Introduction.

The era of digital society is characterized by unprecedented dynamism – irreversible globalization processes, rapid change of ideas, concepts, knowledge, technologies, strengthening of communication, unprecedented mobility of economic and human resources, active formation of global educational space, on the one hand, contribute to innovative development, create conditions for intensification international relations and the spread of universal human values, active and fruitful use of the best global, in particular, educational practices [1]. On the other hand, the opening of borders, the mobility of teachers and students, the diversification of providers of educational services, as well as the need to ensure the real quality of higher education (HE) and its compliance with the demands of a wide range of stakeholders – society, the state, HE students of all levels, employers – give rise to fierce competition both among Ukrainian and foreign higher education institutions (HEIs) [1].

In the 21st century, HE faced the need to solve six key problems common to the global educational space: the essence of the teaching profession, access and equality, HE and social cohesion, private HE, international student exchange programs, the role of the research university [2, 3, 4].

In this regard, academic ratings (AR) – international, national, and regional – are considered as one of the tools intended for measuring the competitiveness of higher education institutions, forming a strategy for their further development and transformation [1].

The analysis of the literature on this issue proved that various aspects of AR are always in the focus of attention of scientists in the academic discourse [1, 5-23].

The aim of the study.

To critically analyze academic rankings and their impact on the field of higher education.

Main part.

During the entire period of existence of academic ratings, there is an ardent discussion about the usefulness of ARs, their transparency, validity, etc. Hence, there is a significant number of studies in which existing rankings are subject to serious criticism [4, 7, 8, 9, 10, 17, 19, 20, 22, 23, 24, 25].

Erkkilä & Piironen emphasize that the world rankings of universities, which try to “present” academic activity as a global competition, idealizing elite American universities and considering them as a role model, contradict the old European academic traditions. These rankings create an illusion of competition that has political implications [10]. However, according to these scientists, the rankings in no way take into account the general institutional context in which universities operate in a particular country. “The global ranking game” draws attention to individual institutions, not to national HE systems, so this “individualization” is likely to continue to be counterproductive for these systems [10].

For example, Julia Horstschä rer notes that the German higher education sector used to be quite homogeneous in terms of the quality of universities, the share of private universities is traditionally insignificant, since universities are subordinated to and financed by the 16 federal states of Germany. Unlike the Anglo-Saxon system, no university was considered elite and until 2006 education was free – students paid only a registration fee of 100 euros per semester [14].

A group of French authors emphasizes that rankings are often biased or based on methodologies that are not transparent (weight of compared indicators, calculation algorithms, methodological soundness in data collection). Although improvements have been made over the years, including in the selection of criteria, the rankings are not able to meet all the expectations of the academic community [19]. The cited researchers justify this statement by the fact that, for example, France ranks third among countries that accept foreigners to study at their universities, but this factor is not taken into account in most ratings, which puts French higher education institutions at a disadvantage [19].

The same scientists point out that evaluating the activities of higher education institutions mainly based on the bibliometric analysis of scientific publications of teachers is also disadvantageous for French universities, since a feature of the French higher education system is
that scientific activity is mainly concentrated in research centers. An example of this is the CNRS (Centre national de la recherche scientifique), which is considered a “central player” in the research field, but does not appear in the rankings because it does not belong to the Higher Education Institutions [19].

Among the critics’ arguments, it is worth noting that HEIs are different, so it is impossible to compare even two different universities with different missions and tasks. At the same time, we fully share the opinion of scientists [1] that, depending on the mission, universities position themselves as scientific, educational, and social. In addition, all universities are internally different, so it is very difficult, if not impossible, to compare them. Moreover, for potential students, the ratings do not provide critical information needed for an informed choice of place of study [9].

For example, Julia Horstschärrer cites the extremely interesting fact that for German applicants one of the most important factors affecting the choice of a university is the distance from the place of residence to the location of the university. Even more interesting are experimental data, according to which each extra kilometer reduces the probability of entry by 1.7% [14].

Bernardino & Marques point out that, for example, in 2005, seven out of ten ratings did not contain any indicator related to the quality of teaching, because it is very difficult to obtain such objective indicators and compare them [8]. Instead, the results of the ranking are always strongly influenced by the results of scientific / research activity, which is easily measured – usually by the number of articles published in international peer-reviewed journals [8].

According to the same researchers, one of the most difficult aspects of academic ranking is the danger that the results will turn into a popularity contest, rather than a serious discussion of which HEIs are really doing well. In general, this problem arises due to the fact that academic reputation is primarily taken into account, as well as information obtained from open sources and surveys. As a result, this technique leads to a halo effect [8]. Competition, according to researchers, is certainly a force that always moves science forward and causes qualitative changes, although at the same time, it can lead to a decrease in academic success, a certain leveling of academic and traditional values [24].

In this context, the opinion regarding significant distortions and the provision of unreliable information by the ratings acquires considerable importance. For example, Stella & Woodhouse think that “expert opinion” has two main flaws. First, they “suffer” from distorted perception and the “halo effect” [22]. The reputation of one structural unit, which is familiar to an expert, can without hesitation affect the entire HEI. Thus, one of the studies conducted in the USA showed that Princeton Law School ranks seventh in the country. However, Princeton never had a law school. That was a consequence of the halo effect [22].

Barbara M. Kehm also points out that high positions in the rankings trigger the well-known Matthew effect, because academics at such universities willingly apply for employment, the best applicants – for studies, alumni donations or state funding increase [15].

She also emphasizes that rankings have “unintended side effects” that are manifested in the European, national and institutional levels. At the same time, the researcher departs from the traditional practice of evaluating the AR methodology, and focuses attention on the effects of the logic of ranking, emphasizing that currently the ratings, which have become a special form of transnational politics, unfortunately serve as indicators of the economic competitiveness of nations rather than a real indicator of what they are actually doing universities. And therefore, ranking is a decontextualized symbolic value that is truly postmodern and creates a new material reality that is no longer connected to the original [15].

Another interesting fact: two universities of Saudi Arabia are actively involved in a rather original collaboration of famous scientists from Cambridge, Harvard and other elite universities, who are included in the list of the most highly cited researchers [17]. For 70,000 US dollars per year, selected scientists were offered to become teachers at these universities in exchange for an obligation to be present “at the workplace” for a short time once a year and to indicate their affiliation to these universities in their publications. As a result, within two to three years, the respective universities were included in the third hundred World-Class Universities (WCUs) according to the version of Academic Ranking of World Universities (ARWU) [17].

Hence, argue Kehm & Erkkilä, universities simply buy the reputation of researchers to enhance their own reputation. In March 2012, the Australian daily newspaper The Australian published a list of the 60 most cited “guest” academics – lecturers at Saudi Arabian universities, which included representatives of American, European, and Asian universities, or retired academics [17]. In 2012, one of the Australian universities published an announcement about the availability of the vacant position of “Manager of Institutional Ratings” with a salary of 100,000 US dollars per year. Among the job responsibilities of such an employee were items on managing relations with rating agencies in order to “maximize” or “optimize” the position of the respective university in the ranking, as well as interaction with the institutions that carry out the rating [17].

The staking of a university’s reputation on the subjective judgments of senior faculty and the over-reliance on the interpretation and use of secondary bibliometric data and peer review have created a confusing culture of performativity and an overemphasis on performance. This trend has exacerbated unhealthy competition and mistrust within the academic community, as well as divisions outside its walls. Of course, if universities are to provide services and prosper with the development of knowledge as their primary goal, it is important to consider the methods, concepts and vision needed to move from an emphasis on quality assurance to an emphasis on quality improvement [25].

In this context, the opinion of Ellen Hazelcorn is important: ratings have become an obsession of the modern world. At the beginning of the 20th century in the USA, it was perceived as an academic pastime, whereas in the 80s of the 20th century it was an information service for students, and now it has become a key factor in the pursuit of reputation with a tangible geopolitical flavor [11]. Therefore, she characterizes the current state of higher education as “the pursuit of global primacy” [11].
Brian D. Denman emphasizes that notwithstanding the need to ensure that data used in rankings contain pieces of truth, the data collected and methodology employed may often be subjective, biased, anecdotal, and inexact [25].

Stella & Woodhouse are even more categorical when it comes to the information provided by most of the ratings made by the media: “...standard market research methods used in data collection have put on the agenda the question: Can we assume that what works for pet food, perfumes and pesticides will work for education? Most ratings are based on two types of data: data provided by the institutions themselves, which are often accepted without proper verification, and data derived from public opinion surveys to create “expert opinion”. Since both components are on shaky ground, the media groups’ use of complex formulas with weights and indicators only helps to project the pseudo-science of the “scientific” results, which may be statistically irrelevant” [22].

As evidenced by the experience of the leading countries of the world, a competitive HE provides not only the needs of the country’s economy in highly qualified personnel, but also is the driver of its socio-economic development, serving as a system-forming factor of further transformations of the innovative and institutional environment of the post-industrial economy [26].

Silva Júnior & Fargoni it is quite realistic and justified to claim that the organizational symbiosis between universities and industry is one of the consequences of the emergence of WCU, which, on the one hand, generate useful patents thanks to a large infusion of resources through private initiative [4]. Donor companies closely monitor the innovation market, because they finance university research centers. On the other hand, many faculty-researchers come to companies as consultants, leading to even closer links between university research groups with entire industries and large corporations. This attracts the production and financial market to the university, thus placing it in the commercial economic sphere, reproducing the Bayh – Dole Act in a globalized context [4].

Yeravdekar & Tiwari [23], referring to Rauhvargers [21], quite rightly point out that the global rankings, for example, ARWU, actually cover no more than 3-5% of universities from around the world [21]. At the same time, the “elitist approach” on which all ranking methodologies are based, without exception, a priori led to the fact that about 16,500 universities “cannot be admitted to the competition” [21]. Moreover, the “iconization” of the ratings stems from their symbolic significance in terms of economic and political factors, and not from the point of view of the choral of education, since the ratings “encourage prestige wars” and “take on the characteristics of an academic fascination” that is unlikely to lead to significant improving the quality of HE [4, 7, 8, 16, 20, 22, 25].

Despite the objectively or subjectively critical attitude of researchers to academic ratings, they currently remain one of the components of the image of universities. The well-known expert on ratings Philip G. Altbach claims that if ratings did not exist, someone would sooner or later invent them, because the appearance of ratings is a natural result of the mass nature of HE, commercialization and competition of universities around the world [24].

In this regard, work continues on creating more and more new ratings. In addition to the ratings, suitable exclusively for WCUs ranking [27, 28], there are currently many other ratings – international and national, which can be considered as unbiased as possible and suitable not only for elite higher education institutions. In particular, Webometrics [29] is worthy of attention. Work on this project was started by the Cybermetrics Lab — a research group of the Consejo Superior de Investigaciones Científicas (the English name – Spanish National Research Council), which is the largest state research organization in Spain, back in the 90s of the last century. However, it was fully launched only in 2004. The rating is published twice a year – in January and July (Ranking Web of World Universities) [29].

It is also worth focusing on such a rating as U-Multirank – a European ranking system that appeared in 2014. The main purpose of U-Multirank is to analyze the transparency of the university’s activities [30]. Responsible for the implementation of the U-Multirank project is a consortium of European research centers – the Center for Higher Education Policy Studies (CHEPS, Enschede, the Netherlands), the Center for Higher Education Development (Centre for Higher Education (CHE), Guetersloh, Germany), Center for Science and Technology Studies (CWTS, Leiden, Netherlands), Knowledge and Development Fund (Fundacion CYD), Barcelona, Spain.

The project is financed by the European Commission, the Bertelsmann Foundation (Germany) and the commercial bank Santander (Spain) (U-Multirank Project) [29].

Compared to other global rankings, U-Multirank provides information on a wide range of HEIs and, importantly, enables the search and comparison of information on HEIs with similar profiles and tasks. U-Multirank ranks universities according to 5 indicators: teaching and learning, research, knowledge transfer, international orientation, and regional engagement. Thus, U-Multirank combines institutional ranking and industry rankings based on individual AS [29]. Unlike “commercial” ratings in U-Multirank, the decision regarding the relevance of individual indicators remains with the users (U-Multirank Project) [29].

U-Multirank allows you to evaluate HEIs according to a number of individual performance indicators with the ranking of each indicator from “A” to “E” (weak) on a scale: A “Very good”, B “Good”, C “Average”, D “Below average”, E “Weak” [29]. Importantly, U-Multirank does not provide composite scores, as there is currently no reliable methodological justification for simply “summing” the scores for different individual indicators or weighting them to obtain a single composite score used in ranking tables. This enables transparent comparisons, rather than simplified ranking. Therefore, based on empirical data, U-Multirank compares HEIs with similar institutional profiles and enables users to develop personalized rankings by selecting performance indicators (U-Multirank Project) [29].

Serhii Kurbatov asks a relevant question: “What awaits university rankings in the near future and in the future?” and corresponds to the words of Ulrich Teichler, who in the chapter “The Future of University Ratings” describes possible scenarios for further development of
the situation regarding AR [18]. The first is an inertial scenario, in which the current role and attitude towards ratings are preserved [18]. The second is the further spread of the practice of compiling ratings, deepening their influence on educational policy. Under these conditions, ratings become the fourth most influential factor in the modern world, along with the mass nature of university education, increased competition in the higher education sector, and internationalization [18]. The third is that ratings change the nature of higher education institutions. For example, their diversity will disappear and be replaced by a more or less homogenous environment, whose subjects compete for the opportunity to rise to a higher level [18]. Fourthly, the ratings distort the system of university education, since they evaluate mainly the research potential, and serious problems with the quality of teaching and learning can be predicted [18]. Fifth, the ratings will change the education system for the better, provoking internal diversification of higher education institutions, which is a factor in increasing competitiveness. Sixth – ratings will become an adequate and reliable tool for evaluating higher education institutions [18]. Seventh – ratings will contribute to the creation of “transparent” information systems and will disappear, since under these conditions the need for ratings will disappear [18].

Conclusions.

The analysis of quality indicators of various aspects of higher education institutions and the educational system of a country as a whole makes it possible to obtain a complete picture of its ability to successfully compete in the world economy, therefore, any efforts to remain aloof from the competitive struggle are doomed to failure, since “the struggle for a place under the sun” in the field of higher education is a reality that determines both its current state and prospects for further development. Therefore, ratings, despite their debatable nature, have become an integral part of management culture and global information space, acting as one of the tools for measuring institutional capacity, finding new approaches to the effective use of the potential of higher education institutions, adjusting the development strategy and driving positive changes in the educational environment universities.

References

THE DEBATE SURROUNDING ACADEMIC RATINGS: A CRITICAL ANALYSIS


Abstract. The article is devoted to the phenomenon of academic ratings, which have now become one of the influential levers for determining the competitiveness of higher education institutions at the international, national, and regional levels, as well as a natural result of the mass and commercialized nature of the scientific activity of academic staff. The authors observe that during the entire period of existence of academic ratings, there has been an ardent discussion about their usefulness, objectivity, quality and validity. The paper discusses the arguments of the opponents of academic ratings, which emphasize that they are often biased or based on methodologies that are not transparent (weight of compared indicators, calculation algorithms, methodological validity in data collection, etc.). The authors argue that despite the constant and painstaking work of the compilers to make the ratings as transparent as possible, for now, they often do not meet the expectations of university management and the academic community, and also provide little useful information necessary for real and potential stakeholders. The analysis of the literature on the researched issue proved that this especially applies to representatives of European universities. Opponents of the ratings explain this status quo by the fundamental difference, on the one hand, between the British and American educational systems, and on the other, between the national educational systems of Europe. Attention is focused on the fact that the orientation of the ratings mainly on the bibliometric analysis of scientific publications of academic staff is, for example, disadvantageous for French universities, since a feature of the French higher education system (in contrast to the British or American) is that scientific activity is mainly concentrated in research centers, whereas educational activities – in universities. It is noted that the analysis of quality indicators of various areas of activity of a higher education institution and the educational system of the country as a whole makes it possible to obtain unbiased information about competitiveness in the field under study. In connection with this, the "struggle for one’s place in the sun" should be perceived as a reality that determines both the current state and the prospects for the further development of higher education. The authors conclude that the ratings, despite the controversy, have become an integral part of the global educational and information space, serving as one of the tools for measuring institutional influence on the position of educational institutions and the educational system as a whole.

Key words: internationalization, competitiveness, university rankings, critical analysis, educational environment, positive changes.

ORCID and contributionship:
Bieliaieva O. M.: 0000-0001-9060-4753 ABDF
Lysanets Yu. V.: 0000-0003-0421-6362 BDF
Bilash S. M.: 0000-0002-8351-6090 AEF
Skrypnikova T. P.: 0000-0002-8242-6798 AEF
Khmil T. A.: 0000-0002-7178-3394 BCD

ISSN 2077-4214. Вісник проблем біології і медицини – 2023 – Вип. 3 (170) / Bulletin of problems in biology and medicine – 2023 – Issue 3 (170)
The integration of Ukraine into the unified global educational space is accompanied by the reform of higher education. At the same time, the priority of the system of higher medical education is the training of competent and qualified specialists in medical universities. In connection with the constant increase in the volume of scientific information, the task of the higher school is to find new methodological techniques that provide each student with deep knowledge, abilities and skills, and reveal to them the ways of realizing individual talents and resources.

The purpose of this work was to justify the system of formation of professional competences during the training of Medicine specialists in higher medical educational institutions.

The system of formation of professional competencies in Preventive Medicine is aimed at logistical management of activities in the training process and ensuring the selectivity of health care management in medicine. The main special competencies include mastering the basic methods of protecting doctors from possible adverse working conditions; mastery of the basic methods of environmental protection; mastery of methods of complex formation of health with the help of pharmaceutical support and nutritional support of the body; ensuring the necessary level of individual safety in the event of the occurrence of typical dangerous situations or based on information about the predicted situation; the ability to carry out sanitary and hygienic and preventive measures. In modern military conditions, mastering the tactics of providing emergency medical aid and the ability to carry out medical and evacuation measures are of great importance.

Key words: professional competences, formation, students, preventive medicine.

Introduction.

The integration of the state into a single world educational space is accompanied by the reform of high school. The essence of it is to bring higher education in different countries to unified standards. At the same time, the priority of the system of higher medical education is to train in medical universities the highly competent and qualified specialists [1]. Due to the constant increase of the number of scientific information, the task of the higher school is to find new methodological techniques that provide each student with deep knowledge, skills and abilities, and reveal before them ways to implement individual tasks and resources.

Modern pedagogical paradigm is based on the formation of professional competencies. According to the modern views, professional competencies are an integral characteristic of the business and personal qualities of specialists in the form of knowledge, skills and ability necessary for effective professional activity [1-5]. The implementation of a competent approach is associated to stimulate the transformation of the educational process and qualitative changes in educational activity. The training of highly competent people comes to the forefront in the process of vocational education and at the beginning of the training process and ensuring the selectivity of health care management in medicine.

Conflict of interest:
The authors declare no conflict of interest.

Corresponding author
Bieliaieva Olena Mykolaiivna
Poltava State Medical University
Ukraine, 36011, Poltava, 23 Shevchenko str.
Tel.: +380994140597
E-mail: o.bieliaieva@pdmu.edu.ua

A – Work concept and design, B – Data collection and analysis, C – Responsibility for statistical analysis, D – Writing the article, E – Critical review, F – Final approval of the article

Received 25.03.2023
Accepted 28.08.2023

DOi 10.29254/2077-4214-2023-3-170-354-358
UDC 613.96:796.015.6
Kirsanova O. V.

TEACHING OF PREVENTIVE MEDICINE IN HIGHER MEDICAL EDUCATIONAL INSTITUTIONS OF UKRAINE IN MODERN CONDITIONS

Zaporizhzhia State Medical and Pharmaceutical University (Zaporizhzhya, Ukraine)
kirsanova@zsmu.zp.ua