

ANXIETY ABOUT PROFESSIONAL FUTURE AMONG YOUNG DOCTORS

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Abstract

Objectives: The interest is focused on today's interns who will soon become an essential part of the health care system. Obstacles they perceive at the beginning of the career may encourage them or, inversely, impede their professional development, enhance professional burnout or even lead to change of the profession. International literature, comprising publications on the situation in ten European countries, Canada and the USA, is reviewed. Numerous considerations have encouraged some attempts to measure "anxiety about professional future" (AAF). **Materials and Methods.** Seven factors that induce anxiety about professional future among students and young doctors are listed and briefly discussed: 1) Difficulties in getting a job and growing anxiety for maintaining the job; 2) Low wages; 3) Negative impact of work on private and family life, in particular, a conflict between the professional role and mother's role; 4) Excessive level of organizational stress; 5) Lack of (individual) resources to cope with stress; 6) Institutional and financial limitations for professional development; and 7) Worldwide evolution of the professional role and the status of doctor. A questionnaire was developed by the author and answers were collected from a representative sample of Polish interns (about 1000) and a small sample of French interns. A scale for measuring the anxiety was built with use of factor analysis. **Results.** The resulting scale called AAF has proved to have good statistical properties. The mean value of the anxiety indicator proved to be high in Poland. Interns who are familiar with the doctor's daily duties, who feel economically independent and who have good self-valuation of the practical skills are characterized by a lower level of anxiety. AAF values in a sample of French interns was dramatically lower than those characteristic of Polish interns. **Conclusions.** The values of AAF for the interns can be related to the intensity of stress-inducing factors in the professional environment. Very high AAF values can stem from an excessive professional stress that may have a negative impact on individual careers and the whole health care system in Poland. Appropriate changes in the curriculum of medical studies (accompanied by legal regulations) might reduce excessive anxiety about future in graduating doctors in Poland. Such changes could include: (a) a greater involvement of students in the examination and treatment of patients and in "daily life" in health care institutions; (b) making more practice (or performing medical procedures) obligatory; (c) creating better opportunities to earn living in the medical professions (by performing procedures or by assisting professionals); and (d) making efforts in the field of practical education more rewarding (e.g., introducing rating for practice and incorporating it into fellowship schemes).

Key words:

Doctors, Occupational stress, Organizational stress, Professional role, Professional burnout, Professional status, Anxiety about professional future

INTRODUCTION

Public interest in having good health service is high. Doctors form an essential part of the health care system and should be characterized by their professional knowledge and skills, communication skills and motivation for work. Nowadays, young doctors, just entering the profession, make a group of special interest in Poland. They find Pol-

ish labor market in a difficult situation and, at the same time, they have an opportunity to enter the newly open Common European labor market.

Facing some obstacles at the beginning of the career may encourage young people to acquire more skills, but future perceived as very pessimistic can reduce his or her self-esteem or life optimism and impede professional devel-

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opment of doctors. In long term, undesirable processes of professional burnout may develop faster [1–3]. Lack of perspectives can also lead to forced emigration or to change of the profession.

Factors responsible for anxiety about professional future

Factors that induce anxiety about professional future among students and young doctors are numerous. Those discussed below are extracted from the literature reviewed and based on our own investigations.

Difficulties in getting a job and growing anxiety for maintaining the job

The world labor market is changing towards more flexible forms of employment. Some Polish authors report that these changes are poorly accepted by employees. Workers suffer from anxiety for losing a job: they feel they must accept undesired working conditions. Sikorski [4] found that in Poland, acceptance of uncertainty of employment is low, even in professional groups that have been expected to adopt the new way of thinking. We should bear in mind that the Polish society is not an exception in Europe: in an international survey carried out in 1999 [5], 15% of Poles responded “I am sure of my employment” whereas 12% of Britons declared the same. The situation of doctors who look for employment is not good: jobs are not numerous, vacancies are not made public and employment procedures are often unclear [6]. In 2003, announcements of vacancies related to medicine in the Warsaw region were not numerous. Only 17% of announcements offered jobs of general practitioner and additional 9% of a company medical representative. Most of the announcements were addressed to specialists, not to younger doctors. It was estimated that only 30% of vacancies were made public [6]. Informal procedures of employment have their logic: they “assure that jobs are given to persons that proved to be best, will not make any surprise and, by definition, have the highest qualifications.”

Unemployment among doctors in Poland cannot be considered a big problem. For example, in the region of Lower Silesia (3 million inhabitants, and one of the highest unemployment indicators in Poland), 85 doctors were registered

as unemployed per 6920 employed (1.2%) at the end of 2002 and 1.7% of the total number had become registered as unemployed during that year [7]. The number of doctors who lost their job during 2002 was 118 (about 1.7% of employed doctors), of nurses and midwives – 1336 (about 7% of employed in this group) and of other (middle and lower) personnel in the health care sector – 2086. However, it should be remembered that further reorganization in health care system is considered, which produces a steady stress imposed on the whole group, especially on young and non-specialized doctors who predominate among unemployed doctors.

Low wages

The financial motivation to work in Poland is extremely low when compared to other countries reviewed in detail by Koziarkiewicz [8]. In Poland, average income of a doctor is low: 1/5–1/6 of the rated income of doctors in other countries, e.g., Germany, France, Finland, Norway, 1/10 of income of Canadian and British doctor and 1/17 of the mean income in the USA. It looks better in relation to GNP per capita: 1.8 in Poland, compared to 2.0 in Germany, 2.2 in France, 3.1 in Britain and 4.5 in Canada. Polish doctors who start in the profession are paid poor wages compared to money they can earn in countries of Western or Northern Europe if they succeed to get a job. However, the majority of medical graduates stay in the country and their financial situation can be judged on the basis of the ratios of their wages to wages in other professions. In Poland doctors belong to groups of the economic status substantially lower than that of engineers, or middle-level civil servants, which is in contrast to Western Europe. A relative status of doctors among other professions is better in Germany and even better in the UK. Koziarkiewicz [8] considered various factors and postulated new tables of income. He proposed the minimum wage of a doctor – 1.3 GNP per capita, the maximum wage – 4.6, and the mean wage – 2.7 GNP per capita. He found that the mean value of a monthly income should have accounted for 3569 PLN in 1999 (about 800 euro).

It should be borne in mind that various societies in Eastern Europe undergo changes in their structure, which go along with the changing hierarchy of values. When the number of applicants for admission to medical studies is

more or less the same as in previous years and they are steadily characterized by strong vocation, their situation at the end of the studies becomes much more challenging, when we take into account that their future financial and professional situation depends much more upon their own efforts than it used to be seven or more years ago. Those efforts include continuous learning and reaching an adequate financial status, and learning depends in a part on the economic status of their families. The new situation is characterized by financial diversification of positions within the profession, the mean values specified above lost, perhaps, their former meaning.

Ethical problems may emerge from low wages and these problems are described in the Russian realities by Vlasov in 2002 [9]. The author lists a tolerant attitude towards violation of the ethical principles and distortion of research, incompetence and deceit in medical practice, involvement of physicians in advertising, marketing and even selling drugs. Our investigations among Polish interns show that young doctors are very resistant to and distant from such phenomena. However, those phenomena exist in the conscience of interns and encourage them to apply for a job abroad where, they believe, they can honestly earn their living.

Negative impact of work on private and family life, in particular, a conflict between the professional role and mother's role

One third of the doctors starting to work in the world are women. Most of the Polish woman doctors have children [10]. In this new (in the end of the 20th century) situation, coincidence between the doctor's role and mother's role is thoroughly investigated in various developed countries (Germany: Abele, 2002 [11]; Holland: Vroom, 1999 [12]; Canada: Bryant, 1991 [13]; England and Denmark: Branine, 1999 [14], the UK: Branine, 2003 [15]; Norway: Janbu, 2000 [16]). The situation in Poland was evaluated by Kulik [17–19]. Woman students are often considered as more diligent and ambitious during their medical studies, but their career is often in conflict with their role of the mother. This is noticed not only in Poland. Especially difficult is their work in hospitals, where specific "culture of work" produces obstacles to the harmony between different life

roles [20]. Flexible forms of employment, especially part-time work are postulated by the authors analyzing the most developed labor markets, e.g., Murray [21] and Evans [22]. Even in countries that introduce the part-time employment schemes, employers not necessarily use them for the benefit of doctors, but simply for their own convenience [14].

Showalter [23] points out that the position of women in medicine cannot be changed without changes in mentality of men. Their sacrifice for the work can no longer be a norm. The stereotype of male doctor-manager who sacrifices his family life for work must be changed for the sake of rational use of the women's potential in medicine. The author says that the situation needs changes in the organizational style prevailing in medical services.

In our own survey [24], we found that the majority of doctors who continue postgraduate education reported to suffer from the work overload and stress. Their private life suffered from their work. Perception of stress increases with age and is higher in women.

It should be highlighted that some authors point to inspiring, positive impact of combining the role of mother and the role of doctor [10,16].

Excessive level of organizational stress

Stressogenic factors in the doctors' work environment are known [25,26]. However, our survey [24] and the Czech report of Pavlat [27] show that in some countries, where health care systems undergo thorough reforms, a relative intensity of stressors can be inverted: the negative impact of situations, having nothing in common with patients and doctoring, can overwhelm the influence of situations normally bound to the work of doctor. The necessity to obey orders and rules perceived as unreasonable, the lack of resources to meet the needs of patients, an excessive number of patients/visits and poor personal relations among personnel are reported to be most serious stressors. However, a reliable measure of intensity of stressors listed above has not yet been established.

Lack of individual resources to cope with stress

Coping with stress among doctors is the subject of worldwide research [28,29]; at some centres it is also the subject of education, e.g., a graduate level practicum discussed by

Kushmir [30]. Firth-Cozens and Greenhalgh [31] present results of anonymous survey of doctors. One third of interviewed doctors reported recent incidents, in which symptoms of stress had the negative effect on their patient care. Of the 225 cases, two resulted in the patient's death. In Poland, publications addressing this issue are rather scant [32,33]. In our investigation carried out in 2004 [24], most of surveyed doctors (falling into different age groups) reported that they could have coped with stress better. A few of them have got any training or consultation and half of them would like to take such training in the future. Almost all agreed that some techniques of coping with stress should be taught during undergraduate studies. It should be remembered that young doctors are usually not fully conscious about the future role of their coping resources. Our cross-age investigation shows that exposure to stress becomes more intensive with increasing duration of employment and stress is more perceived by those with longer employment, more advanced age and by female doctors.

Institutional and financial limitations for professional development

The advancement of the doctor's knowledge and skills is a life-long process and demands financial input. In some countries, it becomes a serious problem when the cost of courses must be paid by their participants. Sometimes the situation is even more difficult when the legal regulations do not allow the institution to accept participation of doctors in courses [34].

Worldwide evolution of the professional role and the status of doctor

Two American authors, McKinlay and Marceau [35], defined the observed changes as "the end of golden age of doctoring", which implies diverse pressure imposed on an individual. They list eight interrelated reasons for the decline of the status of doctor, mainly being beyond the control of the profession: 1) the changing nature of the state and the loss of the partisan support for doctoring; 2) the bureaucratization of doctoring; 3) the emerging competitive threat from other health care workers; 4) the consequences of globalization and the information revolu-

tion; 5) the epidemiologic transition and changes in the public conception of the body; 6) changes in the doctor-patient relationship and the erosion of patient trust; 7) the weakening of physicians' labor market position through oversupply; and 8) the fragmentation or weakening of the physicians' union – the American Medical Association (AMA). The authors conclude that professional ideal cannot be restored easily and without consideration of socio-political transformation of the US health care system.

Diaz-Rubio, a Spanish author [36], lists a number of factors responsible for the changed range of demands that doctors must face due to the scientific and technological developments, the population's demands, the evolution economy, the optimization of resources, the influences of media and the ethical, legal and political processes. "Medicine is no longer what it used to be" – writes the author stressing that today a competitive doctor has to meet a broad spectrum of requirements, ranging from the initiative and flexibility up to the technological know-how and capacity. Society that is being steadily more educated expects more not only from leaders of health care but also from individual doctors. Those factors impose some changes in doctor's attitudes.

The information revolution produces especially severe demands since it reduces the asymmetry of information between doctors and patients, and this undermines the central pillar of the physicians' claim to the high professional status: possession of distinctive knowledge and competence. Thus the magic, mystery and power of the medical profession are being reduced [37].

MATERIALS AND METHODS

A proposed method of measuring anxiety about professional future in young doctors

It has been assumed that anxiety about professional future is a measurable component of the attitude of a doctor. Fourteen items of the questionnaire were formulated, covering the scope of meanings of the seven aforesaid factors inducing anxiety: 1) difficulties in getting employment; 2) sufficient wages; 3) impact of work on private life; 4) organizational stress; 5) lack of individual resources to

cope with stress; 6) limitations for professional development (specialization); and 7) evolution of the professional role of a doctor (bureaucratization). Then the formulated items (expressed further) were mixed with items covering other components of the attitude of a doctor. In total, 82 items were included in the questionnaire. The grade of agreement was expressed in the scale 1–2–3–4–5.

In nine academic centres anonymous questionnaire was distributed among interns during their obligatory courses in the academic year 2003/2004. The response rate was 100%. In two other centres, the questionnaire was distributed by the hospital administration and only 25% of forms were returned by post. In total, 992 completed questionnaires were collected from all Polish centres educating doctors.

In all, 986 valid questionnaires were selected and their 82 items were analyzed with help of the factor analysis with rotation Varimax. All of the designed 14 items had significant loadings on one factor termed "Anxiety about professional future".

Factor analysis was repeated on the 14 items, with one separated factor (Cattell test) that explained 23% of the total variance (eigenvalue 3.27). Values of the factor had the normal distribution.

Then a scale was built with the use of STATISTICA 6 software. Two items ("I will have enough spare time to rest from stresses of the profession", "I will suffer overloading with bureaucratic duties") were excluded because their distribution was highly asymmetric. Then consecutive items were eliminated until further increase in Cronbach alpha coefficient was not possible ("If I encounter problems with maintaining myself, I will change profession", "I will be able to earn enough for my livelihood and cultural needs", "Earning good money will only be possible in another country", "I will be able to keep harmony between family life and professional life", "I am afraid of numerous new exams I will have to take to be a specialist", "I often feel depressed and being unsure about my life", "I feel unsure about my knowledge and skills"). It should be borne in mind that the above items were correlated with the residue ones and their absence in the final scale does not lessen its diagnostic scope.

The resulting four-item scale had the Cronbach alpha coefficient of 0.71, mean correlation between the positions

0.39 when correlations between halves were 0.63–0.78, which shows a good reliability of the scale.

The following items were included into the scale:

1. "I am anxious that I will have substantial problems to earn enough for my family as a doctor".
2. "In the years to come, I will have serious problems with getting a job".
3. "In the years to come, I will have serious problems with getting and completing the specialization".
4. "Without doing my very best to reach a good professional position, I will only be able to get poor income".

Values of the AAF scale for each individual were calculated as follows: points for four items were summed and the sum was reduced to the interval 0–1 by linear transformation. Resulting individual AAF values got clear interpretation: AAF = 0 – a complete lack of anxiety, AAF = 1 – very high anxiety and AAF = 0.5 constitutes a midpoint of the scale, corresponding with the person who is neither anxious, nor feels strongly about the future.

Finally, the survey form was translated into French with the help of a native speaker (a medical person) and 36 filled forms were collected with the assistance of medical faculties in University of Paris XIII and the Catholic University of Lille.

The questionnaire was supplemented with additional diagnostic items aimed at collecting information on socio-demographic characteristics of the respondents: gender, having life partner, practising faith, education of parents, having a doctor among close relatives, financial independence, self-valuation of skills gained during the undergraduate studies and beliefs in key points of the professional career.

RESULTS

The study revealed that 81% of Polish doctors had the AAF value higher than reference point (0.5) while this finding was revealed in only 2 among 36 (about 6%) French doctors.

The AAF indicator had values significantly higher (Fig. 1) (ANOVA of Kruskal-Wallis: $H = 10$, $p = 0.0063$) in a the groups of doctors who had no doctors among close

relatives, of doctors financially self-supporting in the lower grade (Fig. 2) (ANOVA of Kruskal-Wallis: $H = 6$, $p = 0.0807$, Median test: $p = 0.02$) and of doctors who valued lower their practical skills (Fig. 3) (ANOVA of Kruskal-Wallis, $H = 36$, $p = 0.0000$). It was also found that average AAF was significantly higher in groups of persons who declared the highest and the lowest personal engagement in learning during their medical studies (ANOVA of Kruskal-Wallis: $H = 10$, $p = 0.0273$).

There was no significant difference in AAF in relation to gender, practising faith, having a parent with university education, having a life partner, studying other subjects prior to medicine, interest in reading non-professional literature and there was no significant correlation between AAF and grades for studies, AAF and self-valuation of theoretical medical knowledge.

It is interesting to analyze the degree of agreement on statements characterizing beliefs about finding a job and making career. Distribution of the agreement as to the statement “Good professional education is a decisive strong point of a person applying for a job” was almost flat (150–220 in each of the five groups separated by response on the five grade scale). Attitude to the statement “Knowledge and skills are decisive for professional position (career) of a doctor in my country” was mostly negative (Fig. 4). Groups of interns who did not believe that higher qualifications help in professional career had significantly higher mean AAF values than other groups.

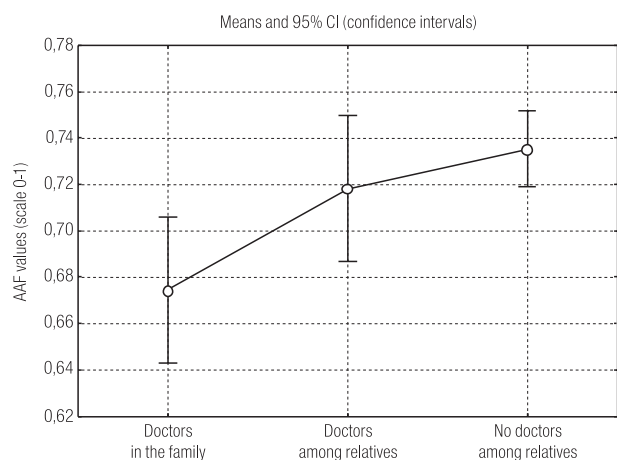


Fig. 1. Anxiety about professional future (AAF) and doctors in the family or among close relatives.

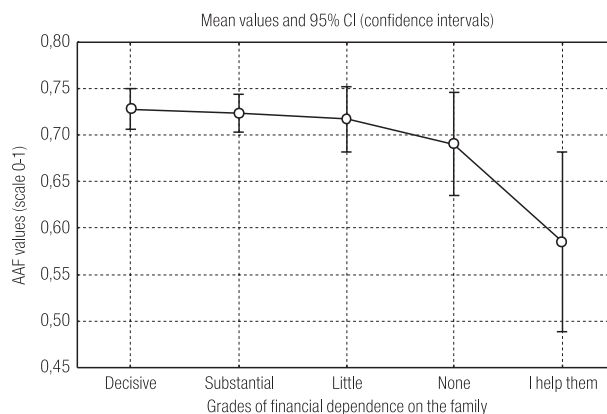


Fig. 2. Anxiety about professional future (AAF) and grade of financial dependence on the family (the respondents reporting “I support my family” were sparse).

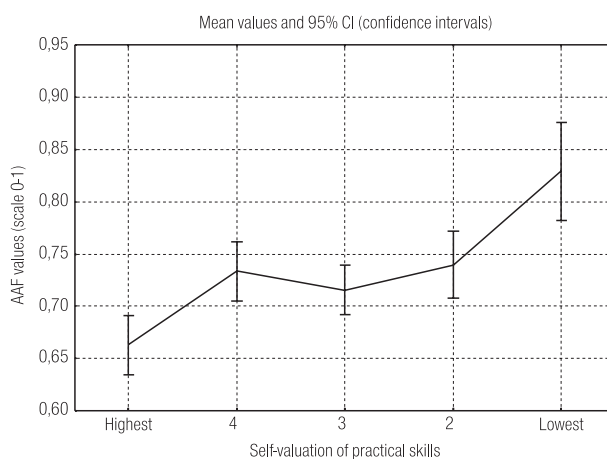


Fig. 3. Anxiety about professional future (AAF) and self-valuation of practical skills.

The sample of French doctors was characterized by totally different mean value and distribution of AAF. When in Poland the distribution was skewed to higher values and mean value was 0.71, in France, the distribution was

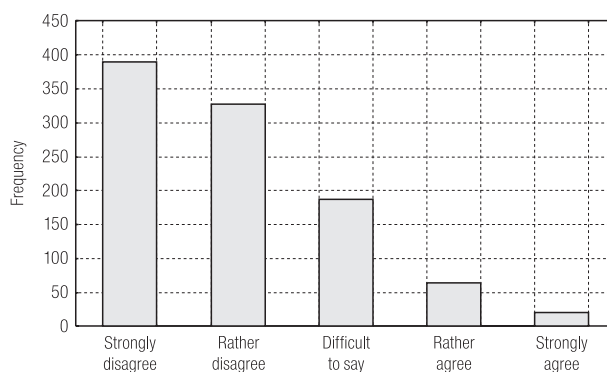


Fig. 4. Attitude to the statement “Knowledge and skills are decisive for professional position (career) of a doctor in my country”.

skewed to lower values and mean value was 0.28 (Mann-Whitney U test, $p = 0.0000$). A smaller group of French doctors had a doctor among relatives and their self-reported economical status of the family was lower.

DISCUSSION

The findings show that AAF scale described above can be useful for evaluating the anxiety for future (in relation to the middle point of the scale) and for comparative analysis of groups of young doctors or graduate students. It was found that persons who were familiar with doctor's daily duties due to their private contacts with doctors in their families and those who feel economically independent were characterized by the lower level of anxiety and those who self-validated their practical skills as poor showed higher anxiety. Final marks for the studies and self-valuation of theoretical education were not statistically associated with AAF, which indicates that AAF scale is primarily linked with anxiety about coping with daily practical problems. Such interpretation can explain that French doctors – who were more frequently and closer “exposed” to patients and hospital life – were in lesser extent anxious about their professional future.

High anxiety of Polish interns could be also linked with their beliefs about labor market. In the contrary to French doctors, they did not rely upon the decisive role of education in professional success. Our other results showed that they felt strongly about their personalities, efforts put into studies and acquired skills, but were very unsure about getting job, expected income and possibility of professional development. Therefore, the situation of young doctors in Poland can be viewed as highly frustrating. About 40% of interns seriously thought about getting job in other country than Poland.

CONCLUSIONS

1) Anxiety about professional future in graduating doctors is an important factor that influences in various ways their important choices in the near future, e.g., emigration, leaving the profession, area of specialization,

family planning, further education. This factor can be measured in individuals using the proposed AAF scale.

2) It is supposed that high values of AAF may have the negative impact on the future career of individuals and relevant measures should be taken (by individual or by faculty, or by other organization) to reduce the anxiety for future.

3) Mean AAF value in a group of interns originating from one country can be related to the intensity of stress-inducing (producing anxiety) factors in the professional environment in its broadest sense. Excessively high value of AAF in interns is alarming because it reveals that the new workforce is not compatible with the existing labor market.

4) Values of proposed AAF measure are relatively high in Polish interns and low in French ones. In more than 81% of Polish and in only 6% of French interns, AAF value is higher than reference point (middle of the scale). The AAF indicator had values significantly higher in the group of doctors with no doctors among close relatives, in the group of doctors with lower financial self-support and in groups of doctors who valued lower their practical skills. It was also found that average AAF was significantly higher in groups of interns who declared the highest and the lowest personal engagement in learning during their medical studies.

5) Appropriate changes in the curriculum of medical studies (accompanied by legal regulations) might reduce excessive anxiety about future in graduating doctors in Poland. Such changes could include: (a) a greater involvement of students in the examination and treatment of patients and in “daily life” in health care institutions; (b) making more practice (or performing medical procedures) obligatory; (c) creating better opportunities to earn living in the medical professions (by performing procedures or by assisting professionals); and (d) making efforts in the field of practical education more rewarding (e.g., introducing rating for practice and incorporating it into fellowship schemes).

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