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## COMPARATIVE REVIEW OF EDUCATIONAL PROGRAMS IN FAMILY MEDICINE IN KAZAKHSTAN AND IN THE WORLD

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#### Abstract

**Introduction.** High-quality family medicine (FM) education programs are needed to efficiently and safely manage integrated care delivery and meet patient care needs at the primary health care level. In countries with less developed primary health care systems, statements of teaching standards for postgraduate education in family medicine are less common.

The aim of this study was to review the international standards for family medicine residency training for use as a standard best practice guide for family medicine training programs in the Republic of Kazakhstan.

**Methods.** Literature searches were conducted in Medline and Google Scholar databases. The inclusion criteria were the following publications: the research topic should be related to the FM, access to the full text of the publication. Postgraduate education, educational residency programs in FM, competencies and practical skills of FM residents, methods of assessing the knowledge of FM residents. The search used the following keywords (MeSH) and their combinations: family medicine; residency, postgraduate education / training, educational standard and educational programs.

**Results.** It was difficult to obtain standardized information about educational programs in countries with a developing PHC system, for example, in the post-Soviet countries. Information from seven EU countries showed that family medicine is widely recognized as a separate discipline. In these countries, academic recognition has led to rapid development over the past two decades.

**Conclusion.** The position of general medical practice in the Republic of Kazakhstan is formally acceptable, but still it will take a lot of effort to achieve the desired level of recognition and quality.

Key words: educational program, family medicine; residency.

Резюме

# СРАВНИТЕЛЬНЫЙ ОБЗОР ОБРАЗОВАТЕЛЬНЫХ ПРОГРАММ ПО СЕМЕЙНОЙ МЕДИЦИНЕ В РЕСПУБЛИКЕ КАЗАХСТАН И В МИРЕ

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Введение. Для эффективного и безопасного управления оказанием комплексной медицинской помощи и удовлетворения потребностей пациента в уходе на уровне ПМСП необходимы высококачественные образовательные программы по семейной медицине (СМ). В странах с менее развитой системой первичной медикосанитарной помощи (ПМСП) заявления о стандартах обучения для последипломного образования по семейной медицине встречаются реже.

**Целью данного исследования** был обзор международных стандартов обучения в резидентуре по СМ для их последующего использования в качестве стандартного руководства по передовой практике при создании программ псолевузовского обучения в Республике Казахстан.

**Методы.** Поиск литературы проводился в базах данных Medline и Google Scholar. Критериями включения были следующие публикации: тема исследования должна была относиться к СМ, доступ к полному тексту публикации, послевузовское обучение, образовательные программы резидентуры по СМ, компетенции и практические навыки резидентов СМ, методы оценивания знаний резидентов СМ. При поиске использовались следующие ключевые слова (MeSH) и их комбинации: семейная медицина; резидентура, послевузовское образование/обучение, образовательные программы.

**Результаты.** Было сложно получить стандартизированную информацию об образовательных программах в старанах с развивающейся системой ПМСП, например странах постсоветского пространства. Информация из 7

стран ЕС показала, что семейная медицина получила широкое признание как отдельная дисциплина. В этих странах академическое признание СМ привело к быстрому развитию за последние два десятилетия.

Выводы. Положение общей врачебной практики в Республике Казахстан формально приемлемо, но все же потребуются большие усилия для достижения желаемого уровня ее признания и качества.

Ключевые слова: образовательная программа, семейная медицина, резидентура.

#### Түйіндеме

# ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДА ЖӘНЕ ӘЛЕМДЕГІ ОТБАСЫЛЫҚ МЕДИЦИНА БОЙЫНША БІЛІМ БЕРУ БАҒДАРЛАМАЛАРЫНА САЛЫСТЫРЫМДЫ ШОЛУ

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**Кіріспе.** Кешенді медициналық көмек көрсетуді тиімді және қауіпсіз басқару және алғашқы медициналықсанитарлық көмек (AMCK) деңгейінде пациенттерге күтім жасау қажеттіліктерін қанағаттандыру үшін жоғары сапалы отбасылық медицина (OM) білім беру бағдарламалары қажет. Алғашқы медициналық-санитарлық көмек жүйесі аз дамыған елдерде OM жоғары оқу орнынан кейінгі білім беруді оқыту стандарттарының мәлімдемелері аз кездеседі.

Бұл зерттеудің мақсаты отбасылық медицинаның резидентурасын оқытудың халықаралық стандарттарын Қазақстан Республикасындағы отбасылық медицинаны оқыту бағдарламалары үшін ең жақсы тәжірибелік нұсқаулық ретінде пайдалану үшін қайта қарау болды.

Эдістер. Ақпарат шолу Medline және Google Scholar мәліметтер базасында жүргізілді. Кіргізу критерийлері келесі жарияланымдар болды: зерттеу тақырыбы ОМ-ге, басылымның толық мәтініне қол жетімділікке байланысты болуы керек, жоғары оқу орнынан кейінгі білім беру, ОМ-дағы резидентуралық білім беру бағдарламалары, ОМ резиденттерінің құзыреттілігі мен практикалық дағдылары, ОМ резиденттерінің білімі бағалау әдістері. Іздеу барысында келесі кілт сөздер (MeSH) және олардың тіркесімдері қолданылды: отбасылық медицина; резидентура, жоғары оқу орнынан кейінгі білім беру стандарты және білім беру бағдарламалары.

**Нәтижелер.** АМСК жүйесі дамып келе жатқан елдерде, мысалы, посткеңестік елдерде білім беру бағдарламалары туралы стандартталған ақпарат алу қиынға соқты. Европаның 7 елінен алынған ақпарат ОМ жеке пән ретінде кеңінен танылғанын көрсетті. Бұл елдерде академиялық тану соңғы жиырма жыл ішінде қарқынды дамуға алып келді.

**Қорытынды.** Қазақстан Республикасындағы жалпы дәрігерлік практиканың позициясы формальды түрде қолайлы, бірақ бәрібір қалаған деңгейге жету үшін көп күш жұмсау керек.

Түйін сөздер: оқу бағдарламасы, отбасылық медицина, резидентура.

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## Introduction

In the Republic of Kazakhstan, since 2016, the foundations have been created for the implementation of international standards in the field of medical education and science. As part of the implementation of the concept of the Ministry of Health of the Republic of Kazakhstan (MH RK), all medical higher educational institutions of the country have a strategic partnership with leading medical schools of foreign universities. The aims of cooperation is to achieve

the quality of training healthcare personnel in the Republic of Kazakhstan based on the implementation of the best principles of international practices and the modernization of higher medical education [1]. This cooperation led to multiple reforms in the state standards of higher education (SES) with changes in both the duration of study and the content of the educational programs (EP) themselves, which is also due to the expansion of academic freedom of higher education institutions (HEI) from 65 to 85% [2]. An important fact in the reforms of higher medical education is the start of the residency program - as a mandatory form of postgraduate continuous higher medical education. Thus, if in basic medical education, thanks to cooperation with foreign universities, partners have defined clear aims for improving EP, their adaptation to world standards with the implementation of the principles of the Bologna Process, and then in postgraduate medical education there are still many questions.

Family medicine or general practice is a complex medical specialty requiring a wide range of clinical as well as non-clinical knowledge and skills [3,4]. Family medicine (FM) is considered a key element of a good healthcare system. This importance is highlighted in many declarations, policy papers and research articles. Kazakhstan, like many other post-Soviet countries, has made significant changes to its health systems over the past twenty years and has consistently declared general medical practice and primary health care (PHC) to be the cornerstone of its new policy. The question is whether the FM in these countries was able to solve the problems posed by politicians, and whether sufficient resources were provided to solve these tasks [5]. There are many statements about the importance of FM, but actual results show that FM is largely ignored. Unofficial information about the real state of general practice in these countries gives rise to assumptions about large differences. Countries that want to change their health systems by increasing the importance of PHC must take into account the real situation in the country and its capacity to fulfill the necessary tasks.

FM as an independent medical discipline is relatively young in the Republic of Kazakhstan, as well as in other countries that were part of the former USSR (Russia, Estonia, Latvia, Lithuania, Belarus, Moldova, Ukraine, Georgia, Armenia, Azerbaijan, Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan). All these countries before the implementation of reforms had the Semashko health care system based on the functioning of specialized polyclinics [5]. FM in these countries did not receive official recognition and was not encouraged, since it was believed that only specialized specialists could provide high-quality medical care. In addition, basic medical education was conducive to obtaining a specialist degree, and true generalists did not exist. In these countries, district therapists performed most of the general practice services, who were the main specialists working in primary health care. The functions of local therapists were rather narrow and did not include medical care for pregnant women, children, and minor surgical interventions. In practice, this meant that their main job was mainly administrative. After the restructuring, the introduction of a new health care system based on the introduction of FM and the development of primary health care was recognized as a priority for health politicians in the newly created states and received strong support from the government, which made it possible to retrain general practitioners, district pediatricians to family doctors. To retrain new specialists, were hastily created departments of family medicine / general medical practice and the discipline of GP received an academic status at the university. At the same time, the employees of the newly created departments and departments were not family doctors by

education, but other clinical specialists who met the academic criteria for this position. Soon, were developed new educational programs for the training of general practitioners, but a lack of understanding of the principles of FM and a lack of experience led to the creation of "raw" programs, which were a simple set of disciplines of narrow specialties. In addition, the staff of the FM departments themselves were not family doctors and did not have the set of competencies that were necessary to transfer experience to young specialists. If, on the one hand, there were problems in the training of specialists, on the other hand, the problems were in the practical level of health care, which was not ready to accept new specialists. To this day, specialized multidisciplinary polyclinics continue to function, where the GP specialist does not find an application for himself. Given the problems that exist today, it became necessary to conduct this study.

The very first condition for effective and safe provision of comprehensive care in PHC is the creation of high-quality training programs on FM [6]. In countries with highly developed primary health care services, such as the Great Britain or Canada, there are many developed standards for the implementation of higher postgraduate education in FM.

The aim of this study was to analyze the existing international training programs in FM in the world and adapt these provisions for use in postgraduate education in the Republic of Kazakhstan.

## Materials and methods

Literature searches were conducted in Medline and Google Scholar databases.

The inclusion criteria were the following publications: the research topic should be related to the FM, access to the full text of the publication. Postgraduate education, educational residency programs in FM, competencies and practical skills of FM residents, methods of assessing the knowledge of FM residents.

The criteria for exclusion from the search were: the topic of the article does not belong to the FM, there is only a summary of the article, there is no access to the full text, publications are not related to postgraduate training in FM.

The search used the following keywords (MeSH) and their combinations: family medicine; residency, postgraduate education / training, educational standard and educational programs.

For the search were tested various combinations of keywords. A similar procedure was followed when searching for "gray literature" in Google Scholar. The database search was carried out independently by four researchers. The final search result was analyzed and discussed.

## Results

The primary search comprised 22793 articles with no search year limitation. As a result of selection and analysis, 7 publications corresponded to the search topic. The next step was to identify and familiarize with the current educational programs in FM. The final result of the search for educational standards in FM is presented in Table 1.

## **Discussion of results**

We began our review of global standards for postgraduate training of family doctors with an analysis of the European standard WONCA Global Standards for Postgraduate Family Medicine Education. This standard is a fundamental work of developers from several European countries: Denmark, Great Britain, Canada and Australia This standard has been developed over several years at the world and regional meetings of WONCA and is an adaptation of the Global Standards for Quality Improvement of the World Federation of Advanced Medical Education (WFME) [6-7]. This document has developed a set of global standards consisting of nine areas, including the learning assessment process, student assessment and educational resources [8]. In addition to defining training standards, it was also considered necessary to assess and monitor learning outcomes [9].

Table 1.

Current educational standards for teachin	g famil	y medicine.
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N⁰	Country	Author	Name	Date	Source
1	Around the world	WONCA	WONCA Global Standards for Postgraduate Family Medicine Education	2013	MEDLINE
2	Europe	EURACT	EURACT Statement on Selection of General Practice/	2012	MEDLINE
3	Around the world	WONCA + EURACT	European Training Requirements for GP/FM specialist training	2018	MEDLINE
4	Canada	The College of Family Physicians of Canada	Standards for the Assessment of Non- Canadian Postgraduate Family Medicine Education Programs	2014	MEDLINE
5	Great Britain	General Medical Council (NHS)	The Trainee Doctor- Foundation and specialty, including GP training	2011	MEDLINE
6	USA	Accreditation Council for Graduate Medical Education	Program Requirements for Graduate Medical Education in Family Medicine	2014	MEDLINE
7	Slovenia	Society of teachers of family medicine	National Clerkship Curriculum	2018	MEDLINE

This project is approved by WHO and has three main objectives:

• encourage the authorities, organizations and institutions responsible for medical education to formulate their own plans for changes and quality improvement in accordance with international recommendations;

 establish a system of national and / or international assessment and recognition of medical schools and programs to ensure minimum quality standards for programs;

• to protect medical practice and the use of medical workforce in an increasingly internationalized environment by defining well-defined international standards in medical education.

The WONCA Global Standard can be used in different ways, always with the common aims of improving the quality of postgraduate education in family medicine. Since these standards are intended to be used around the world and in the wide variety of contexts in which family medicine is practiced, they are necessarily quite broad. They are expected to be adapted to local conditions and community needs. Developers of the EP can use these standards to:

• Self-assessments and improvement of the quality of programs;

- Development of a new program;
- Expert assessment;
- Recognition and accreditation;

This standard identifies 9 main areas, defined as common components in the structure, process and results of the latest medical education and training and cover: the mission and learning outcomes of the program, the learning process itself, student assessment, requirements for residents, teachers and clinical mentors, learning environments and educational resources, learning assessment, management and administration, and continuing professional development. The standards are specified for each area using two levels of achievement: the baseline level - where all areas of the standard must be achieved and assessed accordingly, and the level of the quality development standard, where the implementation of these standards will depend on the stage of development of the training program, its resources and other local conditions influencing relevance and priorities. Quality development standards are considered desirable, but not a prerequisite for program implementation [10].

The WONCA standard details the core 12-core competencies of a family doctor and includes the following:

• Providing people-centered (non-disease-centered) long-term care that is appropriate, safe, effective and compassionate to address a wide range of health problems, across the spectrum, from health promotion and disease prevention to acute and chronic disease management, and also rehabilitation and palliative care, and end-of-life care.

• Medical knowledge in basic biomedical, clinical, behavioral sciences, medical ethics and medical law, and the application of this knowledge in patient care.

• Interpersonal and communication skills that enable effective communication with individual patients and their families, and collaboration with other health professionals, the scientific community and the public.

Lifelong learning, including evaluating and using new scientific knowledge to continually update and improve clinical practice.

• Serve as a leader, trainer and teacher in relation to colleagues, medical students and other health professionals.

• Ability to be a scientist contributing to development and research in the chosen field of medicine.

• Professionalism, commitment to patient and community health through ethical practices and high personal standards of conduct. This includes a willingness to admit a mistake and deal with its consequences.

• Knowledge of public health issues and health policy, and awareness and responsiveness to the broader context of the health system, including, for example, health organization and integration, partnerships with health care providers and leaders, cost-effective health care practices, health economics and resource allocation

• Ability to understand health care and to identify and implement systemic improvement in care.

• Ability to collaborate with other members of the healthcare team, as well as with patients, both individually and with families.

Interest and ability to protect the interests of the patient and society.

• Be community-based with a sense of social responsibility: understanding the health status and needs of the community served in order to design and deliver appropriate services. This includes taking into account the incidence and prevalence of disease in society and psychosocial problems, including those affecting women and children, when addressing health problems;

At the same time, the learning process itself should include reflective observation, analysis of theoretical concepts, active participation and practical experience. The learning process should provide an increasing degree of independent responsibility as skills, knowledge and experience grow.

Later in April 2018, WONCA and its teacher organization EURACT prepared a Consensus Document on the European Definition and Description of the Specialty General Practitioner / Family Medicine (GP / FM) and identified the core 12 competencies of the GP specialist [11]. The EURACT Subcommittee "Training Committee" took the lead in drafting many educational documents (from 2006 to 2014) and added some recommendations for the training of GP / FM specialists in Europe. In this standard, Nele Michels, Roar Maagaard & Nynke Scherpbier-de Haan, on behalf of the EURACT training committee, state: "We hope that all countries will be able to use this document as a guide and guide to align their education and training systems for GP / FM to high standards. GP / FM patients across Europe deserve the services of highly gualified GP / FM specialists."

This document details the European training requirements for residents / trainees.

1. What students should learn / what should they acquire

- 2. How students should achieve this
- 3. How to evaluate acquired competencies
- 4. How long should the training last
- 5. Where training should be organized
- 6. How is the selection of residents

In addition, this document describes the European training requirements for Teachers / Mentors, as well as the training requirements for students in the organization.

The twelve competencies of GPs are grouped into six main areas of competence development (with reference to characteristics):

- 1. Management of primary health care (a, b)
- 2. Human-centered assistance (c, d, e, f)
- 3. Specific problem-solving skills (g, h)
- 4. An integrated approach (i, j)
- 5. Community oriented (k)

6. Holistic modeling (I)

The learning outcomes for each specific competence are described in more detail. All these learning outcomes, competency-based, and additional characteristics are interrelated, as demonstrated by the WONCA tree created by the Swiss College (2004) Figure 1 [12].

The main difference or addition to this document, in contrast to the basic WONCA standard, is that not only the learning outcomes themselves are described in more detail here, but also how the student should achieve these results. For each competency are listed teaching methods and student assessment methods. At the same time, student assessment methods are represented by a fairly wide range of assessment methods, such as: writing an essay, direct or indirect observation at the workplace, video recording, performance audit, discussion of a specific case, feedback from several sources (360 score), naturally occurring evidence, evaluations based on feedback from patients and their relatives, analytical educational portfolio, audit of medical records, internal audit, external audit (by other colleagues) and so on.

As for the question of the duration of training, the average duration of training for GP / FM in Europe varies from two to six years [13-16]. This document requires a revision of the minimum training duration. Fundamental is the quality of basic medical education and training in the specialty of GP in acquiring the above-mentioned competencies. In 1993 the Directive (Directive 93/16 / EEC) also defined the minimum acceptable duration of special training [17], which was adapted in the new Directive 2005 (Directive 2005/36 // CE) [18]. Both directives state that must be met the following minimum requirements:

1) full-time study duration of at least three years, and

2) at least six months in an approved hospital or clinic, and at least six months in an approved general medicine institution or an approved center where doctors provide primary care. Teaching should be more practical rather than theoretical and should be focused on practice (at least 50% of the teaching).

A comparative overview of the general requirements for educational programs in FM in the world and in the Republic of Kazakhstan is presented in Table 2.

To date, in the Republic of Kazakhstan, training in family medicine is going on in two directions: according to the State Standard of Education of 2017 and of the State Standard of Education of 2019. According to the educational program of SES 2017, the qualification of a specialist in GP / family doctor is awarded after training in a bachelor's program (5 years) in general medicine and after completing a 2-year internship in the direction of "General practice". Since September 2019, in connection with the start of the State Educational Standard of Education-2019, recruitment has been announced for a 2-year residency in GP / Family Medicine with the assignment of the same qualification. Thus, today in the field of PHC work GP specialists with a 7-year basic medical education, as well as specialists with 9-year training. At the same time, the competence, the volume of assistance provided, the assessment of the cost of labor of these specialists do not differ.

Since 2019 in the Republic of Kazakhstan has been functioning the state standard of postgraduate training in residency in the specialty "Family Medicine".

Table 2.

Comparative overview of the general requirements for educational programs in FM	FM in the world.
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Criteria /	Great Britain	Canada	USA	Slovenia	Kazakhstan
training	3 years (16-18 months in the hospital, 18-20 months in the FM offices)	5 years (2-3 years in a hospital, 1.5-2 years in FM offices)		3 years (2.5 years in the FM office, 6 months rotation in hospitals)	
Content of the program (competence of a family doctor)	The content of special training in FM is determined by representatives of FM specialists at the national level.	Defined at the national level, corresponds to with European guidelines.	faculty independently, but controlled by the national chamber	Complies with the WONCA	standard.
	Compulsory coaching courses	Only formal qualifications	Optional Courses for Preparing MCQs	Compulsory coaching courses, EURACT membership	Only formal qualifications
of students: current and final	to feedback from colleagues and the point of view of patients. Trainees are required to maintain a detailed e- portfolio that includes a learning journal, personal development plan, regular self- assessments, and teacher reviews.	second part of the MCCQE Part II exam to obtain a license from the Medical Council of Canada (LMCC)	Accreditation Council for Graduate Medical Education at all USA universities.	the reliability and validity of various assessment methods. 1. Assessment of the mentor according to the developed checklists; 2. List of learned skills; 3. MSQ tests 4. Tests with open- ended questions;	Independent assessment from the Republican Center for Health Development: 1. Assessment of theoretical knowledge (test); 2. Assessment of practical skills;
cost	Residents must pay separate fees for compulsory registration with RCGP (\$ 2,036)	final exam up to \$ 341	Examiner compensation ranges from \$ 102 to \$ 651	No specific information	The cost of the state exam is 7000 tenge (about \$ 16)



Figure 1. WONCA tree: core competencies and characteristics of general practice / family medicine.

However, in the current standard of the Republic of Kazakhstan, none of the provisions of WONCA is included in the 2-year training of specialists. At the national level, the competencies of a family doctor are not defined, there are no specific learning outcomes and there are no criteria for assessing the quality of education (SES RK 2019).

The RK standard strictly regulates the content and volume of taught disciplines, nosology and practical skills, which are presented in the compulsory component of majoring disciplines in 136 credits, while 4 credits are allocated for the optional component, less than 3% of the total number of credits (140 credits for 2 years training). Today, the existing RK residency standard contradicts all the principles of the Bologna process and infringes on the rights of the Autonomy of universities. At the end of the training, residents undergo an independent state certification, which is a 2-stage examination: testing and assessment of practical skills using the OSCE method, which also represents a rather narrow list of assessing the quality of a student's training.

Considering the fundamental work of our colleagues and comparing our educational programs, we get the following problems in relation to the EP residency of the FM in the Republic of Kazakhstan:

1. EP SES 2019 MH RK is focused not on competencies, but on specific disciplines with a clearly defined amount of credits (140 credits for 2 years of study, while 4 credits are allocated for the optional component, less than 3% of the total number of credits); At the same time, the program itself contains instructions that the competencies of students are prescribed by the university independently, however, the standard curricula of residency

in FM with the listed credits, disciplines, nosology's and practical skills limits the achievement of the final learning outcomes.

EP in accordance with world standards should have a competency-based approach, and the volume of disciplines and credits of the university can be prescribed independently, depending on its local characteristics and capabilities.

2. The program covers topics in internal medicine, pediatrics, gynecology, surgery, as well as additional disciplines such as dermatovenerology, phthisiology, infectious diseases, neurology, etc., which is an absolute duplication of the undergraduate program. Taking into account the data of the analysis of the European programs, we would advise to reduce the number of nosologies discussed during the course. There is no need to repeat what was taught before, just 2 years of residency training. The duration of training also needs to be revised. Some issues, such as congenital heart defects and glomerulonephritis, are not necessarily discussed in family medicine lessons. Residents should learn what is unique to family medicine: home visits, health services provided to healthy individuals, vaccination challenges, multimorbid patient management, management of continuous and coordinated care, use of evidence-based decision-making in PHC settings, provision of evidence-based health promotion and disease prevention and so on. During the training as assistants, understand how to treat the most typical diseases encountered in the provision of primary health care; learn how to solve the patient's problems.

3. SES-2019 lists specific practical skills that residents must master. At the same time, the skills do not indicate the

flexible skills of students and professionalism, while in the leading medical schools of the world, professionalism is one of the main competencies that all students must achieve in the learning process [19]. The American Board of Internal Medicine has suggested that professionalism has six components: altruism, accountability, excellence, duty, honor / decency, and respect [20]. The European model of the concept of professionalism includes three pillars (patient well-being, patient autonomy and social justice) with ten professional competencies [21]. The Great Britain model suggests that medical professionalism is comprised of honesty, compassion, altruism, continuous improvement, and working in partnership with team members [22]. In the Soviet model of higher medical education, a lot of time was devoted to the personal and professional education of the future graduate. Elements of professionalism were taught in many disciplines, as well as in extracurricular hours, having a hidden format, that is, they were not prescribed in the goals and objectives of teaching the taught disciplines. Unfortunately, with the introduction of numerous reforms in the field of education, the development of digital technologies and distance learning, we have completely lost part of the "hidden" curriculum. In view of the numerous

warnings that inadequate professional attitudes can harm the well-being and health of patients, as well as the morale of physicians [23] in EP needs to prescribe flexible skills that the trainee must achieve.

4. The assessment of students is limited only to the assessment of theoretical knowledge by the testing method and the assessment of practical skills. Whereas a complete and comprehensive assessment of the student is a necessary condition for the implementation of the EP.

5. Criteria for the quality and effectiveness of EP implementation have not been developed, which is also an important criterion for the prestige and quality of education in the world community.

Considering the above, the FM residency program in the Republic of Kazakhstan requires a thorough revision in accordance with international standards of postgraduate education in the FM.

## Conclusion

Countries with advanced PHC systems have carefully defined training standards for postgraduate FM programs that can be the basis for other countries. The final set of internationally acceptable training standards prepared in this overview can serve as a guide to good practice for other countries that are in the process of shaping and codifying FM training. For RK, the next step will be the process of selection and cultural adaptation of the established regulations and training standards by the expert commission. A pilot study is then planned to test the validity and reliability of the teaching standards provisions for postgraduate FM programs.

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