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Migration intentions among physicians working in Polish hospitals - a cross sectional study

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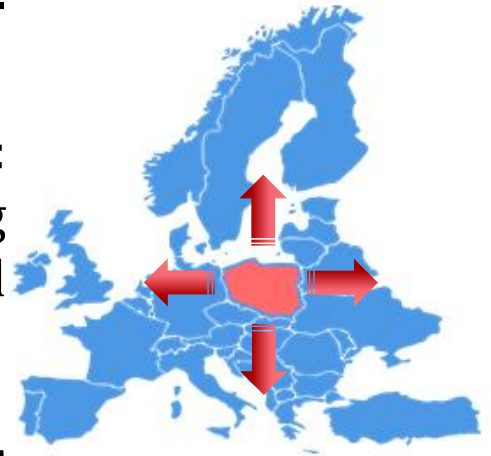
Background



- ❏ The situation of the Polish physician is characterized by:
 - shortages, heavy workload,
 - poor working and employment conditions,
 - barriers to trainings and professional development.
- ❏ Poland has **the lowest ratio of practicing doctors**/1,000 population in EU **2.4 vs 3.6** OECD average , *OECD/EU (2018) Health at Glance Europe 2018*.
- ❏ Regulatory salary increases have been implemented in recent years, but compared to other EU countries, **doctors' wages** in Poland are still low.
- ❏ **Unfavorable age structure** and considerable generation gap: average age of a practicing doctor – **50.2** years and **54.2** years for specialists. More than 60% of practicing specialists are **over 50**.

Background

- ❏ **The lack of mechanisms for estimating** the scale of emigration of medical personnel. Available data are incomplete and inconsistent.
- ❏ An indicator of "intention to migrate": **the number of certificates** confirming professional qualifications and giving the legal right to practice in other countries.
- ❏ According to the National Chamber of Physicians, between Poland's EU accession (May 2004) and December 2017, almost 9,535 certificates were issued (**about 7%** of practicing physicians).





The main goals of the study

1. To evaluate the scale of migration intentions among physicians practicing in Polish hospitals.
2. To identify the main predictors and barriers related to migration intentions.
3. To investigate whether there is a relationship between the level of physicians' satisfaction and their tendency to migration.

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Methods

- ❏ **Cross-sectional on-line survey** of physicians working in Polish hospitals
- ❏ Time: March - June, 2018.
- ❏ **15 cross-nationally distributed hospitals** were included: 7 general, 5 specialist, 3 university hospitals.
- ❏ **The selection criteria for hospitals** invited to the study:
 - different geographic areas - to reach cross- national distribution;
 - equal in size and similar profile of medical services in 3 subgroups,
 - reachable hospital managers to authorize the research.
- ❏ A self-administered questionnaire was sent to all physicians working in the included hospitals.
- ❏ **1,003 questionnaires** included in the analysis (38% response rate).



Questionnaires

- ❏ The questionnaire to measure the intention to migrate was developed based on Clarke et al. (2017, RSCI, Ireland): adapted/validated and pre-tested to the Polish context.
- ❏ The intention to migrate was measured via the question:
Are you currently considering practicing medicine abroad?

4 item scale: 1 – definitely no, 2 – rather no, **3 – rather yes, 4 – definitely yes**

WITH INTENTION TO MIGRATE

- ❏ Question **regarding reasons for migration** (17 items)
4 item from: 1 - strongly disagree, 2 - disagree; 3 - agree and 4 - strongly agree.
- ❏ **Physician satisfaction** was assessed using the questionnaire developed by Lepnurm et al., 2006 based on 4 dimensions of satisfaction: personal, professional, inherent, performance.

Statistical analysis

- ❏ We measured **associations between** the intention to migrate and: demographic characteristics, work-related variables and physician satisfaction.
- ❏ Simple and multivariable **logistic regression** analysis was conducted to determine which variables are significant predictors of the intention to migrate. Backward logistic regression was applied.
- ❏ Results were presented as odds ratios (ORs) and corresponding 95% confidence intervals (CI).





Results

Intention to migrate / Variable	Definitely No (n=339)	Rather No (n=391)	Rather Yes (n=228)	Definitely Yes (n=45)	All (n=1003)		P value
Sex							
Male	30.9%	37.6%	26.2%	5.2%	518	51.6%	
Female	36.9%	40.4%	19.0%	3.7%	485	48.4%	0.020 ^B
Age, years, mean (SD)	(11.67)	(10.9)	(9.42)	(6.4)	43.4	(11.76)	<0.001 ^A
Marital status, n (%)							
single	20.0%	36.4%	34.9%	8.7%	195	19.4%	
married	37.4%	40.5%	19.4%	2.7%	708	70.6%	
widow/widower	55.3%	34.0%	6.4%	4.3%	47	4.7%	
in an informal relationship	17.0%	32.1%	37.7%	13.2%	53	5.3%	<0.001 ^B
Having children, n (%)							
no	21.1%	36.8%	33.1%	9.0%	323	32.2%	
yes	39.9%	40.0%	17.8%	2.4%	680	67.8%	<0.001 ^B
Work experience, years, median (q1-q3)	(14-33)	(6-26)	(4-20)	(4-10)	15	(6-27)	<0.001 ^C
Specialist, n (%)							
no	17.0%	38.3%	36.4%	8.3%	324	32.3%	
yes	41.8%	39.3%	16.2%	2.7%	679	67.7%	<0.001 ^B
Additional shift-work duties n, (%)							
no	45.2%	35.1%	15.8%	3.9%	228	22.7%	
yes	30.5%	40.1%	24.8%	4.6%	775	77.3%	<0.001 ^B
Total no of working hours per week, mean (SD)	(17.28)	(15.72)	(17.4)	(17.18)	60.3	(16.94)	<0.001 ^A
Type of employment, n (%)							
job agreement	30.4%	40.6%	24.3%	4.7%	662	66.0%	
contract	45.2%	33.8%	16.9%	4.0%	272	27.1%	
mix	22.2%	44.4%	28.6%	4.8%	63	6.3%	<0.001 ^B
Number of employment places, n (%)							
only 1 hospital	42.7%	33.5%	19.2%	4.6%	349	34.8%	
also additional providers	29.1%	41.9%	24.6%	4.4%	654	65.2%	<0,001 ^B
Satisfaction, mean (SD)	(0.64)	(0.63)	(0.70)	(0.80)	4.06	(0.69)	<0.001 ^A



Results – sociodemographic aspects

- ❏ **Men more often considered** the option to migrate: 5.2% answered ‘definitely yes’ and 26.3% ‘rather yes’ in comparison to 3.7% and 19.0% respectively for females ($p=0.02$).
- ❏ **Marital status:** single physicians and those in an informal relationship more often declared the intention to migrate than married or widowed physicians.
- ❏ **Childless physicians** more often considered the option to migrate than those with kids (9.0% answered ‘definitely yes’ and 33.1% ‘rather yes’ vs 2.4% and 17.8%, respectively, $p<0.001$).
- ❏ The intention to migrate was negatively related to age and work experience – with **younger and less experienced doctors more often considering practicing medicine abroad.**



Results – sociodemographic aspects

- Doctors intending to migrate had a **higher mean value of total working hours per week**: 62.7 (SD=17.18) for those answering ‘definitely yes’ and 64.5 (SD=17.40) for ‘rather yes’ in comparison to 56.8 (SD=17.28) for ‘definitely no’ and 60.7 (SD=15.72) for ‘rather no’ ($p < 0.001$).
- Doctors working in **hospitals in small cities** (county hospitals) **less often declared the intention to migrate** than those working in hospitals in bigger cities (2.8% answered ‘definitely yes’ and 16.0% ‘rather yes’ vs 5.1% and 25.4% respectively, $p < 0.001$).



Results: specialists *versus* residents

- ❏ **Specialists** - only 2.7% answered the question of intention to migrate 'definitely yes' and 16.2% answered 'rather yes'.
- ❏ **Residents** - 8.3% answered 'definitely yes' and 36.4% 'rather yes'.
- ❏ Among specialists, **41.8% definitely denied having the intention to migrate** (answer 'definitely no') in comparison to 17.0% for residents ($p < 0.001$).



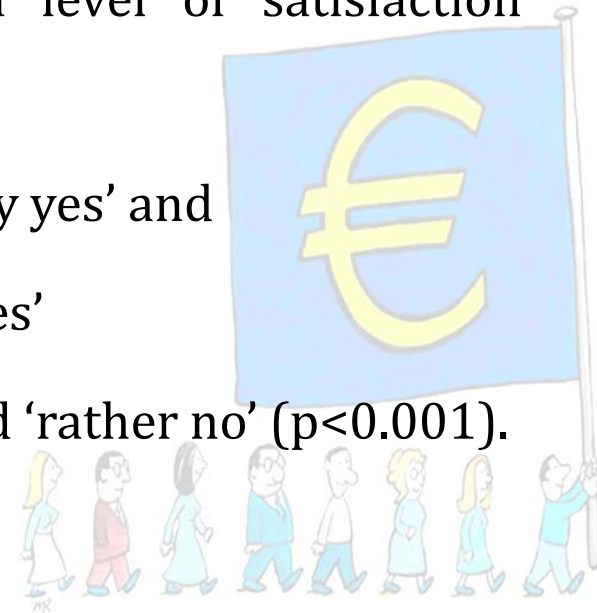
Results – association with satisfaction

The intention to migrate was related to **physician satisfaction**. Doctors intending to migrate had a lower mean level of satisfaction (scale 1: very dissatisfied to 6: very satisfied):

3.60 (SD=0.80) for those answering ‘definitely yes’ and

3.82 (SD=0.70) for those answering ‘rather yes’

in comparison to **4.30** (SD=0.64) for ‘definitely no’ and ‘rather no’ ($p < 0.001$).



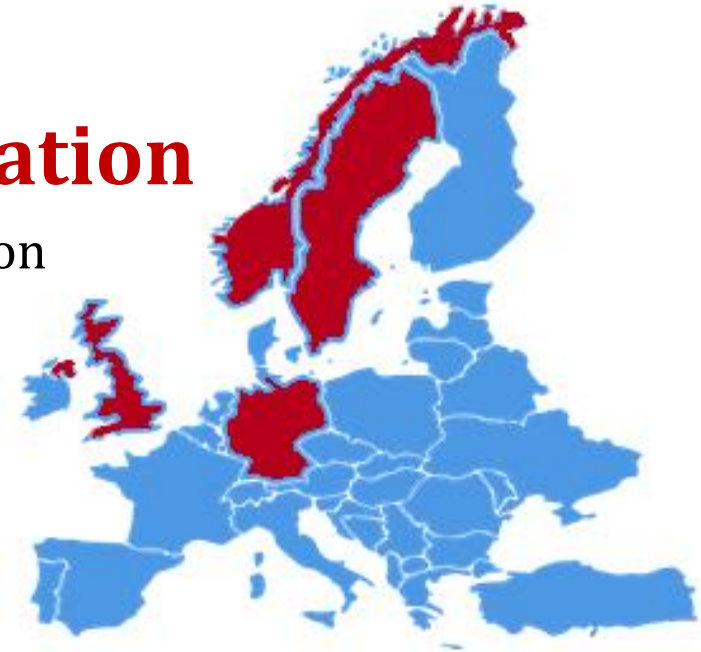


Results – type of migration

- ❏ The majority of doctors with the intention to migrate (168 out of 273) considered a **temporary stay abroad**.
- ❏ Doctors who considered a permanent stay abroad had a statistically significant lower level of overall job satisfaction than those considering a temporary stay (3.63, SD=0.74 in comparison to 3.88, SD=0.70, $p=0.004$).
- ❏ Doctors who chose a permanent stay abroad more often answered ‘definitely yes’ to the intention to migrate, than those choosing temporary stay (76% in comparison to 24%, $p<0.001$).

Results – direction of migration

- The countries most often indicated as migration destinations were:
 - Germany (22.3%),
 - the United Kingdom (19.8%),
 - Norway (11.7%),
 - Sweden (8.8%).
- The vast majority of doctors (more than 83%) indicated a European country as the destination.
- Among non-European countries: Australia, the United States and Canada were most often indicated.



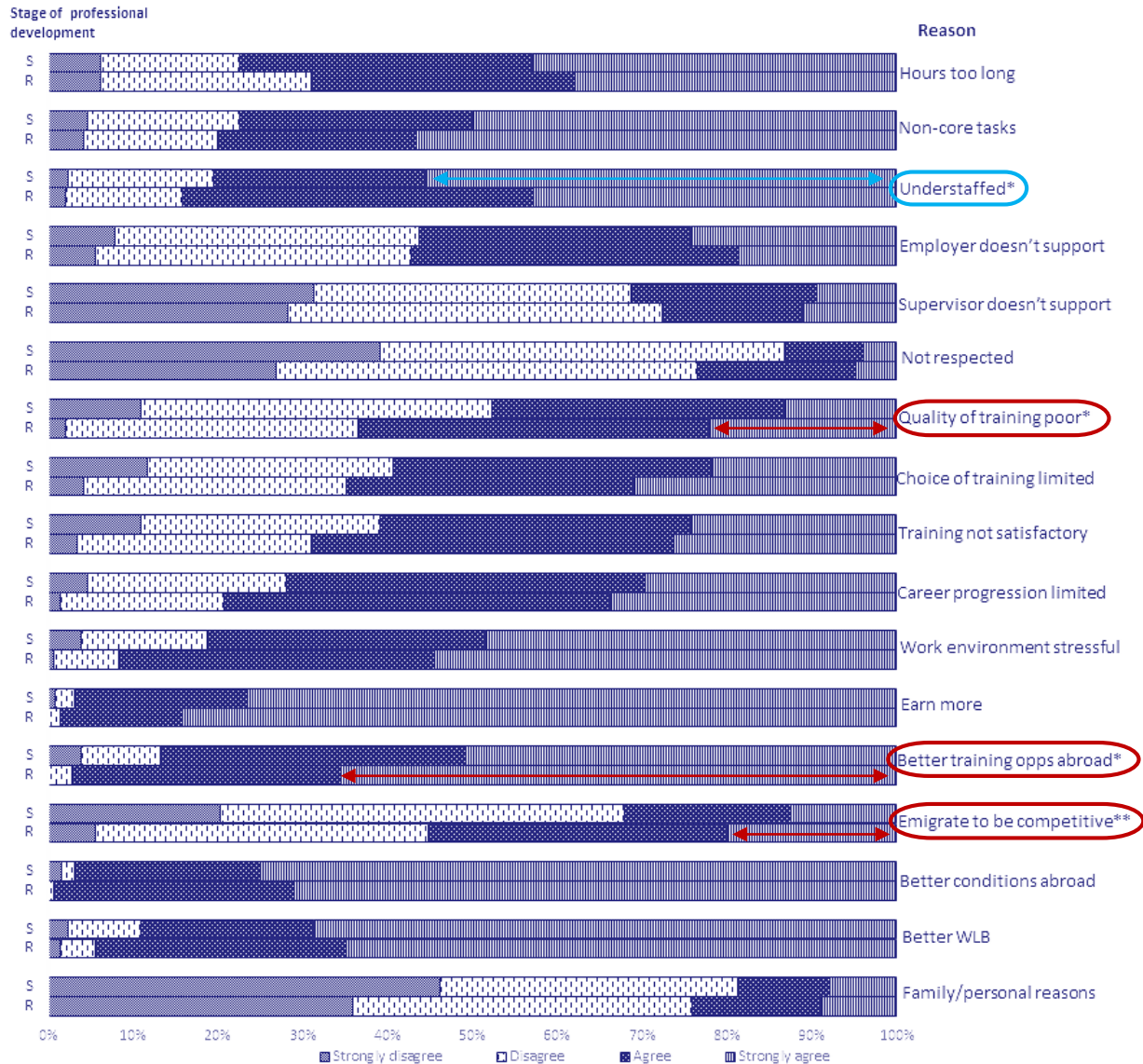


Frequency of **reasons to migrate** among doctors with intention to migrate (%)

Reason / % of answers	Strongly disagree	Disagree	Agree	Strongly agree
Hours too long	6.2	20.9	32.6	40.3
Non-core tasks	4.4	16.8	25.3	53.5
Understaffed	2.2	15.4	33.7	48.7
Employer doesn't support	6.6	36.6	35.5	21.2
Supervisor doesn't support	29.7	41.0	19.0	10.3
Not respected	32.6	48.7	14.3	4.4
Quality of training poor	6.2	37.7	38.1	17.9
Choice of training limited	7.7	30.0	35.5	26.7
Training not satisfactory	7.0	27.8	39.9	25.3
Career progression limited	2.9	21.2	44.0	31.9
Work environment stressful	2.2	11.0	35.2	51.6
Earn more	0.4	1.8	17.2	80.6
Better training opportunities abroad	1.8	5.9	33.7	58.6
Emigrate to be competitive	12.5	43.2	27.8	16.5
Better conditions abroad	0.7	1.1	25.3	72.9
Better work-life balance	1.8	6.2	25.3	66.7
Family/personal reasons	40.7	37.7	13.2	8.4



Reasons of migration: specialists vs. residents





Predictors of migration

based on simple and multivariable logistic regression analysis

- ❏ Women were 50% less likely to intend to migrate than men.
- ❏ Doctors with children were approx. 40% less likely to intend to migrate than those without children.
- ❏ Work experience and physician satisfaction were negatively related to the intention to migrate: **longer work experience and higher value of satisfaction were associated with lower chances of intending to migrate** (by 6% and 57% respectively).
- ❏ The total number of working hours/week was positively related – doctors with a higher total number of working hours/week had higher chances of intending to migrate.

Barriers to migration

- 70% of doctors indicated 'leaving family' as a migration barrier.
- 34% of respondents indicated a good professional position in Poland,
- 17% indicated concerns related to new working environment,
- 4% - indicated a language barrier.
- Doctors not intending to migrate** more frequently indicated **good professional position in Poland** as a barrier (40% in comparison to 15% among doctors intending to leave, $p<0.01$).
- Doctors intending to migrate** more frequently indicated **concerns related to new working environment** (25% in comparison to 14% among doctors not intending to leave, $p<0.01$) and **concerns related to a foreign culture** (15% in comparison to 10%, respectively, $p=0.03$).





Conclusions

- ❏ The intention to migrate **is related to socio-demographic factors** (gender, age, having children) and **work-related factors** (work experience, number of working hours, job satisfaction).
- ❏ The intention to migrate is **negatively related to physician satisfaction**.
- ❏ **Younger generations** more often declared the intention to migrate.
- ❏ **Less experienced doctors** often declared the intention to migrate.
- ❏ **The main reasons** for the intention to migrate are: higher earnings abroad, better working conditions, the ability to achieve better work-life balance and better training opportunities.



Thank you for your attention

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