

ANALYSIS OF THE NEED TO INTRODUCE VIDEO DIDACTIC MATERIALS IN HEALTH CARE TRAINING

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Abstract

The present study is dedicated to a particularly significant and multifaceted problem, such as the formation of skills and habits for manipulative and bandaging techniques in the context of e-learning in the training of health care professionals. In the course of the research we found that students consider it extremely important to introduce video films in the learning process. This requires a change in traditional learning models in response to the evolving information society and challenges teachers to develop and incorporate video didactic materials into healthcare education.

Keywords: videos, students, bandaging techniques, health care

1. INTRODUCTION

Modern information and communication technologies are widely used in the teaching process, but the health conditions of today forced them to be implemented in pedagogical practice of disciplines in which they were not applied so far. The introduction of information and communication technologies in education poses new intellectual challenges to health care training. Healthcare professionals are required to have new knowledge, skills and competencies that allow them to communicate effectively, to analyze global processes, to make sense of their role in a global perspective, to be able to take initiatives to improve health services through the use of information and communication technologies. The transition to online absentee training has led to difficulties in acquiring practical skills in the training of students in the specialty of „nurses“.

This requires the use of new didactic materials to facilitate the acquisition of new theoretical knowledge and practical skills that meet the requirements that must be met by the training of nurses. One of the main factors for improving the quality of education is the introduction of innovative educational technologies, such as video films. Pedagogical communication is the main mechanism of pedagogical interaction, through which the educational goals are realized. However, there are "barriers" to communication that disrupt this process. Among the main factors negatively influencing pedagogical communication are the large number of students and their lack of interest. The training for practical exercises in an electronic environment showed a number of shortcomings:

- difficulties in distribution of training courses and materials;
- technical difficulties that learners encounter when using computer and audio & video materials;
- low-quality package of educational printed materials, which hinders the understanding and easy acquisition of the provided knowledge and skills;
- low-skilled aid provided by tutors, mentors and consultants;
- inadequate planning of the time for training by the students who have insufficiently developed learning skills as well;
- lack of feedback between educational institutions and users of distance learning.

The preparation of students in surgical care has a number of specifics and features related to the diagnosis, treatment and provision of preoperative and postoperative care to patients in surgical clinics and wards, as well as to the classical and modern dressing techniques. Bandage training and learning the ways for their proper use and placement is an important part of practical medicine, which must be mastered by every nurse, midwife, medical assistant. During the exercises, the students upgrade the

acquired theoretical knowledge from the lectures by acquiring manipulative skills necessary for the teaching practice, which is applied in a real environment. In order to reach a high level of student success, it is necessary to use new technological means that will lead not only to the optimization of the learning process, but also to the stimulation of the cognitive activity of students. The creation of video didactic materials in education is motivated by the need to form such an integrated type of professional competencies that can ensure the quality design, implementation and evaluation of technology-assisted training.

According to Angelina Kirkova - Bogdanova, when designing e-learning for students from specialties in the field of "Health Care", the andragogic process is leading one, as a result of which the design should be problem-oriented and include elements emphasizing the connection with practice. Students should be given the opportunity to:

- share experience - formal in the learning process and informal one,
- create and provide content,
- participate in discussions and group work,
- agree on the evaluation criteria and participate in the evaluation.

It is important to provide an opportunity for electronic communication. You can use the built-in messenger in the platform, but it can also be done by e-mail. Students are computer literate enough to handle electronic forms included in their education as future healthcare professionals, but technologies are not a priority for them. The wide limits of the level of visual literacy are grounds for very careful assessment of the type and volume of visual materials to be used in the development of electronic lessons - different for different specialties. Audio recordings can be added. Possibilities for printing should be provided. The visual materials should be accompanied by a rich explanatory text. Assignments related to the development of visual elements by students should be carefully planned, well explained, with guidelines for the development and clear evaluation criteria.

The multimedia presentation of the material and the capabilities of the content management systems for organizing electronic disciplines make it possible to take into account the individual characteristics of each future professional such as learning habits and style, cognitive abilities and motivation. The application of standards ensures the portability of the learning content, the construction of repositories for learning sites and the compatibility of the e-courses built with different electronic training (ET) platforms. The electronic test provides a reliable and objective evaluation of achievements with timely and documented feedback. The educational process is carried out through technologies that modern students are accustomed to and that are part of their daily lives. E-learning improves skills in the use of information and communication technologies, which is important for successful professional realization in the field of health care (8).

The aim of the present study is to research the need for introduction of video didactic materials in the practical training for bandaging technique of students trained in the professional field of "Health Care", in order to increase the efficiency of the learning process and stimulate cognitive activity and academic motivation.

2. MATERIALS AND METHODS

An anonymous survey was conducted among students majoring in "nurse", "medical assistant" and "midwife" on the importance of video films in the practical exercises for dressing techniques for their training and outlining some prospects. The survey was conducted in May 2021. The surveyed students are second-year students of the Branch "Prof. Dr. Iv. Mitev", Vratsa at MU-Sofia, where due to the epidemiological situation the practical exercises for dressing equipment were conducted online. 107 students were interviewed, of which 62 from the specialty "nurse", 30 from the specialty "medical assistant" and 15 from the specialty "midwife". Of the 107 students surveyed, the relative share of women prevails - 84.1% (98), and men are 15.9% (9). The mean age was 23.86 ± 5.65 (21 to 30 years).

The survey data were processed through the statistical computer program SPSS v. 19.0, and the graphics were prepared using the Microsoft Excel program.

3. RESULTS

The use of technologies and means of communication to train healthcare professionals is becoming more widely used. E-learning is a response to the problem of modernizing university education in the spirit of the educational, technological and economic trends of the global information society. Its introduction does not mean the abolition of traditional forms and methods of teaching in the current educational system, but their enrichment through the use of information and communication technologies. In health care education, this can contribute to the quality of education in addition to traditional education in the field of "Health Care". Training in these specialties has its own specifics that affect the design of electronic forms. We surveyed the students' opinion on the need to conduct practical exercises in an electronic environment. 30% of the respondents believe that it is not necessary to conduct distance learning in an electronic environment, 45% cannot judge and only 25% note that in a pandemic, such training is necessary (Fig. 1).

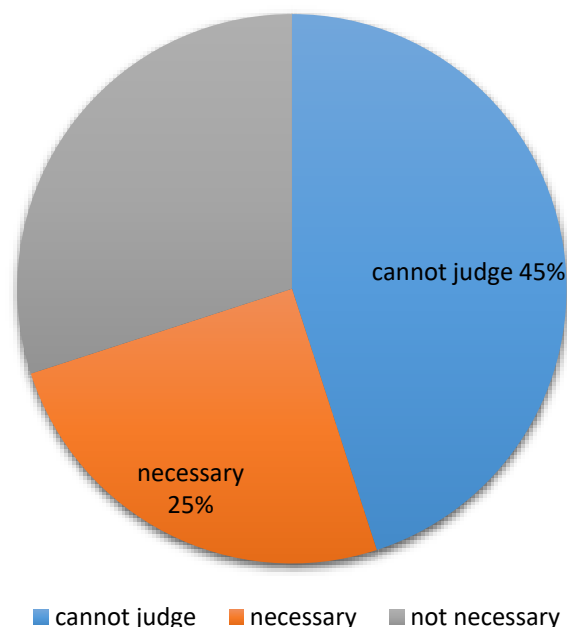


Fig. 1. Opinion of students about the need for practical training in an electronic environment

According to them, the organization of practical training in terms of planning, duration and the place of training does not meet their expectations, as 55% of them cannot judge, and 45% answer "rather not". This is probably due to the fact that the mastery of manipulative and dressing techniques needs to be done in a real environment.

We surveyed students about their opinion on the introduction of video films on certain topics, as 85% of nurses, 77% of medical assistants and 74% of midwives believe that without video films it is not possible to fully acquire knowledge and skills (Fig.2)

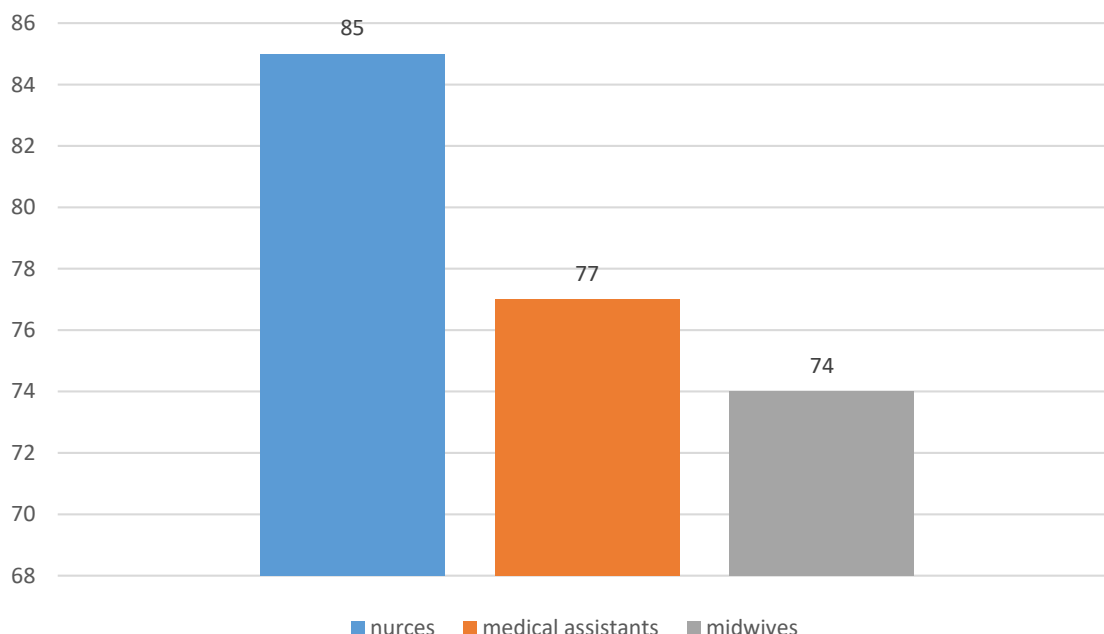


Fig. 2. Students' opinion about the role of video films in education

There is a significant share of surveyed students (from 95% to 85%) who believe that the application of video films in the acquisition of dressing techniques contribute to their better training and that this is their main advantage (Table 7).

Table 1. Advantages of applying video films in practical exercises according to the surveyed students

Video film advantage Specialty	Better professional training	Stimulation of the cognitive activity	Increase academic motivation	Developing skills for self-control and self-assessment
Nurse	95%	77%	50%	33%
Midwife	85%	55%	65%	36%
Medical assistant	87%	45%	55%	45%

According to the students in the specialty "nurse", the main advantage is getting better professional training, and in the second place they put stimulation of their cognitive activity.

Students majoring in midwifery and medical assistant put in second place an increase in academic motivation.

The relationship between the application of video films in the education of dressing technique and the professional training of health care students is presented in fig. 3.

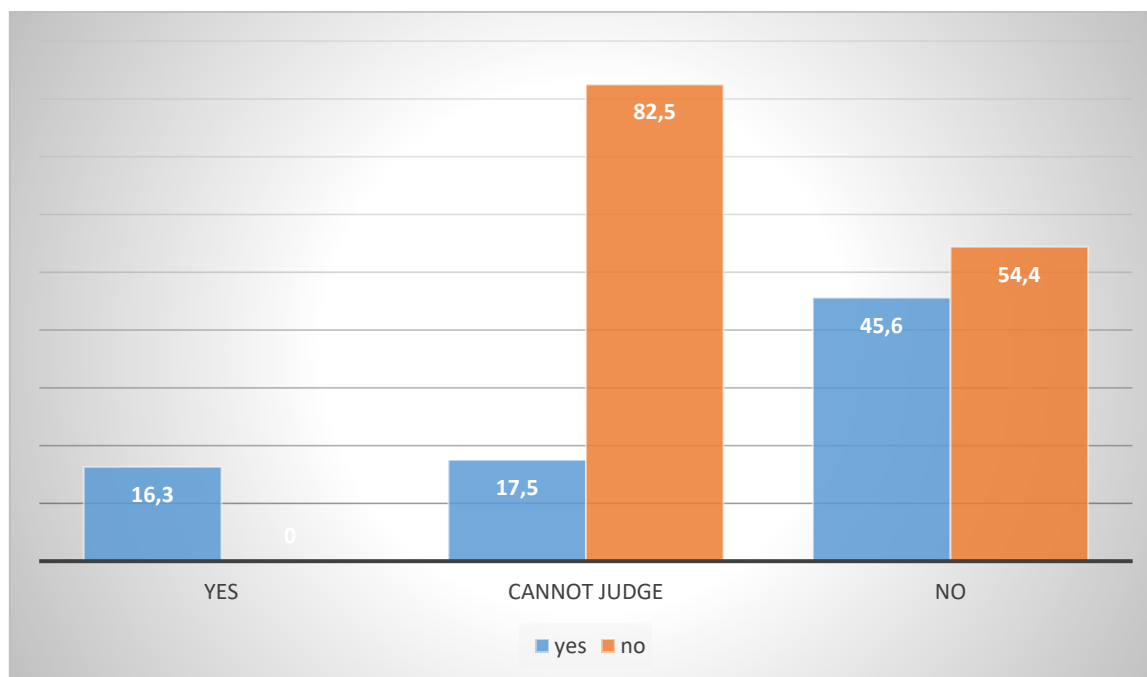


Fig. 3. Opinion of the students about the connection between the application of video films for full mastering of practical skills for dressing technique and professional training

A statistical relationship was established between better professional training and the possibility for full acquisition of knowledge and skills without the participation of video films in the acquisition of dressing technique: $\chi^2(2) = 17.182$, at a significance level $p < 0.001$.

The percentage of respondents who answered in the affirmative that without the application of video films for the acquisition of practical skills for dressing techniques a more adequate professional training is possible is 16.3 against 45.6 of those who answered in the negative.

The presented data undoubtedly confirm the great role of video films in increasing the effectiveness of dressing training and better professional training.

4. DISCUSSION

E-learning should be tailored to the specifics of training of health care professionals and should be considered as an alternative to traditional education in medical specialties. Online learning is an organization of the learning process in which the student and the teacher are separated by location, but not necessarily by time, and the distance created is compensated by technological means. It is equal to the regular form in terms of the content of the curriculum, the required number of credits for the respective specialty and can be organized only by higher schools. The organization of the training is realized through consultations with a teacher, appointed by the school, who is a mentor or tutor.

The majority of surveyed students (nurses, medical assistants and midwives) believe that it is necessary to introduce video films in the process of training in dressing techniques that contribute to their better training. Another advantage of video films, according to students, is the stimulation of cognitive activity and increasing academic motivation.

Educational institutions face the challenge of combining traditional learning with new technologies to meet the needs of the new digital generation of learners.

The introduction of video algorithms in the practical training in health care is emerging as a modern technological approach for constructive learning in the preparation of health professionals who could cope with the challenges and requirements of modern times.

5. CONCLUSIONS

The application of video didactic materials in educational institutions that train health care professionals in recent years is growing. To optimize the learning process and adapt it to international standards, it is necessary to introduce activating approaches that have proven their effectiveness. The introduction of video films in the practical preparation of students for dressing techniques will lead to stimulation of cognitive activity and increase student motivation to acquire theoretical knowledge and practical skills in e-learning.

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