MEDIA COMPETENCE TRAINING OF THE GERMAN NURSING PERSONNEL WITH THE IMPLEMENTATION OF THE MECOPFLEGE E-LEARNING PLATFORM

Abstract. The article is devoted to the media competence training of the German nursing personnel with the implementation of modern digital media, namely: the MeCoPflege e-learning platform developed on the basis of the Moodle electronic platform. Implementation of the latest digital media in nursing education and nursing practice in Ukraine has been a problem for a long time. It should be noted that the subject matter of media competence training of the German nursing personnel, as well as the use of modern digital media in nursing education and nursing practice in Germany, has not yet been the subject of a special study by the Ukrainian scholars. In Germany, a two-year project “MeCoPflege – Media Coaches for the Professional Field of Nursing” was launched to promote the professionalization of nursing personnel, train its media competence, and integrate digital technologies into work processes. This article covers the implementation of the MeCoPflege e-learning platform within the framework of the project “MeCoPflege” in nursing practice on the example of one of the hospitals in Germany. In addition, the article describes in more detail the implementation of the project “MeCoPflege” in the theoretical and practical training of nursing personnel on the example of one of the nursing schools. Moreover, the best employees in the area of nursing education and nursing practice were participants in the blended learning seminars. The training content and the topics of the workshops deserve particular attention in the article. We consider an interesting idea of creating a similar native version of the MeCoPflege platform based on the electronic platform Moodle with the aim to train media competence of nursing personnel in Ukraine.

Keywords: media competence; MeCoPflege e-learning platform; nursing personnel.

1. INTRODUCTION

The problem setting. In the context of demographic changes and the shortage of nursing personnel in Germany, digitization (Digitalisierung) in the healthcare and nursing sector is making radical changes in this area. Digital technologies become an integral part of the nursing process. Thanks to them, the working conditions of the nursing personnel drastically change, the work processes are supplemented or even replaced by the technique. Professional activity of nursing personnel requires that the personnel possess the most up-to-date, scientific knowledge and skills to apply them in their work, including the ability to use digital technologies. The realities of the 21st century include electronic document management systems (mediengestützte Dokumentationssysteme), electronic health cards (E-Health Cards) (elektronische Gesundheitskarte), digital patient records (digitale Patientenakten), the use of robotics (Robotertechnik) in medicine, in particular, the innovative technologies of nursing care Pflege 4.0 [1]. The legal basis for digitization in medicine is the “Act on Secure Digital Communication and Applications in the Health Care System, as well...

At the moment, it is important that the German Education Council for Nursing (Deutscher Bildungsrat für Pflegeberufe) in 2007 announced the information (information-processing) competence (Kompetenz zur Informationsbeschaffung und -verarbeitung) as one of the five competences that need to be mastered in the nursing personnel training, along with individually oriented competence (Kompetenz zur Personenorientierung), the competence of ethical and caring behavior (Kompetenz zum ethischen und fürsorglichen Verhalten), the competence of analytical and critical thinking (Kompetenz zum analytischen und kritischen Denken), the competence of activity planning and the problem solving competence (Kompetenz zum planenden und problemlösenden Handeln) [2, p. 15].

Due to the digitization of nursing and nursing education, nursing schools need systematical planning and implementing of various measures aimed at its development. They also need modern equipment, availability of such digital forms of education as virtual educational platforms and digital libraries, media literacy in the process of personal development [3].

The analysis of recent studies and publications. To understand the essence of the problem under study we consider the concept of media competence, which was introduced in the 1970s by the teacher Dieter Baacke (Dieter Baacke). The media pedagogue connected this concept with the main idea of a human being as an individually defined and socially active subject [4].

We agree that media competence, along with knowledge of equipment and program skills, includes many other cognitive and metacognitive skills, especially those with critical, self-reflective and socially responsible media usage, for receptive and interactive media action (interactive Mediahandeln), as well as skills for innovative and creative media design (Mediengestaltung) [5].

According to the “Declaration on Media Education in a School” of Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (“Erklärung Medienbildung in der Schule” der Kultusministerkonferenz) as of 2012, the German Education Council for Nursing (Deutscher Bildungsrat für Pflegeberufe) defines digital media competence in nursing education in this way:

- intelligent, effective and responsible use of digital media by educators and trainees, including higher education, as well as in nursing practice;
- the use of digital media (digitale Medien) at the lessons, including examinations: competent and situationally appropriate, didactically and methodically reflected;
- self-determined and active use of digital media: private, social and professional;
- reflection of values as the basis for reflexive (nursing) activity in dealing with new digital technologies (digitale Technologien) in patient care [3].

The subject matter of media competence training of the German nursing personnel, as well as the implementation of modern digital media in nursing education and practice, was considered by such German scientists as I. Darmann-Fink, L. Goertz, A.-D. Greiner, T. Hester, A.-M. Kamin, M. Kerres, D. Meister, A. Rustemeier-Holtwick, K. Sahmel, M. Sieger, I. Watermann, K. Wienold, A. Wolpert and many others.

In the study of this topic, we paid attention to the article under the title “On the Concept of Further Professional Education and Training with Digital Technologies – Interdisciplinary Approach in Media Pedagogy and Nursing Didactics” (“Zur Konzeption einer digital unterstützten beruflichen Fortbildung – ein interdisziplinärer Ansatz aus Medienpädagogik und Pflegedidaktik”) by the German scientists A.-M. Kamin, A.-D. Greiner, I. Darmann-Fink, D. Meister, T. Hester.
The above-mentioned German scientists, describing the concept of the project “MeCoPflege” and the MeCoPflege e-learning platform, affirm in their article that “in addition to an intensely guided blended learning seminars, the concept includes the creation of an infrastructure that facilitates training and professional work with the use of digital technologies as well as the development of a platform for the accumulation of knowledge from experience and scientific communication”. In the context of German researchers, media education is understood as “a complex task and an integral part of the professional training, which is directly related to the urgent problems of a daily work routine” [6, p. 6].

The objective of this paper is researching the project “MeCoPflege” implemented in Germany and elucidating the use of the MeCoPflege e-learning platform in theoretical and practical training as well as in nursing practice in the media competence training of nursing personnel in Germany.

2. THE RESULTS AND DISCUSSION

In order to promote the professionalization of nursing personnel, the development and improvement of its media competence, as well as the integration of digital technologies into workflows, a two-year project (01.08.2013 – 31.07.2015) “MeCoPflege – Media Coaches for a Professional Nursing Field” (“MeCoPflege – Mediencoaches für das Berufsfeld Pflege”) was launched. To achieve this goal, the project partners conducted two blended learning seminars, which they then evaluated. One course lasted one year and consisted of 15 participants. Two scientific institutions – the University of Bremen and the University of Paderborn as well as three different hospitals – Bremen-Mitte Clinic, Bremen Nursing School and Caritas Association for the Archdiocese of Paderborn, which participated in the joint project, contributed to the training of nursing personnel, enabling them to use modern digital technologies to improve the workflow. A total of 30 nursing specialists and 20 institutions became participants in the project “MeCoPflege – Media Coaches for a Professional Nursing Field”. In addition, the project participants developed the MeCoPflege e-learning platform based on the Moodle electronic platform [7], [8].

It is well known that Moodle (Modular Object-Oriented Learning Environment) or the modular object-oriented dynamic learning environment is “a learning platform designed to provide educators, administrators, and learners with a robust, secure, integrated system for creating personalized learning environments” [9]. It is believed that “it implements the philosophy of pedagogy of social constructivism, and focuses primarily on the organization of interaction between the teacher and the learners, although it is also suitable for the organization of traditional distance courses as well as for the support of full-time education” [10].

Let us consider in more detail the implementation of the project “MeCoPflege” in the theoretical and practical training of nursing personnel. For example, Bremen Nursing School (Bremer Krankenpflegeschule), designed to train 207 people in the nine courses of study, as well as two media coaches in the field of education participated in the project “MeCoPflege”. The decision to strengthen the integration of digital technologies into the educational process had been taken by the school leadership before the project was launched. The principal goals were to develop a media-technological infrastructure and create a basis for e-learning projects. Later, the relevant projects had to be improved and implemented [11].

At the initial stage of the project, Bremen Nursing School adapted its technological infrastructure to the appropriate training and teaching requirements through digital technology. With this aim, the administration provided the school with fifteen laptops and an EDP-cabinet (EDV-Schrank) for electronic data processing by early 2014. In addition, the school created an open, high-speed WLAN network. As a result, teachers and learners had the
opportunity to explore and communicate online with existing school-based devices (Endgeräte) as well as their own laptops, tablets, and smartphones. The PC-room (PC-Raum) turned the school into a room for the group work (Gruppenarbeitsraum), and then these devices could be used in all school classrooms [11].

In parallel with the creation of media points (Medienpoints), the concept of media training using the Moodle platform was developed by the participants of the first training seminar. It envisaged that theoretical training should be expanded, encompassing e-learning and blended learning programs. Moreover, it should be made possible to exchange data and information easier. With this aim, a series of lessons with a variety of work and teaching tasks and tests should be prepared by teachers, using multimedia and digital technologies, on the previously created Moodle platform. Prepared tasks can and must be submitted on the Internet, and, if possible, automatically evaluated. In addition, PowerPoint presentations, training materials or notes as well as additional background information for engagement, for example, in the form of professional articles or references to literature, are downloaded by the teachers and are available for download [11].

A platform for assessing training and feedback from participants in the educational process can also be used. In particular, work on projects can be done using the online platform (Online-Plattform), which, for example, exchanges files (Dateien) or arranges meetings (Termine). In addition, direct consultation with the media coach (Mediencoach) is also possible. Successful skilled work or results of project participants can be archived and thus accessible to all participants in the training workshop [11].

The e-learning platform can also be used for practical training. Another concept was developed by the participants of the second training seminar. In order to collect as many electronic documents from the curriculum as possible and make them accessible from any connected Internet device, a separate area for practical classes should be created on the Moodle platform. This area contains a subsection for general information and forms for practical training as well as sub-sections for three clinics. The platform should be located on a separate server with sufficient storage capacity and should be accessible from any Internet device. Server separation provides privacy of personal data of the patients in accessing the platform from the computers of medical institutions [11].

Once the Moodle administration was created and the first version of the platform was installed on the new server, the first pilot training courses were created and the participants were able to register. Both media coaches became the Moodle administrators, developed platform content, and developed a general on-line instructing for project participants. In agreement with the teachers, it was necessary to find out in what sequence the learning fields (Lernfeldern) were located for e-learning and which teachers were prepared to do this. Then these training concepts had to be created and consolidated by educational programs. Full implementation of the educational platform in the school life of Bremen Nursing School was expected to be probably delayed by the end of 2016 [11].

Let us turn to the consideration of the project and the use of the MeCoPflege electronic learning platform in nursing practice on the example of one of the hospitals in Germany. It should be noted that St. Joseph Hospital in Salzkotten, one of three institutions under St. Vincent Hospital, with 18 specialized departments and 756 beds, is the largest provider of medical services in the Paderborn district. In addition, about 270 people study in an affiliate training center in five different disciplines in the field of nursing [12].

Responsible persons at St. Joseph Hospital wanted to optimize the transmission and archiving of specialized information, as well as new forms of communication and collaboration among nursing personnel through the online platform to promote digital learning. The technical and structural conditions have proven beneficial for this St. Joseph Hospital: the existence of a well-developed Intranet system, which, for security reasons, can
only be provided to nursing personnel through local computers within the community of health facilities. Participation in the training seminar of the representatives from the intensive care unit and outpatient care center facilitated it too [12].

A separate version (Ableger) was connected to the school server, using the Moodle platform, and to the server of the practical training facility, as the Moodle electronic platform had been in use for several years at the affiliated nursing school near St. Joseph Hospital. It became possible to introduce a separate course for the certain groups of students in the hospital. The senior nursing personnel received the right to search for information under the profile “teacher” in order to be able to develop topics and download content independently. The other nursing personnel received read-only access and communication through the online platform [12].

At first media coaches created only three exemplary Moodle courses, in which they themselves participated and worked as their managers. For example, the Moodle course for a group of (ward) nurse managers (Stationsleiter / -in) is configured to allow all registered participants to use up-to-date information on their own. The two-month meetings of the nurse managers were recorded, and protocols became available on the Internet on the Moodle platform. This form of information dissemination is reliable, although, for some nurse managers, it was initially unusual to use the Moodle platform to find information and work independently with it. At the same time, both individual participants in the course and larger groups could communicate with each other and exchange data [12].

Another group that used the Moodle platform is a group of placement supervisors (Praxisanleiter / -in), the certified nursing personnel with at least two years of experience and 200 hours of further training. Their task is to provide supervising, mentoring and practical skills training. In order to adapt the course to the needs of this target group, a preliminary survey was conducted on the wishes for the use of the platform. In addition to organizational aspects such as coordinating meetings as well as documenting protocols, it was desirable to obtain information on theoretical training and documentation on training tasks for trainees during practical classes. In addition, the protocols of the learning process were downloaded and stored on the platform [12].

In their activity as media coaches at the Moodle-Intensive Care Course (Moodle-Intensivpflege-Kurs), the participants in the intensive care training seminar focused on the archiving and training of relevant expertise in intensive care. With this aim, a glossary of professional terms was created on the Moodle platform within the course of intensive care, accompanied by brief introductory texts for a quick overview of relevant topics, as well as additional electronic documents, links, and multimedia learning materials (Lernmaterialien), including tutorials. In addition, the work of specialists who have received further education, such as placement supervisors, ward nurse managers, as well as specialists in the field of intensive care and anesthesia who were in a separate folder for registered users of the Moodle course of intensive care, became available. [12]

The best employees in the area of nursing education and nursing practice participated in the blended learning seminars “MeCoPflege” aimed to train media competence of nursing personnel, implement more intensively digital media into the work process and improve new scientific knowledge exchange in the area of nursing [13, p. 62].

So, let us consider in more detail the content of their training and the topics of the seminars.

Table 1

<table>
<thead>
<tr>
<th>№</th>
<th>Topics of Seminars</th>
<th>Duration of Training</th>
<th>Contents of Training</th>
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<td>1</td>
<td>Principles of using digital media</td>
<td>6 weeks, 30 hours, 2 hours of in-service training</td>
<td>Basic knowledge and skills in using digital media in a daily work routine</td>
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Thanks to the additional, more comprehensive elaboration of the concept, the participants of the project “MeCoPflege” were able to receive a certificate from the Academy of Continuing Education of the University of Bremen (Zertifikat der Akademie für Weiterbildung der Universität Bremen) certifying a professionally oriented academic achievement (fachbezogene Studienleistung) in the amount of 12 credits ECTS [14].

It should be noted that during the development of the e-learning platform Moodle, which was used in the training of nursing personnel during the online workshop “MeCoPflege – Media Coaches for the Professional Field of Nursing”, the experience gained from nursing, media education and informatics was used. In addition, the Moodle e-learning platform has been continually refined and enriched with information and functionality relevant to the respective areas of nursing activity, as well as being used as an educational platform (Lernplattform) to create its own learning environments (Lernumgebungen). The layout and user manual of the platform were optimized based on feedback from seminar participants [14].

Glossary of current nursing topics as well as online-based clinical cases archive in the form of a discussion forum (Diskussionsforum) offered suggestions on the use of the online platform in health care facilities and facilitated the systematization and exchange of professional knowledge [14].

In addition to the online platform, along with media points (Medienpoints), a spatially and technically close-to-work infrastructure was created for the use of digital learning resources. Educational institutions already had good technical equipment that was only to be selectively expanded and upgraded. Providing free wireless WLAN-access (WLAN-Zugang) provides high mobility and flexibility. Nursing personnel who were already working or were still learning could access digital knowledge resources through mobile devices such as tablets, smartphones, or laptops – directly at the place of learning, at work, or at home [14].

Together with local leaders and participants in the training seminar, it was also planned to develop an individually adapted concept for advancing digital education projects for each educational institution. The goal is online knowledge exchange and digital learning integration into nursing and administrative processes as well as training sessions [14].
3. CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH

Summing up the above, implementation of the MeCoPflege platform and other similar educational electronic platforms in nursing education and nursing practice needs, first of all, the creation of proper infrastructure: media points with modern technical equipment, the Moodle platform, high-speed Internet, etc.

In our opinion, the idea of creating a similar domestic version of the MeCoPflege platform based on the Moodle platform with the goal of media competence training of nursing personnel in Ukraine is interesting. It should be noted that for this purpose there should be specially trained media coaches working with students and nursing personnel of different age groups. In addition, for the implementation of such projects in medical institutions of Ukraine, it is necessary to involve professionals and experts in the area of nursing education and practice, specialists in information technology as well as other interested people, including those who are ready to finance such projects. Further studies include the study of other projects implemented in Germany in the area of nursing education and nursing practice. We consider the development of the practical application of electronic learning platforms in nursing education and nursing practice in the process of professional nursing personnel training as well as its media competence training.

REFERENCES (TRANSLATED AND TRANSLITERATED)


ФОРМУВАННЯ МЕДІАКОМПЕТЕНТНОСТІ СЕСТРИНСЬКОГО ПЕРСОНАЛУ НІМЕЧЧИНИ ЗА ДОПОМОГОЮ ОСВІТНЬОЇ ЕЛЕКТРОННОЇ ПЛАТФОРМИ MECOPFLEGE

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Анотація. Статтю присвячено такому питанню, як формування медіакомпетентності сестринського персоналу Німеччини за допомогою сучасних цифрових медиа, а саме: освітньої електронної платформи MeCoPflege, розробленої на основі електронної платформи Moodle. Дано є на часі проблема застосування новітніх цифрових медиа в медсестринській освіті та медсестринській практиці України. Слід зауважити, що досі не була об’єктом спеціального вивчення українськими науковцями проблематика формування медіакомпетентності сестринського персоналу Німеччини, а також застосування сучасних цифрових медиа у медсестринській освіті та медсестринській практиці Німеччини. З метою сприяння професіоналізації сестринського персоналу, розвитку і вдосконалення його медіакомпетентності, а також інтеграції цифрових технологій у робочі процеси в Німеччині було започатковано двірічний проект “MeCoPflege – медіа-тренери для професійного поля медсестринства” (“MeCoPflege – Mediencoaches für das Berufsfeld Pflege”). У цій статті висвітлено застосування освітньої електронної платформи MeCoPflege в рамках німецького проекту “MeCoPflege” у медсестринській практиці на прикладі однієї з лікарень Німеччини. Попри це, у статті більш детально розглядається запровадження проекту “MeCoPflege” в теоретичному та практичному навчанні сестринського персоналу на прикладі однієї з шіл медсестринства. Варто зазначити, що у семінарах змішаного навчання “MeCoPflege – медіа-тренери для професійного поля медсестринства” брали участь найкращі працівники сфери медсестринської освіти та медсестринської практики, а у статті зазначено на особливу увагу зміст їх навчання і теми семінарів. Вважаємо цікавою ідею створення подібної вітчизняної версії платформи MeCoPflege на базі електронної платформи Moodle з метою формування медіакомпетентності сестринського персоналу в Україні.

Ключові слова: медіакомпетентність; освітня електронна платформа MeCoPflege; сестринський персонал.

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ФОРМИРОВАНИЕ МЕДИАКОМПЕТЕНТНОСТИ СЕСТРИНСКОГО ПЕРСОНАЛА ГЕРМАНИИ С ПОМОЩЬЮ ОБРАЗОВАТЕЛЬНОЙ ЭЛЕКТРОННОЙ ПЛАТФОРМЫ MECOPFLEGE

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Аннотация. Статья посвящена такому вопросу, как формирование медиакомпетентности сестринского персонала Германии с помощью современных цифровых медиа, а именно: образовательной электронной платформы MeCoPflege, разработанной на основе электронной платформы Moodle. В течение долгого времени является актуальной проблема применения новейших цифровых медиа в медсестринском образовании и медсестринской практике Украины. Следует заметить, что до сих пор не была объектом специального изучения украинскими учеными проблематика формирования медиакомпетентности сестринского персонала Германии, а также применение современных цифровых медиа в медсестринском образовании и медсестринской практике Германии. В целях содействия профессионализации сестринского персонала, развития и совершенствования его медиакомпетентности, а также интеграции цифровых технологий в рабочие процессы в Германии был основан двухлетний проект “MeCoPflege – медиа-тренеры для профессионального поля медсестринства” (“MeCoPflege – Mediencoaches für das Berufsfeld Pflege”). В этой статье освещено применение образовательной электронной платформы MeCoPflege в рамках немецкого проекта “MeCoPflege” в медсестринской практике на примере одной из больниц Германии. Кроме того, в статье более подробно рассматривается внедрение проекта “MeCoPflege” в теоретическом и практическом обучении сестринского персонала на примере одной из школ медсестринства. Стоит отметить, что в семинарах смешанного обучения “MeCoPflege – медиа-тренеры для профессионального поля медсестринства” принимали участие лучшие сотрудники сферы медсестринского образования и медсестринской практики, а в статье заслуживает особого внимания содержание их обучения и темы семинаров. Считаем интересной идею создания подобной отечественной версии платформы MeCoPflege на базе электронной платформы Moodle с целью формирования медиакомпетентности сестринского персонала в Украине.

Ключевые слова: медиакомпетентность; образовательная электронная платформа MeCoPflege; сестринский персонал.

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