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# Research on migration perspectives among young Polish health care workers

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Abstract — The goal of the research was to analyze the factors affecting the desire to find a job abroad among young Polish health care workers on the basis of determining the emigration plans of students and trainees of Medical University of Warsaw.

Empirical studies were based on a survey distributed among undergraduate students and graduates of MUW. The biggest impact on the willingness to seek employment in another country are higher wages, better working conditions, greater opportunity for professional development, positive feedback from health professionals and a lack of job stability in Poland. The strength of individual factors for emigration varies between representatives of different faculties (students of medicine, nursing, midwifery, dietetics, public health, physiotherapy and pharmacy). The percentage of people who consider leaving is higher among people from better-off families.

Keywords- brain drain, emigration, healthcare worker, migration from Poland

#### I. INTRODUCTION

For a comprehensive analysis of the issue of migration of healthcare professionals it is necessary to examine not only the directions of migration movements, but also its determinants.

Although the issue of migration of healthcare professionals workers has already engaged researchers for many decades, there is still no coherent theory that could successfully include all factors that influence the individual decision to emigrate.

Investigations into the causes and effects of human territorial mobility were first undertaken by Ernest Ravenstein. Results were published in 1885. Ravenstein saw the relationship between decision to migrate with other factors, such as nuisance law in his country, high taxes, an unattractive climate or even inappropriate social environment [1, 2, 3].

Since the publication of Ravenstein's work, many researchers undertook attempts to analyze the causes of population mobility. Particular attention was paid to migration movements of high-skilled workers (including, in particular, health care workers).

Factors that influence the decision to migrate and the choice of destination country migration are varied. Many reports and publications published around the world present the subject of the causes of migration of health workers with regard to different systems of classification.

A different concept for classification of people's motives to leave their home country was established in the theory of Everett Lee in 1966. The theory is known as the "push-pull action" takes into account two group of factors: one that pushes outside the country (push factors) and the second one that

attracts people to settle down (pull factors). The push factors include factors relating to the place/country of origin. This group may include: economic conditions, high unemployment in the country of origin, as well as the necessity of the repayment of the debt. Pull factors, on the other hand, refer to the place/country of destination, and provide incentives to settle immigrant. Lee's model presupposes the existence of another factor, the so-called indirect barriers (interfering obstacles) called frictional factors. These include those arising from cultural differences, distance and associated costs of moving, as well as instruments immigration policy in the host country [3,9]. Valuing the push and pull factors is subjective in nature and often differs from reality. While the place of residence and his environment is well known, the perception of target place of emigration is often based on incomplete information and with great uncertainty [6].

Push-pull theory explains the phenomenon of migration as the sum of pushing and pulling factors that can be related to migration of health workers [7,8,9]. Undoubtedly the key incentive to leave (pull factor) is the remuneration of employees, which significantly differs between individual states. Occupational migration to developed countries, in addition to the possibility of obtaining a higher income also allows the moving person to develop their professional skills. [10] Next to the unsatisfactory earnings important push factor which drives Polish doctors to seek work abroad, is difficulty in making medical specialties [11, 12].

The variety of factors that influence the decision to leave the homeland is determined as well by the features of the country of ones origin.

On the basis of theory of push and pull factors Buchan, Seecombe and Thomas in 1997 have developed a typology of





migrant health workers based not only on external factors, but also on the individual assumptions and intentions of migration (Fig. 1).

With such a large-scale of health professionals migration is not possible to define one, common taxonomy of goals and motivations to seek employment outside the home country.

Buchan's theory therefore assumes that migrating individuals may belong to more than one category, or change it over time.

After the long-term migration, migration for financial reasons (economic migrant) is one of the most common causes of migration of white personnel. Economic emigration in most cases is dictated by the desire to improve the living standards of both the person who leaves, and family members who stay in the home country [13].

Sometimes families need so large financial support that the immigrant agrees with much worse living conditions in the host country in exchange for substantially higher salary, which is transferred back to the rest of the family. Emigration for economic reasons is also induced by high unemployment among health workers in the home country. In India, where more than 50% of nurses are registered as unemployed, leaving the country is often the only way to find a job in the profession

[14, 15].

The desire to improve migrant's quality-of-life in Buchan's theory was singled out as an independent factor, because its direct cause is not a wish to obtain a higher salary, but in a broader meaning – a sense of security and stability. [16, 17].

The following groups of migrant doctors and nurses consist of those whose motivation is tied to professional development (career-move migrant) or migration for family reasons (partner migrant).

A separate group of white staff migrants are people whose main purpose of migration is the desire to explore new countries and communities (adventurer migrant). For people in this group, the most important is getting to know other cultures and countries, which is why they rarely re-emigrate or seldom migrate for a short period of time. Although the need to meet other people and places for health workers migrants is not a major determinant of the desire to go, for some of them it constitutes additional and equally important aspect of migration [18].

In opposition to a group of people looking for an adventure there are representatives of the medical community who have left their country due to political instability or lack of environmental safety (survival migrant). Although sometimes it does not necessary involve applying for political asylum for

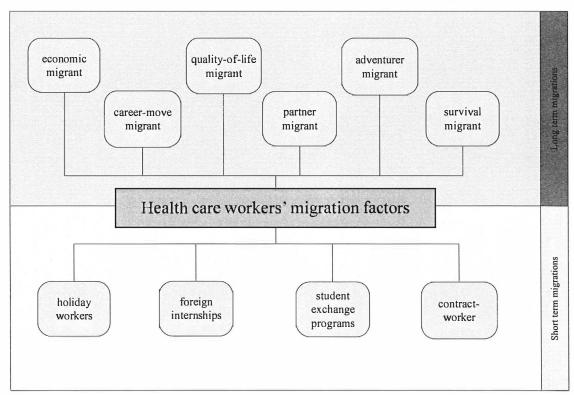


Figure 1. Typology of migrant health workers

Source: Kingma M. "Nurses on the move. Migration and Global Health Economy", New York: ILR Press an Imprint of Comell University Press Ithaca and London; 2006; Buchan J, Parkin T, Sochalski J., "International nurse mobility. Trends and policy implications", WHO, Genève 2003.



people in this group leaving the country is a refuge from persecution or armed conflict ongoing in the country [19, 20].

The cause of the escape of health professionals is also fear about the state of their own health, which in certain circumstances (for example, a large proportion of HIV infections in African countries) may be a reason to migration. In Malawi between 1998 and 2003 the number of nurses infected with HIV increased six fold. Authorities estimate that AIDS is responsible for causing 43% of deaths among middle health personnel in Malawi and Zimbabwe [21,22]. Equally high percentage of infections was recorded in South Africa, where over 14% of all workers involved in the health sector are HIV seropositive [23, 24].

Apart from a long-term migration short-term migration is also popular among medical staff. The purpose of this type of migration is to gain knowledge and experience in other countries, and the willingness to implement them in one's home country. A popular form of short-term migration, especially among young nurses is so called "holidayworkers". This phenomenon has become so common that some countries have special regulations for young people who want to develop their skills in that way. An example can be found in Australia, which introduced visas for highly skilled young workers (aged 18-30) for a period of 12 months. This program, although primarily intended for those wishing to come to Australia as a tourist, implies the possibility of taking up employment, provided that working period for one employer shall not exceed six months [25]. Similar amenities for citizens of selected countries were introduced i.a. by, Ireland, New Zealand and United Kingdom [16,26].

Another example of short-term migration are internships offered to healthcare professionals, like internships for nurses (study tour nurse) organized by numerous centers and clinics in the world. [27] The purpose such undertakings is primarily to create a platform of knowledge transfer, which can be used by representatives of various countries for sharing their experiences and skills. The benefits of going abroad are mutual: the staff of the host country learns methods of treatment and care of patients used in other countries, while the immigrant acquires new skills which after return can be introduced to the home center [28,29].

Medicine students are able to take part in other form of a short-term migration, which are student exchange programs and scholarships (eg. Socrates-Erasmus). These projects allow students to take part of their studies and/or practice abroad. Such programs promote mobility, improve the quality and attractiveness of education, and what is the most important facilitate international cooperation in the field of medicine [30]. In the era of globalization of the medical market in recent years, a new form of a short-term migration has appeared -"contract-worker". Temporary visits are very popular form of migration, especially among doctors and nurses. Monthly, weekly, or even a weekend stay abroad is not only an opportunity to acquire new skills, but above all, the possibility to obtain substantial additional income for employees who do not want to leave the country permanently [31]. The phenomenon of contract workers has become so popular that many institutions and clinics in the United Kingdom or Sweden have outsourced to specialized employment agencies coordinating and hiring foreign workers on short-term contracts [32,33].

Reasons for short-and long-term migration are difficult to sort out. Sometimes, the health care workers starting cooperation with foreign institutions in the form of contracts extend their stay for an indefinite period. Often, people who had left to work abroad with the intention of settling permanently, return to their homeland due to family reasons. The Buchan's and Seecombe's taxonomy takes that into consideration and recognizes that the causes and types of migration of health care workers are not static, and over time can change.

In 2003, the WHO Regional Office for African States published a report on the migration of health professionals in six countries of the continent. The study involved 2,364 workers in the health sector at various levels - from the nurses to specialist doctors. The conclusions of the research showed that apart from determinants of individual workers the causes of emigration exhibit characteristics typical for the each country [34]. For example, in Cameroon obstacles to career development, low standard of living and a desire to acquire new skills were the factors that often influenced the decision to emigrate in more extensive way than higher wages offered by the host country [35, 36]. Meanwhile, among the medical staff of Uganda and Zimbabwe better financial condition were the most important motives to work in another country [37, 38].

Higher wages and a desire to improve the living conditions are factors, which very often determine the emigration of health professionals. This factor positively correlates with the difference in wages between home country and the host country. The analysis of the research conducted by Vujicic shows that the income a doctor or nurse in Africa may be several times lower than in Europe or the United States, even when taking into account differences in the cost of living among the countries [2].

The reasons underlying the decision on permanent migration and labor are diverse and often difficult to grasp. Motives for emigration of health professionals often merge into each other, connect, but sometimes camouflage. It is therefore very difficult to select one reason that leads health care workers to look for a work outside the country.

## A. Aim of the study

The goal of the research was to analyze the factors affecting the desire to find a job abroad among young Polish health care workers on the basis of determining the emigration plans of students and trainees of Medical University of Warsaw.

Based on the literature review and building on the analysis of other studies the team of researchers formulated the following major research questions:

- RQ1: What are the factors affecting the desire to look for a job abroad among young Polish health care workers?
- RQ2: Does the type of professional occupation differentiate those factors?



TABLE I. DESCRIPTIVE STATISTICS AND AVERAGE RANK OF VARIABLE: FACTORS INFLUENCING SEEKING WORK ABROAD

Factors influencing seeking work abroad	n	Mean	Standard deviation	Average rank	
better remuneration	1 993	4,80	0,553	5,90	
better working conditions	1 993	4,51	0,754	5,38	
professional development	1 980	3,99	0,992	4,44	
positive reference from other health workers	1 977	3,62	0,972	3,75	
better interpersonal relationships in the workplace	1 982	3,07	1,094	2,84	
lack of job stability in Poland	1 983	3,47	1,231	3,62	
family reasons	1 980	2,31	1,269	2,07	
other	16	4,50	1,095		

Source: own study

- RQ3: How the financial situation of the family of the respondents influence their migration plans?
- RQ4: Do the factors affecting the desire to look for a job abroad change over time?

#### Materials and methods

Empirical studies were based on a survey distributed among undergraduate students and graduates of MUW. The survey was addressed to a group of last year students and alumni of the Medical University of Warsaw throughout the 4 academic years of 2007/2008, 2009/2010 and 2010/2011.

The research team aimed at reaching the total population of 3,026 people. However, once verified, there were finally 2007 fully completed, valid questionnaires, which amounts to 68% of the targeted population.

For statistical data analysis researchers used specialist statistical software package SPSS 17 and Statistica 9.0.

#### **RESULTS**

The key research issue of the study was to explore the determinants of willingness to seek work abroad. Respondents were asked to indicate the importance of given factors: better remuneration, better working conditions, greater opportunity for professional development, positive reference from other health workers, better interpersonal relationships in the workplace, lack of job stability in Poland, family reasons, etc. Factors were assessed in a five-point ordinal scale.

Due to the frequency measurement on such scale, it was necessary to create a unified ranking of factors. The results of nonparametric Friedman test are presented in Table I.

Analysis showed that the average rank assigned to each factor differ significantly (Chi2 = 5623.73, df = 6, p = 0.0001).

TABLEII AVERAGE RANK OF FACTORS AFFECTING THE WILLINGNESS TO SEEK WORK ABROAD VS. FIELD OF STUDY

	Field of study	n	Average rank	Chi2 (α = 0,001)
_	medical	680	1007,72	,,
better remuneration	nursing	375	1067,09	
era	midwifery	101	1023,12	50,619
ŭ	dietetics	87	1062,60	
E I	public health	335	905,92	
-	physiotherapy	83	1058,64	
- effe	pharmaceutics	332	947,23	
ے م	total	1 993		
	medical	680	1045,90	
D0 -	nursing	376	1060,62	ĺ
better working conditions	midwifery	101	1093,44	1
conditions	dietetics	87	1067,10	
y di	public health	335	834,21	61,570
ejte	physiotherapy	83	1025,49	
pe	pharmaceutics	331	934,03	
	total	1 993	75 1,05	
	medical	676	972,74	
-	nursing	373	955,44	1
a ti	midwifery	101	965,84	
professional development	dietetics	86	1212,53	1
lop	public health	333	895,82	40,35
rof	physiotherapy	83	1074,72	
4 p	pharmaceutics	328	1074,72	
-	total	1 980	1091,10	
	medical	671	974,14	
श्रम	nursing	375	1112,70	41,300
ence	midwifery	100	1112,70	
positive reference from other health workers	dietetics	87	1011,37	
the h	public health	335		
tive W P	physiotherapy	81	877,81	
iso no:	pharmaceutics	328	909,72	
A -	total	1977	967,66	
	medical	675	993,82	
la h	nursing	375	1138,84	1
sor in the	midwifery	101	1176,17	70,997
better interpersonal relationships in the workplace	dietetics	87	1037,28	
shi to	public health	335	853,29	
	physiotherapy	81	845,79	
lati	pharmaceutics	328	926,40	
ر م ا ا	total	1 982	920,40	
_	medical	673	921,72	
job stability in Poland	nursing	375	994,51	38,759
iii h	midwifery	101	1152,14	
tab	dietetics	87	1199,19	
b s	public health	335		
fj.	physiotherapy	83	1047,72 1084,19	
lack of	pharmaceutics	329	948,96	
lac	total	1 983	740,70	1
-	medical	676	800.72	
}			890,73	75,336
sus -	nursing	374 100	1170,75	
asc	midwifery		1116,89	
family reasons	dietetics	87	1052,37	
-i <sup>g</sup>	public health	334	1012,10	
faπ	physiotherapy	82	984,95	
-	pharmaceutics	327	914,82	
	total	1 980	1	I

According to the respondents higher remuneration has the greatest impact on the willingness to look for work in another country (average rank of 5.9). Other factors followed in order



of importance were: better working conditions (average rank 5.38), greater opportunity for professional development (average rank 4.44); positive reference from other health professionals (average rank 3.75), lack of job stability in Poland (average rank of 3.62.) Far less important for respondents in the decision to seek a work abroad are such factors as: interpersonal relationships in the workplace (average rank 2.84) and family reasons (average rank of 2.07.)

The next step was to examine whether the strength of individual factors for emigration vary between representatives of different fields of study (students of medicine, nursing, midwifery, dietetics, public health, physiotherapy and pharmacy).

The analysis performed by Kruskal-Wallis test showed that the specific fields of study differentiate factors affecting the strength of the desire to seek work abroad (Table II). For medical students of the most important factors were the favorable conditions of work and the opinions of health professionals employed abroad. The greatest impact on the desire to seek employment abroad among nursing students have financial benefits and interpersonal relationships in the workplace.

Students of midwifery found unsatisfactory interpersonal relationships and lack of job stability in Poland as the strongest factors that determine abroad job search. For future dietitians major determinant of migration were greater opportunity for professional development in a foreign country. For future managers of public health (public health faculty) and physiotherapists the strongest factor were the lack of stability in the Polish labor market. Trainees for the pharmaceutical industry pointed to greater opportunity for professional development as the most important factor influencing their desire to look for a job abroad.

One of the research issues was the importance of the financial situation of the family of the respondents as one of the factors determining migration plans for students and trainees of the Medical University of Warsaw. Therefore one of the analysis examined whether the desire to find a job abroad is higher among students and trainees who receive any scholarship or other forms of financial aid and benefits from the University.

The analysis performed with Pearson Chi2 test showed that the percentage of people who are thinking about leaving is higher among people who do not receive any form of financial assistance (Chi2=4,17; df=1; p=0,04). (Table III).

Another aspect of the study of factors affecting the desire to find a job abroad was their variability over time (Fig. 1).

Kruskal-Wallis test showed that in only three cases, there were significant differences in the average ranks the intensity of factors depending on the year of the study:

- better interpersonal relationships in the workplace (Chi2 = 11.579, df = 2, p = 0.003),
- lack of job stability in Poland (Chi2 = 10.807, df = 2, p = 0.005) and
- family reasons (Chi2 = 19.293, df = 2, p = 0.0001).

TABLE III. GETTING SOCIAL SCHOLARSHIP VS. LOOKING FOR A JOB IN ONE'S PROFESSION ABROAD

Chi²=4,17; df=1; p=0,04		Willingness to emigrate		- Total	
		Yes	No	TOTAL	
Social scholarship	Yes	n	269	225	494
		% of social scholarship	54,5%	45,5%	100,0%
		% of willing ness to emigrate	23,2%	27,2%	24,9%
		% of total	13,5%	11,3%	24,9%
	No	n	891	602	1493
		% of social scholarship	59,7%	40,3%	100,0%
		% of willingness to emigrate	76,8%	72,8%	75,1%
		% of total	44,8%	30,3%	75,1%

Source: own study

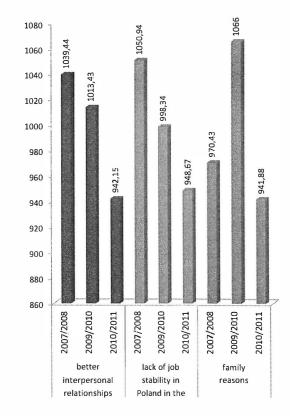


Figure 2. Average rank of factors affecting the willingness to seek work abroad vs. academic year of research

Source: own study





# III. DISCUSSION

The reasons underlying the decision on permanent or labor migration are diverse and often difficult to grasp. Motives of emigration of health professionals often blend into each other, merge, even camouflage sometimes. The one reason for health care workers to look for work outside the country cannot be definitively determined

According to the research results the main factor influencing desire to look for a job abroad among the students and trainees of Medical University of Warsaw is better remuneration. Interestingly, despite some discrepancies in terms of the scale of interest in traveling abroad observed in other Polish studies in this topic, when considering the causes of this phenomenon results from other studies are very similar [39,40,41,42,43]. In each of the cited studies economic factor was a key determinant of departure, acting from 73-100% of all the factors affecting the decision to emigrate.

The results of these studies confirm the discontent aroused by the financial situation in the Polish healthcare sector, particularly in relation to remuneration. The level of remuneration of Polish health workers in public health care is in fact not only disproportionately low compared to the salaries received by doctors overseas, but also in comparison with salaries in other sectors of the national economy.

Research conducted by M. Vujicic, suggest however that the differences in pay between health workers in developing countries and highly developed are so big that even an increase in salaries in the home country is unable to stem the tide of emigration of doctors and nurses. Therefore only focus on other determinants of decision of leaving their home country, such as working conditions, career opportunities can have significant impact on reducing the scale of emigration [44].

Znaniecki remarks that migration was allegedly not caused solely by a desire to improve the material situation became confirmed by modern research. Apart from meeting the daily needs emigration is also a way to increase one's share of life, which in the future will help to increase his or her social status. Decisions on emigration are taken as well due to professional skills development, gaining work experience, language practice, learning a new culture etc.. [11,39].

Although job emigration refers mainly to increasing income in the household, it takes however into account a kind of non-economic calculation of profits, which may be brought by working abroad.

Znaniecki remarks seem to confirm the results of the present study. Although the remuneration is the strongest factor influencing the willingness to seek work abroad, working conditions and career prospects are equally important for the young health workers. [11,39].

This fact is also confirmed by the analysis of this research, which shows that the desire to find a job abroad is declared more frequently by those who did not receive in the course of studying the material support (maintenance grants) than students who received such assistance. It can therefore be concluded that migration potential among young health care

workers is not dictated by the economic condition of the family.

Labor migration is not merely focused on meeting the daily financial needs but also is a way to increase ones human capital, which in the future would help to increase their social status. Decisions are taken also due to the desire to improve their qualifications and work experience, language learning, learn a new culture etc. [45,46].

Although emigration refers mainly to increased income in the household, it is simultaneously a kind of non-economic calculation of profit, which may carry up job abroad. This fact is also confirmed by the analysis of this research, which shows that the desire to find a job abroad is reported more frequently by people who did not receive in the course of studying the material support (maintenance grants) than the students who received such assistance. It can therefore be concluded that migration potential among young health care workers is not a result of the financial situation of the family [47].

It is also important that the reasons for which young health workers decide to look for work abroad are different for representatives of various professions. A study shows that for future physicians the most important factor is the favorable conditions of work abroad but among nursing students alongside economic conditions, interpersonal relationships in the workplace are as well very important.

Different reasons for the decision to emigrate give pharmacy trainees (greater opportunity for professional development), and physiotherapists (lack of stability in the Polish labor market). This inhomogeneity should be particularly taken into account by the authorities when considering design of future laws and strategy for restructuration of Polish health care. The main finding is the fact that the reasons for which representatives of various medical professions prefer to seek work abroad are different. All activities aimed at stopping excessive emigration among young health professionals should therefore consider these differences and respond to the needs of particular groups.

Migration is a phenomenon difficult to assess clearly. That is due to losses and gains by both sending and receiving countries. The fact is that the migration of health professionals in the era of globalization has become a challenge for all countries. In Poland, although migration of health professionals is a noticeable phenomenon it is certainly not a mass.

It is hard to forecast whether the departures of health professionals will intensify or diminish. It depends largely on the situation in the Polish health care system - especially on the wages and working conditions, as well as on the intensity of the active policy of recruitment of Polish citizens by the host countries.

Recently, both in Poland and in the Europe the issue of international migration has become the issue raised has not only by society, but above all by politicians. The European Union noticed the growing need of internationalization of migration issues, but still it requires changes in existing national governments policies.



Increasing demand for medical staff, technology development and demographic changes make the shortage of health workers serious global problem.

## IV. CONCLUSION

The main factors influencing the willingness to look for work outside Polish borders are: more favorable financial terms offered by foreign markets, better working conditions and greater opportunity for professional development. Preventing migration of Polish medical workers therefore requires not only increase the salaries in the health sector but also to upgrade the working environment of young health workers in Poland.

This study, as any empirical grounded research, has its limitations. The major one concerns the characteristics of the research sample that consisted of students and interns of WUM. Young people on the verge of their adult and independent life may present attitudes and behaviors different than the whole population of health care workers. Therefore, in-depth studies, especially based on other samples are advised.

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