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Organization aspects of distance learning in postgraduate training the specialists of pharmacy

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Key words: distance learning (DL), postgraduate training the specialists of pharmacy, thematic improvement.

The article is dedicated to study organization aspects of distance learning (DL) implementation into postgraduate training the specialists of practical pharmacy, based on the experience of Management and Economics of Pharmacy Department of Institute of Pharmacy Specialists' Professional Development, National University of Pharmacy. The 5 main steps of implementation have been described; its content and meaning have been studied. It was accented, that it is necessary to elaborate the unified approach for evaluation of educational and methodical work, its registration with the right to issue the state certificate. The readiness for practical implementation of DL after the completion of last preparatory period at the state level has been marked.

Організаційні аспекти дистанційного навчання в післядипломній освіті спеціалістів фармації

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Вивчили організаційні аспекти впровадження дистанційного навчання у післядипломну освіту спеціалістів практичної фармації на прикладі досвіду кафедри управління та економіки фармації Інституту підвищення кваліфікації спеціалістів фармації Національного фармацевтичного університету (м. Харків). Визначили п'ять основних етапів впровадження, дослідили зміст і значення кожного з них. Звернули увагу на необхідність розробки єдиних підходів до обліку навчальної та навчально-методичної роботи, її оформлення із правом видачі документа державного зразка. Визначили готовність до практичного впровадження дистанційного навчання після завершення останнього підготовчого етапу на державному рівні.

Ключові слова: дистанційне навчання, післядипломна освіта спеціалістів фармації, тематичне удосконалення.

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Организационные аспекты дистанционного обучения в последипломном образовании специалистов фармации

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Изучены организационных аспектов внедрения дистанционного обучения в последипломное обучение специалистов практической фармации на примере опыта кафедры управления и экономики фармации Института повышения квалификации специалистов фармации Национального фармацевтического университета (г. Харьков). Определены пять основных этапов внедрения, исследовано содержание и значение каждого из них. Акцентируется внимание на необходимости выработки единых подходов к учету учебной и учебно-методической работы, ее оформления с правом выдачи документа государственного образца. Отмечена готовность к практическому внедрению дистанционного образования при завершении последнего подготовительного этапа на государственном уровне.

Ключевые слова: дистанционное обучение, последипломное образование специалистов фармации, тематическое усовершенствование.

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Aim of Research

The aim of our research is to study and systematize distance learning form using organizational framework in the training process of Management and Economics of Pharmacy Department, Institute of Pharmacy Specialists' Professional Development, National University of Pharmacy (MEPh IPhSPD NUPh).

Materials and Methods

The accounting and report documents, information, methodological, training and other materials of MEPh IPhSPD NUPh department activities for the last 10 years, as well as legislative and regulatory educational acts in Ukraine, in particular, pharmaceutical education regulatory acts, other foreign and national sources have been used as the information base for the study.

A variety of scientific research methods, such as historical,

logical, systematic, analytical, comparative, direct observation has been used to achieve the objectives.

The study of literary sources has shown that in recent years the interest to use the distance learning (DL) forms in various educational fields increases in the majority of countries over the world [1–18].

In 1997 around 1000 high education establishments introducing DL courses functioned in 107 countries of the world. The total number of those, who was graduated in such way, was around 50 million people in 1997, in 2006 - around 96.5 million people and in 2023 this number could reach 120 million people according to projections of specialists [1].

Expert evaluations show, that DL education costs at the average 50% less, than traditional forms of education. In addition, students are also attracted by a number of other advantages of DL, such as availability for living far from the



university people, possibility to make individual timetable. Therefore, as researchers predicted, DL (combined with traditional forms of education) continues to develop actively in our century. The countries of the British Commonwealth, the USA, Russia, France, China, India, Turkey present a lot of DL programs now, and this countries assign significant financial resources for its further development [1, 3].

Today a wide variety of different DL programs are proposed: specialized internet courses, bachelor and master degree courses, postgraduate courses and postgraduate trainings. It has been noted, that the largest number of educational programs based on these technologies is proposed in economic and information technology field.

The analysis of DL organizational aspects in the training process at the MPh IPhSPD NUPh department allows to mark out 5 preparatory steps.

Obtained Results

At the first step the task to create training and methodological materials at the digital storage medium with the possibility of their use in the DL programs has been set. As a basis it has been taken the already elaborated methodological materials of our department, which are presented as an integral complex of methodological materials «textbook - tutorial - methodical guidelines» (it has been presented since 1996).

A program SunRav BookOffice has been used for creation of all e-textbooks, which has the following advantages:

- it permits to realize an effective import of existing training and methodological materials, to import prevalent graphic and video formats;
- there is a localized version of this program in Ukrainian language;
- it is possible to put immediately e-textbooks and other methodological materials for DL on the site;
- positive experience of this program is used in other countries, for example, about 60% of e-books in Russian Federation have been created via SunRav BookOffice.

The work on the practical use of this program is carried out in collaboration with the pharmacoinformatics department representatives (prof. Penkin Y.N.).

It is an important feature, that there are not special requirements for the use of e-textbooks. The main thing is to have a computer with a clock speed of at least 1.8 GHz and 512 MB of RAM, the availability of CD/DWD drive, and if somebody wants the sound design – the presence of a sound card and speakers.

The first interactive textbook, elaborated in our department, was «Pharmacy management» (2009), which has been updated 3 times since that time, so there are 3 tutorials: «Framework of enterprise in pharmacy» (2010), «Collection of tests for selfpreparation of pharmacy specialists for certification in specialization «Organization and manage-

ment in pharmacy» and «Collection of the guidelines for seminar and practical training for the course «Organization and management in pharmacy» (2011). The last one contains 41 guidelines for seminar and practical training on certain actual topics, as well as scientific works of department staff. That is why this e-tutorial is updated more often, than other interactive training materials – quarterly. In this case all staff of the department in time of the acquisition of e-materials creating skills study and improve simultaneously their knowledge in possibilities of new information technologies use in educational process.

The accumulated experience of interactive educational materials use shows a number of advantages in comparison with traditional p-book. First of all it's an easy-to-use interface. That is way these materials are popular among the specialists of practical pharmacy, including students of pre-certification courses and courses of thematic improvement.

Thus, the creation of interactive educational materials media has become a priority in the methodical work of our department.

At the same stage the possibilities of more widespread presentation of educational and scientific directions of department works in the Internet resources have been studied. The department actively takes part in the preparation of its web-page on the web-site of National University of Pharmacy (NUPh): <http://nuph.edu.ua/> and of Institute of Pharmacy Specialists' Professional Development Training (IPhSPD). In 2012 the work for creation and development of the own website of department <http://uef-ipksf.at.ua> was carried out. Since the moment of its creation this web-site becomes more and more popular among specialists of practical pharmacy, who can view here educational and scientific directions of department work. This web-site also will help them in DL programs implementation.

At the second step of DL courses implementation the necessity of theoretical bases and DL programs that elaborate practical skills development appeared. For this purpose the leading associate professors of the department have been sent to listen the course “Technologies of distance learning courses elaboration”, conducted by professors of Kiev Polytechnic University (Prof. Kuharenko V. N. and others). It allowed to qualify the stuff in the information technologies field, in particular, in shell program Moodle work. They have mastered a wide range of new features in the presentation of educational materials via Moodle, as well as the use of different types of Internet resources (graphic, video, multimedia, etc.) and communication possibilities - web conferences, webinars, chats, etc. Our stuff is developed for the usefulness and availability of modern Internet - communications as important elements for the improvement of the educational process.

New didactic approaches connected with information technologies use, distinguishing from traditional full-time and part-time courses, in particular, the direction of priority



of graphic and color adequate supply in educational material, its compactness and information conciseness with the purpose to optimize the visual load of students have been studied. While testing tasks for DL courses, the selection of material preparation forms for practical application in educational process of the department has been done by the staff of the department. This preparation allowed to go to the next stage of DL implementation.

At the third stage the necessary to select the format, topics and duration of DL courses for the contingent of students of MEPh IPhSPD department, namely pharmacy managers and their deputies, appeared. Priority has been given to the organizational and economic aspects of pharmacies activities and thematic course of improvement, rated for 72 hours of training. The actual information interests of students (the specialists of practical pharmacy) have been taken into account for forming the topics of DL course «Organization and economic aspects of pharmacy activities».

Further the organization aspects of the practical implementation of thematic improvement via DL course have been determined. Course is designed for 4 weeks of training. It takes around 3 hours daily. The organization of educational process is provided in 4 steps:

- 1st step – organizational (1 day). The staff of department based on IPhSPD (or institution-organizer of a course in a particular region) conducts the registration of students for course and gives them login and passwords for individual work;
- 2^d step – preparatory (1 week – optionally). Training in use of resources and facilities to DL courses;
- 3rd step – training (4 weeks). Training in compliance with the program of the course. Weekly fulfilment of the proposed tasks gives students the possibility to collect necessary total score and receive the access to the exam;
- 4th – final (1 day). The examination committee of MEPh department based on IPhSPD (or institution-organizer of a course in a particular region) conducts exam and gives a certificate for those, who passed it successfully.

At first the curriculum and program of thematic advanced training course have been elaborated and then it has been approved by the Academic Council of IPhSPD NUPh. Then the educational program web-resource has been created and DL course conduction algorithm has been elaborated.

At the fourth step the training of staff at the course for DL tutors is provided. At this step an important element of training is not only the learning of preparation of DL programs technical aspects and their tutor support, but also the development of the staff, involved in the practical conducting of DL courses, and their ability to lead and control the distance educational process. An important feature of tutors' training is the adequate motivation of students, the development of skills to get them interested in active selfeducation in the absence of direct face-to face contact.

For today the fifth step is clarified - the practical implementation of DL courses in postgraduate education. It supposes the work quota setting of staff, conducting DL courses. The development of unified approach to elaborate educational and methodical work, its registration with the right to issue the state certificate is an important issue on this step.

Conclusion

The future is in the implementation of DL courses in post-graduate training specialists of pharmacy; this kind of courses can also be considered as an alternative training method for the contingent with limited mobility, as well as a good variant for spread of communication possibilities in the educational process. But it is necessary to complete the last organizing step at the state level for the final implementation of DL courses in the postgraduate education the specialists of pharmacy.

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