

Digital Media Literacy in the Training of Student Midwives

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Abstract:

The optimization of the educational process in the higher medical school and the achievement of its basic goal - the formation of professional competencies of health professionals, requires the introduction of modern, interactive technologies and use of the advantages of digital and media technologies. The research aims to determine the role and importance of digital media literacy of midwife students for the process of acquiring professional competencies. An anonymous survey was conducted in the period December 2021 - January 2022, with 73 respondents, students majoring in midwifery, studying at the Faculty of Medicine and Haskovo Branch, Thrakia University, Stara Zagora, Republic of Bulgaria. The study identifies the following indicators of digital media literacy of students: frequency of use of the Internet and social media in educational activities, self-assessment of selection skills and effective use of information on health topics. It was ascertained: relatively good confidence of the midwife students in their own abilities to search and find adequate information, relevant to the set goals and objectives of the educational process; the need to further develop the digital media literacy of students in order to improve the effectiveness of educational activities.

Keywords: digital media literacy, students, midwives, training.

Introduction

No one today disputes the fact that digitalization has taken root in almost every area of life. This process did not pass by the educational systems. Digitalization, interactivity and virtuality are "doors" to new opportunities and a prerequisite for expanding the boundaries of mobility, communication and knowledge. Technological innovations in healthcare significantly change the requirements for the competencies of the modern midwife. Today she is a health specialist who has a basic set of knowledge, skills and professional competencies necessary for the care of pregnant women, mothers, parturients, gynecologically ill women and newborns. The formation of these competencies is a process that takes place at the university, with the active participation of the two subjects of the learning process - the student and the teacher. In the search for approaches and pedagogical practices to improve the learning process, midwifery teachers are increasingly taking advantage of digital and media technologies. The current Covid-19 pandemic highlighted the importance of digital competences and digital literacy in the educational process. This situation has posed serious challenges to universities training health professionals, teachers and students.

The pandemic necessitated a shift to e-learning, the development and use of e-learning materials. Learning and teaching have become impossible without the Internet. In this context, I. Serbezova points out that "it is a challenge for academics to develop, provide and research educational tools and technologies that are liked and respond to the learning style of today's generation of young people, improve pedagogical practice and increase the level of professional competence of future medical professionals' (Serbezova 2015).

The Strategy for Development of Higher Education in the Republic of Bulgaria for the period 2021 - 2030 states that there is a need to direct the educational process towards the acquisition of analytical, digital and social competencies. At the same time, the document cites alarming data from the Digital Entry into the Economy and Society Index 2019, according to which only 11% of people have skills above basic, which is less than one third of the European Union average level. (Ministry of Education and Science 2021).

Digital competence as a term that is closest in content to digital literacy is a concept that describes the skills associated with knowledge and mastery of technology and the application of these skills in professional and social life. Digital literacy consists of: technical skills for using digital technologies; ability to purposefully

use new technologies for work, training for everyday environment and activities; ability to critically evaluate digital technologies; motivation for participation in digital culture (Milenkova 2019).

In 2018, the European Commission released a new version, a supplement to the Digital Competences Framework 2.0 with 8 levels of proficiency and examples of use (European Commission, 2018). The concept of media literacy also developed in the mid-1970s and the first decade of the 21st century. Basically, media literate people can think critically about what they see, hear, and read in the mass media, such as books, newspapers, television, radio, film, music, advertising, and the internet (Filiz & Fisun 2012). Obviously, there is a mutual overlap of the concepts of media and information literacy, and so the idea of digital media literacy emerges as a specific approach in the modern educational system. According to the concept, “the correct understanding of the media as an environment, means and content should be done through the inclusion of knowledge, skills and attitudes about them, within the whole set of disciplines included in the curriculum, and through digital technologies and means “ (Danov 2020). According to R. Hobbs, the main competencies in the field of digital and media literacy that people need today are skills for access, analysis and evaluation, creation, reflection and action. (Hobbs, 2010).

Modern digital technologies allow optimizing the learning process in higher medical school, making it more attractive to students, facilitate the memorization of theoretical knowledge and practical skills, increase motivation to learn. I. Ralev and co-authors propose a conceptual model for distance practical training of health care students, which allows to ensure patient comfort, does not disrupt the work process of the medical team, facilitates the work environment, provides opportunities for practical training in clinical structures with limited access (Ralev et al. 2021).

The use of videos in the training of midwives also implies digital media literacy by both students and teachers. Ts. Hristova and D. Georgieva create and apply such, subsequently proving a number of positive effects to: expand opportunities for self-preparation, create interdisciplinary links with scientific and theoretical facts, facilitate analysis and synthesis of information, develop clinical thinking, decision-making skills which can be used repeatedly in the learning process, at a time, convenient for students (Hristova and Georgieva 2021).

Data and methodology

The research aims to determine the role and importance of digital media literacy of students - midwives for the process of acquiring professional competencies. An anonymous survey was conducted in the period December 2021 - January 2022 with 73 students majoring in midwifery, studying at the Faculty of Medicine and Haskovo Branch, Thrakia University, Stara Zagora, Republic of Bulgaria. For the purposes of the research, an electronic survey with 11 questions was developed through the Google Forms application. The survey identifies: frequency of use of the Internet in educational activities, self-assessment of skills for selection and effective use of information on health topics, difficulties in distance learning. The presence of a relationship between the variables was checked using the χ^2 independence test, and the strength of the relationship was assessed using the Cramer's V coefficient.

Results and Discussion

All respondents are aged 18-40 years - the so-called "Digital Natives", born, raised and socialized with digital technology. Therefore, the result is not surprising - 86.3% of all surveyed students use the Internet for educational purposes every day or almost every day /table. 1/. There is a tendency to reduce the frequency of use on the Internet with increasing training rates. There is a statistically significant relationship in the distribution between the two variables $\chi^2 (6) = 13.651$, $p = 0.034$, and the relationship is positive and moderate: Cramer's V = 0.307, $p = 0.033$.

Table 1: Frequency of use of the Internet for educational purposes

		Internet usage frequency			Total
		Rarely	Almost every day	Every day	
Year of study	First	1	5	9	15
	Second	1	7	8	16
	Third	2	13	5	20
	Fourth	6	13	3	22
Total		10	38	25	73

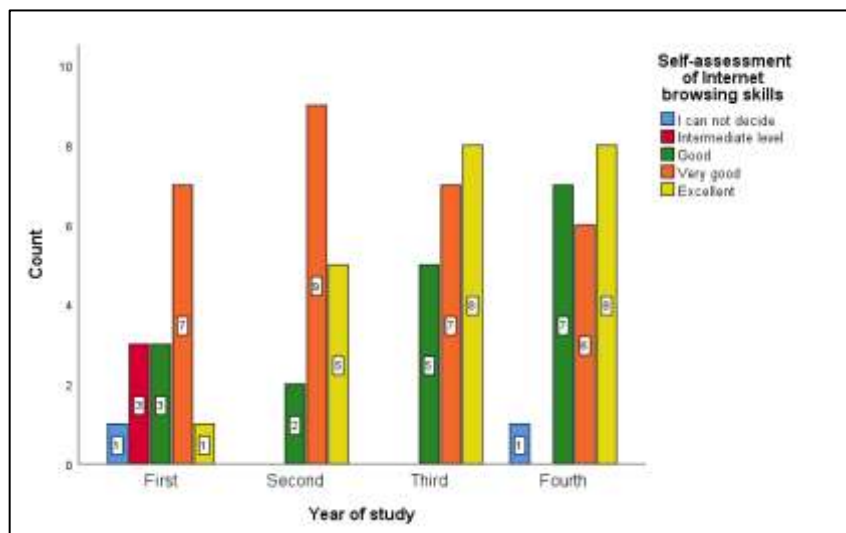
Source: Miteva (2022)

Today's digital literacy of students is extremely important in terms of achieving the goals of the learning process. In the theoretical and practical training of future midwives are applied different methods of self-training - development of essays, term papers, presentations on issues in the field of obstetrics. For this purpose, students seek and process relevant information from digital and media sources. In her research, Z. Atanasova found that midwifery teachers assess students' skills in presenting course work as "satisfactory" (Atanasova 2014).

The current survey showed that most often students use the Internet for educational purposes to find textual information (86.3%), images (67.1%) and health videos (56.2%).

There is plenty of information on the Internet. Observations show that the choice of source is not always related to the specific goals of the discipline or topic. To achieve them, students must be instructed and trained to navigate the sea of information, to know the main search engines, to learn to enter relevant keywords in the search and to sift the correct from the false information, scientific from non-scientific information, to distinguish between an opinion and a fact. In this regard, the interest of the research is the self-assessment of students - midwives for the skills to search for information on health topics /fig. 1/.

Figure 1: Students' self-assessment of digital media skills for searching scientific information on health topics

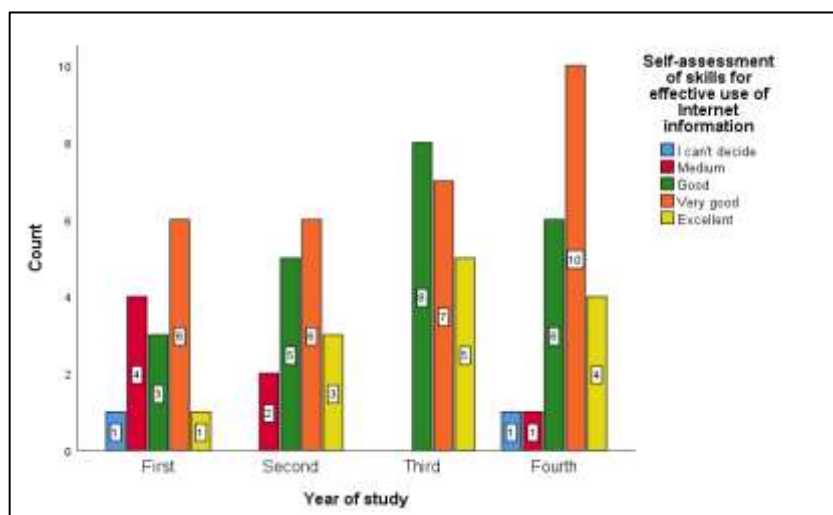


Source: Miteva (2022)

Of all respondents, 30.1% have excellent self-confidence in this regard. The highest is the relative share of students with a very good grade (39.7%); 23.3% of the respondents rate their skills as good. A statistically significant relationship was found in the distribution between the two variables $\chi(12) = 21.071$, $p = 0.049$, and the relationship was positive and moderate: Kramer's $V = 0.311$, $p = 0.047$. Students' confidence in the research indicator increases with the increase of the course of study.

The results of the study of students' self-confidence on the skills for effective use of scientific information on health topics on the Internet show relatively good confidence in working in an interactive environment, as well as good knowledge of this activity. /fig. 2/. There is no statistically significant relationship between Year of study and Self-assessment of skills for effective use of Internet information: $\chi(12) = 0.301$, $p = 0.301$.

Figure 2: Students' self-assessment of skills for effective use of scientific information on health topics on the Internet



Source: Miteva (2022)

In order to improve the efficiency of the educational activity, it is necessary to improve the skills of the students for effective use of scientific information on a health topic from the Internet. This is due to the fact that the modern midwife works with constantly changing and new technologies, handles the information system of the hospital, participates in distance learning courses, updates her knowledge and skills more and more often via the Internet. This emphasizes the importance of digital media literacy in the overall competence profile of the midwife.

The study also clarified the students' opinion on the role and importance of digital media literacy for the process of acquiring professional competencies. According to 35.6% of the respondents, working in the digital and media environment helps to a great extent in the preparation for the main academic disciplines. According to 56.2% of them - on an average level and according to 8.2% it does not help them in the learning process at all. There is no statistically significant association between Degree of assistance in the work in digital and media environment in learning and Year of study: $\chi(6) = 11.006, p = 0.088$. The result probably corresponds to the established opinion in the pedagogy of health professionals, according to which the most effective teaching and learning is through direct contact between the teacher and the students, and with the patient's bed.

The difficulties encountered by students in the educational process through the university distance learning platform are also of interest for the research. /table 2/

Table 2: Difficulties in working in the distance learning platform

		Year of study				Total
		First	Second	Third	Fourth	
Difficulties in working in the distance learning platform	Often	1	1	0	0	2
	Sometimes	5	10	7	11	33
	Never	9	5	13	11	38
Total		15	16	20	22	73

Source: Miteva (2022)

The highest is the relative share of students who never encounter difficulties in working in the distance learning platform ($n = 38$), and 45.2% of the respondents indicate that they sometimes have difficulties. There is no statistically significant association between Difficulties in working in the distance learning platform and Year of study: $\chi(6) = 7.838, p = 0.250$. Probable reasons for this can be both poor internet connection and insufficient good digital media skills of students.

Conclusions

The study finds relatively good confidence of midwifery students in their own ability to search and find adequate information relevant to the goals and objectives of the learning process. There is a need to further develop the digital media literacy of students in order to improve the effectiveness of educational activities, as well as the competence profile of modern midwives. The optimization of the pedagogical practice and the increase of the level of the professional competence of the obstetric protection is possible through a precise application for the provision of digital and media technologies and their combination with the experienced teaching methods.

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