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OPTIMIZATION OF THE MANAGEMENT OF HIGHER MEDICAL EDUCATIONAL ESTABLISHMENTS IN THE USA

The article analyzes the main tendencies in optimizing the management of higher education, in particular, medical education in the USA at the present stage. The normative documents governing higher education management, in particular, medical education, encyclopedic, historical, pedagogical, and methodological literature on the issue of research, as well as teaching materials illustrating the experience of managing medical education in the USA, have been studied. In the course of the research, general scientific (analysis, synthesis, generalization, systematization) and historical-pedagogical methods have been used. It has been established that the rapid flow of finance and significant changes in educational policy, in conjunction with the task put forward by the federal government in the USA to identify the most gifted students resulting in the formation of a scientific elite led the higher school to the need for technical modernization and revision of the organization of the teaching process. It has been proved that the optimization of medical education management in the USA takes place in a nationwide direction, trying to implement important principles of the functioning of the higher education system and overcome the most serious challenges of the present time. It has been proved that autonomy, employment assurance, academic freedom and internal university democracy are the basic principles of medical education management in the USA. The main challenges encountered by educational management in the USA include accessibility, financial availability of USA medical education, assurance of education quality with the account of rapid technology development and the need for accountability. Recommendations for the management of higher medical education based on the experience of the USA, have been suggested. They include creation of a system of state educational loans, subsidizing people from low-income families, stimulation of co-ownership and multi-channel financing of education institutions, transition to financing of higher education institutions on a contractual basis, consistent implementation of the principle of the autonomy, etc.

Key words: *management, medical education, USA, optimization, globalization, autonomy.*

Introduction. The main tendencies of higher education management in the 21st century include globalization and informatization, active development of information technologies and telecommunications and strengthening of the influence of education on economic growth. Most developed countries in their educational documents claim that in the first half of the 21st century they must ensure radical changes in their educational systems [8: 184]. According to their policies, on the one hand education should become public and continuous and on the other hand, to have a practical orientation, to meet the needs and tasks of the development of society, economy, culture, science and technology [8: 186].

The global crisis of education, which began in the middle of the previous century, showed a significant gap between the level of development of education and society. Since that period, educational reforms around the world have been cyclically changing one another. Therefore forms, structures, internal relations and relationships in education have been changing. In the developed countries, the process of reforming the education system is virtually continuous. In order to optimize the management of education, and consequently – to improve its quality, certain changes in the organization and structure of various parts of the system are constantly being introduced from kindergartens to universities. Current reform often does not solve the accumulated problems that lead to an aggravation of crisis. Therefore, periodically there appears a need for deep fundamental reform that sums up the previous stage of development and lays the groundwork for the future [8: 83].

Analysis of recent research and publications. The USA experience in reforming higher education attracts the attention of many scholars. In particular, in many scientific papers issues related to the quality assurance of higher education occupy the central focus. The issues of monitoring the quality of education in the USA have been investigated by O. Andriushyna, O. Kalinina, T. Olendr. Problems of student assessment at the universities are largely studies by I. Zvarych. The general challenges and tendencies of the development of higher education from the historical and contemporary perspective are analyzed in the works of I. Bakhova, O. Kalinina, O. Klontsak, Ya. Pylynskyi, O. Ponomarenko, L. Sidun, O. Terenko, K. Shykhnenko. Of particular interest are the studies that highlight the main tendencies in the development of higher education in the USA (T. Kapeliushna (trends in technological education), N. Kashyrina (tendencies in the humanization of ecological education), N. Martynenko (trends in the development of information and communication technology education), O. Milova (trends of postmodernism in the US education), Ya. Pylynskyi (trends in the development of education for migrants), L. Sidun (trends in the development of multicultural education)). The papers by M. Bratko, I. Sokolova, O. Shpak are dedicated to the issues of higher education management in the USA. As will be shown, medical education in the United States as a pedagogical phenomenon has not been thoroughly analyzed, despite the undeniable practical value of research by domestic and foreign scholars. Different aspects of this have already been studied, but its integral characteristics have not been yet presented. In particular, there are insufficient amount of papers on the management of medical education in the USA. This strengthens the actuality of the suggested research, the aim of which is to study the ways to optimize the management of higher medical education institutions in the United States.

Results. Let us consider in detail the specifics of management at the universities in the USA at the present stage. Being an educational organization, every university always aims its efforts at the management and coordination of its other structural elements, especially in terms of admission of applicants, organization of educational process, development of material and technical base and behavior in the market of educational services. In this case, the university is a social organism with its own very specific methods of functioning with a special educational, scientific and sociocultural mission as well as its tasks including a special corporate culture and collegial management.

The success of managing a university of the United States is ensured by a combination of methodological certainty and compliance with the systemic and management mechanism. The rationality of the process of management is promoted by the principles of purposefulness of interactions, timeliness of managerial decisions and time economy. These principles also relate to the principles of continuity, technology and rhythmicity.

In fact, management at higher educational establishments is a purposeful, daily process. Given the theoretical concept discussed above, one can distinguish the external and internal environment of the university. Studying the university's activities, we must proceed from the fact that it is a complex, open, fairly stable system, which is in constant interaction with the external environment. In addition, the university has its own internal environment and organizational culture. With a certain input and output, the university is constantly in an environment of exchange. In real conditions, every university is considered by other institutions as a competitor in the market of educational services and potential consumers of these services (student – student) [6].

It is known that the management of higher education institutions has a significant influence on the factors of the environment: economic, political, socio-cultural, legal, etc. But, to a lesser extent, the functioning of the university depends on the internal environment and directly on its external environment. The latter includes a segment of the population, consisting of potential students, enterprises, organizations that want to employ university

graduates, competitors, etc. At the same time, the internal environment of the university includes faculty and students, management organization, educational process, financial security, marketing (regardless of the type of university) and organizational culture.

It is also important that Western researchers in the field of higher education, addressing the problem of managerial culture of universities and its impact on the activities of higher educational institutions, considered organizational culture in the context of effective university management.

The analysis of scientific literature on this subject enables the identification of four types of cultures identified by W. H. Berguist, which are characteristic of American universities and the corresponding stages of the development of the American system of education. It is supposed that in the "pure form" none of the types of cultures mentioned exist. It is, however, possible to find their combinations in any university. They include:

1) traditional culture based on the principles of corporativity and collegiality, which give foundation to the principles of community, discipline, conservatism and charismatic leadership;

2) culture aimed at competence-based management;

3) development-oriented culture the main values of which are personality, organizational dynamics of development and rationalist approach to the resolution of conflicts in the organization;

4) negotiation-based culture that emerged as opposition to a culture that is incapable of meeting the personal and financial needs of university staff [3].

As noted, the USA educational system has historically evolved within the framework of decentralization. In the United States, the centralized control over the education system is very weak, and in some cases, there is no central control over the education system; the organized management of fundamental research and planned allocation of funds is minimized and there is no centralized budget for scientific research or coordinated set of programs in this area [8: 185]. On the other hand, the education system is highly dependent on the government due to the presence of three factors. Firstly, education traditionally performs a public function in which states bear principle responsibility for primary and secondary education, and the federal government for higher education. Secondly, the balance between private and public education sectors has changed in such a way that now the majority of students study at higher education institutions that function at the expense of public support. Thirdly, the dependence of the entire education system, and especially the system of higher education, on the financing of the federal government, which can acquire different forms, has increased [5: 134].

Based on the above, let us look at the main problems, distinguished by scholars, which educational management faces in the United States, and the steps taken by the US government and leadership at various levels to optimize the management of higher medical education.

It is obvious that the system of market relations affects the economic stability of universities. The economic policy of universities directly depends on the state economic policy in the field of education. During the second half of the 20th century, the American higher education, in particular medical education, regularly received significant government revenues. This was despite the fact that US private capital, which was central to the formation of the US higher education system, continued to invest. By the middle of the century, the share of public spending exceeded half of all expenditures, and at the beginning of the 21st century, public funds cover more than 60 % of all costs on higher education. During this period, the federal government of the United States created a system of financial assistance for students, which currently represents half of all government spending on higher education and includes equal proportions of subsidies and borrowed funds.

At present, public funding for medical education in the United States comes from several sources: government programs Medicare ($ 9.7 billion) and Medicaid ($ 3.9 billion) and the

Veterans Administration ($ 1.4 billion). The healthcare administration also spends $ 464 million a year on programs related to higher medical education [9]. Private funding is provided by private sources that include clinics, universities, medical organizations, and profits from practicing faculty members. In addition, payments are made indirectly from payers of health insurance contributions.

The rapid flow of finance and significant changes in educational policy, as well as the task put forward by the federal government in the United States to identify the most gifted students which created the formation of a scientific elite, led the higher school to the need for technical modernization and revision of the organization of the learning process. As a result of the management of the educational process, universities, curricula and syllabi, as well as the forms and methods of teaching, have undergone a significant transformation. This has led the American higher education system to a radically new level, corresponding to the latest advances in scientific and technological progress and the requirements of the new globalized post-industrial society. Let us focus on the characteristics of the main features of American medical education at this stage.

In the 1960s–1970s, in response to population demand, existing medical schools expanded the number of university applicants and created forty new medical schools. Within the period of the 1960s–1980s, the number of students enrolled in American medical schools increased from 8,288 to 17,300. After 1965, medical education institutions grew even more, primarily due to the legal adoption of the Medicare and Medicaid programs. By 1990, the number of clinicians in medical schools in the United States grew to approximately 85,000. Half of the profits of typical US medical schools came from paying for clinical educators services by patients [9].

Since the 1980s, US presidents have become particularly active in shaping the educational course of the country [4: 417]. This was largely due to a growing public critique of the education system in the late 1960s and 1970s. Since 1981, Democrats and Republicans have proposed a series of reforms aimed at improving the knowledge of graduates of American schools and colleges [4: 417]. Three major reforms were introduced during this period. One of them was recognized by both political parties as undoubtedly successfully, and in relation to the other two, opinions divided. The Republicans launched three main programs: the "Back to the Basics" movement during Ronald Reagan's term, George W. Bush's "School Choice" and "No Child Left Behind". Democrats during the presidency of Bill Clinton advocated for increasing computer literacy and for giving parents the opportunity to choose a school for their child, as well as for the introduction of national school standards.

In general, this period is marked by a tendency for a significant strengthening of the state regulation of higher education, both at the legislative and administrative levels. This was manifested in the reform of the federal and state system of higher education and in the growing importance of the system of legislative regulation of higher education in the United States. The reform of the US High School Administration has shaped a multi-level, complex system that includes federal government agencies and US state authorities and administrations, as well as internal managerial structures of the university. Particularly important were the charity or regency councils, which acted as a link between the state and the university's management system. In the 1980s and 90s, a tendency towards differentiation of the external (political-financial) and internal (academic) management activity of the university was revealed. The US Higher Education Financing System at the end of the 20^{th} century was characterized by multivariateness and flexibility. This included sources of funding from the state (federal government, state governments, local authorities) and private funding (tuition fees spent by students or their parents, donations from former university graduates, "private sources"), as well as funding from the university's own sources. The importance of financial assistance to students in the form of grants, loans, scholarships, tax

benefits and employment increased with higher education tuition fees, which in turn was caused by the reduction (with inflation) of state support for higher education in the 1980–90s [7].

During the last decades of the 20th century, a steady tendency towards changing methods, technologies and forms of higher education became noticeable. These were necessary in order to ensure individualization, humanization and intensification of the educational process, in particular, by expanding the use of new technologies in the educational process.

The problem of the accessibility of higher education for different classes remains of the highest importance. This includes access to higher education for women, national minorities, representatives of racial groups, the poor, non-traditional people, representatives of indigenous population, people with disabilities and foreigners.

In addition, in the context of medical education during this period, the intensity of studying during the residency has increased significantly. In the 1960s and 1970s, an intensive care unit was opened, and new life-saving technologies were introduced, such as artificial ventilation devices and dialysis equipment, which increased the workload. In the 1980s, after the death of the nineteen-year-old Libby Zion at New York Hospital, the public began to demand the introduction of shorter working hours for healthcare workers. And although after the investigation confirmed that Libby Zion's death was not related to the poor care of medical staff, the movement to regulate the working hours of doctors began [7].

Until the 1990s, academic health centers working with medical schools and university hospitals, were an extremely influential and complex organization that was responsible for education and research. By the end of the 1990s, the budget of a typical academic center was $ 1.5 billion or more. Such growth required the construction of a rapid and logical management system that would coordinate the activities of both medical schools themselves and their clinical bases [7].

In addition, during the second half of the 20th and the beginning of the 21st century, major changes were made in the specialization of American higher education programs. The service sector, which had been expanding steadily, required the involvement of an additional number of specialists. As a result, the number of specialists in such fields as computer and information sciences, jurisprudence, medicine, business, public service, etc. grew significantly. Expansion of the above mentioned programs led to the reduction of academic hours in the humanities, natural sciences, and technical sectors. This adversely affected not only the labor market, but also threatened the lost of cultural values within American society. The growth of the significance of education and the large allocations coming from the US government led to an essential increase in state regulation. All these changes have become a prerequisite for the creation of a Commission on the Future of Higher Education.

The Commission began operating in September 2005 and it included 19 experts from various fields of higher education. The Commission's report, published in September 2006, became the basis of the national strategy for higher education reformation. The Report focused on four aspects: accessibility, financial affordability, quality (compliance with quality standards) and accountability of higher education (from the university to students, taxpayers, investors, etc.). The last recommendation of the Report was the need to introduce innovations in higher education [1]. Implementation of the recommendations published in the Report was entrusted to the Deputy Secretary of the United States Department of Education on Higher Education. Let us consider the main provisions that the Commission paid attention to.

Accessibility. In the Commission's point of view, access to higher education is unreasonably limited by the absence of sufficient information about college and university opportunities and persistent financial barriers [1]. The Commission considered lack of interconnection between universities and senior schools as the reason for this. The Report stated that "44 % of university professors say that students are not sufficiently trained to the

university level, while 90 % of high school teachers believe graduates are well-prepared" for university admission. In response to this, the Commission proposed to standardize the criteria for assessing graduates through co-operation and coordination of the activities of the two levels of education. In addition, to achieve this, the Report encouraged an early assessment of alumni knowledge.

Financial affordability. According to the Commission, another problem USA higher education is facing is its lack of availability for children from low-income families and national minorities. The report stated that "there is ample evidence that qualified young people from families of modest means are far less likely to go to college than their affluent peers with similar qualifications". In order to address this problem, the Commission recommended reducing student loan requirements to encourage more people to apply for financial assistance. The report also required greater efficiency and effectiveness of the financial assistance system [1].

Quality. In the Report, the Commission encouraged colleges and universities to introduce new ideas for innovative learning methods, such as distance learning, curricula modifications, to improve the quality of higher education.

Accountability. The Commission suggested creating a public database, where statistics and other information about colleges and universities can be made available to everyone. The information that will be available in the suggested database will include the cost of tuition, enrollment requirements, college graduate rates, etc. The commission argued that universities could have a greater motivation for students to succeed if this information was made available to future students and their families [1].

One of the major problems in modern medical education is the lack of a well-coordinated financial system that would balance the number of medical graduates with the demographic and epidemiological profile of the United States. Due to the lack of such co-ordination, there is now a certain discrepancy between the incidence and number of doctors and their distribution by geography and specialization. The problem is already actively addressed by accreditation organizations, trying to unify the standards and techniques of training and adapt the license volume to the requests of different states. J. O'Shea argues that the implementation of these attempts to improve the situation is possible only with the governments' support, which would manifest itself in the consolidation of government payouts for medical education and improved health financing by individual states [9].

Despite some problems that are mostly financial in nature, the US Department of Education and the Accreditation Council for Higher Education recognize that over 1,900,000 US higher education programs are accredited and of high quality. This is due to several reasons which include multi-channel funding, availability of sponsors, the paying capacity of applicants' families, benefits from the state and local authorities, financial attractiveness of higher education due to the existence of a developed economy and the involvement of foreign teachers. However, the decisive reason is the principle of management that includes autonomy, employment assurance, academic freedom and internal university democracy.

The nature of the relationship between the university and the state is evidenced by the fact that it is not universities, but curricula, that are accredited. The government may close a licensed program, but not the university. In addition, the federal and state budgets are funded not directly by the university, but by students who "rank" the university, choosing it out of others on the educational services market. University autonomy in administrative decisions and independence from manipulating government funding means that the latter can not use international rankings to compare universities to provide certain influence. It is possible to indirectly reduce the financing of students, but not of specific educational institutions due to license suspension, forced merging, or reducing the number of applicants [2: 114].

Conclusions. The optimization of medical education management in the United States takes place in a nationwide direction that is trying to implement important principles of the functioning of the higher education system and overcome the most serious challenges of time. These challenges, according to scholars' point of view, include accessibility, financial affordability and the provision of high quality education accounting for the rapid pace of technology development and the need for accountability. In addition, there is a certain ambiguity in the decentralization of higher education management. The lack of a standardization system that exists in other areas of higher education is not typical of medical education, which remains relatively elitist in financial and intellectual aspects.

The basic principles of higher education management in the United States, in particular medical education, which have been established over the past decades and remain the basis for the effective functioning of the whole system of higher education include autonomy, employment assurance, academic freedom and internal university democracy. The success of management of higher education in the United States is ensured by a combination of methodological certainty and compliance with the system and management mechanisms.

We believe that in the context of the introduction of US experience in the management of higher, in particular medical education, the following proposals are worthy of consideration: 1) creation of a system of state educational loans, subsidizing people from low-income families; 2) stimulation of co-ownership and multi-channel financing of educational institutions; 3) transition to financing of higher education institutions on a contractual basis; 4) consistent implementation of the principle of the autonomy of educational institutions; 5) stimulation of scientific activity within individual universities through the creation of research centers.

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Оптимізація управління діяльністю вищих навчальних закладів медичного профілю у США.

У статті проаналізовано основні тенденції в оптимізації управління вищою, зокрема медичною освітою в США на сучасному етапі. В ході дослідження вивчено матеріали нормативних документів, що

регулюють управління вищою, зокрема, медичною освітою, енциклопедичну, історико-педагогічну та методичну літературу з питань дослідження, навчальні матеріали, що ілюструють досвід управління медичною освітою в США. Використано загальнонаукові (аналіз, синтез, узагальнення, систематизація) та історико-педагогічні методи. Встановлено, що швидкий потік фінансів, значні зміни в освітній політиці, а також завдання, висунуті федеральним урядом США для виявлення найбільш обдарованих студентів та формування наукової еліти, привели вищу школу до необхідності технічної модернізації та перегляду організації навчального процесу. Доведено, що оптимізація управління медичною освітою в США відбувається в загальнонаціональному напрямі, намагаючись реалізувати важливі принципи функціонування системи вищої освіти і подолати найважчі виклики сучасності. Виявлено, що автономія, забезпечення зайнятості, академічна свобода та внутрішня демократія університету є основними принципами управління медичною освітою в США. Головні проблеми, з якими стикається управління освітою в США, включають фінансову доступність медичної освіти США, забезпечення якості освіти з урахуванням швидкого розвитку технологій, необхідність підзвітності. Запропоновано рекомендації щодо управління вищою, зокрема, медичною освітою з урахуванням досвіду США, які включають створення системи державного освітнього кредитування, субсидування громадян з малозабезпечених сімей, стимулювання співзасновництва і багатоканального фінансування закладів освіти, перехід до фінансування установ професійної освіти на контрактній основі, послідовна реалізація принципу автономії навчальних закладів тощо.

Ключові слова: *управління, медична освіта, США, оптимізація, глобалізація, автономія.*