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Original Research

Immigration within European Union – Does health immigration make a difference in analgesic use?

Minna H. VÄÄNÄNEN, Kirsi PIETILÄ, Marja AIRAKSINEN.

ABSTRACT*

European integration has facilitated the emigration inside Europe and it has been predicted that the amount of immigrants in Southern European countries will increase in the future. As these people age and their morbidity increases, they will demand more services from local health care than immigrants do at the moment.

The aim of this study is to determine the amount of Finnish people who have moved to Spain for health reasons (health immigrants) and whether their health service and analgesic usage patterns differed from those of non-health immigrants.

Methods: This study was carried out among Finnish people living in Costa del Sol area, southern Spain. The data were collected by questionnaire during 2002 by using a convenience sample of 1,000 Finns living permanently in the area (response rate 53%, n=530). Statistical analyses were conducted using statistical software SPSS 11.5.

Results: Two-thirds of the respondents were categorised as health immigrants. Health immigrants were more often suffering from chronic morbidity, their perceived health status was poorer and they used public health services more often than the non-health immigrants. Half (50%) of the all respondents had used some analgesics during the two weeks before the survey. There were more analgesic users among the health immigrant group (54 % vs. 43 %, p = 0.034) and they also used analgesics more frequently than the non-health immigrants (27 % vs. 9 %, p= 0.020).

Conclusions: Our study indicates, that high amount of Finnish immigrants suffer from some degree of health problems and the health state factors have a large influence on the emigration into Spain. As this kind of trend might also exist among immigrants from other EU-nations, immigrants might burden the local Spanish health care services in the future. Therefore the Providers of health care services in immigrant areas should consider these trends in planning health care in the future.

Keywords: Emigration and Immigration. Health Services Needs and Demand. Analgesics. Finland. Spain.

RESUMEN

La integración europea ha facilitado la emigración dentro de Europa y se ha previsto que la cantidad de emigrantes en los países del sur se incrementará en el futuro. A medida que esta gente envejezca y su morbilidad aumente, demandarán más servicios de la sanidad local de lo que lo hacen en la actualidad.

El objetivo de este estudio es determinar la cantidad de finlandeses que se han trasladado a España por razones de salud (inmigrantes de salud) y si sus servicios sanitarios y patrón de uso de analgésicos difieren de los no inmigrantes de salud.

Métodos: Este estudio se llevó a cabo entre los finlandeses que viven en el área de la Costa del Sol, sur de España. Los datos se recogieron con un cuestionario durante el 2002 utilizando una muestra de conveniencia de 1.000 finlandeses que viven permanentemente en el área (tasa de respuesta 53%, n=530). Se realizaron análisis estadísticos usando la aplicación SPSS 11.5.

Resultados: dos tercios de los respondedores fueron calificados de inmigrantes de salud. Los inmigrantes de salud sufrían con mas frecuencia enfermedades crónicas, percibían que si salud era peor, y usaban los servicios sanitarios públicos más que los no inmigrantes de salud. La mitad (50%) de todos los respondedores habían usado algún analgésico en las dos semanas entes del estudio. Había más usuarios de analgésicos entre los inmigrantes de salud que en los otros (54 % vs. 43 %, p = 0.034) y también utilizaban analgésicos con más frecuencia (27 % vs. 9 %, p= 0.020).

Conclusiones: Nuestro estudio indica que una elevada proporción de inmigrantes finlandeses sufren problemas de salud en algún grado y que las variables del estado de salud tienen una gran influencia en la emigración a España. Como este tipo de tendencia puede existir en inmigrantes de otras naciones de la UE, en el futuro los inmigrantes pueden dañar los servicios sanitarios españoles. Por tanto, los proveedores de servicios sanitarios en las áreas de inmigrantes deberían considerar esta tendencia para planificar la sanidad en el futuro.

Palabras clave: Emigración e inmigración. Necesidades y demanda de servicios sanitarios. Analgésicos. Finlandia. España.

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INTRODUCTION

European integration has facilitated the emigration inside Europe. This might be one factor explaining the increasing number of immigrants in the southern European countries, where the climate is mild and prices moderate. In Costa del Sol region in Southern Spain, there are thousands of foreign nationals from different countries such as Great Britain, Ireland Germany, Belgium, France, Russia, Sweden, Norway and Denmark. The exact amount of these immigrants is unknown due to the fact that many of these long-term residents have not filled in the official residence application. It is typical that these immigrants would spend part of the year in Spain and part in their native country.

It has been predicted that the number of immigrants in Spain will increase when the large generations born after World War II retire. It has been estimated that over 15,000 Finnish people are already living permanently in the Costa del Sol region. Even though mobile patients have been high on health policy agenda in European Union, there are no previous studies on this subject. Immigration within European Union differs from typical immigration; European immigrants are often retired foreigners from wealthier EU-countries. As these people age and their morbidity increases, they will demand more services from local Spanish health care than immigrants do at the moment.

The large number of foreign nationals has already motivated the provision of multilingual services in Spanish hospitals and private clinics, but similar services are not found in pharmacies. Still, in Spain it is a common practise to search for a self-care alternative from pharmacy before visiting the doctor and it is not even unusual to obtain prescription medicines without a prescription.[1,2] As medicines are easily available and accessed in Spain's 19,222 pharmacies[3], it would be valuable to know the medication usage habits of the immigrants so that pharmacy services in the immigrant areas could be developed to meet the immigrants´ needs.

Pain is the most commonly experienced symptom among adults and also one of the most important reasons for physician visits worldwide.[4-7] Pain is commonly managed whether with prescription (Rx) or non-prescription (OTC) analgesics. Previous studies indicate that analgesic use varies from 7% to 76% in different countries.[8-11] Methods, populations, time frames, age, gender, socio-economic status and health state factors such as pain symptoms and self-reported state of health also vary in different studies.[8,10-13] Little is still known whether health immigration influences patterns of analgesic, or other medication, use. It is predicted that some immigrants move to Spain for health reasons, but by studying the amount of these health immigrants and the patterns of their analgesic use we gather valuable information for use in planning the health care services.

The aim of this study was to gather information about immigration within European Union; determine the amount of Finnish people who have moved to Spain for health reasons (health immigrants) and whether their health care and analgesic usage patterns differed from those of non-health immigrants. According to our knowledge, similar studies have not been done before, neither among Finnish nor other ethnic minorities living in Costa del Sol area.

METHODS

This study was a part of a larger health and drug use study carried out among Finnish people living in Costa del Sol area, southern Spain (Figure 1). Data was collected in spring 2002 using a questionnaire that was distributed in two ways: half (500) of the questionnaires were dispensed with Finnish newspapers by mail and half through Finnish associations and outlets working in the region (Figure 1). These associations (e.g. churches, cafes, restaurants, societies) were instructed to deliver the questionnaires to people using their services. Participants were required to be Finnish adults living permanently in Spain. It is possible that some people received more than one questionnaire, though it is unlikely that the same person would have completed more than one questionnaire. The questionnaire was tested before the actual study on ten Finnish people living in Spain. This was done to enhance reliability by ascertaining that the questionnaire was unambiguous and simple to complete as well as being suitable for collecting the information needed. A total of 533 questionnaires out of 1,000 disseminated (53 %) were returned anonymously. Three were excluded because they were incomplete. Approximately, 3-4 percent of the Finnish population living in Spain participated in the study.

We categorised the respondents into health immigrants and non-health immigrants (Table 1). Those Finnish people who indicated health factors to play serious or moderate role in the emigration process were categorised as health immigrants. If health state factors did not affect the emigration, the person was categorised into the group of non-health immigrants.

A majority (55 %) of the respondents were female. The age of the respondents varied from 21 to 99 years (mean age 65 years). Health immigrants tended to be slightly older than the other respondents ($p<0.001$). The respondents had lived in Spain 1-49 years (mean time 8 years). Most of them were retirees and married.

The respondents were categorised into analgesics users and non-users. Those who indicated use of analgesics in the previous two weeks were defined as users and were asked specific questions about their analgesic use. Non-users were instructed to continue with questions from other fields. The purpose of this categorisation was to minimise the incidence of recall bias in questions about analgesic use.

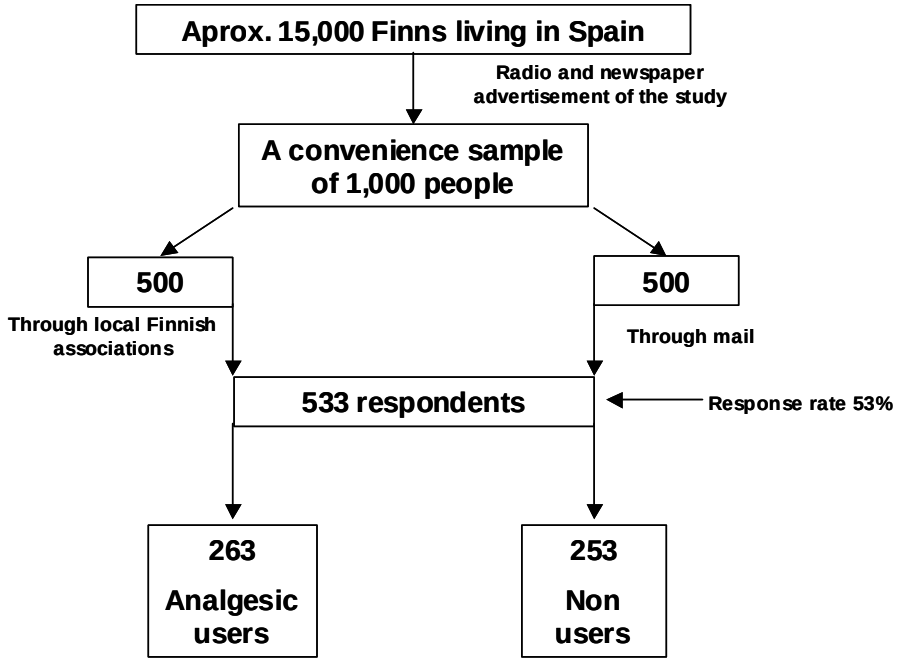

Figure 1. The study design.

Information about use of different prescription (Rx) and non-prescription (OTC) analgesics was gathered with a structured question: "Which of the following analgesics have you used during the previous two weeks? After the ingredient names, some most common brand names were given to facilitate answering.

Factors associated with analgesic use were examined by asking questions regarding demographic and socio-economic factors: sex, age, marital status, education, work status, and the length of the respondent have lived in Spain. In the analysis the work status pensioners and part time pensioners were grouped together. Language skills as well as the use of the public health services were also assessed.

Three types of questions were asked to determine health status of respondents: by questions about health status, chronic morbidity, and the symptoms during the previous two weeks. Respondents were asked to categorise their health status as good, moderate or poor. They were also asked whether they had suffered from chronic morbidity and to list the symptoms they had suffered in previous two weeks.

In this paper we define analgesics as anti-inflammatory drugs (NSAID) and analgesics. In ATC-classifications NSAIDs correspond to ATC groups M01A and analgesics to group N02.[14]

Statistical analyses were conducted using statistical software SPSS 11.5 (Statistical package for Social Sciences). Cross tabulation was used to compare different groups. Statistical comparison was done by using chi-square testing, p-value<0.05 was considered significant.

RESULTS

Health immigration and analgesics use

Of the respondents, 70 % (n=365) were categorised as health immigrants (Table I). Health immigrants were more often suffering from chronic morbidity (82% vs. 39%) and they perceived their health status to be worse than the non-health immigrants. Health immigrants also used more public health services and they got more often reimbursement from their medicines than the non-health immigrants (Table 1).

Half of the respondents (50 %, n=263) reported analgesics use during the two weeks before the query. Health immigrants were more often analgesic users and they used more commonly prescription analgesics (diclofenac, naproxen, tramadol and nimesulid) than the other respondents (Table 2). Health immigrants used analgesics more regularly than the others, daily use occurring among 27 % (n=49) of the health immigrants and 9% (n=6) of the others (Table 2). The concomitant use of prescription and non-prescription analgesics was also more common among health immigrants than the non-health immigrants (p< 0.001). Altogether, the concomitant use of prescription and non-prescription analgesics occurred among one quarter of analgesics users.

When considering analgesics purchasing habits, differences between groups were not found. Almost 30 % (n=70) of analgesic users bought their analgesics from Spain and 20 % (n=47) from Finland. It was still most common to buy analgesics in both countries (Table 2).

Table 1. Characteristics of the respondents					
	Health Immigrants		Non-health Immigrants		P-value between groups
	%	n	%	n	
	70	365	30	157	
Gender					
Male	48	175	39	61	0.055
Female	52	187	61	96	
Age					
Less than 45	1	2	7	11	<0.001
45-54	7	26	11	16	
55-64	37	133	31	47	
65-74	41	147	46	69	
75 or more	14	48	5	8	
Working situation					
Working	3	9	19	29	<0.001
Retired	91	332	73	113	
Other	6	22	8	12	
Chronic morbidity					
Yes	82	290	39	59	<0.001
No	18	62	61	93	
Perceived state of health					
Good	33	120	63	99	<0.001
Moderate	60	217	34	54	
Poor	7	26	3	4	
Pain symptoms					
Backache	25	92	17	27	0.053
Headache	18	67	14	22	0.255
Joint ache	35	126	14	22	<0.001
Years of staying in Spain					
1-3	26	92	30	44	0.777
4-6	26	91	24	35	
7-9	14	50	11	16	
10-14	23	81	25	36	
15 or more	11	37	10	14	
Use of public health services in Spain					
Regular	41	148	22	33	<0.001
Occasional	34	123	31	48	
No use	25	92	47	71	
Reimbursement from analgesics					
No	46	89	72	46	<0.001
Yes	54	105	28	18	

Table 2. Analgesic use					
	Health Immigrants		Non-health Immigrants		P-value between groups
	%	n	%	n	
Analgesic use	54	196	43	67	0.034
Type of analgesics					
Non-prescription (OTC)	30	57	62	41	<0.001
Prescription (Rx)	43	80	24	16	
OTC+Rx	27	50	14	9	
Source of purchase					
Spain	26	50	30	20	0.715
Finland	18	34	19	13	
Both	56	109	51	34	
Frequency of use					
Daily	27	49	9	6	0.020
Weekly	21	39	20	13	
Occasional	52	94	71	46	

Factors related to analgesic use

Table III illustrates the proportions of analgesic users according to the background variables. Men used prescription analgesics more frequently and regularly than women. Differences were also found between different age groups ($p < 0.05$) in chi-square testing. Among health immigrants, analgesic use decreased with age. Similar decreasing trend could not be found among the non-health immigrants, even though differences between age groups were measured.

The clear association between the occurrence of different pain symptoms and the amount of analgesic use were found. In the health immigrant

group those who suffered from different aches: headache, joint ache or backache were analgesic users more often than the asymptomatic respondents. Backache was not an explanatory factor in the group of non-health immigrants. Self reported health status was not significantly associated with analgesic use, nor was chronic morbidity and the use of public health services. In the health immigrant groups, differences in the amount of analgesic use were associated with the living time in Spain: those who had lived in Spain 7-9 years were clearly more commonly analgesic users than the non-health immigrants.

Table 3. Factors related to the analgesics use among health immigrants and non-health immigrants (% of those using analgesics).

	Health immigrants	p	Non-health immigrants	p
Gender				
Male	45	0.11	30	0.30
Female	59		48	
Age				
45-54	65	0.034	63	0.048
55-64	59		50	
65-74	46		28	
75 or more	44		50	
Working status				
Working	67	0.370	57	0.005
Retired	51		34	
Other	64		75	
Chronic morbidity				
Yes	52	0.676	43	0.734
No	48		40	
Perceived state of health				
Good	46	0.203	38	0.650
Moderate	54		45	
Poor	62		50	
Backache				
Yes	72	<0.001	48	0.507
No	46		40	
Headache				
Yes	84	<0.001	77	<0.001
No	45		35	
Joint ache				
Yes	66	<0.001	50	<0.001
No	45		39	
Years of staying in Spain				
1-3	57	0.002	50	0.243
4-6	52		24	
7-9	74		44	
10-14	40		39	
15 or more	43		36	
Use of public health services in Spain				
Regular	57	0.198	42	0.942
Occasional	53		44	
No use	45		41	

DISCUSSION

This study suggests that a large number, almost 70%, of Finnish people who had moved to Spain had done so for health reasons. In our study we focused on Finnish immigrants, but it is likely that these large proportions of health immigrants also exist among immigrants from other nationalities. Given the health immigrants´ poorer state of health, it would be predictable that these people have greater needs for using health services than the normal population. This kind of results already appeared in this study: health immigrants were using public health services more often than the non-health immigrants. This fact needs to be taken into account in planning health services for the future. Otherwise, it might be a factor causing problems if the amount of immigration increases.

Almost half of all the Finnish living in Spain had taken analgesics during the previous two weeks. The analgesic use of health immigrants differed from the using habits of the non-health immigrants: there were more analgesic users in the group of health immigrants, the use was more frequent among them and they were more often the users of prescription analgesics. The differences in the analgesic use patterns among health immigrants and non-health immigrants can give us valuable information about medication usage patterns in general. The increased use of medications, especially the use of prescription medication, generally leads to a regular use of health services. Health services should be carefully designed to serve the immigrants needs. Co-operation between those European Union nations having immigrants in Spain would be highly recommended. For example

building up an EU-funding public healthcare centre for immigrants from different EU member states would be one suggestion to improve immigrants' health care in the future.

The possibility of bias due to the sample taking must be taken into consideration. It might have been better to take random samples from the resident registers, but this was not possible because of a lack of registers for Finnish people living in Spain. We tried to prevent the possibility of selection bias by collecting participants from different associations representing the whole Finnish population in Spain. The population in this study (age distribution, health state) is similar one used in a previous study of Finnish people living in Spain in 1998.[15] The participation rate in our study was 53, which is acceptable for such a study. Normally the response rates range from 20 to 80 % in such surveys.[16] The accuracy of the responses is a factor that might also decrease the validity of the study.

The rates of analgesic use in our study were relatively high (50%), because immigrants from European countries are often retired and therefore this population includes a large number of elderly people suffering from different aches. It is alarming that some of the prescription analgesics were used as non-prescription analgesics and bought directly from the pharmacies. It could be easier to find pharmacy than to visit doctor in the foreign country, but this might cause problems in patient safety matters. It is not unusual that those immigrants who are advanced in years have no Spanish or even English language skills and the fact that many of them might suffer from different health problems makes them even more challenging customers to the local pharmacies. Immigrants and tourists are a remarkable source of income to these pharmacies, but could be an asset in the competition that pharmacists in the tourist/immigrants areas would develop their language skills? Or could there be multilingual pharmacies in immigrants areas where pharmacists from those EU-countries having immigrants in the area could work? In the absence of the common language, giving the drug information in pharmacies might become impossible and the consequences might be serious. Another alarming factor is the concomitant use of non-prescription and prescription analgesic, which occurred among one quarter of the respondents.

The number of immigrants in Spain continues to increase and majority of these people are retired. Our study revealed, that two-thirds of the Finnish people in Spain suffer from some degree of health problems and especially the health state factors have a large influence on the emigration into Spain.

These people will burden the local Spanish health care services in the future and even at the moment the medical expenditure of these people generate costs of millions euros every year. As medical expenditures increase, knowledge of the medical statistics (including information such as health state and drug usage) of Finnish people will become increasingly vital. More studies about health immigrants and about how their health services are managed inside EU would be needed. Economical factors are not the only drivers of these kinds of studies; it is important, also for the patient safety matters, to understand how the medical care of these people is managed in a foreign country.

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