

TO WHICH COUNTRIES DO EUROPEAN PSYCHIATRIC TRAINEES WANT TO MOVE TO AND WHY?

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ABSTRACT:

Background: There is a shortage of psychiatrists worldwide. Within Europe, psychiatric trainees can move between countries, which increases the problem in some countries and alleviates it in others. However, little is known about the reasons psychiatric trainees move to another country.

Methods: Survey of psychiatric trainees in 33 European countries, exploring how frequently psychiatric trainees have migrated or want to migrate, their reasons to stay and leave the country, and the countries where they come from and where they move to. A 61-item self-report questionnaire was developed, covering questions about their demographics, experiences of *short-term mobility* (from 3 months up to 1 year), experiences of *long-term migration* (of more than 1 year) and their attitudes towards migration.

Results: A total of 2281 psychiatric trainees in Europe participated in the survey, of which 72.0% have 'ever' considered to move to a different country in their future, 53.5% were considering it 'now', at the time of the survey, and 13.3% had already moved country. For these immigrant trainees, *academic* was the main reason they gave to move from their country of origin. For all trainees, the overall main reason for which they would leave was *financial* (34.4%), especially in those with lower (<500€) incomes (58.1%), whereas in those with higher (>2500€) incomes, *personal* reasons were paramount (44.5%).

Conclusions: A high number of psychiatric trainees considered moving to another country, and their motivation largely reflects the substantial salary differences. These findings suggest tackling financial conditions and academic opportunities.

1. INTRODUCTION

Worldwide, a shortage, misdistribution and misutilisation of health workforce has been reported in the majority of the World Health Organization (WHO) member states (1).

In psychiatry, recruitment has been problematic in some countries, where there is a shortage of psychiatric trainees, whilst other countries experience the reverse challenge, with too many training places (2) (3) (4) (5). This imbalance in the supply and demand of professionals has been a complex and major concern, often overcome by international recruitment (6).

Psychiatrists can move between countries, and whilst it is true that these flows have escalated the shortage of psychiatrists in the countries where they move from, the “donor countries”, these movements have also relieved the lack of professionals in the “host countries” where they move to (7).

This migration of highly skilled professionals from developing countries is widely referred to as “brain drain”, suggesting the loss of human resources in services in donor countries (6), which results in “brain gain” in host countries (8), or if these migrants return, in a “brain circulation”.

To date a few studies have suggested that qualified skilled health professionals migrate to high income developed regions with a principal financial driving factor, as well as to advance their careers (9) (10) (11) (12). These reasons are usually referred to as “push factors”, pushing people to move from the country where they live in, and “pull factors” that explain why the country where they move to is attractive for them. However, despite this long recognized reality, little is known about the reasons for why psychiatric trainees in Europe would take the step and move to another country.

To address this lack of understanding on why junior doctors migrate, we have focused on studying how frequently psychiatric trainees have migrated or want to migrate, their “push and pull factors”, and their “host and donor countries”.

This study aimed to: i) assess the proportion of psychiatric trainees that have already moved country and ii) the proportion of those who would consider such a move in the future, iii) explore their reasons to stay and leave the country, iv) report the countries where they come *from* and where they

move *to* and v) examine their individual profile, such as demographics and socioeconomic characteristics.

2. METHODS

2.1. Study design

This *Brain Drain Study* has been an international cross-sectional survey of psychiatric trainees. The study builds on the network generated by the European Federation of Psychiatric Trainees (EFPT), the umbrella organization of the national trainees associations in psychiatry in Europe. The driving force behind this study was a shared awareness of the frequency and impact of workforce migration on the mental health care service provision. The European countries not represented in the survey were those not able to identify a National Coordinator who would take over the responsibility of the study.

The questionnaire was developed by the members of the EFPT Research Working Group to fit the study population. This was a 61-item self-report survey, covering questions about: i) demographics, ii) experiences of *short-term mobility*, defined as 3 months up to 1 year, iii) experiences of *long-term migration*, defined as more than 1 year; and iv) their attitudes towards migration. The survey was piloted among the members of this group.

2.2. Data collection

The questionnaire was circulated in each country by National Coordinators, either as an online survey (surveymonkey.com) and/or as paper questionnaires. Translated versions of the questionnaire were used: in Belarus (Russian), France (French), Greece (Greek), Israel (Hebrew), Italy (Italian), and in Romania (Romanian), as considered required. In all other countries the questionnaire was distributed in English, as psychiatric trainees were deemed by their National Coordinators to have sufficient command of English to reliably answer the questions.

The survey was conducted according to the principles of good scientific practice, which was supported by a national ethics commission consent in Switzerland.

The only inclusion criteria was being a psychiatric trainee, defined as a fully qualified medical doctor enrolled in a nationally recognized specialist training programme in psychiatry. All participants were asked to give informed consent before initiating the questionnaire, which was self-administered anonymously. The participating countries were Albania, Belarus, Belgium, Bosnia & Herzegovina, Bulgaria, Cyprus, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland,

Israel, Italy, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom and Ukraine.

Data was collected in 2013-2014 approaching all trainees in some countries, and using random and non-random sampling in others. *Ad hoc* samples on national congresses or educational events were chosen to reach out to trainees, as well as national contact e-mail databases where available (Table 1).

After collection of paper questionnaires, data was entered into the central study database by the National Coordinator via the online survey tool survey monkey.

2.3. Statistical analysis

We analysed the data using the Software Package for Social Sciences for Windows v. 22.0 (SPSS Inc. Chicago, IL).

Descriptive statistics were used to report the frequencies and percentages for the categorical variables and the mean value with the standard deviation for the continuous variables. Missing data were omitted on an analysis-by-analysis basis and valid percentages are reported. "Satisfaction with income" was recoded to an increasing five-item Likert scale (1 = very dissatisfied; 5 = very satisfied).

Data were aggregated per country in which doctors were undertaking psychiatry training to calculate country-specific results. The top main reason to *stay* and *leave* the country, as well as trainees' responses on where they would most likely be working 5 years from now are reported as percentages, and split by monthly income, comparing between *low-income* (<500€) and *high-income* (>2500€) to explore financial differences.

Concerning the set of questions on '*migratory tendency*', the survey had a hierarchical structure based on participants' answers, whereby an affirmative answer at each question served as a gateway to the subsequent question. Hence, three hierarchical variables of steps of '*migratory tendency*' were created: 1) '*ever*' considered leaving (yes/no); 2) considering leaving '*now*', recoded as a dichotomic variable ('strongly agree' or 'agree' = yes, else = no) and 3) taking '*practical steps*' (yes/no), describing an increasing disposition towards future migration.

We calculated the relative risks (RR) of socio-demographic features of individual trainees for each level of migratory tendency. *Relationship status* (single, in a relationship, married, divorced, partner deceased) and *living arrangements* (living alone, with family, with friends, with colleagues, with

others) were recoded as dichotomic variables (“in a relationship” and “not in a relationship” and “living alone” and “living with others” respectively).

Generalised estimating equations were used to account for clustering by country of training. We fitted each predictor in a univariable model. Those variables which showed an association with the outcome ($p < 0.1$) were included in a multivariable model. Risk ratios were reported. Similar models were used to look at predictors of ‘*ever*’ considered leaving, considering leaving ‘*now*’ and taking ‘*practical steps*’.

3. RESULTS

3.1. SAMPLING AND SAMPLE CHARACTERISTICS

A total of 2281 psychiatric trainees in Europe responded to the survey, undertaking their training in one of 33 countries. Response rate varied from 5.1% to 100% (Table 1).

In this sample, 1,368 of psychiatric trainees were female (66.0%). The mean age was 31.17 (SD: 5.49 years), with 23 as the minimum age and the maximum of 68 years old. The majority (86.5%) were general adult psychiatric trainees, whereas 13.5% were child and adolescent psychiatric trainees. Most of the trainees lived with other people (73.7%), and a lower number lived alone (26.2%). The majority (73.2%) were in a relationship and 26.8% were not.

3.2. Migratory tendency

The number of trainees who were immigrants already at the time of the survey was 303 (13.3%), having a different nationality from the country they were training in. The highest percentage of immigrant trainees was found in Switzerland (74.9%), followed by Sweden (28.4%) and the UK (27.7%). Out of the immigrant group, 191 people (65.6%) reported to ‘have ever migrated for more than one year’ demonstrating their lifetime migratory experience, most of which took place after medical studies and before psychiatry training (44.9%).

Two-thirds of the trainees have ‘*ever*’ considered leaving the country that they currently live in, more than half of them are still considering leaving ‘*now*’ and over a quarter of them have taken ‘*practical steps*’ towards migration (Table 2). These percentages are higher in Eastern and Southern countries, as illustrated in Figure 1 which shows the percentage of trainees considering leaving the country now. The most common sources searched by trainees for work opportunities were: their personal network, as family and friends (18.6%); general online research, such as google (18.1%); professional network (16.3%); employment agencies (11.9%) and job search engines (11.7%).

3.3. Reasons for migration

Within the reasons given by the 188 immigrant trainees to explain their decision to migrate, *academic* (e.g. training or educational opportunities) ranked as the most important.

For all trainees, the top reason for which they would leave the country was *financial* (e.g. salaries) (34.4%), with *personal* (e.g. partner, children, family) as the second (33.6%) and *academic* (25.8%) as the third. In fact, out of the 33 countries surveyed, financial reasons were the top reason in 14 countries and amongst the top 3 reasons in 23 countries, whereas personal reasons were foremost in Switzerland, The Netherlands, Sweden, Germany and Finland.

Yet, when comparing the reasons to leave with trainees' income, which varies considerably across Europe (Figure 2), trainees with *low-income* reported *finances* (58.1%) as their main reason to leave, and those with *high-income* mentioned *personal* (44.5%) reasons. *Personal* (56.3%) reasons were the main reason to stay for all trainees.

Most of the trainees were dissatisfied with their income in countries such as Albania (100.0%), Ukraine (100.0%), Belarus (95.8%), Bulgaria (90.0%), whereas the majority were satisfied with their income in countries such as Switzerland (92.6%), Denmark (89.7%), The Netherlands (88.2%) and Sweden (79.8%). Trainees' satisfaction with income in each country in Europe is illustrated in Figure 3. The overlapping patterns (ex. in Slovakia) indicate equal percentages of responses.

Income satisfaction correlated significantly with reported income class ($p < .001$). Income satisfaction strongly impacted on all steps of 'migratory tendency', with those showing migratory tendency at any step ('ever', 'now' and 'practical steps') being significantly less satisfied with their income ($p < .001$). Whereas, the income class was only significantly lower in the univariable model in those considering leaving 'now' ($p = 0.01$), yet when placed in the multivariable model it was no longer significant. Living arrangements was significantly affecting 'migratory tendency' when 'ever' considering it and considering it 'now' ($p < .001$). Having children or being a child and adolescent psychiatric trainee, had both a significant impact on 'ever' considering leaving ($p < .001$, and $p = 0.02$), but not in the subsequent steps. Gender and relationship status did not significantly affect migratory tendency at any level (Table 3).

Concerning future working perspectives, when asked where they would most likely be working in 5 years time, trainees in *low-income* countries ($< 5000\text{€}$) reported with a significantly lower percentage "the country I am currently living in" (50.2% vs 61.1%) and with a significantly higher percentage "within Europe" (28.3% vs 9.3%) compared to those in *high-income* countries ($> 2500\text{€}$), who were

significantly more likely to report “in a specific country” as their 5 year working perspective (8.7% vs 0.9%), naming countries as the United States of America (USA) and Canada. From the immigrant trainees, only 8.7% reported thinking of returning to work in their country of origin within the next 5 years.

4. DISCUSSION

4.1. Migratory tendency

These findings show that 13.3% of the current European junior doctors training in Psychiatry are already immigrants, having a different nationality from the country they are training in. The top host countries (Switzerland, Sweden and UK) are also those that offer the highest income for psychiatric trainees (>2500€).

Remarkably, two-thirds of the psychiatric trainees seem eager to migrate to another country at some point in their careers, and half of them are considering leaving their country now. These results show a large willingness to migrate across Europe, displaying a migration flow tendency to North and West as host countries from East and South as donor countries.

Although some countries may be considered to be more at-risk, our data shows that migration of psychiatric trainees is not an issue limited to specific countries, as a large proportion of trainees demonstrate migratory tendency in these findings.

4.2. Reasons for migration

For immigrants, *academic* was the top reason to migrate, and this concurs with the fact that these respondents most often migrated after medical school and before postgraduate training, when academic opportunities obviously represent an important “pull factor”.

It is worth noting that this survey has been held at a time of European financial crisis which may also have put a larger emphasis on financial motives to migration.

Income satisfaction had the strongest impact on all individual’s migratory tendency, while demographic characteristics were less influential. In fact, income satisfaction impacted more strongly in all steps of ‘migratory tendency’ than the income itself, which could be since both of them are co-related.

These findings seem to suggest two patterns of migration. The “typical” migrant has a low-income and is dissatisfied with the income, being more determined and having already taken practical steps to migrate, usually to countries in the European Union (EU). The “atypical” migrant has a different profile. Having a high-income, migration is not that related to income satisfaction, but their reasons to migrate are rather personal, choosing specific countries including outside of Europe.

In terms of their living arrangements, trainees that lived with others were more likely to have ‘ever’ considered leaving, and are also considering it ‘now’. Among other factors, this could be because living with others, may trigger trainees to consider migrating themselves, once recognizing the decision-making of their co-habitants (as partner or friends) to migrate (13).

In terms of individual characteristics, trainees that had children or were child and adolescent psychiatric trainees were significantly more likely to ‘ever’ consider leaving the country, which was not the case in the following steps. One of the reasons for this could be that trainees who are parents may consider migrating more, wishing to provide better opportunities to their children. In regards to child and adolescent psychiatry, it is not an independent specialty in one third of the European countries, and its focus varies a lot in different countries in Europe linked with its different roots (paediatrics, adult psychiatry, education and psychology) (14). Therefore, trainees may think about moving to a country where training is more linked with their field of interest.

4.3. Main strengths and limitations

To the best of our knowledge, this has been the only study on migration in junior doctors ever done up till now. It has also been the study with the largest sample size of psychiatric trainees in Europe (n=2281) and including more countries (n=33) (15) (16) (17). Despite its originality, it has several limitations.

As a self-report questionnaire, it is subject to recall and reporting bias, as well as social desirability bias. Regarding the sampling method, there is no official data available on the total number of psychiatric trainees for many countries in Europe and there is no centralized European database that would allow randomisation. Yet, based on the annually updated country database of the EFPT we calculate the total number of psychiatric trainees by approximately 19390 (18). Sampling rates varied within countries, with some countries with many psychiatric trainees having low response rates. Nevertheless, despite the selection bias in the response rate, the overall European database is quiet large and the key host and donor countries were represented.

Finally, the findings refer to different types of migratory tendencies ('ever', 'now' and 'practical steps'), and it is unclear which parameter optimally assesses the intention to migrate.

4.4. Comparisons with the literature

Literature recognizes that migration of health professionals has not only grown considerably, but is often permanent (6), and in many countries, health professionals from overseas constitute a substantial proportion of the total workforce. For example in the UK, 31% of practicing doctors were born outside the UK (19), and our findings report a similar percentage.

A study comparing the motivations of health workers across professional groups, found that an increase in salary was significantly more motivating for auxiliary nurses and midwives comparing to doctors (20). Another study showed that improving pay and working conditions of nurses would act as incentives for them to stay in the country (11). These results support the existence of other factors rather than financial that play a role in the decision of some doctors to migrate, supporting what we called as 'atypical migration'.

Amongst doctors, migration can take place throughout the career: before, during or after postgraduate training. A study on medical students in Sri Lanka has looked at their intentions to migrate, showing a significant proportion who intended to migrate, especially after being qualified specialists. Similarly to our findings, their main reasons to leave were better quality of life and salaries, whereas their main reasons to stay were the opportunity to stay with the family and serve the country. Their preferred host country was Australia, which is a popular destination country for worldwide medical migration (2), followed by UK and USA (21). Importantly, a "medical carousel" has been described with doctors from less wealthy countries in Africa moving to South Africa, South African doctors moving to the UK, British doctors moving to USA and Canada, producing a circular movement around the world (6).

In Europe, migration during postgraduate training must be interpreted taking into account the differences in psychiatry training across countries, in terms of content, context, structure, length and quality (18), as well as access to these posts, since even within the EU, regulations to enter into a postgraduate training programme in each country vary. Additionally, there is a growth of recruitment agencies that enlist health care professionals into specific countries, which can partially explain some of the particular patterns of migration seen across Europe (22) (23) (24).

4.5. Relevance of the findings and implications for practice, policies and research

This study provides valuable data on previous, current and future international migration tendencies among doctors as well as their reasons. These motives and movements not only serve to demonstrate the context of mobility in which psychiatry in Europe is taking place, but might also be shared with professionals from other disciplines. Addressing the identified reasons causing doctors to leave or discouraging them from returning, by tackling finances and academic conditions, should be a way to modulate these “pull factors” and provide countries the tools to improve the training conditions and address migration caused by training dissatisfaction.

However, increasing salaries may not be straightforward, since trainees are usually public sector employees and salaries are set by central governments, so usually adjusting levels of wages can be beyond the scope of managers at institutional levels. With regards to improving academic conditions and the psychiatry training programmes, the standardisation of curricula would be important to produce psychiatrists who are capable of transferring their skills into different social and cultural situations, ensuring that the core knowledge that is essential for the practice of psychiatry in all contexts is acquired, which supports the current call for a Europe wide curriculum (25). This raises awareness to the importance of cultural competence training, which in other regions of the world, as in the USA, is required in all the training programmes in every speciality (26). Yet, achieving good training conditions may not stop migration. Instead, individuals may choose to work in a certain country as part of a natural intra-European mobility.

These findings can assist decision-makers to implement strategies to protect their medical workforce, while recognizing that doctors are autonomous people with rights. Donor countries may need to develop recruitment and retention campaigns and long term human resource planning. The pursuit of data from individual migrants would increase knowledge of migrant itineraries. However, there is a huge lack of reliable data on these international migratory flows, and no national systems that routinely collect and publish data about doctors and their country of primary medical qualification and postgraduate training (2). To ensure accuracy, efforts should be made to harmonize data collection and definitions of migration, allowing the comparison of migration statistics across countries on data collected for administrative purposes (27).

In this study, from the heterogeneous sample of European countries, stands particular relevant country-specific and regional findings that should be taken into account further in depth to optimally interpret this data, as these may reflect a country’s specific situation and be linked with other forms of professional migration in that country. Also, the majority of the results relate to the intention to migrate in the future, rather than the actual migratory movements. The actual follow up of these

respondents will enable to assess to what extent this migratory intention predicts the future migration itself. Additionally, as it is uncertain how specific these results are to the group of European psychiatric trainees, future studies should explore whether the presented findings differ for junior doctors in other medical disciplines, physicians in general or psychiatric consultants in Europe and across the world.

Lastly, despite the name of the study group itself, the *Brain drain study*, our data can only help us to speculate about the consequences and the impact of this migration for the countries affected. We believe that further studies need to focus on the consequences of these migratory trends and identify ways to support all countries affected by it.

CONCLUSIONS

There is a large willingness to migrate across psychiatric trainees in Europe and the reasons expressed largely reflect the substantial salary differences. These findings show that the majority of immigrant psychiatric trainees are in Switzerland, Sweden and UK, having migrated for academic reasons, and only very few are thinking of returning to their country of origin. This study suggests tackling financial conditions and academic opportunities to address the migratory intentions of psychiatric trainees.

Collaborators:

The following colleagues have also acted as (or have collaborated with) the National Coordinators of this study, supporting the International Coordinator (Mariana Pinto da Costa) in the data collection in their countries: Uladzimir But-Husaim (Belarus), Petra Marinova and Maria Milenkova (Bulgaria), Andreas Hoff and Celina Skjodt (Denmark), Adrien Pontarollo (France), Edina Kiss (Hungary), Nikita Bezborodov (Latvia), Katarina Ceranic (Slovenia), German Strada (Spain), Gina Necula, Ilinca Mihailescu , Cezar Oanea , Luiza Voicila , Raluca Tirintica , Anca Popescu , Marinela Hurmuz , Oana Cornutiu and Radu Oroian (Romania) and Orest Suvalo (Ukraine).

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