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INTERPROFESSIONAL COLLABORATION IN PUBLIC HEALTH HIGH EDUCATION AND PERSPECTIVE OF FUTURE SPECIALISTS

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Summary

Introduction. Universal health coverage shows the main direction in the development of the healthcare system. Prevention of the population health depends on implementation of the public health programs. Market changes in scientific and educational services impose new requirements on the activities of universities. Growing competition, rapid growth in the number of universities, a decrease in the number of potential applicants, rapidly changing factors in the external and internal environment of the university, changes in the behavior of consumers of educational services, systematic updating of education and professional development require universities to create a continuous system of training and retraining of specialists who know various terms. Thus, the new scientific research direction needs to be part of the public health educational program, such as artificial intelligence etc. In this regard the role of the collaboration between other sectors like IT, law etc. is important to create a competitive public health program.

The purpose is to study the world experience of interdisciplinary programs related to public health and their competitiveness.

Methods: The information base of the research was made up of scientific publications published in foreign peer-reviewed journals, as well as data from international organizations and statistical bodies. Literature search was conducted in PubMed, Scopus databases for the period from 2008 to 2023.

Results. Fourteen relevant studies focusing on interdisciplinary programs related to public health and their competitiveness was included for analysis. The concept-mapping process identified domains as innovation, intervention, joint public health program, partnerships, communications, and strategic planning which have influence for competitive market in higher education. Public health programs can be jointly implemented with other sectors as law, social science, nursing, medicine and etc.

Conclusion. Today, modern educational management tools are very diverse and comprehensive. However, with all the variety of methods, the university is a little-studied organization from the point of view of practical management: the direction of university management is just being formed. The development of two-degree programs in public health will increase the number of students in various fields (law, social service, information technology, etc.), thereby increasing its competitiveness.

Keywords: *public health program, dual or two diploma programs, competitiveness, marketing, loyalty.*

Резюме

МЕЖПРОФЕССИОНАЛЬНОЕ СОТРУДНИЧЕСТВО ПО ОБЩЕСТВЕННОМУ ЗДРАВООХРАНЕНИЮ В ВЫСШЕМ ОБРАЗОВАНИИ И ПЕРСПЕКТИВА БУДУЩИХ СПЕЦИАЛИСТОВ

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Введение. Всеобщий охват услугами здравоохранения показывает основное направление развития системы здравоохранения. Профилактика здоровья населения зависит от реализации программ общественного здравоохранения. Изменения рынка научных и образовательных услуг предъявляют новые требования к деятельности высших учебных заведений (ВУЗ) страны. Растущая конкуренция, стремительный рост количества ВУЗов, снижение числа потенциальных абитуриентов, быстро меняющиеся факторы внешней и внутренней среды ВУЗа, изменения в поведении потребителей образовательных услуг, систематическая актуализация образования и повышения квалификации требуют от ВУЗов создания непрерывной системы подготовки и переподготовки специалистов, владеющих различными терминами. Таким образом, новое направление научных исследований должно быть частью образовательной программы общественного здравоохранения, например, искусственный интеллект и т. д. В этом отношении роль сотрудничества между другими секторами, такими как информационные технологии, право и т. д., важна для создания конкурентоспособной программы общественного здравоохранения.

Цель. Изучение мирового опыта междисциплинарных программ, связанных с общественным здравоохранением, и их конкурентоспособности.

Методы: Информационную базу исследования составили научные публикации, опубликованные в зарубежных рецензируемых журналах, а также данные международных организаций и органов статистики. Поиск литературы проводился в базах данных PubMed, Scopus за период с 2008 по 2023 год.

Результаты. Для анализа было включено 14 соответствующих исследований, посвященных междисциплинарным программам, связанным с общественным здравоохранением, и их конкурентоспособности. Процесс концептуального картирования определил такие области, как инновации, вмешательство, совместные программы в области общественного здравоохранения, партнерские отношения, коммуникации и стратегическое планирование, которые имеют влияние на конкурентный рынок высшего образования. Программы общественного здравоохранения могут осуществляться совместно с другими секторами, такими как юриспруденция, социальные науки, сестринское дело, медицина и т. д.

Выводы. Сегодня современные инструменты управления образованием очень разнообразны и всеобъемлющи. Однако при всем многообразии методов университет является малоизученной организацией с точки зрения практического управления: направление университетского менеджмента только формируется. Развитие двухдипломных программ в области общественного здравоохранения позволит увеличить количество обучающихся по различным направлениям (юриспруденция, социальная служба, информационные технологии и др.), тем самым повысив его конкурентоспособность.

Ключевые слова: программа общественного здоровья, программы двойного или двухдипломного образования, конкурентоспособность, маркетинг, лояльность.

Түйіндеме

ЖОҒАРЫ БІЛІМ БЕРУДЕГІ ҚОҒАМДЫҢ ДЕНСАУЛЫҚ САҚТАУЫНДАҒЫ КӘСІП АРАЛЫҚ ҢНТЫМАҚТАСТЫҚ ЖӘНЕ БОЛАШАҚ МАМАНДАР ПЕРСПЕКТИВАСЫ

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Кіріспе. Денсаулық сақтау қызметтерімен жалпы қамту денсаулық сақтау жүйесін дамытудың негізгі бағытын көрсетеді. Халық денсаулығының алдын алу қоғамдық денсаулық сақтау бағдарламаларын іске асыруға байланысты. Ғылым және білім беру саласының қызметтері нарығындағы өзгерістер елдің жоғары оқу орындарының (ЖОО) қызметіне жаңа талаптар қояды. Өсіп келе жатқан бәсекелестік, жоғары оқу орындары санының қарқынды өсуі, әлеуетті талапкерлер санының төмендеуі, жоғары оқу орнының сыртқы және ішкі ортасының тез өзгеріп отыратын факторлары, білім беру қызметтерін тұтынушылардың мінез-құлқындағы өзгерістер, білім беруді жүйелі өзектендіру және біліктілікті арттыру жоғары оқу орындарынан әртүрлі терминдерді меңгерген мамандарды даярлау мен қайта даярлаудың үздіксіз жүйесін құруды талап етеді. Осылайша, ғылыми зерттеулердің жаңа бағыты Қоғамдық денсаулық сақтаудың білім беру бағдарламасының бөлігі болуы керек, мысалы, жасанды интеллект және т.б. Осыған байланысты Ақпараттық технологиялар, құқық және т.б. сияқты басқа секторлар арасындағы ынтымақтастықтың рөлі бәсекеге қабілетті Қоғамдық денсаулық сақтау бағдарламасын құру үшін маңызды.

Зерттеу мақсаты: қоғамдық денсаулыққа қатысты пәнаралық бағдарламалардың әлемдік тәжірибесін және олардың бәсекеге қабілеттілігін зерттеу.

Әдістер. Зерттеудің ақпараттық базасын шетелдік рецензияланатын журналдарда жарияланған ғылыми жарияланымдар, сондай-ақ халықаралық ұйымдар мен статистика органдарының деректері құрады. Әдебиеттерді іздеу PubMed, Scopus дерекқорларында 2008-2023 жылдар аралығында жүргізілді.

Нәтижелер. Талдау үшін қоғамдық денсаулыққа қатысты пәнаралық бағдарламаларға және олардың бәсекеге қабілеттілігіне бағытталған оң төрт тиісті+ зерттеулер енгізілді. Тұжырымдамалық картаға түсіру процесі инновация, араласу, бірлескен бағдарлама сияқты салаларды анықтады Қоғамдық денсаулық сақтау, серіктестік, коммуникация және стратегиялық жоспарлау, бұл бәсекеге қабілетті жоғары білім нарығына әсер етеді. Қоғамдық денсаулық сақтау бағдарламалары заң, әлеуметтік ғылымдар, мейіргер ісі, медицина және т. б. сияқты басқа салалармен бірлесіп жүзеге асырылуы мүмкін.

Қорытынды. Бүгінгі таңда білім беруді басқарудың заманауи құралдары өте алуан түрлі және жан-жақты. Алайда, әдістердің алуан түрлілігімен университет практикалық басқару тұрғысынан аз зерттелген ұйым болып табылады: университет менеджментінің бағыты енді қалыптасуда. Қоғамдық денсаулық сақтау саласында екі дипломдық бағдарламаларды дамыту түрлі бағыттар бойынша білім алушылардың санын көбейтуге мүмкіндік береді (ұқықтану, әлеуметтік қызмет, ақпараттық технологиялар және т. б.), осылайша оның бәсекеге қабілеттілігін арттырады.

Түйінді сөздер: Қоғамдық денсаулық сақтау бағдарламасы, Қос немесе қос дипломды білім беру бағдарламалары, бәсекеге қабілеттілік, маркетинг, адалдық.

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Сенбеков М.Т. Жоғары білім берудегі қоғамдың денсаулық сақтауындағы кәсіп аралық ынтымақтастық және болашақ мамандар перспективасы // *Ғылым және Денсаулық сақтау*. 2023. 3 (Т.25). Б. 257-264. DOI 10.34689/SH.2023.25.3.032

Introduction.

Health systems every time face many challenges. Last pandemic situation shows that the disease spectrum can be changed any time, which means that health systems must be ready to any respond. There are many factors influence their ability to do so. Some operate at the national or subnational level, for example, depending on the availability of financial and human resources, the general government policy on decentralization, and the role of the private sector [68].

According to the World Health Organization (WHO), the health system includes all existing organizations, people and activities whose main goal is to advance and support the population health, including activities on the determinants of health, as well as more direct preventive and curative activities. Six interconnected blocks need to improve health system as service delivery; health workforce; maintaining a functioning health information system; ensuring access to basic health services; financing; leadership and management [69].

A health care system, like any other system, is a set of interconnected parts that must function together to be effective. Changes in one area have consequences elsewhere. Improvements in one area cannot be achieved without the contributions of others [1].

Achieving the goal of universal health coverage can be carried out with an effective health system, in particular in the development of preventive measure [12]. Accordingly, the development of public health programs in the country is necessary for the implementation of scientific work to improve the health of the population. Currently, the problems of optimizing the management system of medical educational institutions as a solution to the problems arising from the lack of effective interaction between health care, education and science are particularly relevant [25].

Market changes create new requirements in the scientific development and educational programs of the universities. In the new environment, universities are forced to develop programs to adapt to existing demand and consumer needs. Increasing competition, a rapid growth in the number of universities, a decrease in the number of potential applicants, rapidly changing factors in the external and internal environment of the university, changes in the behavior of consumers of educational services, systematic updating of education and advanced training require universities to create a continuous system of training and retraining of specialists who know various terms. Moreover, in the current situation, the university activity is becoming a multidisciplinary organization that aims to implement social tasks along with a developing commercial initiative [12, 29]. In the age of informatization and digitalization the

development of science requires a revision of educational programs integrated with IT technology.

The purpose is to study the world experience of interdisciplinary programs related to public health and competitiveness of the future specialist.

Methods: The information base of the research was made up of scientific publications published in foreign peer-reviewed journals, as well as data from international organizations and statistical organizations. Literature search was conducted in PubMed, Scopus databases for the period from 2008 to 2023. The keywords which used for search was: public health, educational programs, higher education, marketing, tools and methods, competitiveness, healthcare, global health, reforms, human resource, specialist etc. Two independent researches classified studies and evaluated them. The inclusion criteria were full text; studies in English and Russian languages, last fifteen years. All studies which not included medical education, public health, and more than 15 years was excluded. In a result after discussion between two independent researches included fourteen studies for analysis.

Results. The literature review identified studies focusing on interdisciplinary programs related to public health and their competitiveness. The concept-mapping process identified domains as innovation, intervention, joint public health program, partnerships, communications, and strategic planning which have influence for competitive market in higher education.

Thomas R. Frieden identified six main components for effective public health programs as innovation, technical possibilities, evidence-based interventions, effective management, partnership, communication and political commitment [19]. Sarah Schell proposed a sustainable program including nine areas of public health program development, which establishes a common understanding of sustainability for practitioners, funders and researchers working in a number of public health areas [5]. For example, Abinash Singh and Sukumar Vellakkal in their study based on the analysis of the 19-year result of the impact of a public health event note positive results in maternal and child care [22].

Assessing the impact of the interprofessional educational intervention in nursing and public health students, as well as the intention of interprofessional collaboration, showed that the majority of participants felt that their interprofessional awareness, understanding, and intention to cooperate increased [52]. The importance of public health issues is recognized and in the disciplines of the Faculty of Medicine thus making the program with high demand [13]. Interprofessional collaboration in public health requires collaborative efforts of research scientists in partnership with medical practitioners to identify and implement sustainable

solutions that work in the real world [16]. Another direction for the development of the public health program could be the incorporation of disciplines related to the legal aspects that are common in the United States of America through the creation of a dual degree program [50]. The field of public health is changing rapidly, and new public health challenges require public health providers to continuously build their competence and capacity. For decades, the Institute of Medicine has encouraged public health workers to provide the education and training needed to perform its many functions [38]. The Institute of Medicine also stressed the importance of assessing gaps in the knowledge and skills of public health personnel and pointed out that public health agencies are responsible both for determining the needs for education and training of personnel, and for developing plans to meet these needs потребностей [19].

The World Health Organization (WHO) Framework for Action on Interprofessional Learning and Collaborative Practice (2010) states that "Interprofessional learning occurs when two or more professionals learn from each other and from each other to ensure effective collaboration and improve health outcomes [60].

There is international agreement that medical students should be prepared for practice through interprofessional education. Many international health care organizations promote IPE in the context of an aging population, limited financial resources, and recognition of the need to reorganize the health care system to improve interaction between disciplines, enhance patient care, and improve health outcomes [30].

In response to a healthcare system that is increasingly focusing on public health, US medical schools have also begun to change the methods of teaching students. The new accreditation requirements of the Medical Education Liaison Committee recommend additional public health requirements in U.S. medical schools, and medical schools subsequently develop or improve curricula on health policy

and finance, epidemiology, data analysis, delivery system science, patient quality and safety, environmental health, and behavior change in terms of health [6, 31, 39, 46,].

Dual degree programs in public health and social work may be an important response to the development of transdisciplinary practice. Challenges for these programs include the need for more institutional support [8, 32, 51]. The advantages of dual degree programs include thorough combined training in clinical medicine and public health, a broader view of health problems, the development of special and transferable competencies in academic research, more effective application of evidence-based medicine practice, community-based skills development, more effective management (leadership) training experience, platinum prospects for making a significant contribution to community in terms of health economics, environmental health and public policy, as well as excellent professional credentials when applying for jobs in academic, government and commercial organizations [2, 18, 60].

Satisfaction of the interprofessional programs can be influenced by two factors - "teacher benefits" and "teacher orientation". The greater the benefits of using the service, the higher the customer satisfaction and rating of the service. The same can be said about the orientation of students. If the company's systems, processes and structures are oriented in such a way that actual and potential customers meet their expectations, then this position contributes to the emergence of customer satisfaction with their supplier. Additionally, awareness can be measured as the number of referrals from existing customers that lead to new customers. The degree of publicity of a university depends on its marketing activities and includes advertising activities, public relations activities and branding [3, 5, 70, 43]. Forming and implementing a loyalty program for a university is a complex event aimed at achieving results in the long term. Developing a medical school loyalty program should include the following steps [47, 48] (Figure 1).

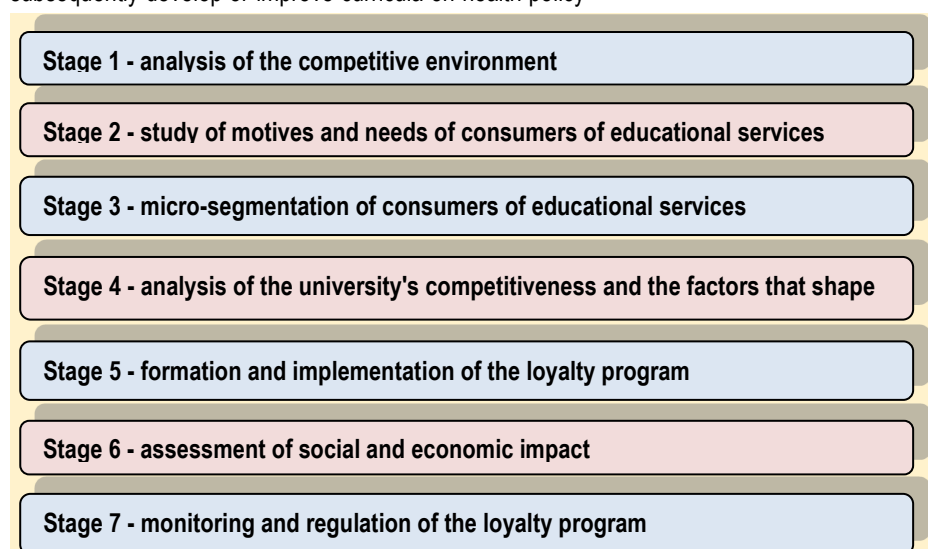


Figure 1. Algorithm of loyalty program of higher educational institution.

The form of actions to stimulate the loyalty of consumers of educational services through communication is to influence the personal and informational relations between the university and the consumer by involving the latter in the activities of the educational institution in order to awaken psychological and

emotional feelings in him. by feeling connected as well as by providing complete educational services to customers according to their requirements.

Other factors which contributed to competitiveness of the program are the organizational structure and renewal plan

supports which includes competency- and skills-based curriculum [29, 36, 49]. In addition, it is important to involve in educational program different type of stakeholders which help in promotion of the program as well as improve the quality [64]. Stakeholder engagement also addresses issues of multi-sectoral (government, civil society and private sector) and sectoral (health, environment and economics) approaches to jointly achieve policy outcomes. Improving public health is a complex task, as it involves the entire population of the country and has different geographic areas. accordingly, when for a competitive market, it is important to take into account this factor, where the role of stakeholders is very important [13,35,41].

Faculty professional development was identified as a key factor contributing to the success of interprofessional education program initiatives [37, 53]. Simply bringing faculty from different health professions together in the same learning space will not result in a useful interprofessional learning experience [21, 61]. With the growth of interprofessional education and practice in professional medical schools, teachers are being asked to take on new roles in leading or implementing an interprofessional curriculum. Many existing faculty members feel ill-equipped to deal with the challenges of this curriculum innovation [24]. To overcome this barrier, it is necessary to create a structure for teacher development and Teach teachers to develop competency-based interprofessional initiatives [45]. The study found that along with authenticity and individuality are important characteristics of successful interdisciplinary programs, they are also important characteristics of teacher training. Interprofessional educators value learning opportunities that are relevant and applicable to their educational activities and contexts, conclusions also supported by the work of Steinert et al. [59]. Planning and implementing new curricula can be challenging, requiring leadership to overcome resistance to change, complex coordination of schedules, flexibility of course content, and the use of new assessment tools to evaluate effectiveness [12, 16, 52]. Targeted faculty development through the incorporation of such programs into academic health center structures has been identified as a necessary driving force for success in health professions education and may be a particularly important factor in interprofessional development [20]. The leadership of such training programs should be collaborative, reflecting shared decision-making and respect for the unique contributions of each profession, in order to successfully implement two-degree programs [9]. A contributing factor to the success of interdisciplinary curricula has been the community created among participants in the faculty development program, which provides a framework for mutual learning and ongoing professional collaboration beyond the project's time frame [44]. Four institutions decided to replicate the patient safety error disclosure program; sharing processes and results between these sites increased learning between centers. Initial announcement of these goals and periodic review with management helped prevent project goals from deviating from planned goals [63]. Leadership program team and local leadership at each site were purposefully interprofessional, with appropriate time and effort dedicated to building our leadership teams. Achieving this collaboration was facilitated by identifying shared values, planning together, and investing the time and effort necessary to build the trust and accountability of the interprofessional leadership team [57].

Among the key elements of this success for developers and teachers of such programs were the peer learning that emerged within the teacher development community, adaptation of curricula to local contexts, experiential learning, and ongoing coaching/mentoring, especially in relation to actual participation in interdisciplinary or dual-degree programs [34, 58, 65].

Discussion.

The main subsystems of intelligent marketing of higher medical education, in our opinion, can be: active branding; entrepreneurial activity; international service; managing the image and business reputation of the university; customer loyalty. We believe that it is necessary to develop intelligent marketing in order to increase the competitiveness and further development of higher medical educational institutions, the use of which, in our opinion, allows the university to become an important intermediary between the market of educational services and educational organizations. [17].

Obviously, having the six pillars for public health programs at universities will allow them to be competitive [14, 15, 38]. For instance, technical capabilities can often be costly, but partnering with IT-advanced universities allows for a stronger collaborative program, thereby strengthening its resilience in a competitive environment. In particular, it is necessary to take into account the speed of development of research and artificial intelligence in health care, which can be used for programs in public health as tools for prevention of the diseases in the individual and in society perspectives or providing personal care and assistance, or influence of behavioral factors [23, 37].

The main strategic component of the development of higher medical universities is the organization of such an innovative structure that aligns the future development of the university with market requirements and modern trends in the modernization of medical education. It means sustainable public health program are more likely to be accepted by the market if they produce long-term results and increase the health potential of the communities [56, 66].

At the same time, in Kazakhstan the fundamental principles of national education - quality, efficiency and accessibility - will open wide opportunities for universities. Last years several two diploma programs introduced in healthcare sector. However, the lack of a clear vision in public health sector makes it difficult to develop integrated competitive programs. Moreover, despite the fact that some higher education institutions already use marketing mechanisms and principles in their work, they try to objectively assess their competitiveness, participate in the benchmarking process, establish interaction with the participants of the educational services market and the labor market [7].

The main competitive advantage of a highly developed country is related to the development of its human capital, which is often determined by education. Nowadays joint dual-degree programs are the new way to increase the competition between universities and strengthening the relationship between them. Thus, this policy is the key to ensure stable economic growth of the country based on effective educational program. The main concepts underlying the concept of intelligent marketing includes intellectual potential, competitiveness, innovation, individuality, international aspect, globalization, brand, image, business reputation, entrepreneurship, marketing activity factors [25].

We believe that the basis for ensuring the introduction of intelligent marketing and its effective management in a higher medical institution should be transparent information about the competitive positions of the main higher educational institutions. The transparency of the education system should be directed to the formation and implementation of educational orders from the main social groups of the population, representatives of leading industries, business, science and culture, representatives of the executive and legislative authorities. authority united to a single community interested in the development of the region [28, 33].

Coordination of all work in the field of marketing should be undertaken by the marketing department which function includes conducting marketing research, studying the requirements of potential employers for graduates in order to train students at an ever-increasing professional level, and simultaneously analyzing the situation in the educational services market at three levels: regional, republican and international [40]. Another effective marketing tool which helps in competitiveness of the public health program is loyalty management. Effective loyalty management allows not only to solve problems that attract potential consumers of educational services, but also to form, support and strengthen a loyal attitude towards the university, in this regard, it is necessary to develop a set of measures aimed at attracting educational consumers to the university. providing services to the university for the purpose of education and formation of long-term mutually beneficial partnerships [42].

Conclusion

It is very important to modernize the existing medical education systems so that they meet today's challenges in the field of well-being. The development of two-degree programs in public health will increase the number of students in various fields (law, social service, information technology, etc.), thereby increasing its competitiveness. Reforms in the system of higher education allows to develop this direction for all universities of the country. One of the barriers for the development of the two-degree programs in public health is the lack of the management system between two universities. A common problem of many programs and projects is the lack of systematic influence, which is visible due to the national characteristics of management culture in Kazakhstan, which makes it difficult to borrow the best international practice. In addition, it is not easy to transfer certain effective organizational decisions and reconstructions from one higher education institution to another, which is the basis for the solution of the same tasks in individual advanced higher education institutions and shows the diversity of developments in improving the management systems of higher education institutions.

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