FORUM: REVITALIZATION OF ACADEMIC MEDICINE

Dilemma of an Indigent Country: Is Academic Medicine a Good Investment?

Przemysław Kardas

Department of Family Medicine, Medical University of Łódz, Łódz, Poland

Academic medicine is a discipline which requires much financial expenditure and the profit is not always immediate. Therefore, an idea has been raised in some circles to limit the expenditures on it. The experience of Poland points out, however, that such a limitation will not bring benefit in the long run — just the opposite, it can bring about both social and economic loss. Even the countries that are not wealthy should invest in academic medicine, as this is a necessary condition for their harmonious growth.

Key words: economics; education, medical; Poland

Is academic medicine in a crisis? The discussion that has recently been raised in medical journals seems to contradict this thesis, pointing out the self-awareness coming out of maturity of this discipline. On the other hand, the rapidly changing world requires some basic questions regarding the objectives of academic medicine and the method of their execution to be dealt with again (1).

Looking from the perspective of Poland, a new member of the European Union (EU) and an indigent country much behind Western Europe in many areas, one could say: "Wish we had such problems as yours. We've got enough of our own."

Although Poland does not lack people of wisdom, the permanently underinvested science cannot keep up the pace with most of the developed countries. As a result, the number of citations per statistical inhabitant situates Poland at a distant place in Europe, and the state of medical scientific research is particularly unfavorable (2).

Low income is a source of constant frustration for academic teachers. Due to this, they spend their time looking for extra work instead of concentrating on research and improving their education, or they emigrate to the countries which can provide them with workplaces and better research opportunities (3).

Low income of medical physicians has long been the reason why graduates of medical faculties decide to emigrate. Recently added to this is the problem of postgraduate education, because of increasing financial burden on young physicians in Poland to obtain a medical specialty. All this contributes to the fact that in the first three months after the accession to the EU, 1% of Polish physicians have decided to leave the country. It seems that this process will continue due to the decreasing chance of employment for new medical graduates.

Since 1999, Poland has been undergoing a reform of the healthcare system. The reform was supposed to improve the quality and availability of services, as well as to base the system of financing on insurance companies rather than the national budget. While the first part of the reform has brought the expected profits — at least in certain areas, such as primary healthcare, the other part has provided extremely low level of financing of health services, very far not only from people's expectations but also to provide financial safety to the existing medical infrastructure.

Most problems mentioned above are — directly or indirectly — of financial nature. The question arises whether academic medicine is not just an expensive luxury for a country like Poland. Should the money, instead of being spent on universities and research centers, be spent on medicines, and the medical textbooks simply be translated from other languages? Should medical services be limited to most basic procedures and scientific research completely given up? One can only imagine how much money could be saved in that way.

Profits from Academic Medicine

Such questions seem completely preposterous. Each of the three main areas of academic medicine: education, research and medical care (4-6) is addressed to the society (Fig. 1). It is with having the people in mind that skilled medical specialists are trained, current and future actions determined to improve national health, and medical services offered to help keep the people healthy. Furthermore, in its current form academic medicine is an important branch of national economy, thus contributing to the further development of most of the developed countries. Pharmaceutical industry, one of the most profitable busi-
nesses of all, is strongly related to academic medicine.

Still, the experience of Poland shows that the things may easily go wrong when political factors prevail over the economic and social ones. In spite of the winged declarations of human primacy, Polish communist authorities after World War II had been more interested in heavy industry than medicine, or pharmacy. The echoes of such an attitude can be seen even today. Great fractions of the national budget are being spent on rescuing giant collapsing mines or steelworks, while medicine, health care or scientific research are permanently underinvested. At the moment, only 0.65% gross national product (GNP) is spent on scientific research, compared to twice as much in the Czech Republic and four times as much in Germany, not to mention the amounts in absolute numbers (2).

The results of such a policy have become quickly visible. The last original Polish drug was invented a few decades ago and now Polish pharmaceutical companies manufacture only generic medicines. It is difficult to find a Polish biotechnology company, and Polish know-how in medicine is a rarity. All this has an economic dimension as well: when there is no equipment, medicines or modern methods of treatment at home, they must be bought abroad for money – usually big money.

Responsibilities of Academic Medicine

Among all of the questions posed by Tugwell, the one about the role of academic medicine seems to be essential (1). This question can be asked in a different way: for what and before whom is academic medicine responsible? The role of medicine from the very beginning has been to serve people. And even though numerous physicians and scholars may have spent their lives trying to add to the knowledge about the surrounding world, there are few other disciplines as utilitarian in nature as medicine. Its main objective has always been to render health services to the people. In other words, medicine as a discipline could never be an art for itself. It is responsible before the people to whom it serves for educational, scientific, and health care tasks and is expected to be accounted for it. This means that the nation expects academic medicine to do its best in preparing new generations of physicians to cure their fellow citizens, perform research to solve most essential health problems of the nation and be able to provide a better medical service than any other sector of health care.

At the same time academic medicine is responsible for making a proper use of public financial resources. While people spend more and more money on medical research and health care, they do it in the hope that this investment is justified. Currently, the level of financing of academic medicine in Poland is much lower than it ought to be. On the other hand academic medicine is capable of absorbing infinitely big amounts of money. Scientific research is costly, as the new treatment and diagnostic procedures. That is why even the richest countries encounter problems with finding sufficient resources for medical expenditures. Yet, as far as financial resources allow, it is the duty of academic medicine to solve most burning health problems of the nation. It is also a moral imperative to make use of the available money in such a way that these problems can be solved as best as possible.

Challenges of Academic Medicine in Poland

Academic medicine in Poland will soon face numerous and important challenges. Despite many economic, social or historical differences, many of the challenges are strikingly similar to those encountered in Croatia, Finland, Israel, or USA (4,6-8). Some of the tasks, however, seem particularly important for medicine in Poland.

One of the most important problems academic medicine will have to cope with is ageing of the society. This process has increased dramatically in the recent years. Since 1999, the birth-rate has become negative for the first time (Fig. 2). The percentage of elderly people has increased at the same time. At the moment, it makes 12% of the population, which is less than in most Western-European countries, but still the highest in the whole history of Poland. This situation must be taken into account, since the growing percentage of the elderly population entails an increasing demand for medical services and related expenditures on the one hand, and a stronger political and social power on the other. As a result, academic medicine will soon face the dilemma of how to distribute the financial resources fairly between the elderly, who need reparation medicine right now, and the young, who demand preventive measures. The latter are less spectacular as the effects are delayed in time; on the other hand preventive action is a must if academic medicine wishes to fulfill its social mission.

Figure 2. Population of Poland 1985-2003, according to the Central Statistical Office (www.stat.gov.pl/english/index.htm).
Another problem is the so-called “alternative medicine”. The unprecedented development of medicine has made medical knowledge so vast that it is impossible for any single physician to cover all of it, not to mention the people who are not physicians. One of the side-effects of this is overspecialization, leading to the disintegration of a holistic approach to a human being (6). Unfortunately, in a situation where few physicians or scholars devote their time to familiarize ordinary people with modern medicine, various frauds and swindlers make use of it, offering alternative “therapy,” allegedly simple and easy to understand (9). The lack of legal regulations and the current inertia of the academic circles allow such individuals to keep deceiving people by giving them false hope of curing them from most complicated diseases, thus hindering or delaying the real effective treatment, which can be provided by academic medicine.

In spite of the reform of the health care system, in which the methods and level of financing of health services was determined, there are still no legal regulations concerning the standards of diagnostics and therapy. The patients do not know their rights and the physicians have no instructions to lean on. Polish academic circles will face an extremely important task of developing local standards of diagnostics and therapy, otherwise they will be introduced by insurance companies, without control and not necessarily in a most favorable way.

The difficult financial situation of Polish medicine is one of the reasons why physicians are frequently “non-resistant” in contact with pharmaceutical companies. These phenomena are observed at all levels, from prescribing medicaments of some company in return for specific profits, to presenting scientific research results in a way that is profitable for companies and their products. This phenomenon cannot be observed only in Poland (10,11). Recently some big pharmaceutical consortia were accused of concealing information, unfavorable for them, about the complications following the taking of antidepressants by young people (12,13). Transparent regulations regarding relations with pharmaceutical companies will be beneficial to Polish academic medicine (14).

Old-aged personnel structure and small flexibility of the academic career is another weak point of Polish academic medicine. Competitive research grants distribution procedures introduced in the recent decade, based on verifiable criteria are one of the methods to overcome this situation. Still, much has been left to do and hopefully the role of the EU, with its efforts to promote talented scholars rather than those with dozens of academic titles, will be significant here.

As it can be seen, Polish medicine is about to encounter the tasks that are real challenges. A pessimist may say: if academic medicine is in a crisis, it will certainly not be able to cope with it. An optimist will conclude: it was academic medicine that initiated family medicine in Poland a few years ago, which, just like in other European postcommunist countries (15,16), has grown into an important discipline, so academic medicine is still vital enough. Therefore, it is worthy for the nation to invest in it, since it will pay the nation back with numerous profits.

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Correspondence to:
Przemyslaw Kardas
Department of Family Medicine
Medical University of Lodz
Narutowicza St 96
Lodz, Poland
family@csk.am.lodz.pl