (0.60–0.74)
Asia	28 076	0.64 (0.62–0.68)	0.64 (0.61–0.67)	0.82 (0.80–0.83)	0.36 (0.33–0.41)	0.41 (0.36–0.46)	0.37 (0.33–0.42)	0.55 (0.52–0.58)	0.54 (0.51–0.57)	0.55 (0.51–0.58)	0.31 (0.28–0.35)	0.32 (0.29–0.36)	0.31 (0.28–0.35)	0.55 (0.51–0.60)	0.55 (0.51–0.60)	0.58 (0.54–0.63)

a: Adjusted for sex, age and marital status.
b: Adjusted for sex, age, marital status, socioeconomic status and social assistance.

Table 3 Association between time since migration and incident purchases of psychotropic drugs, results of the Cox regression analysis

	n	HR (95% CI), any drug	aHR[a] (95% CI), any drug	aHR[b] (95% CI), any drug	HR (95% CI), antipsychotics	aHR[a] (95% CI), antipsychotic	aHR[b] (95% CI), antipsychotic	HR (95% CI), antidepressants	aHR[a] (95% CI), antidepressants	aHR[b] (95% CI), antidepressants	HR (95% CI), anxiolytics	aHR[a] (95% CI), anxiolytics	aHR[b] (95% CI), anxiolytics	HR (95% CI), sedatives	aHR[a] (95% CI), sedatives	aHR[b] (95% CI), sedatives
Finnish	185 183															
<5 years	63 919	0.91 (0.89–0.94)	0.91 (0.88–0.94)	0.91 (0.88–0.94)	0.57 (0.53–0.60)	0.59 (0.55–0.63)	0.49 (0.45–0.53)	0.84 (0.81–0.87)	0.82 (0.79–0.85)	0.78 (0.75–0.82)	0.51 (0.48–0.55)	0.53 (0.49–0.56)	0.52 (0.48–0.55)	0.66 (0.63–0.69)	0.65 (0.62–0.69)	0.82 (0.78–0.86)
5–15 years	63 092	0.98 (0.96–1.01)	0.98 (0.95–1.003)	0.98 (0.95–1.01)	0.77 (0.72–0.81)	0.81 (0.77–0.86)	0.61 (0.57–0.65)	0.94 (0.91–0.97)	0.94 (0.90–0.97)	0.89 (0.86–0.93)	0.74 (0.70–0.78)	0.74 (0.70–0.78)	0.70 (0.66–0.74)	0.84 (0.81–0.88)	0.95 (0.90–0.99)	0.68 (0.65–0.72)
>15 years	40 632	1.02 (0.99–1.06)	1.008 (0.98–1.04)	1.01 (0.98–1.05)	0.87 (0.81–0.92)	0.89 (0.83–0.95)	0.73 (0.68–0.78)	0.97 (0.93–1.005)	0.97 (0.93–1.01)	0.94 (0.90–0.98)	0.97 (0.91–1.03)	0.94 (0.88–0.99)	0.90 (0.85–0.96)	1.03 (0.98–1.08)	0.84 (0.80–0.88)	0.97 (0.92–1.02)

a: Adjusted for sex, age and marital status.
b: Adjusted for sex, age, marital status, socioeconomic status and social assistance.

Table 4 Proportion of those with incident purchases of psychotropic drugs and use of inpatient or outpatient psychiatric services in 2011–2015

	Finnish (%)	Migrants (%)	*P* value
Any drug	15.6	16.2	<0.001
Antipsychotics	54.0	58.4	<0.001
Antidepressants	23.1	23.5	<0.001
Anxiolytics	29.4	25.9	<0.001
Sedatives	18.1	17.4	<0.001

and other Western countries most closely resemble the Finnish-born controls. Lower rates of incident purchases were most consistently reported in the groups of antipsychotic drugs and anxiolytics among migrants from all regions. Except for the purchases of antidepressants among migrants from Nordic countries and North Africa and the Middle East, no higher likelihoods were reported in any of the migrant groups when compared with the Finnish-born controls and when controlled for demographic and socioeconomic factors. The difference between migrants and the Finnish-born controls was smaller when only the incident purchases were studied.

The results are in line with studies from other countries. Lower use of psychotropic drugs has been shown in studies comparing first-generation migrants and non-migrant populations.[12,13,17] This study also complements the previous Finnish register-based study, which reported lower use of specialist psychiatric services among migrants.[5] It is possible that the need for psychiatric services is lower among some migrant groups, but probably not among all. A previous study in Finland showed that symptoms of common mental disorders are higher among migrants of Russian, Somali and Kurdish origin than among Finnish natives.[22]

Similar findings of the lower use of psychotropic drugs among recent migrants when compared with migrants with a longer time since migration have been shown in some,[12,14] but not in all[15] previous studies. It may be that the need for mental health services increases over time or that migrants have more difficulties in accessing the services during the first years of their residence.

Most previous studies have not differentiated between incident and prevalent purchases. An exception is a Dutch study, which showed similar findings to ours.[11] The authors suggested that migrant groups have earlier cessation of drugs.[11] This is a possible explanation in Finland. It might also be true that there are more cases with chronic disorders and long-term medication among the Finnish-born controls simply because they have been in the service system longer and adults with a high level of disability may be less likely to migrate.

Migrants were even less likely to purchase drugs when they were compared with controls of a similar SES. Adjustment for socioeconomic factors had a particularly strong impact when migrants from Eastern Europe, North Africa and the Middle East and Sub-Saharan Africa were compared with Finnish-born controls. Of different types of drugs, adjustment for socioeconomic factors changed the results for antipsychotic drugs in particular. Selective migration of healthy people may be particularly prominent among highly educated people. When it comes to lower socioeconomic groups, a higher proportion of migrants had low SES and received social assistance; however, it might be the case that migrants are more often unemployed or studying because they lack language proficiency or formal qualifications in Finland, whereas more Finnish-born controls may exist outside the workforce due to severe mental health problems and/or social marginalization. An alternative explanation is that migrants with low income have even more difficulties paying for drugs. They may have problems applying for the benefits they are entitled to and more often pay for their medication out of pocket.[18]

The strengths of this study include the large sample size, which covers the whole adult migrant population in Finland, reliable register data and the broad inclusion of psychotropic drug categories. However, there was no information on the need for psychotropic medication or psychiatric services in general. In addition, the use of purchased drugs could not be confirmed and there was no information on the amount of medication purchased. The reason for migration is not registered. Information on socioeconomic factors may be less reliable in the migrant population or it may reflect different phenomena than among the native population. Finally, the generalizability of the results may be low in countries in which health and social insurance systems or migrant populations differ greatly from Finland.

Conclusion

There were fewer incident purchases of psychotropic drugs among migrant population than among the Finnish-born controls. It would be important to know the reasons behind this pattern and to identify possible barriers to accessing services or problems in initiating or continuing prescribed medication. Particular focus should be on recent migrants who had the fewest purchases, as this may indicate delays in their care. It is important to note that different migrant groups may have different needs and they may also change over time.

Supplementary data

Supplementary data are available at *EURPUB* online.

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Conflicts of interest: None declared.

Key points

- This study showed a lower rate of incident purchases of psychotropic drugs among migrants than among the Finnish-born controls.
- Recent migrants and migrants from Asia and Sub-Saharan Africa were least likely to purchase drugs.
- Migrants' use of mental health services should be studied from different perspectives, including that of medication.

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Assessing health systems' preparedness for providing care for refugees, asylum seekers and migrants: a scoping review

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Background: Health care systems and care professionals often face the challenge of providing adequate health care for migrant groups. The objective of this study is to answer the question of whether and how meeting the special health system requirements regarding refugees (R), asylum seekers (AS) and migrants (M) (RASM) is checked and evaluated. **Methods:** A scoping review was used as a methodology of the research, with four electronic databases, websites of relevant organizations and European projects searched, using a strictly defined search strategy. Finally, 66 studies were included in the analysis. **Results:** The included studies presented assessment of different types, aspects and facilities of health care, as well as various methods of analysis. In the vast majority of the studies ($n = 52$, 78%) interviews or questionnaires were used to collect data. The studies were mostly declared to be qualitative. The main issues assessed in the studies can be categorized into three groups: (i) legal aspects, (ii) before receiving health care and (iii) during health care usage. **Conclusions:** RASM inflow is a big challenge for health care system in many countries. The first step to guarantee adequate health care for RASM is assessing how the system is functioning. This makes it possible to find gaps, indicate the directions of activities needed and monitor progress. Further work on the development of a comprehensive tool, checked in terms of validity and reliability assessment, and enabling examination of many aspects of health care for RASM should be carried out.

Introduction

The refugees (R), asylum seekers (AS) and migrants (M) group (RASM) can differ in many respects from a local population (e.g. in terms of culture, experiences and beliefs, but also health care entitlements and health needs as well) and can be very diverse within itself. It may translate into different, specific health care-related needs. For this reason, health care systems and care professionals often face the challenge of providing adequate health care for migrant groups. Special requirements can apply to different phases and dimensions of the health care process; these may occur at the stage of access to care, when services are provided, or during the following