

ETHICAL NORMS OF MEDICAL SCHOOL STUDENTS AND THE WORKFORCE MIGRATION

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Summary

Introduction. In the 21st century, cross-border migration of physicians has a deep impact on health services of central-eastern European nations in terms of human workforce management and public financing of care alike.

Aim. This study is concerning the medical school students' views about working abroad based on their socioeconomic background and ethical values in the proto-professional period of training and education.

Material and methods. For exploring the future medical doctors' views and fields of national intervention we performed a self-administered questionnaire based study among the 4th year medical school students (N = 1413) of the Semmelweis University Budapest with response rate of 86.1% in 2009-2012. Completing the usual socioeconomic and cultural background questions, we also endeavoured to clear the proto-professionally perceived ethical values of future medical doctors based on selected items of two internationally standard questionnaires.

Results. As a result, we confirmed that beyond financial interests cross-border migration is also influenced by ethical values and considerations.

Conclusions. Willingness of working abroad is influenced not only by the foreign country's economic incentives but also by the students' ethical norms as well. This shows clearly that the students are aware of their social responsibility after they graduate in the tuition free publicly funded higher education.

Key words: medical students, emigration, ethics, questionnaires, income

INTRODUCTION

The international migration of medical workforce, pre-eminently that of physicians, is a worldwide significant phenomenon both for source and receiving countries. Generally the higher education system of low and middle income countries is mostly affected since medical doctors endeavour to seek employment just after graduation in the most developed countries leaving this way behind the financial burden of their training expenses. This problem is clearly indicated by studies of researchers of Nepal (1-3) and Ghana (4, 5) while analysing the future plans of medical students graduated in these countries. Ethical attitudes of just graduated medical doctors were assessed by Indian researchers (6). In the European Union (EU) the typical migration route leads from central-eastern European region toward Northern and Western member countries. These source countries (except Romania and Bulgaria) joined the EU May 1, 2004 however relevant studies did not indicate any mass migration in the subsequent years (7, 8). The latest deadline (after joining of Bulgaria and Romania January 1, 2007) was May 1, 2012 the end of Germany's and Austria's derogatory protection that closed down the labour market of these countries for the new EU-members since 2004. As a result the EU's internal labour market became totally open also in terms of medical workforce migration. The first Hungarian

study about physicians' migration was published 2003 thus after the fall of Communism in 1989 but prior to Hungary's EU-joining (9). Recent Hungarian data suggest an increasing nevertheless no massive trend in the cross-border migration (10).

AIM

Our present study is concerning the actual situation of medical school students' views about working abroad based on their socioeconomic background and ethical values in the proto-professional period of training and education.

MATERIAL AND METHODS

We performed our data collection by self-administered questionnaires among the Semmelweis University's fourth year medical students during the winter semesters between 2009 and 2012. By summarizing the yearly data (2009 = 321, 2010 = 272, 2011 = 311, 2012 = 313) we obtained a total of 1217 valid questionnaires. In 31 questions, 14 assessed demographic data (family, place of residence, prior education, and part-time jobs during the training). We measured separately the proportion of students educated in religiously affiliated secondary schools and the activities in religious communities without asking for a specific type of religion. Economic status of families was classified on

a four-point scale (very good, acceptable, temporary difficulties, poverty). We measured also the students' knowledge about the physicians' actual wages and their future expectations. Mean and deviations from mean by 40 and 60% in negative and positive directions were indicated on a five score scale. The options for activities after graduation were: leaving the medical profession, to be employed abroad or in Hungary in private or public service or becoming self-employed. As informal payment is a widespread revenue source in Hungary, we asked also for participating in or rejecting this business (11). Additionally, we assessed the students' opinion about the actual sum of informal payment in terms if it depends on the patient's solvency or the doctor's professional performance. Five of questions asked for evaluation of elements and features of medical professionalism. Following the recommendations of the American Board of Internal Medicine (ABIM) (12), the weight of characteristics was defined by the students' own opinion and by their perceived social expectations. The Calman key values used in the United Kingdom were also assessed (13). Data were processed by IBM-SPSS v.22 program. For analytical reasons we used Pearson Chi-square probe at significance level $p < 0.05$.

RESULTS

Female students dominated the gender distribution (61.5%). Both parents of our students are alive (94.3%), the majority of them live in marriage (79.7%), 18.2% are divorced but cohabitation was not significant (2.1%). Physician is the mothers' 15.4%, 11.0% are working as other health care professionals. 15.7% of fathers are physicians but only 1.2% are otherwise engaged in the health care. Students do not have any siblings in 12.9% (1 brother or sister = 53.7%, two = 21.9%, three = 5.9% and four or more = 5.7%). The majority of the sample grew up in Budapest (35.3%) and in other metropolitan cities (34.2%), the share of villages and

towns was 14.6 and 13.2% respectively. According to 62.2% of students their family's economic status is acceptable, 17.7% described it as very good, 17.7% said to have temporary financial hardships and 2.1% said they lived in poverty. 8.2% of students are working in part-time jobs earning money for their education, whereas 5.7% are employed outside of health services. 18.7% of students graduated in religiously affiliated secondary schools, 26.4% of students are attending regularly church services and 18.4% admitted to be non-believer.

Concerning the actual net wages of physicians, 18% of students estimated it at 40% of the actual mean value and only 0.6% set it higher than 120% of the mean. As to the expected wages, 72.6% defined it to 120-160% of the actual mean. 62.1% of the students would accept informal payment. The sum of informal payment for a single service depends in 77.1% on the wealth of the patient, in 10.7% on the doctor's professionalism and on both in 12.2%. Immediately after graduation 2.8% will not enter the service and 34.6% will leave for working abroad.

While analysing the sample along the working or not-working abroad option (tab. 1) we did not find significant differences for gender ($p = 0.945$), number of siblings ($p = 0.314$), or in terms of part-time job parallel to the medical school training ($p = 0.104$). The parents' type of employment did also not have any impact (mothers: $p = 0.646$, fathers: $p = 0.612$). Significantly higher proportion of students will leave the country if they grew up in a village or a town, graduated in non-religiously affiliated secondary school and live in a poor family. Along the ethical values of physicians (tab. 2) all variables proved to be significant in promoting cross-border migration except the professional excellence.

The overwhelming majority of those planning to leave the country for working abroad do not want to become public employee (91.8%) or private employee (95.2%) or owner of private practices (83.5%). Among stay-home

Table 1. Relationship of demographic and socioeconomic status and willingness for working abroad (n = 1193).

Variables	Total (%)	Working abroad		p value
		Planned (%)	Not planned (%)	
Female/male	458/735 (38.4)/(61.6)	158/255 (38.3)/(61.7)	300/480 (38.5)/(61.5)	0.945
No or 1 sibling versus 2 or more siblings	792/401 (66.4)/(33.6)	282/131 (68.3)/(31.7)	510/270 (65.4)/(34.6)	0.314
Town versus all other settlement types	166/1024 (13.9)/(86.1)	69/342 (16.8)/(83.2)	97/682 (12.5)/(87.5)	0.040
Religious versus non-religious secondary school	970/222 (81.4)/(18.6)	349/63 (84.7)/(15.3)	621/159 (79.6)/(20.4)	0.032
Part-time job versus no part-time job	98/68 (59)/(41)	44/22 (66.7)/(33.3)	54/46 (54)/(46)	0.104
Poverty versus all other economic status	239/951 (20.1)/(79.9)	97/315 (23.5)/(76.5)	142/636 (18.3)/(81.7)	0.030
Father's occupation in versus outside of health care	197/996 (16.5)/(83.5)	71/342 (17.2)/(82.8)	126/654 (16.2)/(83.8)	0.646
Mother's occupation: in versus outside of health care	311/882 (26.1)/(73.9)	104/309 (25.2)/(74.8)	207/573 (26.5)/(73.5)	0.612

Table 2. Foreign employment based on opinions concerning ethical values of medical profession (n = 1217).

Variables	Total (%)	Working abroad		p value
		Planned (%)	Not planned (%)	
Respect of patients not important/important ¹	132/1056 (11.1)/(88.9)	59/350 (14.4)/(85.6)	73/706 (9.4)/(90.6)	0.008
Altruism not important/important ¹	337/851 (28.4)/(71.6)	145/265 (35.4)/(64.6)	192/586 (24.7)/(75.3)	0.001
Professional excellence important/not important ¹	1058/130 (89.1)/(10.9)	378/32 (92.2)/(7.8)	680/98 (87.4)/(12.6)	0.012
Serving attitude not important/important ¹	317/866 (26.8)/(73.2)	141/267 (34.6)/(65.4)	176/599 (22.7)/(77.3)	0.001
Honour not important/important ¹	138/1052 (11.6)/(88.4)	61/350 (14.8)/(85.2)	77/702 (9.9)/(90.1)	0.011
Following ethical standards not important/important ²	160/1028 (13.5)/(86.5)	76/334 (18.5)/(81.5)	84/694 (10.8)/(89.2)	0.001
Patient-centred care not important/important ²	171/1018 (14.4)/(85.6)	77/333 (18.8)/(81.2)	94/685 (12.1)/(87.9)	0.002
Communication not important/important ²	67/1123 (5.6)/(94.4)	31/380 (7.5)/(92.5)	36/743 (4.6)/(95.4)	0.038

¹ABIM, ²Calman

students plan nearly fifty-fifty (43.7 vs. 56.3%) to become versus not become public or private employee, or owner of a private practice (48.7 vs. 51.3%).

DISCUSSION

Based on our results, there are expected more women among the graduates than men. Albeit, the will for migration is not influenced by gender differences but it may be an early warning of changing traditional workforce patterns with possible difficulties. However we do not analyse this phenomenon in the present study. The parents' profession is a crucial aspect of career choice but we realised that only one fourth of mothers and one fifth of fathers were affiliated with health care indicating that family tradition is not a significant factor. In other words, it means that prior to their career choice the majority of our students do not have any experience about the medical profession. Concerning the economic status, only one fifth of the students came from lower income families.

While analysing the willingness for working abroad, we can conclude (tab. 1) that children of health service employees are not significantly more represented among the possible migrants thus experiences mediated by parents do not prejudice the domestic circumstances. Financial advantages and the unlimited environment explain thoroughly that students coming from smaller urban settings or low income families are more prone to cross-border migration. Without deeper analysis, we observed that religiously affiliated secondary schools are mediating some special ethical values that motivate doctors to stay rather in the domestic environment. A possible explanation may contain table 2 for this reason. Those who appreciate respecting patients, altruism, devoted service, honour, keeping high ethical standards, the patient first principle and trustworthy communication are

less prone for future employment abroad. Preferring professional excellence is self-explanatory among those who plan working abroad because they have to take in account a highly competitive environment. From point of view of economic expectations (tab. 3), we found lower income expectations in the stay-home sub-sample because they already adjusted their ambitions to the real Hungarian wages. Taking informal payment shows no difference between the sub-samples. Nevertheless, overestimation of the patients' solvency by the migrants indicate it clearly that the patients' wealth should be a significant source of higher future incomes. Answers to the legal forms of working abroad reveal a total lack of knowledge as they reject around 90% the public or private employment and the private ownership as well. Among doctors sticking to the home country nearly 90% reject the private employee option, but about 50% selected reciprocally the private practice ownership versus to be employed in public facilities. This is a viable alternative in the Hungarian healthcare since medical doctors in the primary care are either self-employed or shared owners of business corporations.

CONCLUSIONS

Medical doctors taking part in the cross-border workforce migration maintain a considerable pressure on the human resource management of the Hungarian health care system. All possible studies are welcomed to identify socioeconomic and ethical factors instigating or mitigating this migration. According to our results, willingness of working abroad is influenced not only by the foreign country's economic incentives but also by the students' ethical norms as well. This shows clearly that the students are aware of their social responsibility after they graduate in the tuition free publicly funded higher education.

Table 3. Future working abroad along economic values (n = 1217).

Variables	Total (%)	Working abroad		p value
		Planned (%)	Not planned (%)	
Expected income above versus under average	856/327 (72.4)/(27.6)	339/72 (82.5)/(17.5)	517/255 (67)/(33)	0.001
Informal payment accepted versus not	431/693 (38.3)/(61.7)	158/237 (40)/(60)	273/456 (37.4)/(62.6)	0.401
Informal payment depends on patient's wealth versus professional performance	895/124 (87.8)/(12.2)	327/30 (91.6)/(8.4)	568/94 (85.8)/(14.2)	0.007
Engaged as public employee no/yes	818/375 (68.6)/(31.4)	379/34 (91.8)/(8.2)	439/341 (56.3)/(43.7)	0.001
Engaged as private employee no/yes	1066/127 (89.4)/(10.6)	393/20 (95.2)/(4.8)	673/107 (86.3)/(13.7)	0.001
Owner of private practice no/yes	745/448 (62.4)/(37.6)	345/68 (83.5)/(16.5)	400/380 (51.3)/(48.7)	0.001

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